steelprofile

Architectural steel innovation with BlueScope Steel

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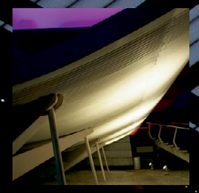

NUMBER 92, SEPTEMBER,2005. PRODUCTION: Pete Heininger **PHOTOGRAPHY:** Paul Bradshaw & Peter Hyatt.
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(cover photograph) Perforated flat steel sheet, custom-cut and formed as interior liner elements, accentuate the domed space inside Bangkok's Oxygen Bar, while helping to reduce ambient noise.

(this page) Relaxed and taking in the airs… Coco Eco resort in Broome exudes down-to-earth, informal comfort.

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Project Bed Supperclub
Client Oxygen Holdings
Architect Orbit Design Studio

OUT OF ORBIT

Surrounded by high-rise apartments, offices and street stores, Bangkok's Oxygen Bar is a breath of fresh air in one of the world's most congested cities. While the trip to the bar, also referred to as the Bed Supperclub, requires skilful manoeuvring by the driver, the journey is certainly rewarding. For Orbit Design, who received the commission to design the Oxygen Bar, and has offices in London and Japan, the reaction by locals and tourists has been overwhelming.

Oxygen Holdings, which owns the bar, first had the idea of a 'bed supperclub' when they were in Amsterdam. The Amsterdam club featured bed-size lounges for patrons. As the night went on, the lounges doubled as beds, with people leaving the club and heading to work in the morning (or alternatively going home to recuperate).

Nevertheless, Bangkok isn't the same as Amsterdam. There are not just huge geographical differences, but also large cultural ones. "Clubs open and close quickly in Bangkok," says Scott Edwards, the project architect. "A year can be a long time for clubs in Bangkok. "With this in mind, the brief to Orbit Design was for a club that was eye-catching, with immediate appeal that would attract an audience. Orbit's clients also wanted something that could be built cheaply and easily dismantled if the venture failed. "They wanted something they could almost pack up and transport to another site, a bit like the flat-pack furniture you buy and assemble at home," he adds.

Early discussions with Orbit Design focused on how to take the idea and make it more palatable to a Thai audience, adding Thai details and modifying the seating arrangements. However, according to Edwards, current conditions in Thailand suggested a different approach. As the Asian economy began to pick up momentum in the late 1990s, Bangkok began to experience a growing optimism and a need to assert itself as a modern, major international centre. "The decision was made to pursue a theme that was specifically modern and international, perhaps making references to previous interpretations of optimistic futurism," says Edwards. The goal was to create an environment that would make Bangkok residents and tourists feel like they are in a cutting-edge club that could be in any of the biggest and most fashionable cities in the world.

The Oxygen Bar, which also functions as a restaurant, is now one of the most fashionable places to be seen in Bangkok. The basic form of the building acts as its own signage. However, the design

A cutting-edge club environment hinting at other worlds.

(above) The circular form's simplicity belies complex design and engineering.

needed to be something that could be modular and easy to assemble, and subsequently easy to dismantle. "Early sketches of a floating tube were refined and modified using 3-D computer models. With the assistance of structural engineers, a system of repeated steel ribs and a concrete plank floor was developed," says Edwards. From the street, this optimism Edwards refers to is clear with fluorescent light from the club's interior spilling onto the narrow sidewalks at night. The past is left behind during the day, with the reflections of a period building across the street appearing as a silhouette in the club's frosted translucent glass facade.

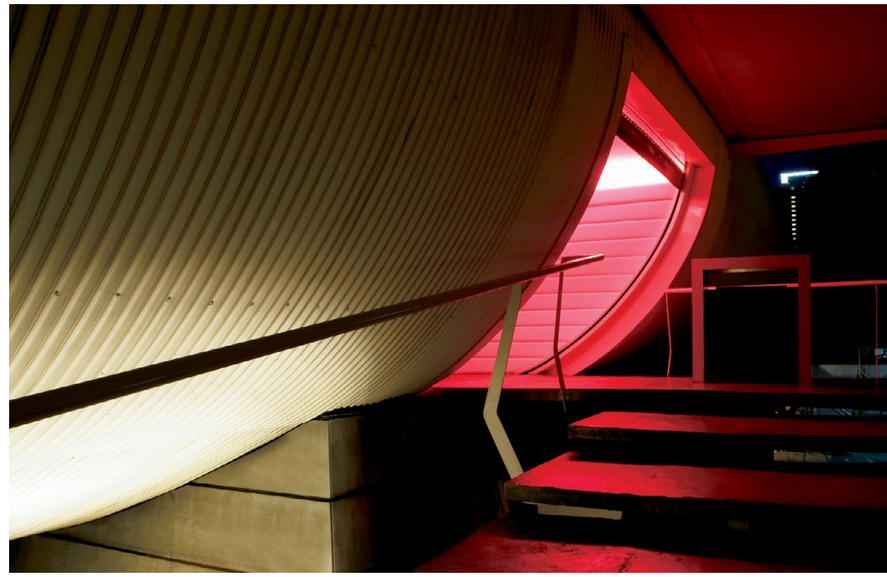
While the circular form appears simple, it is actually a complex design and engineering feat. The building is made of steel rings and finely wrapped with COLORBOND® steel rollformed in CUSTOM ORB® profile externally and COLORBOND® steel rollformed in MINI ORB® profile for interior walls and joinery items. COLORBOND® steel, which is produced in one metre-wide strips, gave Orbit the flexibility they required. "The material is light, but it also has the strength we needed for this project," says Edwards, who was mindful of having to relocate the club should the concept not be readily accepted in the Thai market. "It's also a cost-effective solution. We could never have achieved the same shape using concrete," he adds.

