

The Eliza building,
Hyde Park, Sydney
(3D render)



AUCKLAND ART GALLERY PHOTOGRAPHY; JOHN GOLLINGS; ELIZA: COURTESY TONY OWEN PARTNERS

waste. More than 50 per cent of the mixed commercial-residential project will be dedicated to public space.

“It is going to be a very exciting development, not just for Sydney but for Australia,” says Stephen Conry, chief executive of Jones Lang Lasalle Australia, which has brokered office leasing at Barangaroo.

More sophisticated computer-aided design and building information systems are aiding architecture and construction.

At the luxury Eliza building in Sydney’s Hyde Park, where two-bedroom apartments have sold off the plan for \$2m and the three-level penthouse had a \$15m price tag, architect Tony Owen says the sort of software that is being used now to design cars and rapidly prototype their components allowed him to create a residential tower where each floor is a different shape.

“Some levels come out further, some levels are more pointy,” he says. “The shape of the building [changes] to give you the best view, to give you the best sun, to give you the best shading.”

In the past it was too expensive to vary each level. “Now, our computers can be plugged directly into the robot that makes the

panels, it costs no more to create 10 panels that are different,” says Owen. “The computer is cutting [the shapes] so you don’t have all of the people trying to figure it out.”

Architects are also playing with shapes and materials – Owen has had a lot of fun recently cladding his various apartment designs in colourful shapes that are laser-cut in China to millimetre precision. They often double as balustrades for balconies and shading, and as wind-protection devices.

“We’re doing heaps and heaps of these designs and none of them looks like anything that you have ever seen before, and that is really the future of design,” says Owen. “There is infinite possibility using technology to create really efficient designs in a very beautiful way.”

Another innovation set to emerge is the more widespread use of prefabricated building components – including whole bathrooms, kitchens and even facade panels with the windows already inset. It’s not long, either, before high-quality homes and apartments can conceivably be prefabricated, structural components and all, and slotted together on-site. “We can virtually build whole ▶

THE DRIVE FOR SUSTAINABILITY IS PUSHING THE BAR HIGHER ON BEST USE OF WATER AND ENERGY

“More and more people from overseas are coming to look at what is being done here,” says Francis-Jones. “The culture of architecture is at a real high point in Australia and we’re really well placed to continue to lift that standard and lead.”

Australian firms scooped three of the four top prizes at the World Architecture Festival. Cox Architecture won Future Project of the Year for the National Maritime Museum of China (and, with Casey and Rebekah Vallance, also won the Completed House category for Brisbane property the Left-Over Space House). Taylor Cullity Lethlean and Paul Thompson were awarded Landscape Project of the Year for the \$11m Australian Garden at the Royal Botanic Gardens in Victoria. Johnson Pilton Walker won the Transport category for White Bay Cruise Terminal.

The swag of awards shows the nation’s leading buildings are now “at the edge of possible” as Francis-Jones puts it. No longer is the industry the shy debutante – it is a mature, fluid entity, prepared to take educated risks that are paying off.

ABSOLUTELY PRE-FABULOUS

Some of the most interesting innovations in Australian architecture aren’t necessarily visible. The drive for sustainability is pushing the bar higher on best use of water and energy and having an impact on the materials used and the design of buildings.

In Sydney, the \$6b, 22ha Barangaroo development on the city’s western harbour foreshore promises to be carbon positive. The project, which is under construction, will generate more energy than it uses, recycle and export more water than it consumes, and reduce and recycle

Auckland Art Gallery



Interior of Woods Bagot Sydney Water Board hotel conversion



apartments on the ground, lift them into place and stack them on top of each other,” says James Fitzpatrick, principal partner at Fitzpatrick & Partners.

Mirvac is considering using prefabricated bathrooms in some developments. They would arrive on site with the tiles in place, taps fitted and door attached. The scale of mass production smooths construction times and reduces wastage, thus materials expense – opening the way for higher-quality finishes to be used. It can, argues architect and Mirvac’s national practice director Peter Cotton, also lead to a better end product. “In a factory, [the bathrooms] are all lined up next to each other, you have got consistent trades, you can work through from one bathroom to another and then the quality-checking process just follows that in an orderly fashion, which is sort of like car manufacturing,” he says.

Quality is certainly important in the hyper-competitive residential market, says Colliers International design director Peter Black. “Twenty years ago, people were happy with basic finishes and fittings in residential. Now they expect much more.”

MATERIAL GAINS

Recycled brick and timber, off-form concrete, raw plasterboard and timber laminates – they are some of the key materials coming through in the push for more traditional-looking buildings.

“There’s definitely a trend of very handmade and bespoke materials,” says Turner Studio lead interior architect Angus Henderson. One of the hottest areas is tiling. “There is lots of colour coming through and very geometric patterns,” Henderson says.

