

# By Design

DESIGN TRENDS 2024



ISSUE 9 | MARCH 2024

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# Editor's Note

Dive into our 2024 Trends Edition of By Design, where we're not just stepping into the future; we're designing it. This year, we're all about sparking joy through innovation, sustainability, and those delightful design touches that make a space truly sing.

We're navigating an exciting world where our homes talk back (hello, smart tech!), our buildings breathe along with the planet (thanks, sustainable design!), and where every nook is a potential canvas for creativity. From the magic of biomimicry, making our spaces as genius as nature, to the brave new world of materials that promise not just to stand the test of time but also cuddle up to Mother Earth – we've got it all in these pages.

We owe a huge shoutout to the dreamers, the thinkers, and the doers who've shared their visions with us. Their projects and insights are like a double shot of inspiration, pushing us to think bigger and bolder about what design can do for our world.

So, as you flip through, let each page challenge you, excite you, and maybe even push you to dream up your own big ideas. Here's to creating spaces that are as kind to our souls as they are to the planet.

Get ready to be inspired, thrilled, and maybe a bit surprised. Welcome to the future of design, as beautiful as it is smart and sustainable.

# GET ACCREDITED

Through the BDAA Today



[bdaa.com.au](http://bdaa.com.au)



## Become an Accredited Building Designer

Now more than ever, it is vital for today's building designers to seek full and timely accreditation in their industry; not only to stand in accordance with new laws and codes but to keep up with the demands of a continually evolving and ever challenging built environment. This is why the BDAA facilitates the accreditation of building designers in Australia and is streamlining the accreditation process for today's ambitious, conscientious building designers.

The BDAA has made it an association objective and mission to offer full and official accreditation services for members. Our association has updated documents, systems and processes, effectively removing outdated documents to provide a more streamlined application process.

Within the building industry, accreditation is an acknowledgement of the competency of a company or individual to perform a range of tasks or skills within an occupational framework. The formal recognition of that accreditation typically comes in the form of a license or registration, usually issued by State or Federal Government department. Building Designers in Tasmania, Queensland and Victoria are regulated in this manner, with each state having its own regulations and providing certified documentation as proof of accreditation.

Indeed, beyond the value of this process for building designers and regional governments, accreditation matters to every building design client who wants the job done right. For every building designer that gets accredited, this single accreditation can guarantee the supreme quality of countless home and business designs throughout Australia.



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Together our knowledge and inventiveness in building materials and design systems allows CSR to provide unrivalled expertise of how our products work together from wall to wall, roof to floor.



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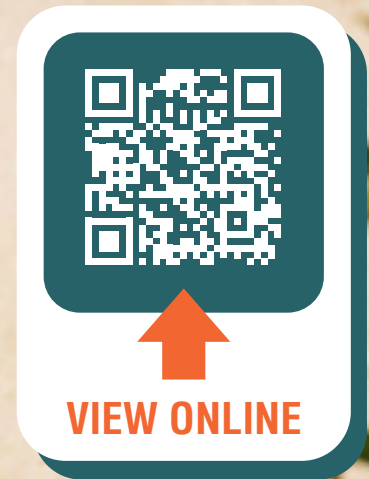
104

TABLE OF CONTENT

- 3 Editor's Note
- 8 Biomimicry
- 10 Grooves Impact
- 12 Green Spaces
- 16 Architectural Tapestry
- 20 Recycled Materials
- 23 Home Automation Systems
- 26 Design Trends
- 28 Trends in Multigenerational
- 32 Vertical Gardening
- 34 Beyond Aesthetics
- 39 Urban Buildings
- 42 Beyond the Facade
- 46 Co-housing
- 50 Barns & Battens Unite
- 52 Mental Health
- 55 The Role of Light
- 58 Today's Aesthetics
- 62 Smart Glass
- 66 Hamptons Coastal Charm
- 69 Historic Buildings
- 72 Architectural Solutions
- 76 Modern Homes Forecast 2024
- 82 Seven Modern Homes
- 92 Sustainable Roofing
- 96 Residential Living
- 98 Bucking Trends
- 105 Minimalist Design
- 109 The Natural Touch
- 113 Eco-Tourism
- 116 Modern Farmhouse
- 118 3D Printing
- 122 Tapware Trends
- 125 Modular Construction
- 128 Fawkner House
- 130 Designing Educational Spaces
- 134 Indigenous Cultural Elements

# Find the inspiration

All the information needed to create your own winning designs in By Design



# Biomimicry

## NATURE'S BLUEPRINT FOR SUSTAINABLE DESIGN

In the heart of our concrete jungles, a revolution is brewing - a design revolution inspired by the oldest teacher of all, nature. This is Biomimicry, a practice where nature's designs, strategies, and processes are emulated to solve human challenges. In the realm of architecture and interior design, biomimicry is more than a trend; it's a sustainable approach that harmonizes our urban landscapes with the natural world.

### The Essence of Biomimicry in Design

Biomimicry in design takes cues from the efficiency of ecosystems. For instance, the Eastgate Centre in Harare, Zimbabwe, designed by architect Mick Pearce, models its ventilation system on the self-cooling mounds of African termites. This bio-inspired building uses 90% less energy for ventilation, exemplifying how biomimicry can lead to energy efficiency and cost savings.

### Living Walls and Green Roofs: A Breath of Fresh Air

Living walls and green roofs are perhaps the most visually striking examples of biomimicry. They're not just aesthetic elements; they replicate the multifunctional aspects of nature. A living wall, for instance, is akin to the lush vertical ecosystems found in nature, providing insulation, reducing urban heat islands, and improving air quality. Similarly, green roofs mimic the ground cover in forests, offering habitats for wildlife, reducing stormwater runoff, and improving thermal performance.

### Indoor Gardens: Bringing the Outdoors In

The integration of indoor gardens in architectural design is more than a decorative choice. These green oases are

natural air purifiers and mood enhancers. Studies have shown that indoor plants can reduce stress levels and increase productivity. By bringing in elements of nature, architects create spaces that not only look good but also promote well-being.

### The Eco-Friendly Impact

The ecological footprint of buildings is a growing concern, and biomimicry offers a sustainable solution. By using natural processes and local materials, biomimicry reduces the need for external energy sources. Buildings that incorporate these designs contribute to sustainability, not just in terms of energy savings but also in water conservation and waste reduction.

Biomimicry in design is an acknowledgment that nature, through billions of years of evolution, has already solved many of the problems we are grappling with. By looking to nature for inspiration, architects and designers are creating buildings that are not only environmentally responsible but also aesthetically captivating and in tune with our innate need to connect with nature. The future of sustainable architecture lies in learning from the world around us, making biomimicry not just a trend, but a necessary step towards a more harmonious and sustainable future.



# SLIM Grooves, HUGE Impact

When it comes to design, it's often the smallest details that make the most significant impact, and the world of slim grooves is perfect testament to this principle. In both residential and commercial design, slim deep grooves have continued to grow in popularity, offering a timeless aesthetic.

Slim grooves, characterised by their thin vertical and horizontal lines, have the unique ability to transform your project's style. They introduce a sense of grandeur, depth and desired texture, elevating the look and feel of any environment.

Whether you're designing a modern home or a commercial space, slim striking shadow lines add that touch of sophistication that's always in demand. One of Weathertex most popular ranges is Weathergroove, with its vertically-machined grooves available in a wide range of profile textures and groove centres, from 75mm to 1200mm increments. If you're looking for horizontal grooves (or a design that provides you with a deeper curve capability) you can't go past Selflok Ecogroove 75mm, also available in several profile and groove spacing options.

Smooth, Woodsman, and Natural profiles allow you to choose the texture that aligns perfectly with your design vision, ensuring that your space will both look and feel fantastic.



While slim grooves are undoubtedly popular in facades, their appeal extends far beyond the exterior. Super-popular for internal applications, creating a cohesive and sophisticated look that ties your design together seamlessly, slim grooves look amazing on ceilings and garage doors... and don't forget that Weathertex products feature our unbeaten better than zero carbon footprint.

So, whether you're working on a residential project that needs a touch of sophistication, or a commercial space that requires a design edge, consider the impact of slim texture grooves to give that extra definition. With Weathertex's 75mm groove profiles, you have the power to create spaces that are not only stylish but truly timeless in their sophistication. Here's some project inspirations where slim grooves made HUGE impacts.



# INTEGRATION OF Green Spaces

## IN URBAN DEVELOPMENT

The integration of green spaces in urban development has emerged as a growing trend in recent years, as cities strive to create sustainable and livable environments for their residents. Green spaces, such as forests, wetlands, parks, sports fields, agricultural land, gardens, and green roofs, contribute to air quality, create habitats for urban biodiversity, and provide a range of ecosystem services. This journal article explores the importance of incorporating green spaces into urban architecture for sustainability and well-being, drawing on examples and case studies from various cities.

### Benefits of Green Spaces in Urban Development

Green spaces play a crucial role in the sustainable development of cities, as they provide numerous benefits for both the environment and the community. Some of the key benefits include:

- 1 Air quality improvement:**  
Green spaces can increase air quality and humidity, contributing to a healthier environment for urban residents.
- 2 Biodiversity enhancement:**  
Green spaces help to improve biodiversity, providing habitats for various species and contributing to the overall health of ecosystems.
- 3 Social and community well-being:**  
Green spaces serve as meeting places and centers of communities, fostering social inclusivity and enhancing overall livability.
- 4 Economic benefits:**  
Green spaces can contribute to local economies by attracting visitors, providing recreational opportunities, and promoting sustainable development.







Konditaget Lüders, Copenhagen, Denmark

## Examples of Green Spaces in Urban Development

Several cities have successfully integrated green spaces into their urban planning, resulting in more sustainable and livable environments. Some examples include:

- 1 **Copenhagen, Denmark:**  
The city has implemented a green infrastructure strategy, which includes green roofs, green walls, and green streets, to improve air quality and biodiversity.
- 2 **Singapore:**  
The city-state has developed a comprehensive green infrastructure plan, which includes parks, gardens, and green roofs, to enhance its urban environment and promote sustainability.
- 3 **Seoul, South Korea:**  
The city has implemented a green roof policy, requiring new buildings to have at least 20% of their roofs covered in vegetation, to improve air quality and reduce urban heat island effects.
- 4 **New York City, USA:**  
The city has created a network of green spaces, including parks, gardens, and green roofs, to provide residents with access to nature and promote sustainability.

## Challenges and Considerations in Green Space Integration

Despite the numerous benefits of green spaces in urban development, there are several challenges and considerations that must be addressed when integrating them into urban landscapes. These include:

- 1 **Space availability:**  
Cities often face challenges in finding suitable locations for green spaces, particularly in densely built-up areas.
- 2 **Economic factors:**  
The cost of implementing green spaces and maintaining them can be a barrier for some cities.
- 3 **Stakeholder engagement:**  
Ensuring that local communities are consulted and involved in the design and implementation of green spaces is crucial for their success.

The integration of green spaces in urban development is a growing trend that offers numerous benefits for both the environment and the community. By incorporating green spaces into urban architecture, cities can create more sustainable and livable environments that promote well-being and enhance the quality of life for their residents. However, careful planning and consideration of challenges and considerations are essential for successful green space integration. As cities continue to grow and evolve, the importance of green spaces in urban development will only become more pronounced.



UNVEILING THE

# Architectural Tapestry:

TRENDS RESHAPING DESIGN DYNAMICS

At Nero Tapware, we stand as witnesses to the ever-evolving tapestry of architectural trends, where each thread tells a story of ingenuity, sustainability, and timeless elegance. Through our commitment to excellence in craftsmanship and design, we strive to not only meet but exceed the demands of an industry propelled by a relentless pursuit of innovation.



Opal Progressive

In this article, we unravel the fabric of architectural trends, weaving together insights and inspirations that redefine the contours of contemporary design.

**Sustainable Sophistication:** In an era marked by environmental consciousness, sustainable architecture emerges as a beacon of responsibility and refinement. From water-saving fixtures to eco-conscious materials, the trend towards sustainability underscores our collective commitment to preserving the planet while indulging in the artistry of design. From the water recycling capabilities at our factory to our new recycled packaging, we are very focused on reducing our carbon footprint.

**Biophilic Beauty:** Nature, with its inherent grace and tranquility, serves as an endless wellspring of inspiration for designers seeking to create spaces that resonate with the soul. Biophilic design, with its emphasis on incorporating natural elements into the built environment, infuses spaces with a sense of harmony and vitality, enriching the human experience in profound ways. Both our “Opal and Opal Progressive” collections capture this beauty.





Mecca Care Range

**Adaptable Elegance:** In a world characterized by fluidity and change, adaptability emerges as a hallmark of architectural sophistication. From multi-functional spaces to customizable fittings, the trend towards adaptability empowers designers to create environments that seamlessly evolve with the needs and desires of their inhabitants, ensuring relevance and resilience in an ever-changing landscape. This is no more prevalent than our recently launched “Mecca Care Range”.

○ Smart fixtures, intuitive controls, and immersive experiences redefine the boundaries of architectural design, elevating functionality and convenience to new heights while imbuing spaces with a sense of modernity and allure.



**Tech-Driven Transformation:** In the digital age, technology serves as both a catalyst for innovation and a canvas for artistic expression. Smart fixtures, intuitive controls, and immersive experiences redefine the boundaries of architectural design, elevating functionality and convenience to new heights while imbuing spaces with a sense of modernity and allure. Our recently launched “Claudia” sensor tapware range is a testament to this.

**Cultural Connectivity:** In an increasingly interconnected world, diversity becomes not just a virtue but a cornerstone of design excellence. Embracing diverse cultural influences and inclusive design principles, architects and designers craft spaces that celebrate the richness of human experience, fostering a sense of belonging and unity within the built environment. At Nero this is always top of mind, with 8 collections to choose from there is bound to be a cultural connection for all.



Claudia

A woman with glasses and a light pink shirt is looking at a display of various recycled materials, such as bricks and tiles, arranged on shelves in a store. She is pointing towards the materials with her right hand. The background shows more shelves with different types of materials, creating a well-lit and organized display area.

# INNOVATIVE USE OF Recycled Materials

Recycled materials have gained significant attention in the building design and construction industry as a sustainable and environmentally friendly alternative to traditional materials. This article explores innovative ways recycled materials are being used in contemporary architecture, focusing on the unique approaches and case studies that demonstrate the potential of these materials in the built environment.

