

# VISION

ISSUE 32

## THE ART OF ILLUMINATED LEARNING

The Mandeville Centre, Loreto College,  
Toorak, Melbourne

## WAVE RIDER

NSW South-Coast House

**Viridian**  
we ♥ glass

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The Mandeville Centre, Loreto College, Toorak, Melbourne

Loreto College's new Mandeville Centre by Architectus is a revelation. Externally a glazed steel box, this library and learning complex is a story of elegant surprises. The project's filleted, veiled envelope has plenty of interior twists and enlivened learning spaces. Viridian's SuperClear™ glass is instrumental in a project as open-book and quiet blockbuster.





# 28

## WAVE RIDER

NSW South-Coast House

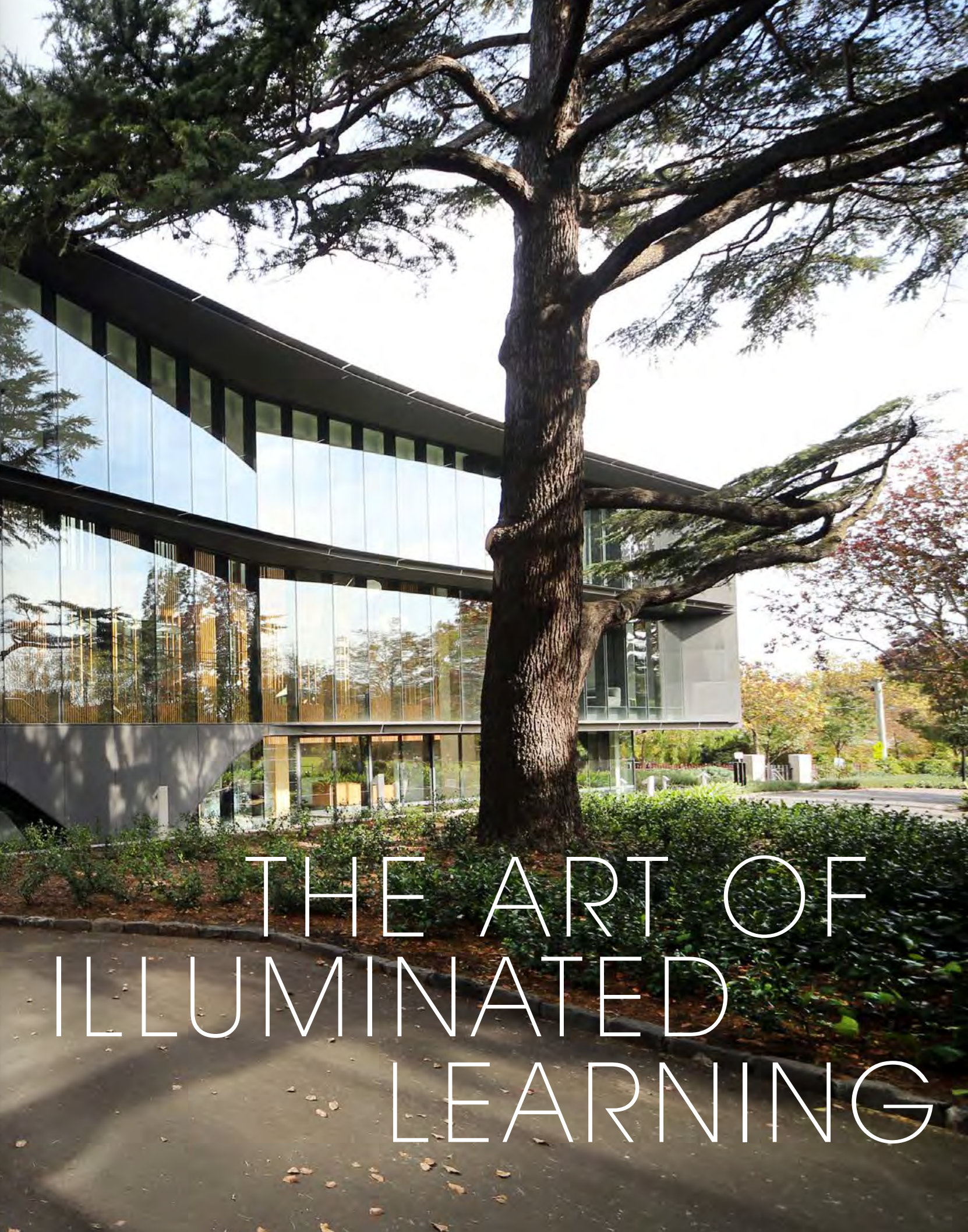
Another house on NSW's south-coast could easily slip by unnoticed, were it not designed by Lindsay and Kerry Clare. The Clares of Sunshine Coast fame and some landmark civic buildings along Australia's east-coast, dabble in housing all too rarely these days, so it's a welcome return. Despite a sharp budget, their signature reading of site and climate imbues this design with a sense of generosity. This house of the beach has a tactility, fit and feel far closer to surfboards and marine craft than transplanted masonry box.