The long extruded tube is poised on concrete plinths. But while the latter appear to carry the entire weight of the building, it is actually the fine steel legs on either side of the concrete that do so. The steel tube appears slightly skewed from the street. "We tilted the tube about ten degrees. The design was a bit symmetrical. We wanted to create a bit more of a ripple from the street," says Edwards, who worked closely with Warnes & Associates, Structural Engineers.

Despite the tube's slight skew, the concrete steps leading to the club are perfectly aligned. The wide concrete steps, framed with steel balustrades, delay the ascent into the building and heighten the anticipation. For the queues of people coming to the club, those stairs also act as a platform on which to stand before they are admitted. A roller door, made of Plexiglass, gives a space-age feel to the building. Like that of a plane that's about to take off, the door can be quickly fixed into position. "We wanted something that was secure, but also partially revealed the interior," says Edwards.

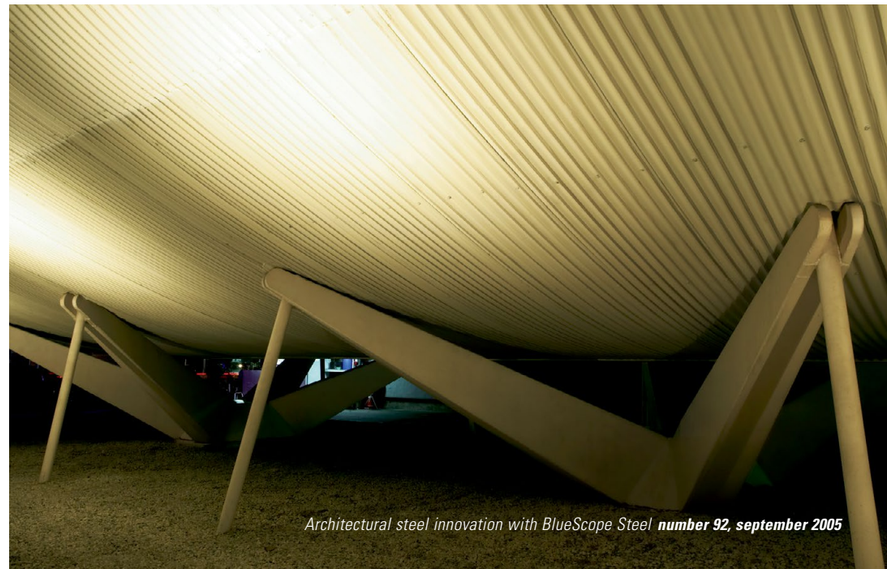
The objective of the design was to give patrons the sense that they were entering into a private and exclusive club. Once inside, guests are invited to take up their assigned portion of the continuous white bed that will be their base camp for the rest of the evening's activities.

The entrance, which separates the bar at the rear from the restaurant/dance area at the front of the club, is pristine white. Framed with white padded walls for acoustic control, the lobby is simply furnished with an ornate timber reception counter and stool. But this compact space is left behind as patrons enter the restaurant/dance/multi-functional space. The only thing that identifies the space as a restaurant is the open-plan kitchen tucked into one corner.



(below) Perfectly aligned steps lead to the club's spaceship-like entrance.

(bottom) Fine steel legs carry the building's real load.



(above) The simple, yet effective bar area.

(far right top and bottom) Different coloured lighting helps define the evening.

The volume of the space is as overwhelming as the idea, with white vinyl lounges/beds arranged on both the lower level and mezzanine levels. The design would be at home in Stanley Kubrick's iconic late 1960s film *2001: A Space Odyssey*. "The entire design team purchased DVDs of the film," says Edwards, whose practice also designed Oxygen Holdings' logos and signage. "We met the next day and thrashed out some ideas for the club. It wasn't about mimicking the details we saw in the film. It was about finding the same inspiration for this project, the same sense of optimism. But we didn't want to create a retro feel. It's more about seeing the future from 2005 rather than from the late sixties."

While the Oxygen Bar appears pristine white during the day, at night the colour of the interior changes with programmed lighting which concealed behind the beds, fills the entire void with colour, from shocking pinks to luminous greens and purples. The colour changes according to the theme of the evening. On the occasion I visited, vibrant red was planned for the night's schedule. "Tonight's theme is about working out," says a young waitress, wheeling out a bench and set of weights. "We'll also be hanging red banners from the ceiling," she adds.

However, if patrons prefer a quieter evening ambience, they can retreat to the bar at the rear of the club. Like front of house, there are also beds and generous armchairs to relax in, on both ground level and the continuous mezzanine that wraps around the building. "The challenge was to keep the clarity of the form from inside

White walls, white painted floors and simple steel handrails underline the overall sense of calm within the club.

Pristine white by day… a design that would be at home in *2001: A Space Odyssey*.

the building," says Edwards. "But there were also the practical considerations of having sufficient room for the kitchen and bar, as well as the office area tucked away in the corner of the building behind the bar area."