## Sustainable Building Design and Construction Framework

One approach to incorporating recycled materials in building design is through a sustainable building design and construction (SBDC) framework. This framework proposes a systematic methodology for upcycling irregular off-cut wood into various scales, from furniture to buildings. The SBDC involves the transition from digital to physical, which entails creating material databases, topology simulations, and physical constructions of various scales. This approach helps preserve wood resources that are becoming scarce and offers a solid case study and database for the design and construction of irregular wood components.

## Circular Environmental Impact of Recycled Building Materials

Another study assesses the circularity processes for the construction industry using a life cycle assessment (LCA) of a case study located in a large cosmopolitan city. The study compares the environmental impact of conventional building materials with recycled building materials, demonstrating the potential of recycled materials in reducing waste and promoting sustainability in the built environment.

## Recycling of Building Materials: An Overview

A research article on the recycling of building materials provides an overview of the subject area, discussing the challenges and opportunities associated with the reuse of construction waste. The article highlights the importance of conducting detailed assessments of the technical properties, current state, previous modes of use, durability, chemical composition, environmental impact, toxicity, contamination, and other defects of reused materials.

## Case Studies of Reused Materials in Architecture

Several case studies showcase the successful implementation of reused materials in architecture. For example, in Germany, the Netherlands, Poland, and Denmark, different types of construction waste, including waste from earth and environmental science, have been reused in various projects. These projects demonstrate the potential of reused materials in reducing waste, promoting sustainability, and enhancing the aesthetic appeal of buildings.

## Design Strategies to Increase the Reuse of Wood Materials in Buildings

Another study focuses on design strategies to increase the reuse of wood materials in buildings, such as prefabricated wood constructions, which reduce wood waste from construction activities to nearly zero due to efficient production processes. This approach not only promotes sustainability but also contributes to the development of innovative and efficient building designs.

- One approach to incorporating recycled materials in building design is through **a sustainable building design and construction (SBDC) framework.**

The innovative use of recycled materials in building design is a promising approach to promoting sustainability and reducing waste in the built environment. By incorporating recycled materials into building design and construction, architects and builders can create unique and environmentally friendly structures that contribute to a more sustainable future.





# EVOLUTION OF Home Automation Systems

The evolution of home automation systems has significantly transformed residential design and living experiences. Over the last two decades, smart home technologies have advanced, enabling users to control and monitor their appliances and home functions more efficiently. The integration of smart home automation in construction is reshaping the way homes are designed and built, offering unprecedented comfort, energy efficiency, and convenience.

This article examines the latest advancements in home automation and their impact on residential design, highlighting the transformative potential of merging technology and design in creating functional and aesthetically pleasing living spaces.

## Evolution of Smart Home Technology

The evolution of smart home technology has been remarkable, with significant milestones shaping the current landscape of home automation. From the early 2000s, when smart technology started to become more affordable and accessible to consumers, to the present day, where smart homes offer a wide range of features such as voice-activated assistants, automated blinds, smart thermostats, and seamless integration of various devices, the evolution of smart home technology has been driven by a relentless pursuit of comfort, convenience, and sustainability.

The evolution of home automation systems has had a profound impact on residential design, ushering in an era where technology and design seamlessly merge to create functional, aesthetically pleasing, and highly customizable living spaces. As smart home technologies continue to advance, the future of residential design is set to be shaped by the ongoing integration of cutting-edge technology and the relentless pursuit of comfort, convenience, and sustainability.

## Impact on Residential Design

The growing impact of smart home automation in construction is evident in its influence on residential design. Smart homes are now highly customizable, allowing homeowners to tailor their living spaces to their preferences, from lighting scenes to entertainment setups. The integration of technology and design has led to the creation of spaces that not only anticipate residents' needs but also enhance their overall living experiences. The seamless blending of cutting-edge technology with the aesthetics of residential design has become a hallmark of modern smart homes, offering unparalleled customization and personalization.

## Future Possibilities

The future of smart home automation in construction is filled with exciting possibilities, as technology continues to advance and become more integrated into everyday life. From health and wellness features that address post-pandemic concerns to the potential for even greater comfort, convenience, and energy efficiency, the future of smart homes is poised to further transform residential design and living spaces.

- The future of smart home automation in construction is filled with exciting possibilities, **as technology continues to advance and become more integrated into everyday life.**



SUSTAINABLE

# Design Trends

MAGAZINE



In the dynamic world of design and architecture, the pursuit of sustainability has become more than just a trend; it's a responsibility. Weathertex, a pioneer in eco-friendly building materials, invites you to explore the forefront of sustainable design through their inspiring publication, the "Weathertex Sustainable Design Trends Magazine."



Dive into the pages of the Weathertex Sustainable Design Trends Magazine and discover a wealth of insights that seamlessly blend aesthetics and environmental consciousness. This cutting-edge publication showcases the latest trends, innovations, and inspirations that are shaping the sustainable design landscape.

The magazine delves into various aspects of sustainable design, offering in-depth articles on green architecture, renewable energy integration, and resource-efficient construction techniques. From residential spaces to commercial developments, each page is a testament to the beauty that arises when design and sustainability join forces.

At the heart of this magazine lies the commitment of Weathertex to sustainable practices. Known for their dedication to environmental responsibility, Weathertex has been a driving force in the creation of sustainable building materials for over three decades.

Weathertex offers a range of sustainable timber cladding products that not only elevate the visual appeal of structures but also contribute to a healthier planet. Manufactured using 100% natural Australian hardwood, Weathertex products are free from artificial additives and are sourced from responsibly managed forests.

The Weathertex Sustainable Design Trends Magazine is more than just a publication; it's an invitation to join the sustainable design movement. Whether you're an architect, designer, or an enthusiast, this magazine offers a roadmap to creating spaces that are not just visually striking but also environmentally responsible.



As we navigate the challenges of the 21<sup>st</sup> century, Weathertex leads the way in showcasing how style and sustainability can coexist harmoniously.

Grab your copy of the Weathertex Sustainable Design Trends Magazine today and embark on a journey towards a greener, more beautiful tomorrow.



# Trends in Multigenerational LIVING SPACES

The trend of multigenerational living spaces has gained significant momentum in recent years, as families seek to accommodate multiple generations under one roof. This article examines the latest advancements in multigenerational living spaces and their impact on residential design, highlighting the unique challenges and opportunities that arise when designing homes for diverse age groups.



Designer: Alejandro Urena Sandoval

## The Growing Trend of Multigenerational Living

Multigenerational living spaces have become increasingly popular as families seek to share resources, provide support, and maintain close connections across generations. This trend has been driven by factors such as rising housing costs, an aging population, and the desire for extended family members to live together. As a result, designers and builders must adapt their designs to meet the evolving needs of multigenerational households, creating functional spaces that cater to different generations and their unique requirements.

## Balancing Privacy and Togetherness

Creating a harmonious environment in multigenerational homes requires a delicate balance between privacy and togetherness. Designers must consider the needs of each

family member, from the youngest to the oldest, and ensure that the home provides ample opportunities for privacy while also fostering shared experiences. This can be achieved through the use of separate living areas, self-contained units, and well-planned layouts that promote flexibility and autonomy.

## Universal Design Principles

Incorporating universal design principles in multigenerational residential construction is essential for ensuring accessibility and functionality for individuals of all ages and abilities. This includes features such as wider doorways, grab bars, and non-slip flooring, which can accommodate the needs of both young and old family members. By implementing these design elements, multigenerational homes can provide a built-in support system for aging family members and accommodate the changing needs of all residents.

## Design Ideas for More Harmonious Multigenerational Living

Creating spaces that allow for flexibility, privacy, and a sense of autonomy is key to multigenerational living. Some design ideas for more harmonious multigenerational living include:

- 1 **First-floor primary suites and dual primary bedrooms:**  
Providing separate living spaces for different generations can help maintain privacy and independence.
- 2 **Lower-level living areas:**  
Basements or ground-floor living spaces can be designed to accommodate specific needs, such as accessibility or noise reduction.
- 3 **Living space above the garage or in an extra garage bay:**  
These areas can be converted into functional living spaces, providing additional privacy and separation from the main living areas.
- 4 **Separate entrances:**  
Designing separate entrances for each generation can help maintain privacy and create a sense of independence.
- 5 **Second kitchens:**  
Adding a second kitchen or a kitchenette can provide additional space for meal preparation and reduce congestion in the main kitchen.
- 6 **Private spaces for each generation:**  
Creating private spaces, such as home offices or hobby rooms, can help accommodate the unique interests and needs of each family member.

## Innovative Trends in Multigenerational Home Design

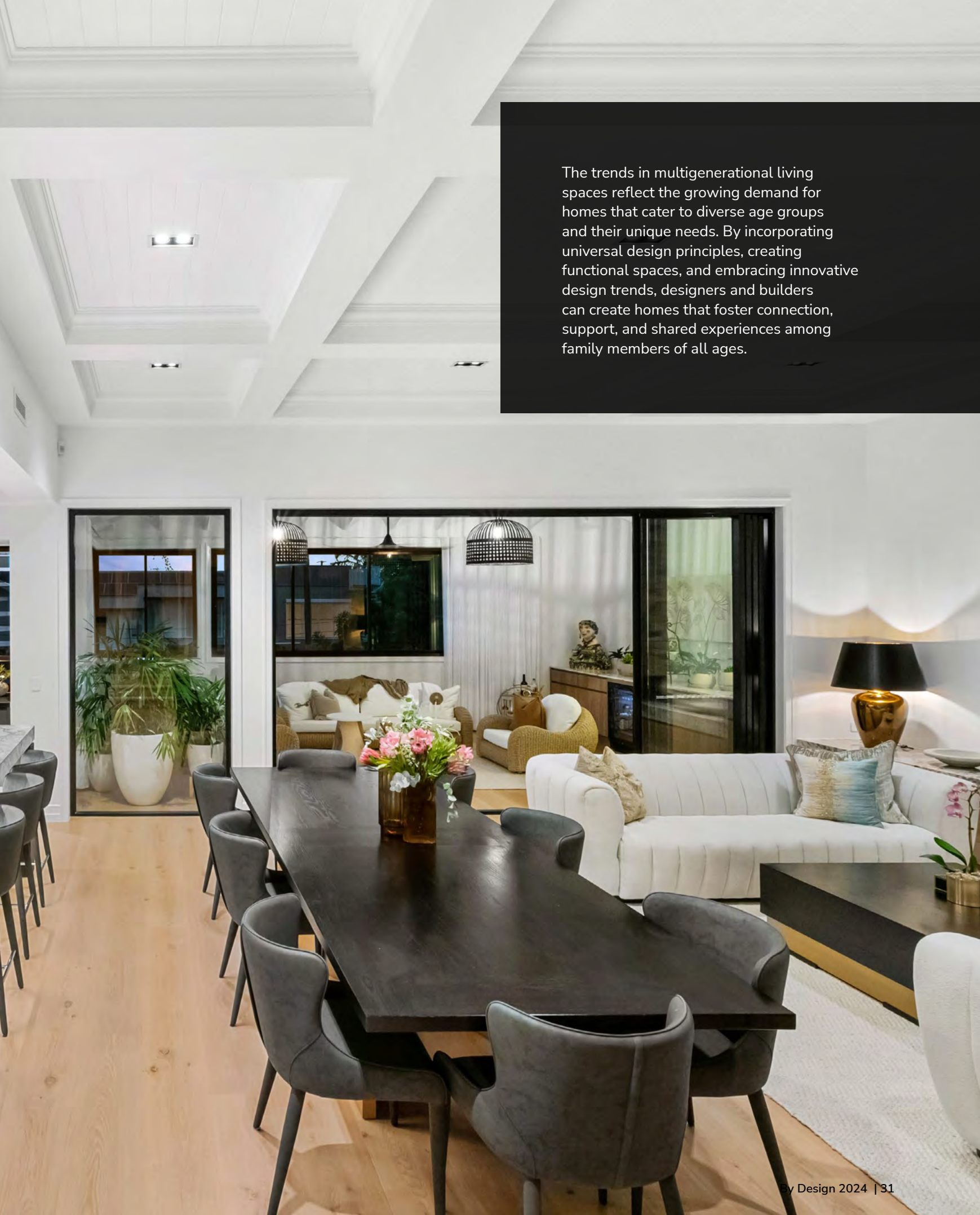
Innovative trends in multigenerational home design include:

- 1 **Flexible floor plans:** Designing adaptable floor plans that can be easily reconfigured to accommodate changing needs and preferences.
- 2 **Adaptive living spaces:** Creating living spaces that can be easily transformed to accommodate different activities or functions, such as converting a living room into a home office or a playroom.
- 3 **Home technology integration:** Incorporating smart home technology, such as voice-activated assistants and automated lighting, can enhance the functionality and convenience of multigenerational homes.



Designer: Hugo Grozdanovic

The trends in multigenerational living spaces reflect the growing demand for homes that cater to diverse age groups and their unique needs. By incorporating universal design principles, creating functional spaces, and embracing innovative design trends, designers and builders can create homes that foster connection, support, and shared experiences among family members of all ages.



# THE SHIFT TOWARDS Vertical Gardening IN URBAN AREAS

The increasing urbanization of cities has led to a growing scarcity of green spaces, prompting the emergence of vertical gardens as a sustainable and innovative solution to reintroduce nature into urban environments. Also known as living walls or green walls, vertical gardens are self-contained gardens installed on the sides of buildings, providing a range of benefits that make them integral to modern urban architecture.

## Integration of Nature in Urban Environments

Vertical gardens have become a key element in the integration of nature within urban environments. As cities face limited real estate for traditional horizontal green spaces, the verticalization phenomenon has gained traction, with architects and urban planners turning to vertical gardens as a means to introduce greenery in the built environment. By marrying buildings and nature, vertical gardens offer a visually striking and environmentally beneficial solution to the challenges of urbanization, providing refreshing visual breaks from concentrations of concrete and steel.

## Environmental and Social Benefits

The rise of vertical gardens is driven by their multifaceted benefits, which extend beyond their aesthetic appeal. These green walls have a profound impact on air quality, mitigating humidity, controlling dust, and absorbing noise pollution, thereby creating micro-climates that

enhance heat efficiency. Furthermore, they contribute to the mitigation of the urban heat island effect and the enhancement of biodiversity, providing a habitat for insects and birds. From a social perspective, vertical gardens offer economic benefits by increasing the real estate value of buildings, providing energy efficiency, and acting as a powerful marketing tool for companies committed to sustainability.