Viridian Clear™ toughened and bushfire rated PyroGuard™ 40 is critical to the design that negotiates complex building regulations and site challenges.



CLICK TO VISIT THE  
SOUTH-COAST HOUSE





THE ART OF  
ILLUMINATED  
LEARNING

How often is significant and heritage architecture embarrassed by blunt, ill-fitting neighbours? Too often it seems and while architects are frequently cited, the profession is rarely to blame for the invasive, Johnny-come-lately. Faux 'Modern' work can be held to account, but not this time around where a thoroughly modern companion buoys its grand, dowager neighbour.

**PROJECT**

The Mandeville Centre, Loreto College,  
Toorak, Melbourne

**CLIENT**

Loreto College

**ARCHITECT**

Architectus Melbourne

**PRINCIPAL GLAZING**

Viridian double-glazed SuperClear™  
and VLam™ Hush

**TEXT, IMAGES & FILM**

Peter & Jenny Hyatt





**A**cquired in 1924 to become a Catholic Girls School, numerous school buildings have threatened to overwhelm Charles Webb's resplendent 1869 design. Where these assorted suitors failed, Architectus finally delivers the modern partner Webb's historic work deserves.

The Mandeville Centre bristles with artful intelligence. It honours not only the site and context, but history of the library. There is an inherent flexibility and adaptability with a pinwheel effect of rooms and galleries radiating from the central volume. Sited just south of the original mansion and church hall, the new building provides library,

classrooms, a theatre, administration across its three light-filled levels. Clarity of sight and ideas, hallmark the design partially sunken to reduce bulk.

Its tightly pared steel frame, expansive windows-as-walls and deft interior layering are a highly inviting yet visually restrained ensemble, thus sparing the historic component the shock of the new. Transparency is layered as a series of related volumes rather than corrals, or vague, fashionable open-plan. Viridian SuperClear™ is a visual key not merely to the school's Arcadian grounds, but on the east elevation, as a bonus 'extension' pergola.



CLICK TO VISIT THE  
MANDEVILLE CENTRE







A series of slender envelopes contained within an overall faceted shell creates a sequence of easy flowing, connecting volumes and spatial rhythms. The main east- west gallery features a soaring, north-facing glass and steel gallery as dappled light is trapped within. The internal windows assist thermal stability and maintain a deep daylight wash.

The Deodor Cedar is a sentinel-like pivot between the old and new and this organic connection flows throughout with an ambience of warm-toned timbers, filtered daylight and radiating space.

The building's western edge responds to the curvature of Mandeville Crescent and gives the school a new public entry. The steel façade provides solar protection, visual privacy and accentuates key vistas through the angle of vertical fins. East and west façades are animated by the vertical fins with changes of direction, light and shade.

With a better than expected tender result the school extended the commission for a new shelter and meeting or congregation place for up to 1300. The chequer-board pergola of steel and glass provides a striking canopy of patterned, geometric rigour with shadow and sunlight blanketing the tiered seating plinths. More often, it's a focus for student social networking from Prep right through to Year 12.