While the COLORBOND® steel shell was ideal for its strength and flexibility, the issue of acoustics needed to be addressed, particularly as there are apartments adjacent to the site. While the bar side has a cooler music and lighting program, the activities at front of house, with the DJ's booth, called for a more energised atmosphere. In both instances, the noise had to be contained within the building. To do this, the designers created a double-layer wall using gypsum and perforated liner trays, three layers in thickness, to control the reverberations.

As people start moving through the door, the club becomes activated. "We tried to keep the interior palette fairly simple. It's the people that give this place the energy," says Edwards. White walls and a white painted concrete floor provide a neutral backdrop for patrons, as do the simple steel handrails on the main staircase and mezzanine. White Corian was also selected for the bar of the kitchen. "It is about creating theatre. There are often installations and the white walls are ideal for projecting images. It's like a blank canvas," says Edwards. "The tables are simply folded up after dinner and the area changes to a dance floor," he adds.

While Orbit Design has clients around the world, they were keen to make their mark in Bangkok. "We're primarily an interior design office and are known for our rigour in detailing," says Edwards, pointing to the men's and women's bathrooms, accessed via the lounge area. Evocative of the late 1960s, the bathrooms feature moulded plastic mirrors and studded rubber flooring. Like the curved porcelain vanity units, the privacy screens are also curved with the dividing wall featuring a delightful curved cut-out at floor level, made of steel. "We've repeated this shape in other parts of the club," says Edwards.

Stephen Crafti

Project:
Bed Supperclub
Client:
Oxygen Holdings
Architect:
Orbit Design Studio
(Lead Architect Scott Edwards, Lead Interior Designer Simon Drogemuller)
Engineers:
Structure (Warnes Associates), M&E (EFSI)
Landscaping:
Orbit Design Studio
Principle cladding materials:
COLORBOND® steel rollformed in CUSTOM ORB® profile for exterior, and COLORBOND® steel rollformed in MINI ORB® profile for interior walls and joinery items
Approx Cost:
$1m
Approx Size:
1700sqm
Photography:
Paul Bradshaw

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Project Coco Eco

Client Helen and Simon Bradlee

Architect Fiona Hog

CLIMATE CONTROL

A feathering of lightweight, carefully composed layers contribute to spirited place-making on Australia's remote north-west. Coco Eco is the distilled environmental experience that celebrates the natural over the synthetic. Working with rather than against the elements, the result is wholly natural.

Eco tourism is a good mantra for the new millennium. Ecology and tourism traditionally create a bad marriage – or fiery divorce. Observing the work of holiday-makers, the legendary oceanographer/adventurer Jacques Cousteau described tourism as an environmental disaster. Tourism's big players have been slow to catch onto the public mood for less eco degradation and this has given the smaller providers a windfall head start.

Less than 20 minutes' drive from Broome, Coco Eco is a million miles from the formula resort facilities that pierce Australia's coastline. Set back behind the dunes of Cable Beach, the project weaves its way into an elevated bush site to offer an intimate experience of setting and climate.

The project is the brainchild of owner/operators Helen and Simon Bradlee who worked closely with Fiona Hogg, of Troppo Architects of Perth. The Bradlees lived on site in a circular, mud-brick house for four years before building three lightweight villas in addition to their own

Predisposed to light and breeze, Coco Eco adopts an extroverted position of floating verandah and parasol roof.

(top) Main communal dining and relaxation area.

(below) North-west elevation provides guests with views of Cable Beach.

accommodation. There were huge advantages to this considered site response, none the being least that the Bradlees grasped better possibilities rather than rushing ahead with development.

Where conventional resort development essentially flattens the existing site and recreates a new set of circumstances, projects such as Coco Eco are driven by concerns for site integrity. This in turn generates benefits such as being part of, instead of distanced from, the environmental experience.

There is a perception that Australia's Top End towns are being transformed with elegant, lightweight building. Yet expectations of a lightweight, permeable aesthetic are quickly dashed on arrival in the area. Air-conditioned brick and tile boxes are the disappointing reality. Despite the best intentions of the Troppo team and like-minded practices, such as Darwin's Hully Liveris and Architect Studio, tourism and residential design is nothing if not quaint for its southern influence.

Money and sensibility have only created a 'surface paradise' where resorts are enclaves of an invented good life. Clients such as the Bradlees understand that tourism will develop because of the natural wonders, irrespective of good architecture or bad building. Coco Eco happens to sit on the positive side of the ledger and will appeal to those attracted to sustainable design, authenticity of experience and regional design qualities.

The project is notable for what it decides is inappropriate given its 'green' credentials. There is for instance no pool/sauna, spa, gymnasium, air conditioning, room service or valet parking. There is, however, some prodigious compensation for seekers of an alternative experience to the mainstream. Set amongst dune vegetation some 750m from Cable Beach – a haven for four-wheel-drives and camel trains – the project provides a series of linked metallic 'nests'. From here guests can move around decks beneath broad steel eaves. While cyclonic conditions are a consideration during the wet season, the prevailing view is that building codes reflect common sense rather than a bunkered view of worst possible scenario. The result is that lightweight structures, such as those at Coco Eco, stand shoulder-to-shoulder with a variety of building types. One of the main requirements of local building codes is that roof and wall cladding have an increased number of fixings to deal with wind loadings.