## Sustainable Urban Living

The integration of vertical gardens in skyscrapers and other urban structures is redefining urban architecture and promoting sustainable urban living. These gardens maximize the use of limited urban space, making efficient use of vertical surfaces and contributing to a more sustainable urban environment. They represent an eco-friendly way to reintroduce green spaces in densely populated areas, mitigating the adverse environmental and social impacts of urbanization.

A woman with tattoos, wearing a white tank top and black shorts, is captured in a running pose. She is positioned in the lower right quadrant of the frame, running from left to right. Behind her is a dense, multi-layered vertical garden wall filled with various green plants, including ferns, grasses, and leafy shrubs. The ground is a dark, paved surface with some fallen leaves. The overall scene is bright and natural, suggesting an outdoor urban environment.

### Challenges and Considerations

While vertical gardens offer a range of benefits, they also present challenges in terms of design, installation, and maintenance. It is essential to consider the right system, plants, design, and maintenance strategy to ensure the long-term viability of green walls. Professionals must integrate botanical, architectural, and constructive criteria to successfully implement these projects and maximize their economic, environmental, and social benefits.

In conclusion, the shift towards vertical gardening in urban areas reflects a growing recognition of the importance of reintroducing nature into densely populated cities. Vertical gardens are emerging as a sustainable and innovative solution to the scarcity of green spaces, offering a range of environmental, social, and economic benefits. As cities continue to embrace verticalization as a means to promote sustainable urban living, the integration of vertical gardens in modern urban architecture is set to become increasingly integral to the built environment.

# Beyond Aesthetics:

Windows as cornerstones of Sustainable Spaces



From roof colour to insulation, from appliances to landscaping, all the material selections made in a project form a part of the build's overall sustainability.

Architects and Building Designers are tasked with the most important objectives; managing client expectations, design intent, – and of course budget all within site parameters and building compliance.

When it comes to achieving or exceeding a 7-star energy rating as part of the National Construction Code, few of these choices offer as much scope for variation and flexibility as the selection and application of window and door systems as a major component of the thermal envelope of the building.

Well specified windows and doors can be the difference between a thermally efficient design which comes in on budget versus an over engineered, high performing build that can confuse the most experienced specifier and possibly exceed budget – perhaps unnecessarily.

Thermally broken windows have long held the title of one of the most energy efficient solutions by offering the broadest application for use. By insulating the pathway for thermal transmission through the window frame, it's a clever way to make the most from the durability of aluminium while reducing its conductivity – but extra components inevitably mean more assembly and a comparatively higher price tag.



So, is there a cost-efficient way to maximise energy gains, while maintaining strength and design flexibility without turning to thermally broken windows?

That's a question both asked and answered by leading supplier of aluminium windows and doors in Australia, AWS (Architectural Window Systems). This fundamental question was asked over 10 years ago and it led to the development of a more cost effective, energy efficient solution which also offers a contemporary design aesthetic in the current market.

## Cue ComfortEDGE™

ComfortEDGE is an elegant, double-glazed solution for residential applications that rivals the energy efficiency of thermally broken products. Its embedded frames provide a sleek design comprising fewer components than thermally broken counterparts, making it a cost-effective, wholly Australian made option for Australian projects. ComfortEDGE recognises that clever design doesn't have to be complicated, and skilfully minimises the amount of exposed frame by embedding into the timber reveal, insulating against the environment to improve energy efficiency and thermal comfort.

ComfortEDGE truly is the perfect meeting point of form and functionality. It's stylish and high performing, with U Values as low as 1.9 - placing you in the best position to meet 7-star energy provisions while keeping your budget on track.

○ **ComfortEDGE is an elegant, double-glazed solution** for residential applications that rivals the energy efficiency of thermally broken products.

## Back to weighing up your options...

How will you know if ComfortEDGE is right for your project?

AWS recommends consulting your specification expert early in the design process, taking a holistic approach to build sustainably and to meet energy compliance on budget.

For designers looking to harness the vast possibilities afforded by Australian designed and manufactured architectural windows, give your AWS specifier team member a call and reap the rewards. (AWS 1300 026 189)



Uw  
From  
1.9

7 star  
solutions



Give your project the  
**ComfortEDGE™**

ComfortEDGE™ double glazed windows and doors, are for architects and building designers who don't want to compromise on performance, style and affordability.

For more information: [specifyaws.com.au](http://specifyaws.com.au)  
Fabricator: Coastline Architectural Windows



## DEVELOPMENTS IN SOUNDPROOFING TECHNOLOGIES FOR

# Urban Buildings

The development of soundproofing technologies for urban buildings has witnessed significant advancements in recent years, with a focus on innovative materials and design techniques aimed at reducing noise pollution and enhancing acoustic comfort. These developments have become integral to modern urban architecture, addressing the challenges posed by increasing urbanization and the need for sustainable, comfortable living spaces.

### **Innovations in Soundproofing Materials**

Innovative soundproofing materials, such as acoustic insulation, have emerged as a key solution for minimizing noise pollution in urban buildings. These materials are designed to absorb and dampen sound vibrations, reducing noise transmission through walls, floors, and ceilings. They play a crucial role in creating a more peaceful and comfortable indoor environment, particularly in urban settings where external noise can be a significant concern.

### **Soundproof Windows and Doors**

The integration of soundproof windows and doors has become a common practice in urban building design. Double-glazed windows, acoustic wall panels, and isolating materials are being used to minimize noise transmission, providing residents with a quieter and

more peaceful living environment. These advancements in window and door technology contribute to the overall soundproofing of buildings, enhancing the acoustic quality and functionality of interior spaces.

### **Sustainable and Eco-Friendly Soundproofing**

The demand for sustainable and eco-friendly soundproofing solutions has led to a revolution in the use of materials for building soundproofing. The adoption of sustainable materials in soundproofing not only addresses noise pollution but also contributes to the overall environmental performance of buildings. This eco-friendly approach aligns with the growing emphasis on green and sustainable building practices, reflecting a commitment to creating healthier and more environmentally responsible urban environments.

## Technological Innovations for Glass-Faced Buildings

Technological innovations have also been developed to address sound insulation challenges in glass-faced buildings. Advanced nanotechnology is being used to manipulate sound waves, significantly reducing their transmission through glass surfaces. This innovation has the potential to revolutionize the way sound is experienced within these structures, creating tranquil and peaceful environments within urban settings.

## Acoustic Performance in Commercial and Residential Buildings

In the context of commercial and residential buildings, the focus on high-level acoustic performance has led to the development of noise insulation materials that address the specific challenges posed by urban environments. These materials are designed to reduce noise levels, mitigate outdoor noise, and enhance the overall acoustic comfort of interior spaces.

## Noise Control in Multi-Family Residential Buildings

In multi-family residential buildings, the implementation of soundproofing solutions has become essential for enhancing the quality of life for residents. From soundproofing walls and windows to floor/ceiling assemblies, various design and building codes are being enforced to ensure effective noise control in urban residential settings.





The developments in soundproofing technologies for urban buildings represent a significant step forward in addressing the challenges of noise pollution and acoustic comfort in urban environments. Through the use of innovative materials, sustainable practices, and technological advancements, modern urban architecture is embracing soundproofing as an integral element in creating healthier, more comfortable, and environmentally responsible living spaces.



# Beyond the Facade



## Exploring the Versatility of Weathertex Cladding

In the realm of architectural design, the facade of a building often takes centre stage, commanding attention with its aesthetic appeal. However, the true mark of a versatile and innovative building material lies in its ability to transcend the conventional, to be employed in ways that go beyond the ordinary. Weathertex cladding stands as a testament to this adaptability, proving that its utility extends far beyond the facade.

## Internal Feature Walls that Wow

Weathertex cladding, renowned for its natural beauty and durability, isn't limited to external applications; it will seamlessly integrate into interior design as well. Internal feature walls clad in Weathertex serve as focal points, bringing texture and visual interest to living spaces. The natural, rustic appeal of the cladding creates a cozy ambiance, making it an ideal choice for bedrooms, living rooms, and even commercial spaces.

## Aesthetic Excellence on Ceilings

Designers and architects are increasingly turning to Weathertex to add a touch of sophistication to living spaces. Weathertex cladding offers a textural alternative to plasterboard for ceilings that pop.

When used as an internal lining, the distinctive texture and warmth of Weathertex brings a unique charm to ceilings, transforming them into captivating focal points.

The versatility of Weathertex allows for creative freedom in design, enabling architects to play with patterns, angles, and finishes. The result is an interior space that exudes elegance and character, far surpassing the limitations of traditional ceiling materials.



Architects and interior designers appreciate the versatility of Weathertex, which allows for the creation of bespoke designs that reflect the unique personality of a space. Whether used in residential homes or commercial projects, Weathertex-lined internal feature walls elevate the overall design aesthetic.

## Garage Doors That Make a Statement

Weathertex cladding has emerged as a popular and visually striking choice for garage doors, merging functionality with aesthetic appeal.

The durability of Weathertex ensures that garage doors maintain their integrity over time, withstanding the challenges posed by changing weather conditions and the operation of the garage door itself.

Being a timber-based material, Weathertex is lighter and more flexible than many other 'lightweight' cladding options. This makes Weathertex the perfect choice for projects requiring a seamless visual integration of the garage door and the surrounding structure.

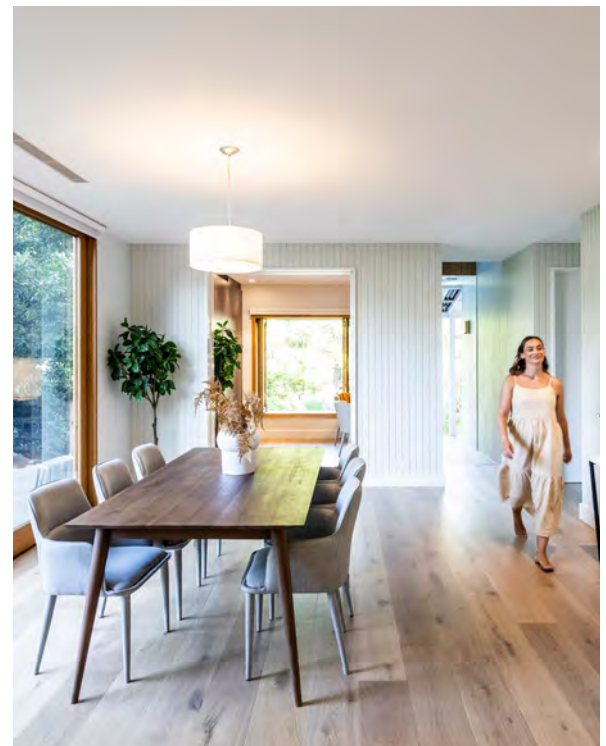
Before embarking on a Weathertex cladding project for your garage door, we recommend that you engage with your garage door supplier to consider any weight restrictions, structural load-bearing considerations and other technical specifications.

This proactive approach ensures that the installation not only meets your aesthetic goals, but also aligns with safety and functionality requirements set by the garage door manufacturer.

Weathertex has evolved beyond its traditional role as an exterior facade material. Its adaptability and aesthetic appeal have led to its integration into many other facets of architectural design. From ceilings that tell a story to garage doors that make a statement, and internal feature walls that wow, Weathertex is proving to be a versatile and indispensable choice for architects, designers, homeowners and commercial clients alike.

As the architectural landscape continues to evolve, Weathertex stands as a testament to the timeless marriage of form and function.

Designers and architects are increasingly turning to **Weathertex to add a touch of sophistication to living spaces**





# THE RISE OF Co-housing COMMUNITIES IN AUSTRALIA



Co-housing is a residential model that combines private homes with shared spaces and communal living, fostering a sense of community and sustainability. This innovative housing concept has gained traction in Australia, with a growing number of co-housing communities emerging across the country. This article explores the rise of co-housing in Australia and its architectural implications, highlighting the unique features and benefits of this collaborative living arrangement.

## Co-housing in Australia: A Growing Trend

Co-housing in Australia is still in its early stages, with only a few communities established so far. However, the interest in co-housing is increasing, driven by the desire for more sustainable, affordable, and socially connected living arrangements. As the trend continues to grow, co-housing communities are expected to become more prevalent in Australia, offering a unique alternative to traditional housing options.

## Architectural Implications of Co-housing

The architectural implications of co-housing are significant, as these communities require a unique blend of private and shared spaces to accommodate the needs of residents. Key architectural features of co-housing communities include:

- 1 Private homes**  
Co-housing communities consist of individual homes, often designed with flexible layouts to accommodate different spatial needs.
- 2 Shared spaces:**  
Common areas, such as kitchens, lounges, and outdoor spaces, are designed to encourage social interaction and community building.
- 3 Communal living:**  
Co-housing communities often have shared living spaces, such as guest rooms, laundry facilities, and storage areas, to support the needs of residents.
- 4 Sustainable design:**  
Co-housing communities are often designed with sustainability in mind, incorporating energy-efficient features and eco-friendly materials.

○ As the trend continues to grow, co-housing communities are expected to become more prevalent in Australia, **offering a unique alternative to traditional housing options.**

## Benefits of Co-housing Communities

Co-housing communities offer numerous benefits, both for residents and the wider community. These benefits include:

- 1 Social connections:**  
Co-housing fosters a sense of community and social connection, as residents share common spaces and engage in communal activities.
- 2 Affordability:**  
Co-housing communities can be more affordable than traditional housing options, as residents share resources and costs.
- 3 Sustainability:**  
Co-housing communities often incorporate sustainable design principles, reducing their environmental impact and promoting eco-friendly living.
- 4 Flexibility:**  
Co-housing communities offer a high level of flexibility, allowing residents to customize their living spaces and adapt to changing needs.

## Challenges and Considerations

Despite the benefits of co-housing, there are also challenges and considerations that must be addressed. These include:

- 1 Funding:**  
Establishing co-housing communities can be costly, and securing funding for these projects can be a significant barrier.
- 2 Management:**  
Co-housing communities require ongoing management and maintenance, which can be a challenge for residents.
- 3 Diversity:**  
Ensuring that co-housing communities are diverse and inclusive is essential for fostering a healthy and vibrant community.