The idea of connection both visual and physical is about the use of materials, and glass being a predominate one in terms of how we translate that link between outside and inside.

JOHN SPRUNT, ARCHITECT





Left:

A tale of the times... high Victorian ornamentation as viewfinder to the rich simplicity of the new.





Vision's Peter Hyatt met with Architectus principal John Sprunt to learn how design restraint can create the quiet star:

**VISION** **Any special influences or inspiration?**

**JOHN SPRUNT** It's very much about the notion of a library or community space as a main driver of the function and as a pivotal building. Our references included the State Library of Victoria's grand reading room, and Louis Kahn's Exeter Library. The notion of spatial acuity was a very important conceptual device.

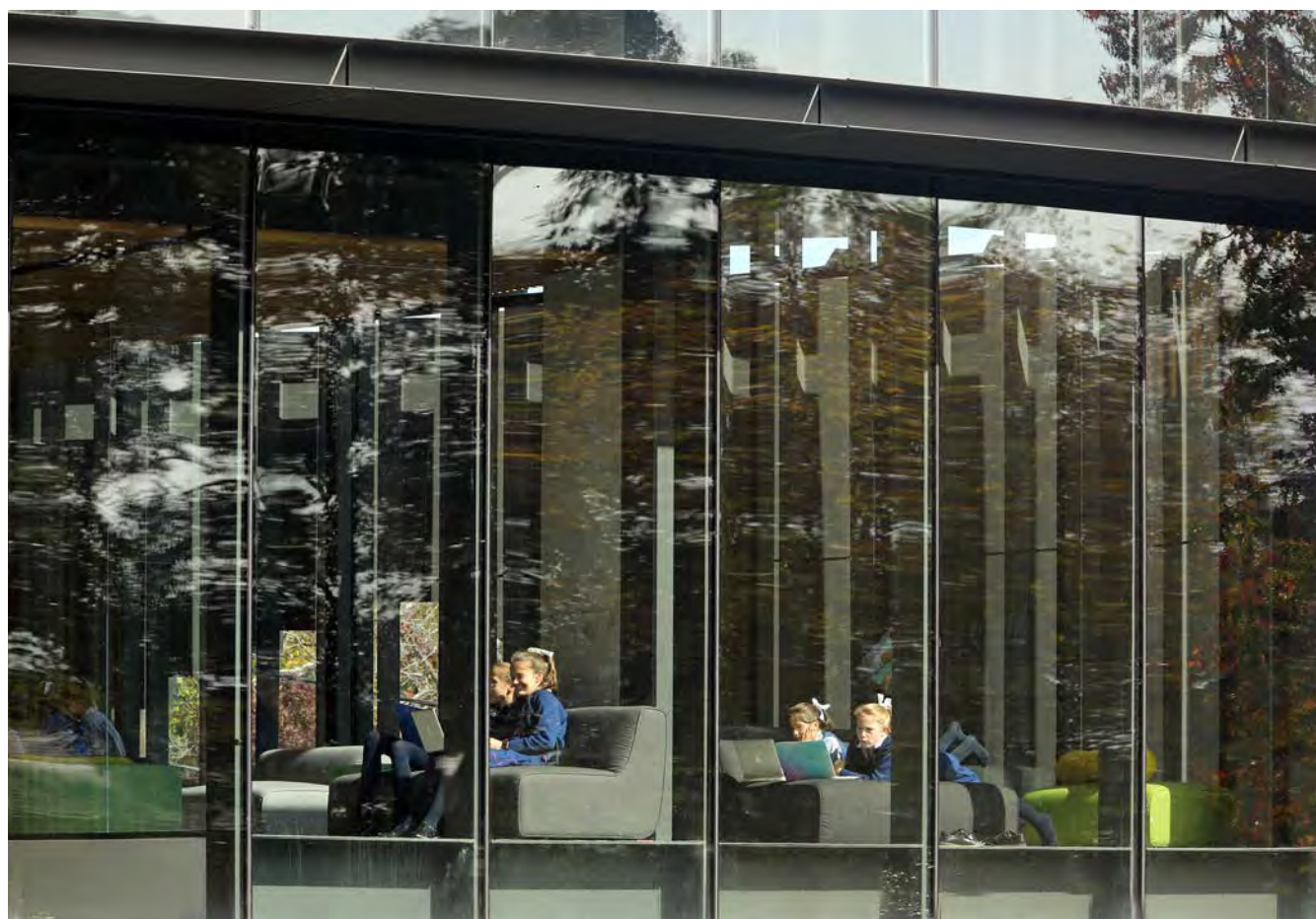
**It's a very considerate building and good neighbour. Contextually, it's not of the place being very contemporary in the midst of tradition yet this contrast proves highly effective.**