The project was intended to provide environmentally sustainable tourism accommodation in the Kimberley region. Tropical design principles include high ceilings, ceiling fans, shaded concrete slab and masonry panels, lightweight construction, large eaves, elevated construction, and orientation to capture prevailing breezes with push-up slatted timber screens.

Guest accommodation is provided by three villas constructed as pole houses. Rapid cooling is further achieved through the use of insulated, lightweight steel cladding. Villas are connected to the communal lounge via a central timber bridge.

"The project celebrates climate and environs," says Hogg. "There was a desire to provide a unique experience of the Kimberley region within an intimate accommodation facility. It reinterprets the region's building language and utilises a distinct architectural palette of materials and colours."

The pavilions stretch along an east-west axis connected by boardwalk to the main communal living/dining area. On a site that is a remnant of pristine natural habitat at the edge of the Kimberley Pindan, this building finds a resting place within an existing elevated clearing.

The tropical typology of louvres, slatted screens, ceiling fans and gas strut-operated window/walls provides an authentic, functional design language. A thin yet efficient thermal envelope allows a complete fraying of edges to dissolve the boundary between inside and out.

The site provides strong visual connections to the tidal lagoon and ocean.

Hogg's main communal pavilion/dining area is the project's defining form and space. Its twisting butterfly roof soars to embrace prevailing south-east breezes. Operable slatted timber screens provide permanent ventilation, and are adjustable to suit sun position and breeze patterns. "Essentially a living veranda, it is designed to be trimmed and oriented much like a boat to suit the prevailing weather patterns and seasonal cycles," Hogg says.

Guest villas are sited to preserve an existing stand of trees that now shade and shield these more intimate areas. Situated within the tree canopy, these provide views down the seasonal water course to the tidal lagoon and ocean.

The walls are ephemeral of slatted timber, with screens and both fixed and louvred bi-fold doors. The building relies on passive thermal cooling throughout the year, and employs good tropical design principles to achieve this end. With no artificial cooling, occupants are required to adapt to climate and the natural rhythms of day and season.

Individual villas are oriented toward cooling westerly breezes and enable panoramic coastal views. The site flows below with minimal interruption to the preserved or rehabilitated natural habitats. The building provides harmony with the site, local climate and

Hogg's artful roof form provides a sculptural twist that also functions as wind-scoop for prevailing breezes.

High winds typically move easily through such buildings. Increased fixings and larger spacers help secure roofs against cyclone damage.

broad-rimmed hat that creates areas of deep cool shadow in the tradition of the Australian veranda."

"A lightweight envelope such as ZINCALUME® steel is essential to the spirit of treading lightly while contributing to the authenticity of the experience."

The building's materials explore the connection to the historical and typical building idiom of the region that uses corrugated steel, timber, louvres and Pindan earth within the building fabric. Colour and texture are utilised to reflect the natural context of the site between the desert Pindan and the coastal dunes. Environmental sustainability is embraced and celebrated with the wastewater garden at the entry and centre of the buildings serving as living reminder of a commitment to a more sustainable building and operational practice.

Location of the building was carefully considered to minimise disruption to the site while taking advantage of views and cooling westerly breeze patterns. Privacy between visitors and permanent occupants was a consideration in the location of the accommodation pavilions being set away from both the owners' residence and the main public areas. These are grouped on the eastern edge of the site plan.

Connection of pavilions ensures ease of access for users and minimises disturbance of flora and fauna around the site. The general elevations of the external living areas and boardwalks ensure that the site may flow through the complex, enhancing the normal behavioural patterns of indigenous wildlife.

Devoid of mains power, the building is wholly run on solar energy with generator back-up. Power consumption was carefully considered in the choice of energy-efficient appliances, fixtures and fittings. Mains water is also unavailable to the site and all potable water is provided from an existing bore. Wastewater is treated through the garden system located at the entry of the building, providing an ecological epicentre. The wastewater garden system was developed by the Biosphere Foundation, based near Derby.

Selection of material and finishes was important to the sustainable construction approach and low environmental impact. Recycled or sustainably harvested timbers were used for all timber framing members. Non-chemical termite measures help minimise toxic chemicals on site. The use of PVC was excluded from plumbing and electrical installations with high-density polyethylene utilised as an alternative. Non-toxic timber finishes, such as organic timber oils, protect all timber flooring and screens.

A site protocol for sub-contractors and suppliers was developed to address concerns regarding the protection of site environmental values. This protocol clearly identified the expectations of the client and project manager for the site's care and protection during the construction process, and resulted in some challenges for the delivery and erection of larger building elements. A type of steel portal forms the structural frame to provide strength and flexibility. The main pavilion uses a concrete slab and rendered masonry spine.

Peter Hyatt

Project:
Coco Eco
Client:
Helen and Simon Bradlee
Architect:
Fiona Hogg
Telephone:
08 6380 1677
Consulting engineer:
Bill Butler
Builder:
Simon Bradlee
Steel fabricator:
Principal Steel
Cladding material:
BlueScope Steel ZINCALUME® steel finished in CUSTOM ORB® profile
Project cost:
N/A
Photography:
Peter Hyatt

environment, with a blurred distinction between internal and external spaces.