Designer: Lisette Marchant



The rise of co-housing communities in Australia represents a significant shift in residential design and living arrangements. As these communities continue to grow, architects and urban planners must adapt their designs to accommodate the unique needs and preferences of co-housing residents. By embracing the architectural implications of co-housing and addressing the challenges and considerations, Australia can create thriving co-housing communities that promote social connection, sustainability, and affordable living.

# Barns & Battens Unite

There's a trend that's steadily gaining momentum in both Australian residential and commercial projects. It's a trend that draws inspiration from the rustic charm of barns while infusing a modern, stylish twist into the mix. We're talking about "Barns and Battens" – a design movement that beautifully marries the old with the new, the rustic with the sleek and the familiar with the innovative.

At the heart of this design movement is the use of exposed battens that grace the exteriors of buildings. They create a look that's both timeless and trendy, evoking the essence of rural barns while offering a unique visual appeal. And when it comes to cladding that perfectly complements this batten-up style, look no further than Weathergroove panels.

Whether you opt for the Smooth, Woodsman, Ruff-Sawn or Natural textures, Weathergroove panels serve as the ideal choice for your building facade. Their versatility and durability ensure that they can weather any environment while lending a classic, yet contemporary touch to your design.

What's particularly appealing about the batten-up trend is its flexibility. Batten dimensions, spacing, and profiles can be consistent and uniform for a neat, organised appearance, or they can be varied to create a unique sequence for a customised, individualised design. It's a canvas of creativity that architects, designers and their clients adore.





○ At the heart of this design movement is the use of **exposed battens that grace the exteriors of buildings.**

When it comes to the barn style, chic design is not just about replicating the past; it's about reimagining it for today and beyond.

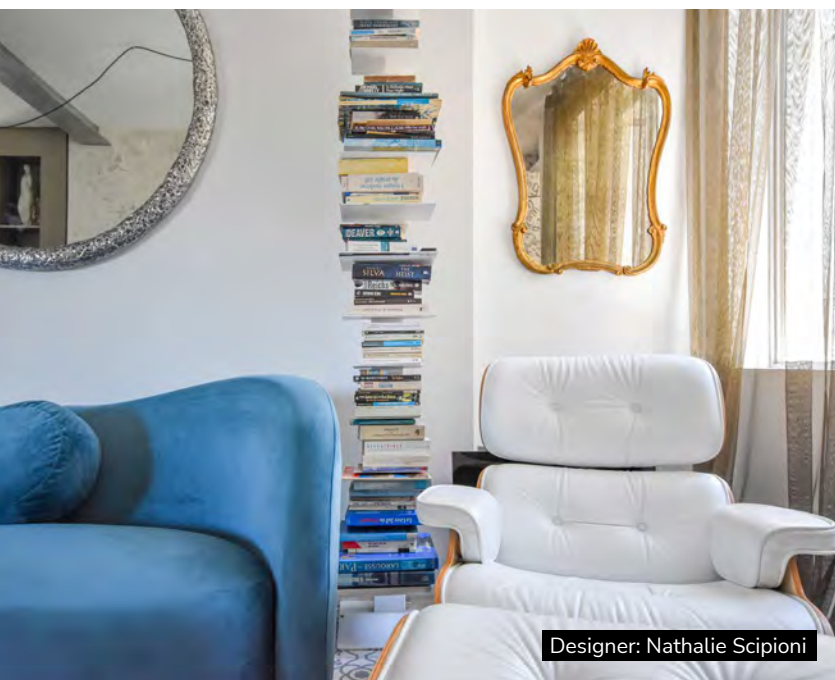
Many designers are embracing this trend with modern twists. They're incorporating monochromatic colour palettes that give a clean, sophisticated feel, and they're opting for sleek fixtures that contrast beautifully with the rustic, exposed-batten design.

This convergence of old-world charm and modern design sensibilities has made barns and battens a prominent force in contemporary architecture, setting new standards for what is both chic and inviting.

So, if you're looking for a design that unites the rustic allure of barns with the versatility of modern architecture, don't hesitate to explore "Barns and Battens." It's a trend that's here to stay, evolving with each new project and each fresh perspective!

# DESIGNING FOR Mental Health

Architecture that Promotes Well-being: How building design is being influenced by the need for spaces that support mental health.



The design of built environments has a profound impact on mental health and well-being. As the awareness of this connection grows, there is an increasing focus on creating spaces that support and promote mental health. This article explores the influence of building design on mental health, drawing from research and developments in the field.

## Architectural Impact on Mental Health

The relationship between architecture and mental health has gained significant attention in recent years. Research has shown that well-designed buildings can contribute to improved overall mental well-being. The built environment can influence factors such as stress, anxiety, and social connectedness, all of which are closely linked to mental health outcomes. As a result, there is a growing emphasis on designing spaces that not only address functional needs but also support the psychological and emotional well-being of their occupants.



Designer: Mark Wysman

## Co-housing and Mental Health

One notable trend in building design that has implications for mental health is the rise of co-housing communities. Co-housing offers a unique model of living that emphasizes social interaction, community engagement, and the creation of shared spaces. From a mental health perspective, this approach can address issues of social isolation and loneliness, which are known to have adverse effects on mental well-being. The design of co-housing communities prioritizes the creation of communal areas that encourage social connections and foster a sense of belonging, both of which are important for mental health.

## Therapeutic Spaces and Architectural Design

In the context of mental health, the design of therapeutic spaces is of particular importance. Specialized residential architecture for individuals with mental health challenges requires careful consideration of the built environment's impact on their well-being. Research has demonstrated that architectural design can support medical and health-related procedures, leading to better therapeutic outcomes and an enhanced quality of life for individuals with mental health concerns. This underscores the significance of creating environments that are not only functional but also conducive to healing and well-being.

## Urban Design and Mental Health

The influence of architecture on mental health extends beyond individual buildings to encompass urban design. The layout of urban spaces, access to natural light,

and the circulation of public spaces can all have implications for mental well-being. For instance, the design of urban environments that prioritize access to green spaces and encourage physical activity can positively impact mental health outcomes. Similarly, the provision of well-designed public spaces that facilitate social interaction and community engagement can contribute to a sense of connectedness and belonging, which are important for mental well-being.

## The Future of Mental Health-Oriented Design

As the understanding of the link between architecture and mental health continues to evolve, there is a growing recognition of the need to design spaces that promote well-being. This includes not only addressing functional and aesthetic considerations but also prioritizing the creation of environments that support mental health. From the design of therapeutic spaces to the development of co-housing communities and the emphasis on urban design, there are numerous opportunities to integrate mental health-oriented principles into architectural practice.

In conclusion, the influence of building design on mental health is a significant and increasingly recognized aspect of architectural practice. The design of spaces, whether at the scale of individual buildings or urban environments, can have a profound impact on mental well-being. As research in this area continues to advance, there is a growing emphasis on creating environments that support and promote mental health, reflecting a broader shift towards a more holistic and human-centered approach to architectural design.



A modern kitchen with white cabinetry, a green patterned backsplash, and a red patterned rug. The kitchen features a white countertop, a built-in oven, and a window with a view of greenery. The lighting is bright and natural, highlighting the clean lines and textures of the space.

# The Role Of Light

IN ARCHITECTURAL DESIGN

The latest trends in using natural and artificial lighting to enhance building aesthetics and functionality. The role of light in architectural design is a critical aspect of creating functional and aesthetically pleasing spaces. The use of natural and artificial lighting can enhance building aesthetics and functionality, creating spaces that are both visually appealing and conducive to well-being. This article explores the latest trends in using natural and artificial lighting to enhance building aesthetics and functionality.

## The Importance of Artificial Lighting in Architectural Design

Artificial lighting is an integral part of the building design process, playing a variety of roles beyond simply illuminating spaces. Research has shown that artificial lighting can delineate spaces, beautify environments, improve workers' productivity levels, and serve as a tool for navigation and communication in the urban environment. Therefore, planning for artificial lighting should be introduced early in the design process to avoid incurring additional costs and to ensure that the lighting design is integrated into the overall architectural vision.

## The Benefits of Natural Light in Architectural Design

Incorporating natural light into architectural designs can lead to energy savings and promote well-being. Natural light has the power to create dynamic and engaging spaces that adapt to the changing environment. Architects can strategically position windows, skylights, and lightwells to introduce natural light from different angles, creating varying impressions and visual effects. The interplay between natural light and architectural elements can generate captivating spaces that enhance the overall aesthetic appeal of the building.

Natural light not only enhances the visual appeal of a space but also offers various benefits for well-being. Exposure to natural light has been linked to improved mood, productivity, and overall well-being. Utilizing natural light reduces the need for artificial lighting, resulting in energy savings and a reduced environmental footprint. Natural light facilitates the merging of indoor and outdoor spaces, creating a harmonious connection with nature.

## The Role of Artificial Lighting in Enhancing Building Aesthetics

Artificial lighting can be a powerful tool in architectural design, allowing architects to customize lighting to fit the exact needs of a space. The type and quality of artificial light can affect the moods and health of the users of a space. Architects can use artificial lighting to define the geometry of a space, highlight materials and textures, and create a desired atmosphere. The interplay between natural and artificial lighting can generate captivating spaces that enhance the overall aesthetic appeal of the building.





## The Importance of Lighting Design in Architecture

Lighting design is an essential aspect of architectural design, influencing the way people perceive and appreciate the space around them. Light attracts a feeling of importance to architecture, illuminating colors and the appearance of a surface or substance and helps architecture stand out. Lighting design in architecture could significantly influence the well-being of the occupants of a building. Therefore, when designing, it's important for architects to think wisely concerning their lighting design.

The role of light in architectural design is a critical aspect of creating functional and aesthetically pleasing spaces. The use of natural and artificial lighting can enhance building aesthetics and functionality, creating spaces that are both visually appealing and conducive to well-being. The importance of lighting design in architecture cannot be overstated, as it influences the way people perceive and appreciate the space around them. By harnessing and leveraging natural and artificial light, architects can shape buildings that are both functional and visually appealing, promoting well-being and enhancing the overall quality of life for building occupants.

# Today's Aesthetics:

Guides to Trending Residential Designs





Residential design styles often evolve gradually, shaped by advancements in materials, construction techniques, and societal shifts. Yet, annual trends emerge, reflecting dynamic changes in our world. Exploring the intersection of innovation and tradition in Australian residential architecture, Lysaght has released a suite of informative Design Guides. In this article, we explore today's prominent design trends and how Lysaght's versatile product range can help craft homes that exemplify modern Australian living.

Trends do more than shape home design and architecture - they're a mirror to our evolving preferences, advancements in technology, and cultural shifts.

Design evolution showcases societal changes, from the Victorian era's intricate details to contemporary design's minimalist spaces. Trends reflect a collective desire for living spaces that embrace current values - such as environmental sustainability and flexible spaces.

Lysaght has captured the defining trends of today's residential architecture in their new Design Guides. Developed in collaboration with industry experts, these guides detail five design trends shaping modern Australian homes, helping designers and architects create homes that truly reflect contemporary living.



## Hamptons - Coastal Elegance

The [Hamptons](#) blends Long Island's elegant appeal with Australian ease, offering a fusion of coastal design and modern functionality for serene living environments suited to local climates.

"In Australia, the Hamptons style has adapted to accommodate the tough local climate and laid-back lifestyle," says Blake Tasker, Marketing Manager, BlueScope Building Components.

Classic corrugated roofing is a staple of the coastal and country look synonymous with Hamptons architecture. The LYSAGHT® range also offers other roofing and walling options that complement the Hamptons-style, available in pre-painted COLORBOND® steel and unpainted ZINCALUME® steel.

## Contemporary - Sleek Lines and Natural Forms

[Contemporary design](#) is the culmination of simplicity, comfort and environmental connection. Straight lines and natural shape define stylish, peaceful spaces, reflecting the modern ethos of comfortable living.

The LYSAGHT® range offers modern roofing and walling

○ The LYSAGHT® range also offers other roofing and walling options that complement the Hamptons-style, available in pre-painted COLORBOND® steel and unpainted ZINCALUME® steel.

solutions, including LONGLINE 305®, IMPERIAL™, and ENSEAM®, in various COLORBOND® steel finishes from soft greys and beiges to bold accents. Designed to complement materials like timber and stone, Lysaght's palette gives contemporary homes a modern, grounded aesthetic.

With options like QUAD 115 Hi-Front and NOVALINE® in gutters and fascias, Lysaght enhances contemporary homes while ensuring durability against the Australian climate.

## Queenslander - Time-Honoured Charm

[Queenslander homes](#), originating in the 19<sup>th</sup> century, are renowned for their timber frames and iconic corrugated steel roofs. Elevated for better ventilation and flood prevention, their wide verandas, decorative balustrades, and large windows embody the spirit and heritage of Australian architecture.

"Queenslander homes are an iconic part of our architectural heritage. We're proud to offer materials that modernise tradition without sacrificing the charm and character of these beloved homes," says Blake Tasker.

Lysaght's roofing and walling options, including corrugated MINI ORB® for a contemporary alternative to traditional weatherboards, ensure these homes retain their classic charm. From traditional deep reds and greens to Dover White™ and Surfmist®, Lysaght captures Australia's stunning natural palette.

## Coastal - Light, Airy, and Effortlessly Chic

Australian [coastal dwellings](#) have evolved from simple beach shacks into a design style that epitomises an elegant seaside lifestyle. Features like pitched roofs and large windows enhance natural light and views, while outdoor spaces embrace the sea breeze.

Lysaght's range of low-maintenance, corrosion-resistant products shaped from COLORBOND® Ultra steel and PERMALITE® aluminium ensure you don't have to choose between durability and aesthetics.

Lysaght offers roofing and walling profiles, along with rainwater goods, in corrosion-resistant finishes that complement light, airy coastal interiors in whites, neutrals, and soft blues.

## Heritage - Australian Legacy

Australian [heritage homes](#) draw from a mix of architectural influences, from Federation styles to the Art Deco movement. Heritage design values the aspects worthy of conservation, maintaining authenticity and character.

"Preserving the integrity of Australian heritage is at the heart of what we do. Our iconic corrugated CUSTOM ORB® and heritage-inspired profiles like BAROQUE™ allow us to keep the story of Australian architecture alive," says Blake Tasker.