The move lines up nicely with the greater adaptive reuse of older office buildings for hotels and residential, such as Sydney’s former 1939-built Water Board building in the CBD. Woods Bagot is transforming the art deco offices into a luxury five-star hotel for Chinese developer Greenland, which is also building Sydney’s tallest residential tower (66 storeys) next door, in Bathurst Street. With its 3m ceilings and art deco features, it’s perfect for reuse, says Woods Bagot Sydney principal Wade Little.

Expect to see more timber in buildings, too, including super-strong cross-laminated timber, which is now being used in construction. Although popular in Europe, Australia has been slow to adopt the method. However, Lend Lease broke ground in Melbourne in 2012 with Forté, the world’s tallest residential timber building – its walls, floor and ceiling are all solid timber.

“The risk was unknown in the market and it was very successful,” says Fitzpatrick, whose firm is working on a seven-storey timber building for the Sydney CBD. “It will actually be the world’s largest commercial timber building, if we can get it off the ground.”

There’s another age-old material that’s back in a big way – the much-maligned glass exterior for office and commercial ▶

buildings – but this time it is a lot more beautiful and often spliced with other materials.

“Glass buildings have a bad name because they were alienating, they had no sense of character to them – they were almost the Darth Vader of commercialism,” says BVN Donovan Hill principal James Grose. “But now you’ll see high-rise buildings in all cities in Australia being designed with a great deal of granularity, of visual diversity, of sophistication. They present themselves as elements within a city as opposed to an arrogant black glass box – or many years ago, an arrogant *mirrored* glass box.”

Sheer glass buildings are beginning to exude great character. “They can have patterns applied to their glass, they can have different coloured glass,” says Grose. “You can easily put LEDs within glass to create extraordinary night lighting. The cleverness of older materials reinvented is really what’s becoming an interesting idea here.”

Double-glazed glass has become “almost standard” on CBD residential developments, says Fife Capital Partners’ Michael Wiseman, who is overseeing the company’s development of a 39-storey retail and residential tower, York & George, in Sydney. Designed by award-winning Melbourne firm John Wardle Architects, the glass facade of the tower appears to be woven, with each floor shifting in and out slightly to create an undulating shimmer.

Perhaps one of the most striking treatments of a glass exterior is the 25,000sq m Woods Bagot-designed South Australian Health and Medical Research Institute (SAHMRI), which rises up from its sandstone-heavy surrounds on the edge of the Adelaide CBD like a beautiful, multicoloured, cut-glass brooch.

The curved building, which consists of three pods mostly resting on a huge column, is covered in 6290 small double-glazed triangles, most sporting their own eyelid-like metal sunshades oriented for optimal sun and shade. From street level, multiple colours appear to flash out of the transparent glass. But it’s a trick of the eye – the colour simply comes from painted walls within.

Fabricating the facade took five months; erecting it another six. “There was nothing that was standard about that building,” says Medy Hassan, national general manager of construction at Hindmarsh, the company that built the SAHMRI. “It’s certainly pushed the industry forward.”

Australia is embracing buildings as much more than functional places in which to live or work. The SAHMRI was developed to attract world-class researchers to what is considered by many to be just a regional capital. It also had the difficult task of mending a “large scar running through the city” created by the noisy, century-old railway line, says architect Thomas Masullo, the director of ▶

IT RISES UP FROM ITS SANDSTONE
SURROUNDS LIKE A BEAUTIFUL,
MULTICOLOURED, CUT-GLASS BROOCH

South Australian Health
and Medical Research
Institute, Adelaide



ONE MAJOR TREND IN AUSTRALIAN RESIDENTIAL LIVING IS THE MOVE TO APARTMENTS... PEOPLE WANT TO MAKE THE MOST OF THEIR LIFESTYLE

Woods Bagot's Adelaide studio. And in a city about to be impacted by the closure of a major employer in 2017 – the Holden car factory – the building also needed to be a beacon for a different future. “We wanted to do something truly iconic,” says SAHMRI executive director Professor Steve Wesselingh.

SMALLER BUT SMARTER

If there is one major trend in Australian residential living, it is the move to apartments. This is driven by many factors: the changing nature of Australia's population – particularly the growth in residents from Asia who embrace multi-residential living; high property prices in large population centres and subsequent investor interest; and the growing desire for a more urban existence, chiefly among young professionals and empty-nesters.

“People want to make the most of their lifestyle as opposed to spending all their time maintaining the property,” says Christopher Mourd, LJ Hooker's head of residential.

Australian apartment buyers have historically favoured lifestyle locations and the city fringe, but not the CBD itself. However, David Milton, CBRE's managing director of residential projects, is predicting CBD apartments are about to go through “an enormous increased

demand”. Australian cities have changed dramatically, argues Milton, and are ripe for attracting residents. “You've got great bars, great restaurants, great entertainment,” he says.