Thermal mass is well shaded to minimise any solar heat gains, yet open to breezes. The main communal pavilion is enclosed by a shaded rendered concrete block wall on two sides only, with southern and western edges semi-enclosed with both fixed and moveable insect-proofed slatted timber screens.

Lightweight frames are clad in ZINCALUME® steel finished in CUSTOM ORB® profile to minimise thermal mass and provide reflectance against solar heat gain. Insulation further restricts heat transfer through the skin.

Hogg explains that ZINCALUME® steel provided an appropriate response to the building fabric of the Kimberley region. "Historically, steel sheet was easily transportable, economical and strong. Not much has changed in this regard. It is still easy to transport and fix, is low-maintenance and can withstand cyclonic impact." Maintenance involves a simple hose-down on a regular basis to remove the build-up of salt and dirt on surfaces.

"Proof of performance is already there," says Hogg. "The project has already experienced a Category Three cyclone without any problems. In the event of a Category Five cyclone it would be time to leave," she advises, "because no house would be safe from the wind forces and debris."

The project may look light and frail to some, but it is a heavily anchored, secure structure.

"Open building allows high winds to move through rather than allow wind pressure to build up inside, literally forcing the walls to explode." In one of her earlier designs the client welcomed the cyclone season, because she says that "when the rain and winds gusted through the house it was the only time it received a thorough clean".

"ZINCALUME® steel is consistent with the lightweight traditions used widely in pole housing before the arrival of slab-on-ground housing," she pointed out. "It is entirely consistent with the sustainable design principles that underpin such projects. It offers this big,

The south-east elevation is open to the surrounding bush which has been carefully preserved and incorporated in the project.

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Project	‘D’ House
Architect	Seeley Architects Pty Ltd
Structural Engineer	MacLeod Consulting
Builder	Peter J. Russell Master Builder

SURF’S UP

The proximity of the ocean was one of the main attractions for the owners of a new home, located one kilometre from Victoria’s western coastline. “They’re both keen surfers. They wanted to see the waves from their living room,” architect David Seeley, Director of Seeley Architects, says. This wasn’t possible from the modest timber shack that formerly occupied the site.

With two children, the owners required additional space. “My clients were quite specific in some areas, but parts of the brief were quite ‘fluid’. They loved exploring all the options before making a final decision,” says Seeley, who appreciated their thorough approach. “But sometimes these changes were a bit close to construction time,” he adds with a smile.

Seeley’s clients knew what their house should look like; they had visited Seeley’s own house in Torquay, a contemporary steel and glass design. But they wanted something slightly raw, evocative of a warehouse. While it’s not hard creating an industrial aesthetic in inner city Melbourne, it is more difficult on a coastal site. Nevertheless, Seeley was able to draw upon an industrial design that also suggested a more relaxed coastal style, teaming steel, compressed cement sheeting, glass and timber.

While the owners were keen to survey the surf from their living room, the architects were mindful of eight metre height restrictions in the area. Seeley’s clients also wanted to install a swimming pool at some stage. So while the 650sqm site was sufficient to build a 250sqm house, the six-metre footprint was relatively narrow. “We pushed the building envelope as far as we could,” Seeley says. “We’re also aware of reconciling the south- east view of the water on one side of the property and the adjacent rooftops to the north.”

As the land falls two metres away from the street, the architects were able to create a 180 degree view of the ocean from the living room on the third floor. While the house is three storeys, it could easily be mistaken as two from the street. “The house is eight metres-high. But we tried to reduce the scale with the materials we used,” says Seeley, who used a combination of materials including COLORBOND® steel in Facade® (a silvery colour that suggests an overcast sky), compressed

The house draws on an industrial design that easily manages to suggest a relaxed, coastal style.

Windows on the eastern facade are cantilevered at different points and in varying amounts.

metal sheets, timber, glass and aluminum. The COLORBOND® steel sheeting was laid horizontally to anchor the building. The issue of maintenance also directed the selection of materials. "It's quite a harsh environment. The salt air and wind can make buildings look fairly tired after a few years," Seeley says. "These materials are not just economical, they're also low-maintenance." Maintenance would be as simple as a regular hose-down to minimise the build-up of salt and maximise the life and the look of this building.

To balance the use of more industrial materials, such as steel and cement sheeting, Seeley incorporated several different timbers in the design. Tasmanian oak was used to line the eaves. The steel and compressed cement facades are punctuated by operable louvres made from New Guinea Rosewood. Blackbutt, combined with recycled Messmate timber, a eucalypt native to Victoria, form a screen wall near the front door, creating privacy from the rear yard. "These materials add warmth to the cooler, more industrial materials. The timber adds texture to the house," Seeley says.

In contrast to the front facade, predominantly rectilinear in appearance, the eastern facade is more dynamic. The skillion-shaped steel roof appears more obvious from the side garden. The COLORBOND® steel eaves and wall are also tapered at one corner. "The shape evolved," Seeley says. "We wanted to create some drama. But we were also keen to reduce the amount of eastern sunlight coming into the house." Seeley 'layered' the windows on this facade, cantilevering them at different points and in varying amounts. "The idea was to create a sense of depth and the angles also provide a sense of movement," he says. Seeley was also keen to use COLORBOND® steel in a way that suggested mass. "Often this material is used to 'touch the earth' lightly. I wanted to give the material a sense of weight, appearing three-dimensional," he says.