Its transparency contributes a sense of honesty and calm. The idea of connection both visual and physical is about the use of materials, and glass being a predominate one in terms of how we translate that link between outside and inside.

Furthermore, when we frame spaces in an education environment, we need to look at catering for every type of student. It's not all just about collaborative space. There is the time and the place for dedicated or isolated work. We need to create spaces for children that are more introverted, not simply the ones happy to work in groups of six, ten or twenty. That visual connection is a way of creating a sense of calm (or comfort) whilst having acoustic separation for targeted learning and study.

**There are a raft of functions and activities across various age groups. How do you achieve a robust learning space yet balance this with effective private study?**

Transparency whether it's via spatial arrangement or glazing heightens the feeling of connection. We use acoustic glass where necessary and acoustic panels, but it's not a space where students are forced to tip-toe around. It's a working learning environment. It's a joyful space.



A design clarity of tree-like opportunity to 'perch' for contemplation, study and play.





Initially, there was probably a fear of using glass in a school building and of students being easily distracted. There is that tradition that you have four masonry walls. Whatever fears they had quickly disappeared.

JOHN SPUNT, ARCHITECT

**And no obligatory open-plan?**

The northern edge is gallery, internal street and function space. The central enclosed zone, accessible from the gallery, includes a community room, lecture theatre, school administration and shared amenities. The Staff Centre is activity based and premised on the vision to create an inspiring workplace that promotes a cohesive and stimulated work culture—rather than workstations lined up row after row.

**The atrium is an uplifting space.**

It's a response to the courtyard typology of the campus as well as a spatial device for connecting program and people. There is a physical and visual connection between the two upper levels, reinforcing the students' journey through their school life.

**How did you decide on glass as such a key solution?**

The building needs to interact with this site. That further developed with screening devices on the east and west. These direct views to the north with the historic grounds and the mansion, and also veil the adjacent residential properties and the students inside, yet retain a sense of connection without being overt. These screens as architectural device animate the facade along Mandeville Crescent and in so doing create a new public entry to the campus.











**For those clients who confuse weight and bulk as a sign of value-for-money this is not really great news. It's very light and light-filled. It is almost the craft that floats in the landscape. Did that present problems in terms of selling this idea of a light building without the apparent massing and gravitas?**

No. I must say that the client was very supportive of our ideas and our proposal. Initially, there was probably a fear of using glass in a school building and of students being easily distracted. There is that tradition that you have four masonry walls. Whatever fears they had quickly disappeared. Students these days multi-task and are aware of where they are. Having such transparency has helped create the calm some people thought might be lost and that visual connection is a key to that result.

**It goes beyond just weighing in with a particular material. It really comes down to intelligent and creative material use doesn't it? The ratio of glass sees it as such a significant material in the whole envelope.**

We started with a deep-plan building and then set to work greening the deep plan—creating connections, views and daylight penetration. That gave the building a whole different sensibility and experience. On an economy scale, the most efficient way to build is a square. Then there are issues that don't work well, in terms of site connections, views and daylight. I think that's very rare that you don't need transparency or connection with the outside world.

The combination of light reflective materials and warm timber contributes to the experience of light-filled, uplifting spaces.