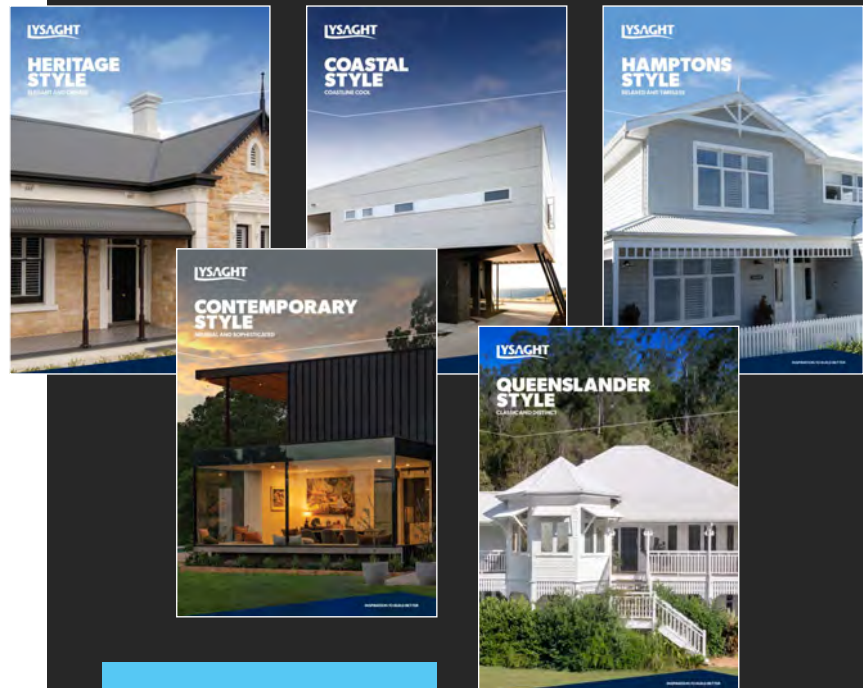
Lysaght supports traditional designs with its WEATHERLINE® cladding for a low-maintenance, weatherboard-style walling and a range of gutters and downpipes. Offering roofing profiles like IMPERIAL™ and a spectrum of COLORBOND® steel finishes, Lysaght ensures Heritage homes retain their timeless beauty.

## Designing Australia

With a product range that spans the gamut from the refined elegance of the Hamptons to the enduring allure of Heritage designs, Lysaght is uniquely positioned to address the diverse aesthetic and functional requirements of Australian homes. Their dedication to supporting architects, designers, and homeowners alike ensures projects meet today's standards for comfort, sustainability, and lasting architecture.

Blake Tasker says, "Our goal is to provide products that not only meet the aesthetic and functional needs of Australian homes but also contribute to the narrative of our nation's architecture. We're here to support the design of Australia, one home at a time."

Explore Lysaght's Design Guides for inspiration and practical advice:



# Smart Glass

TECHNOLOGY AND ITS  
IMPACT ON BUILDING  
DESIGNS

## How smart glass is revolutionizing façade design and energy efficiency

Smart glass technology is revolutionizing façade design and energy efficiency in buildings. With its advanced technology, smart glass offers a range of benefits, including improved insulation, privacy, and energy efficiency. Smart glass is a versatile and innovative technology that can be used in a variety of applications, including facades. This article explores the latest trends in using natural and artificial lighting to enhance building aesthetics and functionality.

### Energy Efficiency

One of the primary advantages of using smart glass technology in façade systems is its energy efficiency. By switching to an opaque state during peak sunlight hours, smart glass can significantly reduce the amount of heat and UV radiation entering the building. As a result, the building's cooling system requires less energy, leading to significant energy savings. Smart glass technology emerges as an innovative solution for modern façade systems. By incorporating smart glass into building design, architects, property owners, and occupants can enjoy numerous benefits, including energy efficiency, privacy control, daylight harvesting, and temperature regulation. Smart glass is paving the way for sustainable and intelligent buildings, promoting energy savings and enhancing occupant comfort.

### Privacy Control

Smart glass technology offers a range of privacy control options, allowing occupants to adjust the opacity of the glass to their desired level of privacy. This feature is particularly useful in commercial buildings, where privacy is essential for meetings and presentations. Smart glass can also be used in residential buildings to provide privacy without sacrificing natural light. The ability to control privacy levels through smart glass technology offers a new level of flexibility in building design, allowing architects to create spaces that are both functional and aesthetically pleasing.



## Daylight Harvesting

Smart glass technology can also be used to maximize the amount of natural light that enters a building while minimizing glare and heat gain. This is particularly important in areas with a lot of natural light, such as sunny climates or high-rise buildings where the sun can be intense. By using smart glass in the façade, the amount of natural light can be controlled, creating a more comfortable and productive indoor environment. Daylight harvesting is an essential aspect of sustainable building design, and smart glass technology offers a new level of control and flexibility in this area.

## Temperature Regulation

Smart glass technology can also be used to regulate indoor temperatures, reducing the need for heating and cooling systems. By switching to an opaque state during peak sunlight hours, smart glass can significantly reduce the amount of heat entering the building, leading to significant energy savings. Additionally, smart glass can be used to regulate indoor temperatures by adjusting the amount of natural light that enters the building. This feature is particularly useful in areas with extreme temperatures, where maintaining a comfortable indoor environment can be challenging.



○ By switching to an opaque state during peak sunlight hours, **smart glass can significantly reduce the amount of heat entering the building, leading to significant energy savings.**

## Future of Smart Glass Technology

As the demand for sustainable and energy-efficient buildings continues to grow, smart glass technology is expected to play an increasingly important role in building design. The integration of smart glass technology into façade systems offers numerous benefits, including energy efficiency, privacy control, daylight harvesting, and temperature regulation. Smart glass technology is paving the way for sustainable and intelligent buildings, promoting energy savings and enhancing occupant comfort. With the ability to adapt and transform the visual and thermal properties of windows, this advanced technology is revolutionizing the future of architecture.



Smart glass technology is revolutionizing façade design and energy efficiency in buildings. The integration of smart glass technology into building design offers numerous benefits, including energy efficiency, privacy control, daylight harvesting, and temperature regulation. Smart glass technology is paving the way for sustainable and intelligent buildings, promoting energy savings and enhancing occupant comfort. As the demand for sustainable and energy-efficient buildings continues to grow, smart glass technology is expected to play an increasingly important role in building design.



# Hamptons Coastal Charm

Certain residential styles have an enduring charm, transcending the ebb and flow of short-lived design trends. Among these classics, the Hamptons Coastal look stands tall, capturing the essence of laid-back seaside living.

When it comes to Hamptons Coastal living, nothing beats the crisp, clean and timeless appeal of Weathertex weatherboards. These weatherboards can be paired with Weathertex Classic Shingles Plus on gables to provide the perfect design choice for a coastal-inspired design. Weathertex smooth textured weatherboard profiles from the Primelok, Classic and Selflok ranges create a defined, sharp horizontal shadow line that's both striking and characteristic of Hamptons style.

A key element of the Hamptons Coastal look is a neutral colour palette. Whites, creams and light greys dominate the cladding, providing a serene backdrop that mirrors the sandy beaches and dunes of the Hamptons. White trims and edges add a touch of crispness to the design, reminiscent of the coastal villas that dot the Hamptons coastline.

No Hamptons Coastal design is complete without the iconic columns, fretwork and gables adorned with shingles. Weathertex's Classic Shingles Plus, available in both smooth and natural textures, perfectly complement the coastal look.

Whether the home is perched seaside or nestled inland, these shingles add character, depth and that touch of vintage charm that defines the Hamptons aesthetic.

Hamptons Coastal design isn't just for the exterior. Cladding profiles also offer versatile internal lining solutions for walls and ceilings, creating an extra layer of texture and definition within your coastal themed spaces. By bringing the outdoors in, it allows your interiors to reflect the same coastal charm that defines the exterior of your home.



○ Hamptons Coastal design isn't just for the exterior. Cladding profiles also offer versatile internal lining solutions for **walls and ceilings, creating an extra layer of texture and definition within your coastal themed spaces.**

The Hamptons Coastal look is not just a design style; it's a lifestyle. It's about embracing the relaxed elegance of coastal living while maintaining a timeless and refined aesthetic.

With Weathertex, you can achieve this look effortlessly. Whether you're building by the beach or infusing a touch of coastal living into your suburban retreat, the Hamptons Coastal charm is always in style.



# RETROFITTING Historic Buildings WITH MODERN TECHNOLOGIES



## Balancing preservation with innovation in historic building renovations

Retrofitting historic buildings with modern technologies presents a unique set of challenges and opportunities, as it involves balancing the preservation of historical significance with the integration of innovative and sustainable solutions. The process of modernizing historic structures requires a careful approach to ensure that the original architectural integrity is maintained while enhancing energy efficiency and functionality. This article delves into the transformative power of retrofitting, explores its advantages, and highlights key takeaways.

### Preserving Historical Significance

Historic buildings stand as a testament to our heritage, reflecting the architectural styles, craftsmanship, and cultural values of bygone eras. Preserving their historical significance doesn't mean freezing them in time, but rather finding a balance between conservation and modernization. Retrofitting historic buildings with modern technologies allows these structures to adapt to contemporary needs while retaining their unique character and charm.

### Challenges of Sustainable Retrofits

Retrofitting historic buildings with modern technologies poses several unique challenges. Preservation of historical features, compatibility with modern technologies, regulatory constraints, and budgetary limitations are among the key considerations. Integrating advanced energy-saving systems without compromising the integrity and aesthetic appeal of historic structures requires a meticulous approach. Additionally, strict regulations and budgetary constraints often necessitate careful navigation and resource management to ensure compliance and successful implementation.

## Energy Efficiency and Sustainability

Transforming historic buildings into energy-efficient spaces involves overcoming various challenges while preserving their historical significance. These structures are known for their stunning architecture and rich cultural heritage, but they tend to be energy-inefficient due to outdated construction practices and materials. Retrofitting them with sustainable technologies can be a complex task, as it requires a careful balance between preservation and modernization. However, the benefits of energy-efficient retrofits are significant, including reduced operational costs, environmental impact, and inspiration for future sustainable designs.

## Lessons Learned and Key Takeaways

Lessons learned from retrofitting historic buildings for energy efficiency are invaluable for architects, conservationists, and building owners. Despite the challenges posed by the age and design of historic structures, successful integration of energy-efficient systems showcases the compatibility of preservation with sustainable practices. By embracing innovative technologies and respecting historical integrity, valuable lessons can be learned, and a greener, more energy-efficient future can be created.



Retrofitting historic buildings with modern technologies is a delicate and challenging task, but it offers immense potential for preserving historical significance while enhancing energy efficiency and sustainability. By carefully navigating the unique challenges and opportunities presented by historic structures, architects and building owners can revitalize our heritage, reduce environmental impact, and inspire future sustainable designs. The transformative power of retrofitting lies in its ability to respect the past while embracing the future, allowing historic architecture to shine once again in a more energy-efficient and sustainable light.





Designer: Cam Raymond

# Architectural Solutions

FOR EXTREME WEATHER RESILIENCE

Designer: Joel Etherington



## Designing buildings to withstand extreme weather conditions in Australia

As extreme weather events become more frequent and severe in Australia, designing buildings that can withstand these conditions is becoming increasingly important. Retrofitting existing buildings with modern technologies and designing new buildings with extreme weather resilience in mind are two approaches that can help address this challenge. This article explores the latest architectural solutions for extreme weather resilience in Australia.

## Building Regulations and Standards

Building regulations and standards play a crucial role in ensuring that buildings are designed to withstand extreme weather conditions. For example, the Northern Territory has cyclone building regulations that require buildings to be designed to withstand wind speeds of up to 280 km/h. Similarly, the Australian Standard Bushfire Attack Level (BAL) ratings aim to ensure that buildings in bushfire-prone areas are designed to withstand bushfires. These regulations and standards address human safety primarily via building structural resilience, with additional consideration of emergency management.

## Retrofitting Existing Buildings

Retrofitting existing buildings with modern technologies can help improve their resilience to extreme weather conditions. For example, installing impact-resistant windows and doors, reinforcing roofs and walls, and upgrading insulation can help buildings withstand high winds, heavy rain, and extreme temperatures. Additionally, incorporating passive design techniques, such as shading and natural ventilation, can help reduce the need for energy-intensive heating and cooling systems, making buildings more resilient to power outages and energy supply disruptions.

## Designing New Buildings

Designing new buildings with extreme weather resilience in mind is another approach to addressing this challenge. This involves incorporating features such as reinforced concrete walls, impact-resistant windows and doors, and roofing systems that can withstand high winds and heavy rain. Additionally, designing buildings with passive design techniques, such as natural ventilation and shading, can help reduce the need for energy-intensive heating and cooling systems, making buildings more resilient to power outages and energy supply disruptions.





## Case Studies

Several case studies demonstrate the effectiveness of architectural solutions for extreme weather resilience in Australia. For example, the FORTIS House design is a highly resilient house design that is adaptable to bushfire, flood, and cyclone-prone areas. The design incorporates features such as reinforced concrete walls, impact-resistant windows and doors, and roofing systems that can withstand high winds and heavy rain. Additionally, the design incorporates passive design techniques, such as natural ventilation and shading, to reduce the need for energy-intensive heating and cooling systems.

○ Designing buildings with passive design techniques, such as natural ventilation and shading, **can help reduce the need for energy-intensive heating and cooling systems.**

Designing buildings that can withstand extreme weather conditions is becoming increasingly important in Australia. Retrofitting existing buildings with modern technologies and designing new buildings with extreme weather resilience in mind are two approaches that can help address this challenge. Building regulations and standards play a crucial role in ensuring that buildings are designed to withstand extreme weather conditions. Incorporating features such as reinforced concrete walls, impact-resistant windows and doors, and roofing systems that can withstand high winds and heavy rain, as well as passive design techniques, such as natural ventilation and shading, can help reduce the need for energy-intensive heating and cooling systems, making buildings more resilient to power outages and energy supply disruptions. By embracing innovative technologies and respecting historical integrity, valuable lessons can be learned, and a greener, more energy-efficient future can be created.

JAMES HARDIE UNVEILS

# Modern Homes Forecast 2024:

A COMPREHENSIVE STUDY OF  
CONTEMPORARY LIVING IN AUSTRALIA



James Hardie, the #1 cladding brand in Australia, announces the release of its first annual research initiative, the Modern Homes Forecast 2024. This forecast represents a significant milestone in the company's ongoing commitment to understanding the lifestyles of Australians and how their products can revolutionise the design and construction of modern homes that cater to their evolving needs.