A water feature was originally planned for the north-east corner of the house. However, to help rein in budgets, a mound of stones was used to cover the storm water pit at the end the main downpipe as a creative compromise. "You still get that sound of water on the rocks. It's quite a primal experience," Seeley says.

The entrance to the house is marked by a punchy yellow front door, framed with recycled Messmate hardwood poles. These poles continue in the entrance to the home, spaced at equal distance. "We wanted to define the entrance, while keeping it fairly open," Seeley says.

The house has a fairly open plan. The children's play area/ second living area, a laundry and powder room are at ground level. The stairs, made of steel and Formply (used to form concrete), lead up to a mezzanine bedroom, the two children's bedrooms, a study area and a large bathroom. The kitchen and dining area are on the top level, on one side of the staircase. The formal lounge, main bedroom and en-suite are on the other side of the upper level. "Obtaining a view of the ocean was an important part of the brief that's worth climbing the stairs for," Seeley says.

The kitchen and dining area enjoys prime views of the ocean. Conceived as the control center of the house, it's the area to which the family gravitates. Framed by tinted laminated glass, the sunlight entering this space is diffused. Typical of many coastal homes, the kitchen is simple and robust. The benches are made of Formply and the cupboards are laminate. And while the eastern elevation is open to the views and leads to a balcony with built-in barbeque, the western elevation is relatively closed, with slot windows irregularly placed in the wall. "It would get too hot up here if all the walls were glass. But we also wanted to screen the view from the neighbouring homes," Seeley says. "We capitalised on the prevailing winds to cool the house during the warmer months."

Large sliding doors opening to the balconies on the top level (one leading from the main bedroom, the other from the living area) allow coastal breezes to circulate. The timber louvres, built into the walls, also allow air to circulate. "There's no air conditioning in the house," Seeley says. However, during cooler months, the owners enjoy hydronic heating. Deep eaves on both the eastern and northern elevation extending 2.5m on the northern facade also provide protection from the harsher weather conditions along the coast. The timber eaves on the east extend into the home's interior, concealing the fluorescent lighting. "We wanted to blur the division between the indoors and outdoors," Seeley says.

A matt black/brown wall that extends across two levels in the house provides a contrast to the generous glazing on the eastern facade. The earthy wall changes colour with the sunlight. The colour also extends the sense of space, in particular the width of the house, which is slightly more than six metres. While the western wall is punctuated by discrete views, the main feature is an antique surfboard, displayed on the wall. Hand-painted by artist Kayani in 1956, the timber board

A fairly open plan aids internal informality.

Deceptive: What appears to be a two-storey home from the street is, in fact, a three storey one.

complements the Formply in the house. “Surfboards weren’t always made of fibreglass,” Seeley says. “As the clients are keen surfers, the surf culture definitely influenced the design of the house.”

The western facade is of COLORBOND® steel. However, the main bathroom extends out from this wall and is externally clad in concrete brickwork.

“It’s like a double skin. We wanted to insulate the house, particularly from the western sunlight. The double skin also reduces noise from neighbours,” says Seeley.

While the study area on the first floor, adjacent to the bathroom, was originally designed for the children, it is currently used by the parents. A picture window to the stairwell affords an unimpeded view of the playroom down on the ground floor. “It’s one of those spaces in the house that’s open, yet feels quite intimate,” Seeley says. A mezzanine bedroom on the same level, open on one side and overlooking the playroom, was also one of the spaces that came from the owner’s fluid approach to the brief.

Horizontally laid COLORBOND® steel sheeting anchors the house to the site.

“While this space was originally intended for storage, there was an opportunity to make it into a guest bedroom,” he says. “The children also use it as another playroom.”

One of the most delightful spaces in the house is the children’s play area/second living area. Featuring polished concrete floors, this space is framed by floor-to-ceiling glass windows/doors to the rear garden. This space also features 4.5m ceilings, and benefits from the northern sunlight. The balcony to the main bedroom cantilevers into the rear garden and adds further protection from the direct sun.

Seeley designed a large shed for the back garden. Made entirely of COLORBOND® steel, the shed features the same angled walls as the house.

For Seeley, the design of this house depended on using steel. It’s not only clearly expressed in the exterior of the building. But it is also used extensively in the underlying structure,” he says. The carport at the front of the house, for example, is framed with galvanised steel poles which also support the structure of the upper two levels. “The COLORBOND® steel was particularly easy to manipulate, both in creating angles and giving us the wide expanses we needed.”

This beach house is not typical of the houses designed by Seeley Architects. While Seeley regularly uses steel in his building, his homes are often less noticeable. As he says, “Most of my houses are generally quieter. In a sense, this building provided the challenge I was looking for. There is more of a gesture to the street. But, considering its three levels, it’s still relatively discrete. When you stand in front of the house, you’re not really sure where one floor starts and another finishes.”

Stephen Crafti

Project:
‘D’ House
Architect:
Seeley Architects Pty Ltd
Structural Engineer:
MacLeod Consulting
Builder:
Peter J. Russell Master Builder
Roof:
COLORBOND® steel in LYSAGHT KLIP-LOK HI-TEN® profile
Wall cladding:
COLORBOND® steel in CUSTOM ORB® profile
Photography:
Paul Bradshaw

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Project Nunawading Toyota

Project Architects Michael Z Avramidis in association with Gray Puksand

MORE THAN METAL

For a start there are no balloons. Every car yard has balloons – bright, bouncing invitations to buy. But not Nunawading Toyota. This thoroughly modern showroom and sales complex eschews the clichéd come-ons which traditionally define the automotive purchase experience.