**The use of ceiling bonnets as light scoops in the library is very carefully modelled and controlled. Light flutes deep into the library below. Has this element exceeded your expectations?**

That sculptural element is something difficult to fully anticipate but it's part of a common language in the building—a pinwheel of sorts I suppose—to create something quite beautiful.

**Do you think students fully appreciate the beautiful architecture that surrounds them?**

When you see students photographing this building as a way of seeing and learning it takes appreciation to that next level. Students are often here from early morning until early evening so they should enjoy their place of learning.



North-facing informal learning spaces are deftly screened to assist the quality of experience, privacy, and solar loads.





It's not all just about collaborative space. There is the time and the place for dedicated or isolated work. We need to create spaces for children that are more introverted, not simply the ones happy to work in groups of six, ten or twenty.

JOHN SPUNT, ARCHITECT





A canopy of steel and Viridian SuperClear™ contribute a whole new lightweight elegance and transitional shelter with space for up to 1300 students and staff.



**The outdoor glass-roof space is an impressive bonus.**

We're quite fortunate that we worked as a separate project soon after the Mandeville Centre had started construction. There was some money available, so we worked pretty hard to convince the school that they needed this space. We tried to create much greater amenity for the school and the chequer-board canopy almost appears as if it's not there. Now the school has a function space for 1300 people.

**What energy modelling do you perform to ensure the whole performs to standards?**

We need to be smart about how we use all materials and glass is no different. The benefits are there for everyone to experience and see. We supported the expansive choice of glass by devices such as metal fins to the east and west to control solar radiation. We use inherent, passive design principles. We wanted to maximize the amount of glass here and to do that properly and efficiently, we needed to do a Section J energy modelling exercise. We took that





The appearance of dark toned vertical steel blades belies the high levels of natural illumination permitted through indirect entry. North-east elevation (left), west elevation (below).





Thermal comfort is as important as the need for fresh air. It's often said, if it gets too warm, it only happens ten days of the year. Well, that could be five percent of a student's year. In the work environment, it's not good enough and I don't believe it's good enough in a school environment.

JOHN SPUNT, ARCHITECT



further when we started to test the external space in terms of airflow heat build-up and loss.

### **What role does passive ventilation system play?**

One of my pet concerns, apart from acoustics, is a building's comfort level. School buildings are no different from commercial buildings, or housing. Thermal comfort is as important as the need for fresh air. It's often said, if it gets too warm, it only happens ten days of the year. Well, that could be five per cent of a student's year. In the work environment, it's not good enough and I don't believe it's good enough in a school environment. Thermal comfort is one of the most important attributes of the space, and we wanted to optimize fresh air quality and if that's mechanical and controlled, then that's appropriate. We have the ability to supplement the mechanical with natural ventilation and to purge the building as necessary. It's more than just drawing air from outside. We need to ensure that the air is of a certain quality and you do that by filtration, which is often connected to a mechanical system.

### **A project highlight?**

Walking through the site one day and seeing students engage so well with one another, as if this building had always been there. In that sense, for them, it was almost as if it had to be. Spatially there are areas I especially enjoy. The gallery in the main public entry is wonderful. It's a meeting space, an internal strip, a gallery space and function centre. The atrium holds together the whole building. It's about creating beautiful spaces that inspire learning.

#### **PROJECT**

The Mandeville Centre, Loreto College, Toorak, Melbourne

#### **CLIENT**

Loreto College

#### **ARCHITECT**

Architectus Melbourne

#### **LANDSCAPE ARCHITECT**

Oculus

#### **WINDOW INSTALLER/GLAZIER**

Seelite Windows and Doors

#### **GLAZING INSTALLER**

Century Glass

#### **POST-PROCESSING**

Glassworks

#### **GLASS SUPPLIER AND SPECIALIST SUPPORT**

Viridian

#### **PRINCIPAL GLAZING**

Viridian double-glazed SuperClear™ and VLam™ Hush





WAVE

RIDER

Any house designed by Kerry and Lindsay Clare is worthy of attention—especially when the latest happens to be only their third residence in a decade.