Combining desktop research, cutting-edge AI technology, and expert interviews with architects, designers, and key industry journalists, James Hardie undertook a significant study of the trajectory of modern home design in Australia, conducted by research experts Fiftyfive5. This analysis led to the identification of seven distinct Modern Home styles that are shaping the contemporary housing landscape now and into the future.

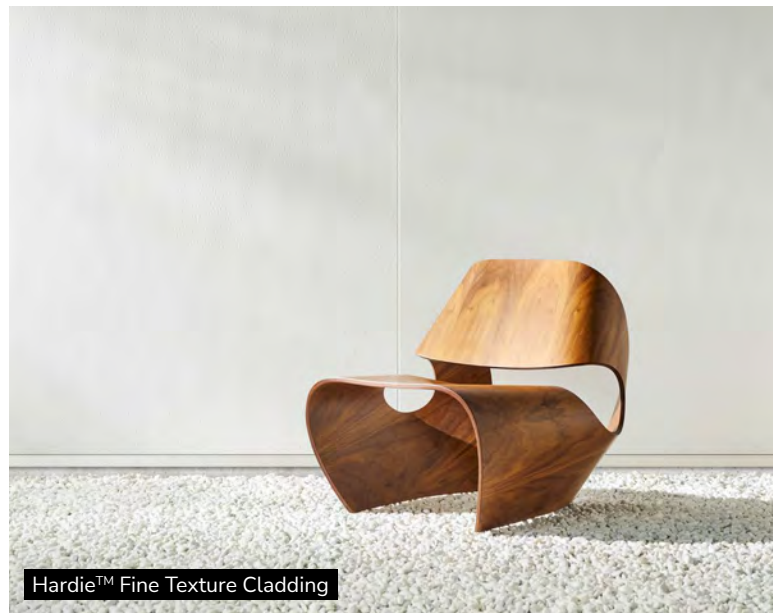
Research on architectural features and exterior and interior design trends was gathered from thousands of individual sources, including more than 28,340 posts from over 200 of the world's most renowned designers and influencers. This was analysed alongside more than three million search terms.

## What they found:

In examining the housing design landscape, it was necessary to first understand the external drivers of change — the global and local forces that influence the way we want to live, and therefore the direction of residential design.

On a local scale, Australia experienced a profound shift in family dynamics and living arrangements. Couples without children are projected to become the most common family type over the next five years. Moreover, the cost of living and differing cultural influences have prompted people to embrace multigenerational living, with 20 per cent of Australians now residing in multigenerational households.

Regional migration in Australia has increased by 16 per cent from pre-COVID levels, accompanied by a growing dissatisfaction with city living, which rose from 10 per cent in 2020 to 14 per cent in 2023. This migration trend suggests a re-evaluation of lifestyle preferences and a potential resurgence in regional housing demand.



Hardie™ Fine Texture Cladding

○ Despite a push back to the office, over  
 ● 53 percent of Australians are currently working from home, **prioritising and upgrading home offices to meet evolving work-from-home needs.**

Despite a push back to the office, over 53 percent of Australians are currently working from home, prioritising and upgrading home offices to meet evolving work-from-home needs. This trend reflects the changing dynamics of work and lifestyle choices in response to economic and cultural shifts.

The advent of the digitally native consumer has fostered an explosion of design trends and technology that help create their dream home. This technological landscape will see users demanding higher quality products and more choice and flexibility, driving innovation and customisation in housing design.



Hardie™ Oblique™ Cladding, Axon™ Cladding and Hardie™ Fine Texture Cladding

Climate change concerns see us reconnecting with nature while also needing more resilient buildings. The 2022 National Construction Code (NCC) requires all new Australian houses and apartments to meet an increased minimum energy efficiency rating of 7 stars under the Nationwide House Energy Rating Scheme (NatHERS) or BASIX in New South Wales.

There has been a notable shift towards an experience-driven economy, with many financially prioritising travel and hobbies. This thirst for new experiences, contrasted by economic pressures forcing individuals to spend more time at home, is shaping how homes are designed and utilised.

Amidst these shifts, there's renewed support for local manufacturing, driven by tightening regulations on construction standards. This resurgence emphasises sustainability, quality, and the importance of local economies in shaping housing design practices.





Hardie™ Brushed Concrete Cladding and Axon™ Cladding - Mid-Century Modern

Adapting to these influences will be crucial for architects, designers, and homeowners alike as they navigate the evolving landscape of contemporary living. The Modern Homes Forecast 2024 reveals seven enduring, popular and emerging Modern Home styles tailored to the unique geographic and cultural contexts of Australia:

- Modern Farmhouse:**  
 Seamlessly blending traditional and contemporary elements, the Modern Farmhouse satisfies the desire for modern functionality while embracing the comfort of traditional design and craftsmanship. Neutral colour palettes, open-plan living, and the distinctive touch of black windows define this style, adding a striking contrast and a modern architectural flair to the timeless charm of the farmhouse aesthetic.
- Box Modern:**  
 The Box Modern style is characterised by large blocks or cube-shaped volumes that are stacked, intersecting, or arranged to form compelling, contemporary residences. It features large blocks or cube-shaped volumes that are stacked, intersecting or arranged to form residences.
- Modern Heritage:**  
 Elevating traditional homes through sensitive restoration, bold renovation, and modern extensions, Modern Heritage balances old and new with streamlined, minimalist contrasts. This style embraces the junction of heritage and contemporary features, creating homes of timeless elegance while seamlessly integrating modern extensions to enhance functionality and style.
- Mid-Century Modern:**  
 Juxtaposing clean, geometric lines with organic shapes and bright accent colours, Mid-Century Modern homes evoke light-heartedness and optimism. Practicality and purpose define this style, which updates nostalgic elements with modernist sensibilities.
- Japandi:**  
 Combining Scandinavian functionality with Japanese minimalism, Japandi creates spaces that are minimal yet warm. Natural materials, neutral colours, and indoor/outdoor living characterise this style, promoting a deep connection to nature.
- Barn:**  
 Inspired by Nordic minimalism and a connection with nature, the Barn style emphasises clean lines and craftsmanship. Pitched roof, open-plan living, and a dedication to natural materials define this style, creating homes of serenity and beauty.
- Modern Coastal:**  
 A contemporary take on traditional coastal design, Modern Coastal homes blur the lines between indoor and outdoor living. Crisp white weatherboards, wide stacking doors, and clerestory windows define this style, offering laid-back luxury inspired by Australia's beach shack history.

To help homeowners articulate exactly what they want and support trade professionals to deliver their clients' dream modern homes, James Hardie has produced Design Handbooks, offering comprehensive insights into each of the seven design concepts. These Handbooks showcase design features, material textures, colour palettes, and Hardie™ exterior cladding solutions, empowering homeowners and trade professionals to bring their vision to life.

Together, the James Hardie Modern Homes Forecast and Design Handbooks will show you that with great advice, support and inspiration, it's possible to build a house you're truly proud to come home to.



Neale Whitaker

James Hardie has curated a lineup of leading design professionals, matched perfectly to each home style, to offer their expertise and insights. These collaborations ensure that homeowners and trade professionals can seamlessly navigate the process of designing and building their dream modern homes.

Design expert, Neale Whitaker has partnered with James Hardie on the Modern Homes Forecast 2024. Neal explains "I am thrilled to be part of the Modern Homes Forecast 2024 as it represents a forward-thinking exploration of contemporary living. James Hardie's dedication to understanding and shaping the future of how Australia builds, aligns perfectly with my passion for innovative design. Together, we are poised to inspire homeowners and industry professionals alike, fostering a new era of creative possibilities in modern living."

### About James Hardie:

James Hardie Industries is the world's #1 producer and marketer of high-performance fibre cement and a market leader in Europe for fibre gypsum building solutions. The company empowers homeowners and building professionals alike to achieve the home of their dreams with premium quality solutions that enable endless possibilities for design and aesthetics, while also delivering trusted protection and long-lasting beauty. For more information about James Hardie, visit [www.jameshardie.com.au](http://www.jameshardie.com.au).

  @jameshardieau

Learn more about the James Hardie Modern Homes Forecast 2024

Access the Modern Farmhouse Design Handbook and technical information

LEARN MORE ABOUT THE

# Seven Modern Homes

## Modern Farmhouse

The Modern Farmhouse style of architecture seamlessly blends traditional and contemporary elements, resulting in a home that is the perfect combination of old and new. This style satisfies the desire for both modern functionality and the comfort of traditional design and craftsmanship, with the clean lines and minimalist aesthetic creating a bridge between past and present. The Modern Farmhouse beautifully caters to old and new sensibilities. The cohesive, resolved design aesthetic relies on balance and symmetry, use of natural materials, neutral colour palette and contemporary open plan living.



Hardie™ Oblique™ Cladding, Axon™ Cladding and  
Hardie™ Fine Texture Cladding - Modern Farmhouse



Hardie™ Oblique™ Cladding

## Design Features:

- Farmhouse-inspired architecture:**  
 The style is a contemporary expression of classical farmhouse architecture, combining multiple, interconnecting pavilions with the classic farmhouse gabled roof. It can also feature board and batten cladding for a perfect balance of old and new.
- Contrasting materials:**  
 Natural-look materials on the façade, such as vertical joint cladding, are contrasted with black or metallic accents, such as window frames or lights, which add definition and sophistication.
- Neutral colour palette:**  
 Neutral colours like beige, grey and white allow for the materials and textures to be the focus and create an atmosphere of calm and serenity.
- Paned windows:**  
 Large, square or rectangular paned windows create a warm and inviting ambiance. Signature black window frames add a sleek element to the traditional farmhouse aesthetic.
- Interiors:**  
 Go classic or modern in your selections, choosing well proportioned, super-comfy pieces in neutral tones. Consider adding accents of black or metallic fixtures to bring the textural, monochromatic and minimal aesthetic to life.

## Recommended products:

- Hardie™ Oblique™ Cladding:**  
 The unique straight and bevelled groove edges evoke standing seam metal cladding, putting an Australian 'shed' twist on the farmhouse look.
- Hardie™ Fine Texture Cladding:**  
 The subtle fine render texture allows bold cladding or other exterior features like large paned windows to stand out.
- Hardie™ Brushed Concrete Cladding:**  
 The flowing lines provide a clean and uncluttered look with a tactile finish that evokes the warmth of farmhouse architecture.
- Axon™ Cladding:**  
 The narrow 133mm groove spacing creates a highly detailed aesthetic, adding a craftsmanship feel to the facade.
- Hardie™ Axent™ Trim**  
 Used to create the board and batten aesthetic in combination with Hardie™ Fine Texture Cladding or Hardie™ Brushed Concrete Cladding

James Hardie has created a series of seven Design Handbooks in collaboration with leading design professionals, whose aesthetic is perfectly matched to each style. These handbooks have been created to save homeowners and trade professionals time and take the stress out of decision-making in their achieving dream home vision. Our design experts will show you how to bring each modern home style to life with inspiring imagery, detailed design features, materials, textures, colour palettes, and Hardie™ exterior cladding solutions. Download the Modern Farmhouse Design Handbook and technical information.





Linea™ Weatherboard - Modern Coastal

## Modern Coastal

The Modern Coastal look is a contemporary take on traditional coastal design, inspired by Australia's beach shack history but modernised with an injection of sleek minimalism. Modern coastal homes are defined by spaces that lend themselves to a laid-back, luxurious lifestyle where the lines between indoor and outdoor are blurred. Crisp white weatherboards, wide stacking doors and clerestory windows are typical in modern coastal design.

## Recommended products

- **Linea™ Weatherboard:**  
The strong shadow lines of this weatherboard nod to a traditional beach house or Queenslander style with a modern twist. Using with Linea™ Aluminium Corner Soakers differentiates from a more traditional Hamptons look which has trim covering the corners.
- **Hardie™ Brushed Concrete Cladding:**  
The flowing lines are ideal for creating modern coastal facades with a finish that's visually sophisticated and dynamic.
- **Axon™ Cladding:**  
The shallow and narrow grooves with slanted edges offer the fine detail of a vertical joint timber without the hassles of timber.



## Barn

The Barn style takes its inspiration from Nordic minimalism, boasting warmth, craftsmanship of natural materials and an affinity with nature. The versatile design elements of the Barn style underscore the strong relationship between the structure and its surrounds. Barn homes draw inspiration from the Danish philosophy of 'hygge', of the value of creating beautiful environments that promote feelings of contentment and wellbeing, of welcoming fireplaces, soft lighting and serenity. Barn homes also boast vaulted ceilings, open plan living spaces and dedication to beautiful, clean lines in every aspect of design, inside and out.

### Recommended products

- **Hardie™ Oblique™ Cladding:**  
The wide grooves and design flexibility of board widths delivers drama and visual interest to barn facades.
- **Stria™ Cladding:**  
The distinctive deep grooved lines and can be laid horizontally or vertically for an eye-catching effect to complement strong barn shapes.
- **Axon™ Cladding:**  
The clean vertical lines offer the fine detail of a vertical joint timber, providing an artisanal look and feel.
- **Linea™ Weatherboard:**  
The clean horizontal lines enhance the expansive external walls of barn-style architecture.



Matrix™ Cladding, Stria™ Cladding and Hardie™ Fine Texture Cladding - Box Modern

## Box Modern

The Box Modern style is characterised by large blocks or cube-shaped volumes that are stacked, intersecting, or arranged to form compelling, contemporary residences. It features large blocks or cube-shaped volumes that are stacked, intersecting or arranged to form residences.

### Recommended products

- **Hardie™ Fine Texture Cladding:**  
The texture reminiscent of fine render puts focus on the building's form and distinguishes the box shapes.
- **Hardie™ Brushed Concrete Cladding:**  
The texture of the panels transforms with light and proximity, creating a smooth, contemporary appearance from a distance, but unexpectedly tactile up close.
- **Matrix™ Cladding:**  
With an ultra-modern, expressed joint appearance, Matrix™ Cladding offers a bold industrial aesthetic where an architectural panelised look is desired.
- **Stria™ Cladding:**  
The deep, 15mm-wide grooves create strong, sleek lines ideal for contemporary designs that require a bold but pared-back aesthetic.