In an increasingly sophisticated sales environment and in a bold attempt to connect with customers who are equally growing in knowledge and expectation, this dealership is presenting more than the metal. Choosing and ultimately buying a car is also about lifestyle. At this critical meeting place, where customers and salespeople interact, establishing a position of comfort for both parties is essential. It's a conjunction which, surprisingly, has largely eluded the motor industry.

Nunawading lies in heartland Melbourne, Australia's principal southern city. A six-lane intra-city highway streams through a ribbon development of low-rise retail factory complexes. Furniture, electrical goods, hardware, housing – for 1.6km the Whitehorse Road mega-stores are a catch-all for the talismans of suburban success.

"Today's car buyer is more knowledgeable than at any other time," Peter Aposto, Nunawading Toyota's dealer principal, says. "By the time they get to the showroom, they've already used the Internet to thoroughly research our cars and those of our competitors, and know in detail what they want."

Brand image, and the values which drive it, are far more important in winning customers' support than ever before. Pride in ownership of a new car is determined by much more than the vehicle itself. It's to do with connection with the brand and the feeling of satisfaction that comes from making a decision which is admired amongst peers.

"We set out to design a dealership which could translate to the company's 220 retail franchises around Australia," Michael Avramidis, consulting architect to Toyota Australia, says. The company-owned 7,153 square-metre site is the latest in a series of retail experiments to tap the psyche of car buyers. "Toyota wanted to break with the convention of maximising forecourt and showroom display space with clinical precision. Rather, it sought an outlook which would be inspirational on approach with significant street presence. Inside it would be welcoming, comfortable and in keeping with the company's brand essence."

A roofline inspired by the simplicity of a perfect snowdrift. (above and below) Clean roofing lines spill smoothly down the eastern side of the building, underpinning a sense of dramatic elegance.

"A traditional car showroom building is a basic empty space with a simple roof, a glass facade, a fascia and dominating corporate signage. Typically there is little architectural experience in such buildings," says Paul de Podolinsky, lead architect for Gray Puksand, the Melbourne firm assigned by Avramidis to the project. "The challenge was to help sell cars through architecture, but to remain within the budgetary framework and basic construction methodology of conventional buildings."

The result is a structure of such striking simplicity that it arguably creates a benchmark not only for the motor industry but for medium-scale retail development in general.

The roof, of COLORBOND® steel in APEX KLIP-LOK® profile in the colour Woodland Grey®, is the focal point of the design. In contrast to conventional design, this showroom is basically a roofline enclosing retail space beneath. A sweeping single span of steel edged with a seamless fascia leads to a massive bullnose at its eastern end. De Podolinsky, a keen skier, claims inspiration from a perfect snowdrift. Automotive enthusiasts would clearly recognise the wind-cheating aerodynamic profile of amodern fuel-efficient motor car.

Whatever the imagery, the roofline is the single most compelling feature of the structure. Viewed from the fast-moving highway – even at road-legal 80km/h – it is a landmark amongst surrounding buildings, easily recognised.

Large double-glazed glass sheeting flowing from the lower edge of the roof to the base of the showroom heightens the impression of the roof's free-floating form. A corporate signage band – minimal by motor industry standards – forms an integral architectural element floating forward of the glass facade rather than dominating the streetscape. The external impression is enhanced by a decision made by designer and client to raise the entire site by almost one metre above the level of the roadway. The grilles of cars displayed on the front line are at eye height, and the building itself rises to the sky. De Podolinsky's snowdrift analogy is even more credible when viewed from the street, looking to a blue sky with mountains behind.

The architects' external challenge was made even greater as this building forms a natural bridge between the retail sector and the first of Nunawading's residential streets. Homeowners, initially concerned about overshadowing by a square factory, have instead been presented with a westerly facade designed to be minimalist in its impact. Avramidis made the decision to place the bullnose feature at the opposite end of the building. Homeowners are presented with a relatively benign wall comprising frosted glass and vertically fixed sheeting of COLORBOND® steel rollformed in STRAMIT LONGSPAN® profile in the colour Shale Grey™ – both shielded by a fast-growing garden of Australian native trees and shrubs. The nature strip-mounted line of discrete mushroom lighting would not be out place in a five-star hotel, the combined effect being one of subdued elegance quite in contrast to the front end. At the rear, passive energy principles are applied to guard the building from sun intrusion. The building requires low maintenance of exterior surfaces as they have been cleverly exposed to natural rain-washing.

(above) An interior space of cathedral-like proportions.

(top far left) Passive energy principles guard the back of the building from harsh sunlight.

(below far left) The boardroom gives the impression of great investment.

Expanses of floor-to-roofline glass reinforce the impression of the roof's free-floating form.

The portico has been designed as an intimate position for the delivery of new vehicles to their proud owners.

A substantial portico at the main entrance, clad with COLORBOND® steel in APEX CUSTOM BLUE ORB® profile in the roof matching colour Woodland Grey®, fulfils two important functions. Low-mounted with a height of just three meters and with powerful floodlights directing light downwards, it is an intimate and engaging position for the delivery of new vehicles to proud owners.