With a reputation for environmentally tuned housing on Queensland's Sunshine Coast, the couple moved to Sydney to work in the civic realm where they quickly won recognition as design directors to the NSW Government architect. Their work is as grand as Queensland's Gallery of Modern Art to the more recent and beautifully bespoke Dockland's library at Melbourne.

In between there has been plenty else to consider, but precious few houses. Visit any Clare Design project and their signature, while discrete, inevitably fits like a hand-stitched, calf-skin glove.

Their design for the south-coast house deserves a qualifier, rather than apology. In an age where architect designed beach-house as mansion on the march, they demonstrate the value of structure and shell as environmental caress instead of crash.

Their design for a light bodied, light-filled glass and steel 'shack' is elegantly taut, neither wasteful with building materials or power hungry in operation.

Adding to the usual demands for sharp problem solving, the Clares needed to deal with tough bushfire regulations involving set-backs and non-combustible materials.





**PROJECT**  
NSW South-Coast House

**ARCHITECT**  
Clare Design

**PRINCIPAL GLAZING**  
Viridian Clear™ Toughened  
and PyroGuard™ 40

**TEXT, IMAGES & FILM**  
Peter & Jenny Hyatt







CLICK TO VISIT THE SOUTH-COAST HOUSE





Simple techniques of bringing daylight deep within include central skylights and streamlined detailing.



Vision's Peter Hyatt asked the Clares about the qualities and challenges of the quest to make an exemplary fit with a testing budget.

**You have a reputation for quiet, rather than loud architecture. Is that a fair assessment?**

KERRY CLARE It is. We try to design in way that is appropriate to the broader context of a place. Our preference is towards a more fine, or quiet architecture as you say. Sometimes there might be a case where you need to be a little louder.

**Flamboyant?**

KC We certainly don't do angles or curves for the sake of the angles or curves. We only do so if there is a clear benefit or need.

**Do you ever worry you might lose touch with where you started—designing houses?**

KC I don't think so. It's like riding a bike. Houses were our base work for 20 years in Queensland. It's quite enjoyable to be back in control of the documentation process and to design directly, rather than through a big team.

**For the design follower, there are many similarities between your residential designs and many major public buildings. The lineage of the South Coast house even has quiet echoes of your celebrated Gallery of Modern Art in Brisbane.**

KC Style isn't just visual. Style is the way you go about problem solving to create a result. Over the years we have developed a way of problem solving we bring to every building.

LINDSAY CLARE It's a manner of communication with clients, understanding their brief and delving into context which informs the whole process so much. Obviously, the scale and social implications change between residential and major projects, but the principles remain consistent.





**You avoid the use of glossy materials and finishes for impact. It appears much more about a grounded palette of glass, concrete, timber and steel.**

<sup>KC</sup> We're always keen to meet a client's budget. You choose how you might use more expensive materials. Lindsay always says, take for example lighting, try and use cost effective general lighting but combine them with a couple of standout pieces.

<sup>LC</sup> Carefully done that raises the standard of the less expensive lighting. Just coming back to the budget, we've very rarely been given the challenge of dealing with those more expensive, or lavish materials. It might happen one day.



There were also issues of ocean winds, cooler climate and bushfire. The design solution had to address these by being protective and durable and at the same time open and connected to the environment.

KERRY CLARE, ARCHITECT

**What is it about the South Coast house that presented the biggest challenge and the greatest reward?**

KC It's a unique and beautiful site. Placing the various spaces so that every room had a special connection to the site and beyond was the main challenge. There were also issues of ocean winds, cooler climate and bushfire. The design solution had to address these by being protective and durable and at the same time open and connected to the environment.

LC Another aspect of the conceptual thinking about the house was seeing it as a beach house, rather than a house at the beach. There is a fundamental difference in terms of the way you approach the design of the beach house. It's a bit more robust or less precious idea, about how you occupy and use a house. The living patterns are also different in a beach house and we discussed these ideas with our clients.