Hardie™ Brushed Concrete Cladding and Axon™ Cladding - Mid-Century Modern

## Mid-Century Modern

The Mid-Century Modern home juxtaposes clean, geometric lines with organic shapes and bright accent colours, evoking a sense of light-heartedness and optimism. Mid-Century Modern first garnered popularity in the 1950s as the 'architecture of ideas' and is now seeing a huge resurgence with the updating of nostalgic styles to incorporate modernist sensibilities. Known for its "form follows function" approach to design, the style prioritises practicality and purpose.

## Recommended products

- Hardie™ Fine Texture Cladding:**  
 The texture reminiscent of fine render puts focus on the building's form and distinguishes the box shapes.
- Hardie™ Brushed Concrete Cladding:**  
 With the embedded swept texture reminiscent of softly brushed concrete, these panels are ideal for creating modern minimalist facades with tactility.
- Axon™ Cladding:**  
 Ideal in either 133mm or 400mm groove spacing options, these vertical groove panels pay tribute to the wood panelling trend of the 1970's.

## Japandi

Japandi is a hybrid architectural style combining Scandinavian functionality with Japanese rustic minimalism to simple and elegant effect. The Japandi home is a place where the philosophies of Japanese 'wabi-sabi' (wisdom in natural simplicity) and Scandinavian 'hygge' (cosiness and comfort) come together in an aesthetic that is minimal yet warm. Houses favour natural materials, neutral colours and simple layouts with an emphasis on indoor/outdoor living and deep connection to nature.

### Recommended products

- **Hardie™ Fine Texture Cladding:**  
Perfect for creating a Japandi twist on the board and batten look, the embedded sand-like texture provides a fine matte finish against smooth Hardie™ Axent Trim battens. The 1200mm panel length makes it easy to adopt consistent yet unique spacings to apply the battens, typically at 300mm or 400mm.
- **Hardie™ Brushed Concrete Cladding:**  
The gentle flowing lines evoke a simple yet dynamic and look perfect for Japandi homes. Also available in 1200mm panel length, it can be used for a more tactile board and batten look with Hardie™ Axent Trim battens.
- **Axon™ Cladding:**  
The sleek vertical lines evoke the fine detail of a vertical joint timber, providing a distinct Japandi look.





## Modern Heritage

The Modern Heritage style elevates traditional homes through sensitive restoration and bold renovation. Modern Heritage is defined by streamlined and linear new additions to a character home and seeks to balance the old and new with considered intent. Restrained, minimalist contrast is a signature of Modern Heritage, that cleverly connects the heritage and contemporary features of the house, both in the junctions of building elements and in the use of colour.

### Recommended products

- Hardie™ Oblique™ Cladding:**  
 The unique square and angled edges evoke a bold, contemporary aesthetic which juxtaposes perfectly against heritage facades.
- Hardie™ Fine Texture Cladding:**  
 The subtle sand-like texture and fine matte finish allows distinct architectural and heritage features to stand out.
- Hardie™ Brushed Concrete Cladding:**  
 The embedded textured finish gives renovations and extensions a modern, minimalist aesthetic to delicately contrast the heritage building.

- Axon™ Cladding:**

The panels reflect the beauty and timeless detail of painted vertical joint timber, but without time-consuming board construction or durability hassles.



Explore The Seven  
Home Styles

# Build your modern life

Discover how the #1 cladding brand in Australia can help you build your dream modern home.

The James Hardie Modern Homes Forecast 2024 is our first annual research report discovering popular and emerging contemporary home styles. Whether you are planning an extension, renovation, restoration or new build, this forecast will be an invaluable tool on your journey.

The grand Modern Farmhouse is one our seven emerging home styles, a seamless balance of traditional design and contemporary elements, references classic architecture with a focus on clean lines and open spaces. This style satisfies the desire for both modern functionality and the comfort of traditional design and craftsmanship.

To learn more about the trajectory of home design in Australia, download the Forecast at the QR code below.

It's time to build your modern life.



Scan to read the James Hardie Modern Homes Forecast 2024.

**It's Possible™ with James Hardie**

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# INNOVATIONS IN Sustainable Roofing MATERIALS AND DESIGNS

## Trends in roofing materials and designs that are both aesthetically pleasing and environmentally sustainable

Innovations in sustainable roofing materials and designs are becoming increasingly important in Australia as the country faces more frequent and severe weather events. The roofing industry is evolving rapidly, with new trends and technologies emerging to address the need for environmentally sustainable and aesthetically pleasing roofing solutions. This article explores the latest trends in roofing materials and designs that are both aesthetically pleasing and environmentally sustainable.

### Sustainable Roofing Materials

Sustainable roofing materials are gaining traction in the roofing industry as environmental concerns become more prevalent. Recycled rubber, recycled plastic, bamboo, and cork are among the most popular sustainable roofing materials, as they are environmentally friendly, long-lasting, and require minimal maintenance. These materials are also energy-efficient, reducing the need for energy-intensive heating and cooling systems.

### Solar Roofs

Solar roofs are another trend in sustainable roofing materials. Solar shingles, for instance, not only protect the property but also generate clean energy, reducing the carbon footprint. Solar roofs are becoming increasingly popular in Australia, as the country has abundant sunshine and a growing interest in renewable energy sources.





Designer: Hugo Grozdanovic

## Cool Roofs

Cool roofs are designed to reflect more sunlight and absorb less heat, making them energy-efficient choices. These roofs are particularly useful in areas with hot climates, as they can reduce the need for energy-intensive cooling systems. Cool roofs are becoming increasingly popular in Australia, as the country experiences more frequent and severe heatwaves.

## Green and Living Roofs

Green and living roofs are roofs covered with vegetation and soil, which act as insulation, reducing energy consumption, and improving air quality. These roofs are particularly useful in urban areas, where green space is limited. Green and living roofs are becoming increasingly popular in Australia, as the country faces more frequent and severe heatwaves and urbanization.

## Advanced Roofing Technology

Advanced roofing technology is another trend in the roofing industry. Augmented reality, for instance, can assist in visualizing how a particular roofing style would look on a building. Additionally, smart roofing technology can monitor the condition of the roof and alert building owners to potential issues. These technologies are becoming increasingly popular in Australia, as they offer a new level of control and flexibility in roofing design and maintenance.

## Improved Insulation and Energy Efficiency

Improved insulation and energy efficiency are essential aspects of sustainable roofing design. The future will see roofing materials designed to offer superior insulation, ensuring homes remain warm in winters and cool in summers. This advancement will further enhance a building's energy efficiency, resulting in significant savings.



## Customization and Aesthetics

Roofing design is becoming more personalized, catering to individual preferences. Whether it's unique color choices, patterns, or materials, future roofs will be as much about function as they are about form. Lightweight roofing materials are also becoming increasingly popular, allowing for more architectural creativity and structural integrity.

The roofing industry is evolving rapidly, with new trends and technologies emerging to address the need for environmentally sustainable and aesthetically pleasing roofing solutions. Sustainable roofing materials, solar roofs, cool roofs, green and living roofs, advanced roofing technology, improved insulation and energy efficiency, customization, and aesthetics are among the latest trends in roofing materials and designs. By embracing innovative technologies and respecting environmental concerns, valuable lessons can be learned, and a greener, more energy-efficient future can be created.

○ Improved  
● insulation and energy efficiency  
are essential aspects of sustainable roofing design.

ADAPTIVE REUSE OF  
INDUSTRIAL SPACES FOR

# Residential Living

# Transforming industrial spaces into livable homes with a focus on design and sustainability

The adaptive reuse of industrial spaces for residential living is a growing trend in Australia, as developers and building owners seek to transform obsolete industrial buildings into livable homes. This approach to real estate is not only a boon to modern green it can be a solution for developers and building owners who are seeking a specific location or use. Adaptive reuse of industrial spaces for residential living is a sustainable and cost-effective solution that offers a unique blend of historical charm and modern amenities. This article explores the latest trends in adaptive reuse of industrial spaces for residential living, with a focus on design and sustainability.



## Conversion and Adaptive Reuse

Conversion of industrial buildings through adaptive reuse into residential ones could solve the problem of both obsolete and housing shortage markets. Adaptive reuse is a common approach to real estate that is not only a boon to modern green but can also be a solution for developers and building owners who are seeking a specific location or use. Many cities in Australia have buildings that remain from now-extinct industries, and with a little imagination and a good dose of planning and research, these buildings can be redeveloped into spaces for entirely new uses.

## Creative Ways to Consider Reusing Existing Industrial Properties

Garages can be converted into music halls, bars, or retail space. Warehouses can house commercial kitchens to support local food trucks, segmented artist studios, or start-up office space for entrepreneurs. Industrial properties with high ceilings and abundant natural light can be converted into lofts that can serve as live-work spaces. Factories can be converted into production or testing facilities for a range of technology or high-end digital printers. These are just a few examples of the creative ways to consider reusing existing industrial properties.

## Designing for Sustainability

Designing for sustainability is an essential aspect of adaptive reuse of industrial spaces for residential living. The use of sustainable materials, energy-efficient systems, and passive design techniques can help reduce the environmental impact of these buildings while enhancing their livability and functionality. Additionally, incorporating green spaces, such as rooftop gardens and communal outdoor areas, can help improve air quality and promote a sense of community among residents.

## Case Studies

Several case studies demonstrate the effectiveness of adaptive reuse of industrial spaces for residential living in Australia. For example, the Warehouse Artist Lofts (WAL) in Sacramento is an affordable mixed-use, mixed-income residential building that was converted from an old warehouse. The building features high ceilings, large windows, and open floor plans, creating a unique blend of historical charm and modern amenities. Additionally, the building incorporates sustainable features, such as energy-efficient lighting and appliances, low-flow plumbing fixtures, and a rooftop garden.

The adaptive reuse of industrial spaces for residential living is a growing trend in Australia, offering a sustainable and cost-effective solution to the problem of obsolete and housing shortage markets. Conversion of industrial buildings through adaptive reuse into residential ones could solve the problem of both obsolete and housing shortage markets. With a little imagination and a good dose of planning and research, existing industrial properties can be redeveloped into spaces for entirely new uses. Designing for sustainability is an essential aspect of adaptive reuse of industrial spaces for residential living, incorporating sustainable materials, energy-efficient systems, and passive design techniques. By embracing innovative technologies and respecting historical integrity, valuable lessons can be learned, and a greener, more energy-efficient future can be created.

# Bucking Trends

CAUSING US PAIN AND SHAME



Architect Jerry Tyrrell\* sees an Industry suffering chronic pain, loss & shame. However, he wants this trend to change and envisions a bright future for those of us willing to 'own' the problems and not 'leaf' the solutions to the many Governments, Associations and other 'do nothing' accomplices who enable and maintain the mess our Industry is in.

The major trend in the Australian Construction Industry is one of unrealistically low margins and an overall poor reputation, underpinned by endless criticism and litigation about careless and sloppy work. I reckon this trend is self-inflicted. Other eras, and even some visionary, modern designers and builders have already shown how to build enduring beauty well. We just need to buck this miserable and unaffordable trend. And grow our businesses by learning without mistakes.

It is relentless ... like Covid without a vaccine. Or treating a

chronic leg ulcer without penicillin. Maybe these are poor examples, But at least our scientists analysed the core problems and came up with solutions that work.

And our post-war 'burbs' are ugly because of low quality buildings. You all know it. Drive through the endless streets of tired, tiled sameness. Unloved parks and public spaces. Nothing like the glorious Federation and Victorian streets in Sydney and Melbourne, that still look good and are easily updated. Or the 'magnetic' piazzas in Europe that pull a crowd, even after 600 plus years.



## So how do we fix the problems?

### 1 Trust in the enforcement of the law.

The Building Commissioner in NSW, is the first person in my 5 decades in building to actually turn up and enforce the laws and regulations the Government has legislated. Every State should follow the leadership of David Chandler.

### 2 Ban the word 'defect'.

This word should never exist in our business model. It is unaffordable. Why not replace 'defect' with the word 'quality', and explain how quality is achieved, using craft and pride. In fact, large Contractors like Taylor, Richard Crookes & Parkview are working with us to create an ecosystem of quality, where defects are largely eliminated through prevention.

# “Ban major ‘Defects’”

### 3 Recreate a Culture that Reveres Craft

Historically, every tradesperson applied age old craftsmanship for everything they did. Often, there were no published or written rules. Skill was simply the example and teaching of others – every moment of every day. Of course, common sense and respect for EVERYONE's work was taken for granted.