In Brisbane, luxury property developer Sunland is certainly hoping there's a hankering for city life. The developer of Q1 and the plush Palazzo Versace on the Gold Coast has recently launched Abian, a 40-storey pewter glass tower soaring above a prime position opposite Brisbane's Botanic Gardens. Designed by Melbourne's Wood/Marsh Architecture, the 142 apartments will start from about \$700,000 and stretch into the millions.

Although penthouses in luxury developments such as Abian can be more than 1000sq m, most apartment sizes have shrunk in recent years. “Going back 10 years... 95sq m, two-bedroom apartments were considered quite small,” says Mirvac's Peter Cotton. “We're now doing 72, 75sq m, two-bedroom apartments that have the same accommodation.” What has been lost is the “circulation space” such as hallways and entries. “It's all about the design, how you plan the space so that when you enter the apartment you get a feeling of space,” Cotton says.

FJMT's Francis-Jones concurs, adding that modern apartment design has become very demanding and that “50mm really makes all the difference as to whether a room works or it doesn't work”.

Tony Owen is a fan. “I love the trend towards smaller apartments. There's something very pure and exciting about absolutely minimising the space and the efficiency. A 75sq m, two-bedroom unit does just as well as an 80sq m apartment; you don't really notice the difference. We are just being more efficient about the space and therefore about material use.”

The downward push is leading to layout changes. “Increasingly now, we're seeing the need to integrate the kitchen and dining room into one space,” says Rod Fehring, Australand's national head of residential property.

In apartments blocks, some developers are still installing gyms, but Woods Bagot's Wade Little insists “the black-box gym is dead”.

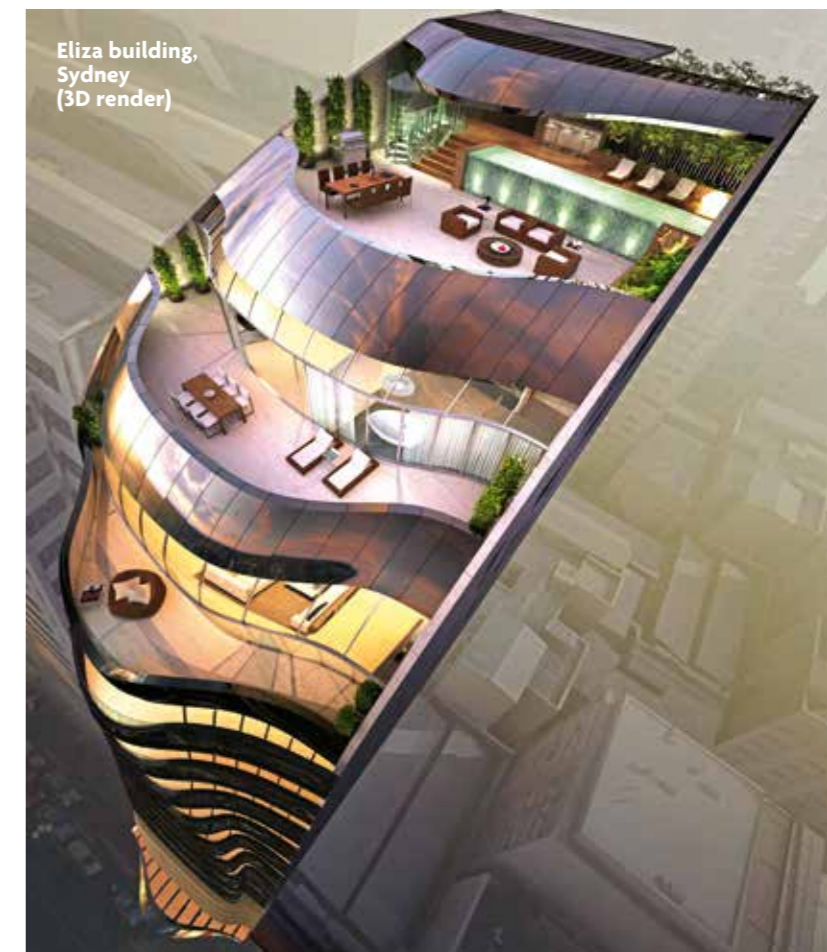
Fehring also sees that trend. “Increasingly replacing the gym is the private communal external garden/barbecue sitting area – either on a roof or shared within a podium level,” he says. They are usually spaces within spaces and can incorporate anything from fire pits to intimate dining nooks. On the rise, too, are different communal zones such as work areas and libraries to accommodate more people who want to work from home, but not within their own four walls.

Back in individual apartments, balconies now “must be 2.7m minimum, preferably 3m deep, regular shapes [to accommodate outdoor furniture],” says Fehring. “Vary from that at your peril.” >

ELIZA BUILDING: COURTESY TONY OWEN PARTNERS; ABIAN: COURTESY SUNLAND GROUP



Abian towers
40 storeys above
Brisbane Botanic
Gardens (3D render)



Eliza building,
Sydney
(3D render)