**Isn't it an attitude about more gregarious, social spaces?**

KC It's a house where people come together in relaxation mode, more than rising and heading to work. It's about extended family, family events, the Christmases, etc. The house has to be able to expand and contract, but always feel comfortable whether it has two or twelve occupants.



The glazing configuration and size is also a response to the landscape and ocean. The western elevation uses more contained and discreet glazing because of solar loads, privacy from the street and bushfire issues, while the opposite is true on the eastern elevation where we maximise views.

LINDSAY CLARE, ARCHITECT

**This is a house where each elevation and your materials are very specific and tailored.**

LC Each elevation is about the relationship between the interior spaces and their context. This includes issues of privacy and views to the ocean and landscape, as well as the variation in weather patterns and solar loadings. There's no reason why each elevation shouldn't be specific to its situation.

**Which leads to the whole issue of glazing.**

LC Precisely, because the openings must be very carefully considered. The consequences of that are crucial to a building's success.

**Your glazing is very protected and 'defensive' in certain areas and much more open, flexible and adjustable in others.**

KC The views and living areas really dictated the main glazing opportunities. For the building to better withstand bushfire a different window type was required for the south and west. The north and east aspects were less likely to be exposed to flames, however ember attack still had to be considered. We were able to use clear toughened

glass to the north and east and supplement this with mesh window screens to provide protection from embers in the event of bushfire.

LC The glazing configuration and size is also a response to the landscape and ocean. The western elevation uses more contained and discreet glazing because of solar loads, privacy from the street and bushfire issues, while the opposite is true on the eastern elevation where we maximise views. The sliding doors and sashless windows have all been worked carefully for those elevations, to operate in an easy, uncomplicated way for view, daylight, winter sun and to optimise ventilation.

**How often do you seek the advice of your glass supplier, fabricator or Viridian for your glass selection?**

KC We generally deal directly with the glass supplier and window-manufacturer. We're definitely aware of Viridian's technical resources and product range, and enjoy discussing the opportunities for each project.

KC Glass allows the central semi-enclosed courtyard to work successfully. The courtyard





Windows and joinery present a measured order of equal significance that celebrate nature inside and out.





in summer, can mostly be opened and act as an extended indoor / outdoor living area. In winter it can be more enclosed by sliding the eastern glazed doors across and opening the operable roof for winter sun, or closing it all down so that you effectively have two layers of glazing between the living areas and the outdoor terrace—effectively double glazing. The courtyard acts like a daylight-filled cube with glazing on three sides and louvred light above.

**The internal/external courtyard acts as the lungs or bellows to flush breezes and light throughout. That's a simple but highly effective overlay that makes a huge difference to this house.**

<sup>KC</sup> The operable roof over the courtyard permits endless light variation and effects to the centre of the plan. When the roof blades are closed due to rain the balance of light to the interiors is retained through a (Viridian) glazed skylight over the central walkway to the bedrooms. This skylight has ceiling battens below it to diffuse the light and at night it can be lit like a lantern. For winter sun we have used a highlight window on the south of the courtyard that allows the angled sun rays to penetrate right through to the dining and kitchen areas.

**Isn't this house the barista coffee, versus the automatic machine variety. There is a huge difference. Once you take charge and manage the roast, grind and make it with care and love, you get a beautiful coffee. If you just push a button you'll only ever get, at best, average. Sometimes it just takes a little extra effort. Here you physically slide the doors and windows and breathe-in the outside, rather than flicking the air-conditioner switch.**