"It's like a pre-function area, reducing the perspective from one of grandeur to something far more enclosing," de Podolinsky says. "But, when customers walk through the low and enclosed front doors into the interior, they are exposed to a space of cathedral-like proportions. The most prominent feature of the showroom is a circular free-floating stairway, steel-framed and clad in concrete, leading to mezzanine offices and a boardroom which tucks in under the bullnose roof. No doubt the room with most boasting rights, it has a ceiling with fewer than three curving planes, each following the form of the exterior. Angled-plate glass windows give the impression of standing on the bridge of *Starship Enterprise*, while inward-facing windows overlook the showroom.

"The boardroom was a calculated risk," de Podolinsky says. "The brief specifically called for restraint in expenditure, yet this room is clearly over the top. While it gives the impression of great investment, the reality is quite different."

The showroom floor can display only nine new vehicles. Architects and sales specialists have worked to maximise the intimacy of the sales process while dismissing the potentially threatening formality of booths and closed offices. Customers and sales consultants sit at tables between the cars. Attention to acoustic detail has reduced noise from what should, by reasonable logic, be a loud and echoing environment. Floor tiles reduce walking noise to the level of carpet slippers on deep pile cover.

Lifestyle is celebrated as well as cars. Above the reception area and dominating the eye-line between ground floor and mezzanine, is a wraparound mural. Totally contemporary in colour and design, it portrays parties, good times and obvious enjoyment – everything in fact except motor vehicles. A crèche equipped with TV, video games and toys provides a safe haven for family members while parents are sealing their deals. To anyone used to the car sales process, the overwhelming impression of this showroom is the lack of promotional material and, bluntly, pictures of cars.

"People entering the dealership are not initially presented with a sales pitch, but a cup of coffee to enjoy while they browse," Peter Aposto says. And, on the subject of sales staff, none have desks, nor even fixed telephones. The dealership likes its people mingling, and equips each consultant with a mobile phone to take calls transferred from the switch. By year's end each salesperson will also be armed with wireless laptop computers capable of writing up the transaction on the spot and transmitting details to a central database. Even if a car is not in stock on the premises, the laptops will be able to locate the customer's choice within the network.

Michael Avramidis is perhaps Australia's most experienced and successful designer of car showrooms. His credits include facilities for Lexus, Porsche and several other landmark dealerships for Toyota. He freely admits that many showrooms feature investments in design and hardware that are difficult to justify in return on investment in all but a high-margin or high-volume operation. Nunawading is the first dealership built to a price while successfully incorporating features which make it stand out from competitors.

"Material choice has been critical in the execution," he says. "A more expensive roofing material would have made the design non-viable without adding appreciably to the aesthetics. The fact that this roof could be easily rollformed on site, and that it has been proven to be completely waterproof, against expectations for alternate materials, has been a bonus. The Toyota dealer network may well take up this bold experiment.

"We are dealing largely with independent businessmen, proud members of the franchise, but equally proud individuals," Avramidis said. "There are obvious franchise requirements with which they must comply, but the concept of individualism is also worth protecting and encouraging.

FOOTNOTE: Nick Hogios, currently the celebrated wunderkind of Australian automotive design, contends that the shape of the most effectively designed motorcars can always be drawn without lifting pen from paper. De Podolinksy's snowdrift roof, and the building outline can equally be drawn with one consistent stroke of the pen.

John Smailes

Client:
Toyota Motor Corporation Australia

Project Architect:
Michael Z Avramidis in association with Gray Puksand

Design Architect:
Paul de Podolinsky, Gray Puksand

Structural Engineer:
Burns Hamilton & Partners Pty Ltd

Builder:
APM Group (Aust) Pty Ltd

Structural Steel Fabricator:
Used Car Showroom, Roofer –
Signal and Hobbs
New Car Showroom, Roofer –
Berwick Roofing
Structural steel fabricator –
Melsteel

Principal steel cladding materials:
Roofing – COLORBOND® steel in APEX KLIP-LOK® profile in the colour Woodland Grey®
Walling – COLORBOND® steel rollformed in STRAMIT LONGSPAN® profile in the colour Shale Grey™
Nose/ portico/ canopy – COLORBOND® steel in APEX CUSTOM BLUE ORB® profile in the colour Woodland Grey®

Building works project cost:
$7 million

Site Area:
7153sqm

Photographer:
Paul Bradshaw

steelprofile

My inspiration

"The notion of placing a candle on the opposite side of the mirror implies architects should both reflect the society we live in, while leading the way. In respect of this notion, there is a broad need for architects to address the mundane precedence of suburbia, to achieve substance from the possibilities that each project presents. Put simply, to have a go and do the best one can accomplish from opportunities that exist.

Nunawading Toyota started with a simple outline, a single line to establish a unique form against the norm of retail strip buildings. To form a bold concept that could be carried through each detail to achieve a unified outcome. The airship typology building, with its floating roof, was derived from associating similar experiences and images from memory, such as the finite balance of a snowdrift, carved by the wind as equilibrium in nature. It's a form that would have impact perceivable at highway speed, yet be welcoming at walking pace, experienced by the architectural effect."

Paul de Podolinsky
Associate
Gray Puksand

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