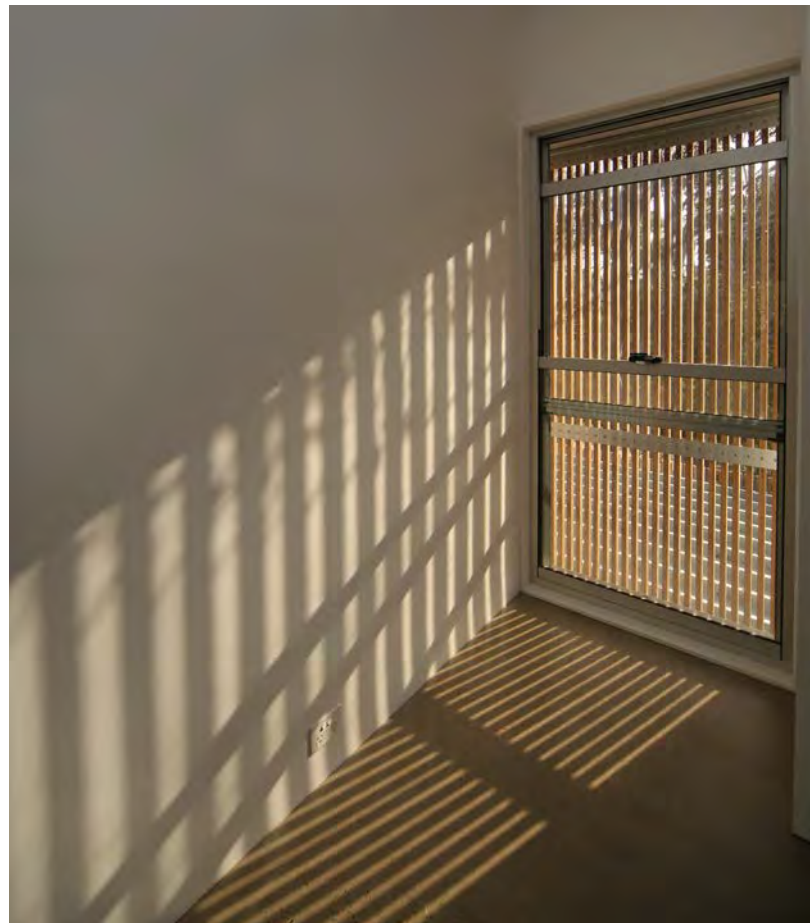
<sup>LC</sup> The key to this house is really its simplicity. Simplicity can still have richness. You can develop a richness through the way the house is occupied and its level of operability. 'Minimal' can tend to imply a more fixed state such as: "Don't move that chair or don't touch that magazine—you've upset my composition."



Glass is an amazing, but under utilised product. This is most evident in very cost driven, multi-residential projects where short-term decisions are often made. The right glass choice minimises all sorts of problems from energy consumption to improved comfort levels.

KERRY CLARE, ARCHITECT

A verdant bush setting required a defensive design strategy of bushfire-resistant materials including Viridian PyroGuard 40™ glazing.



**There are also those invisible qualities of places like this that suck a bit of the outside air in. Just the smells alone of ocean and bush mean opening the house is rewarding. Conventional houses tend to shun those things.**

<sup>KC</sup> That's true. Windows needn't just be about views, but can appeal to all of the senses, rather than just vision.

**Do you think glass as a building material is generally well utilised and understood?**

<sup>LC</sup> Unfortunately a lot of mainstream window systems available are pretty dreadful. There is an art to creating windows, doors and openings that can provide many opportunities and appear and operate seamlessly.

<sup>KC</sup> Glass technology and product range have improved enormously in recent times. Australian industrial design probably hasn't quite kept up with that in relation to the aluminium window and door sections. Glass is an amazing, but under utilised product. This is most evident in very cost driven, multi-residential projects where short-term decisions are often made. The right glass choice minimises all sorts of problems from energy consumption to improved comfort levels. The window design affects the lives of many occupants over the life of the building. Most of our clients are very interested in the type of windows specified, because they know they can make or break a space with their appearance, operability and thermal comfort.



**PROJECT**  
NSW South-Coast House

**ARCHITECT**  
Clare Design

**BUILDER**  
Moruya Design and Construction  
(Pip Smith and Mick Primmer)

**LANDSCAPE DESIGN**  
Phoebe Pape and  
Lush Landscapes

**ALUMINIUM WINDOWS**  
Batemans Bay Windows and Glass

**SASHLESS SLIDERS**  
Austview Windows, Mortdale

**TIMBER WINDOWS AND DOORS**  
Highland Glass, Moss Vale

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