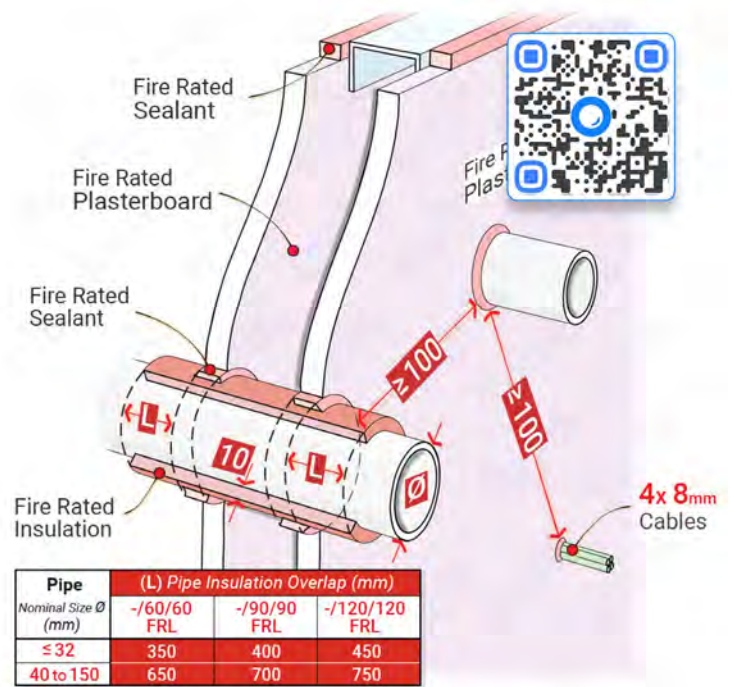
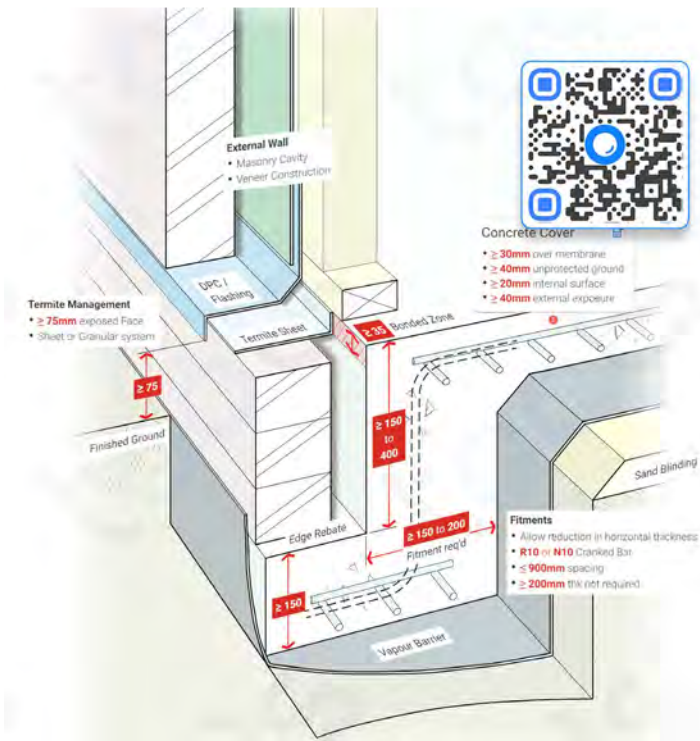
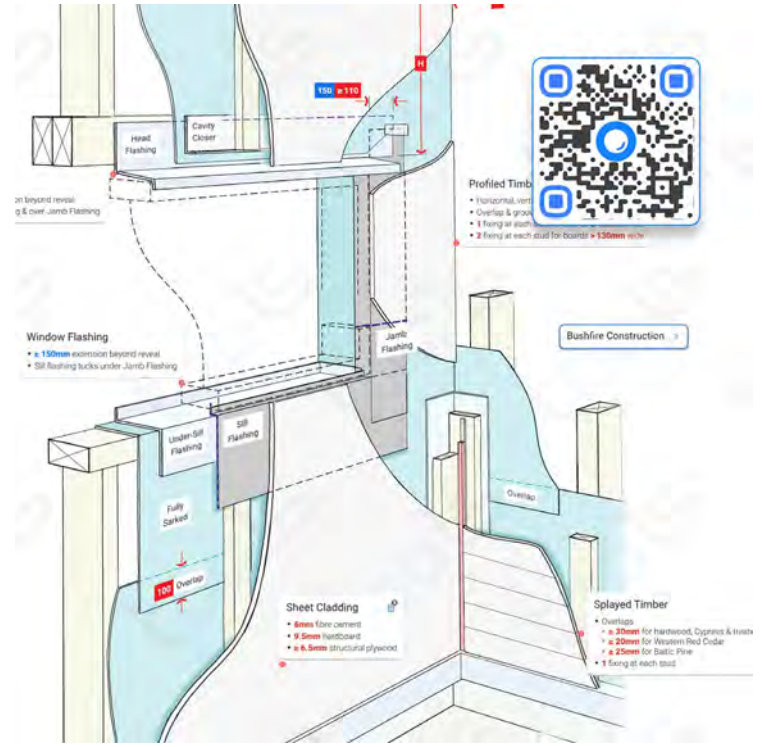
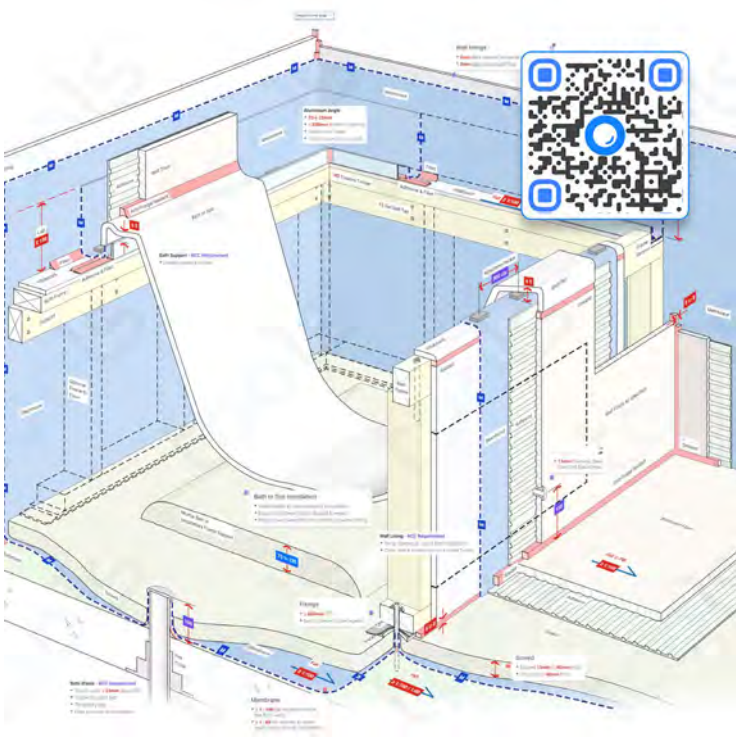
### 4 Restore Pride

I think every building we design and build is important. It is home, an office, a workplace or a landmark. Many designers and tradesmen are very proud of what they do. I would like pride to be like 'sunlight' .... always shining from the work and people who build well.

### 5 Liberate Knowledge

Knowledge is core to achieving quality. But it's unreasonably difficult to access, find and understand

knowledge, due to a confusing system of code publications. If someone doesn't know something, they need to know where to find it. This wisdom needs to be presented in a way that is easily understood. This trend should start with TAFE and Universities and continue into the workplace. Everyone in construction should have access to resources they easily understand, easily remember and can easily apply. Or if they cannot remember what they were taught, they should be able to find key knowledge INSTANTLY - 24 / 7.



## 6 Start creating Specifications that Contractors can use

The people doing our work need Specifications that contain information that explains the size, location and materials we have to use. However, they also need information about the craft of building so they can create mistake free work - no matter how complex it is. Even if they have never done this type of work before. The answer is making sure every Specification can be found digitally and contain the way to build anything complex.

**Begin these Trends TODAY!**

- Replace the thankless, unaffordable Defect culture with the Quality & Success culture
- quality is not only possible - it is cheaper, easier, faster and a lot more fun.
- every Designer, Certifier, Engineer, Tradesperson and Builder should be taught / be given reference to the 'craft' of building - we need the culture of defect free construction to again be part of our collective DNA
- Designers & Certifiers can teach & influence the Industry about this quality culture
- Specifications are findable and rich in the illustrations and tables to stop us making unintentional mistakes
- Builders, Tradesmen and Apprentices should deliver the quality we all want
- Owners should never face the unrecoverable losses of Defect Claims, latent defects and excessive maintenance.
- Major defects are no longer created and are therefore eliminated in every aspect of work under our watch
- Home or building warranty should no longer be required. And even if a Bond is initially needed, it is sooooo much cheaper for the builder and tradesperson to rush back and properly fix any reasonable post completion issue. And then everyone can learn from the wonderful service they give their Client.

**Build well!**

\*Jerry Tyrrell is the Creator of Tools™



**CHANGE TAKES TIME**

Often it takes a disaster for change to happen. Yep, at least 70% of work I see contains unintentional mistakes and faults - pain and shame no one wants. I HATE detecting, reporting, reinspecting, litigating these mistakes. Buck these trends. But as Ralph wisely says 'Don't leaf it to others!'



See BDAA Member Offer at [buildingtools.co/bdaa](http://buildingtools.co/bdaa)

USE AN ABSA ACCREDITED

# THERMAL PERFORMANCE ASSESSOR

and Energise Tomorrow Through Today's Sustainable Building Designs



## Why Choose an ABSA Accredited Thermal Performance Assessor

The Leader in the Energy Assessor Accreditation Industry since 2006, ABSA is a part of the BDAA which is a nationally based not-for-profit member organisation that provides information, accreditation, support and advocacy for professionals to promote and foster building sustainability in Australia.

As one of its functions, ABSA accredits HERS assessors (also called Residential Building Thermal Performance assessors) under the Federal Government's Nationwide House Energy Rating Scheme (NatHERS) protocols. ABSA aims to provide all its members with a high level of professionalism and support. Why do we count accreditation as one of our chief functions and missions? Because the Australian government cares about accreditation. Homeowners care about accreditation. And, above all, our assessors care about accreditation.

As of 11 November 2019 all NatHERS Accredited Assessors must hold a Certificate IV in Home Energy Efficiency and Sustainability (Thermal Performance Assessment) (CPP41119). As the nation and world have come to realise that sustainability and thermal conservation are essential to the survival of the built environment, both designers and homeowners are insisting on more sustainable, ecoefficient designs. In order to expedite the accreditation process, ABSA has set out the steps that will need to be fulfilled in order to gain accreditation.

ABSA Accredited Assessors are recognised as the best in the industry undertaking regular auditing and continuous formal and informal training ensuring that the ABSA accredited assessors are held in the highest regard.



Let's work together  
to sustain and  
energise the future!



Designer: Michael Tomlinson

EXPLORING THE POPULARITY OF

# Minimalist Design

IN AUSTRALIAN HOMES



## The growing appeal of minimalist architecture in the Australian residential market

Minimalist design has gained immense popularity in Australia, particularly in the residential market. This design style, characterized by its simplicity, functionality, and focus on essential elements, has become increasingly popular in contemporary beach houses and other residential spaces. The minimalist aesthetic has its roots in the 1960s and has since evolved into a mainstream philosophy, offering a unique blend of aesthetics and functionality. This article explores the growing appeal of minimalist design in Australian homes, focusing on its design elements and sustainability aspects.

### Design Elements

Minimalist design is defined by its essentialist approach to decor, which is free from excessive or superfluous ornamentation. Key design elements of minimalist homes include:

- 1 Simplicity:** Minimalist design emphasizes simplicity, focusing on a few high-quality pieces that blend form and function.
- 2 Natural Materials:** Natural material palettes, such as raw timber, concrete, stone, and terracotta, are popular in minimalist homes.
- 3 Statement Pieces:** Minimalist homes often incorporate statement pieces or abstract art to add interest and provide a focal point within a space.
- 4 Clean Lines:** Minimalist design is characterized by clean lines and a lack of clutter, creating a sense of calm and order.



Designer: Melanie Symington



## Sustainability

Minimalist design is not only aesthetically pleasing but also environmentally sustainable. Key sustainability aspects of minimalist homes include:

- 1 Energy Efficiency:** Minimalist homes often incorporate energy-efficient systems, such as solar panels and renewable energy sources, to reduce their environmental impact.
- 2 Space Optimization:** Minimalist design encourages the use of space-saving furniture and storage solutions, reducing the need for excessive resources.
- 3 Customization:** Many people are choosing to customize their minimalist homes to suit their individual needs and preferences, promoting a more sustainable and personalized living experience.

## Tiny Houses

Tiny houses, a subcategory of minimalist design, are becoming increasingly popular in Australia. These small, compact homes offer an affordable, sustainable, and minimalist way of living, with many owners exploring off-grid living and community living. Tiny houses require significant downsizing of possessions and a focus on essential elements, making them an attractive option for those seeking a more sustainable and minimalist lifestyle.

The popularity of minimalist design in Australian homes is a testament to its enduring appeal and versatility. Minimalist design offers a unique blend of aesthetics and functionality, while also promoting sustainability and environmental consciousness. As the trend continues to grow, minimalist design is likely to remain a popular choice for those seeking a more sustainable and personalized living experience.





# The Natural Touch

More than ever before, the allure of nature has never been stronger. The desire to connect with the outdoors, to blend seamlessly with natural surroundings, is a trend that has captured the imagination of specifiers, builders, and homeowners alike. And at the forefront of this trend stands the Weathertex Natural Range.

The Natural Range is made from 97% timber fibre and 3% paraffin wax, nothing else, and is a testament to the beauty and versatility of nature. Available in a variety of profiles, including weatherboards, architectural panels and shingles, Weathertex Natural provides the authentic look of raw undressed timber.

What sets the Natural Range apart are its remarkable environmental credentials. Weathertex Natural was the first manufactured product in the world to receive the prestigious Platinum certification by Global GreenTag. This acknowledgment underscores the range's commitment to sustainability and responsible resourcing.

One of the standout features of Weathertex Natural is its unrivalled durability, including high termite resistance. Additionally, Weathertex Natural is the only timber cladding product on the market that boasts a 10-year warranty against splitting, cracking or rotting. This means that your investment in the Natural Range is one that's designed to stand the test of time.



The beauty of the Weathertex Natural Range is that it's not just a cladding solution; it's a canvas for your design dreams. This range is the ideal choice when you want to blend your design creation seamlessly into the natural environment. Its versatility allows it to be used as a standalone cladding or in harmony with other Weathertex profiles and building materials.

One of the unique qualities of the Natural Range is its ability to weather naturally if left unsealed. Alternatively, if you're feeling creative, you can choose to stain it in a dark or lighter colour palette.

The Weathertex Natural Range doesn't just benefit design enthusiasts; it's also a practical choice. Installation is quick and straightforward, reducing both labour costs and construction timelines, when compared to most traditional timber options. Our Natural Range offers substantial savings without compromising on aesthetics or quality.

As the world turns its focus toward sustainable and natural inspired design, choosing the Weathertex Natural Range is one practical way that you can reduce the carbon footprint of your projects. Its commitment to the environment, durability, design flexibility and cost effectiveness make Weathertex Natural an ideal solution for those who want to create spaces that celebrate and support the beauty of the natural world.

Embrace nature with Weathertex Natural and let your vision come to life in a way that's not only beautiful but also sustainable and enduring.









# Eco- Tourism

AND ITS INFLUENCE ON RESORT  
AND HOTEL DESIGN

## **How eco-tourism is shaping the design of resorts and hotels in Australia.**

The growing trend of eco-tourism has significantly influenced the design and operation of resorts and hotels in Australia. Eco-tourism, defined as sustainable tourism with a focus on local environments and cultures, has led to the development of eco-resorts and sustainable accommodations that prioritize environmental conservation and community engagement. This article explores the influence of eco-tourism on resort and hotel design in Australia, highlighting the key principles and practices that are shaping the industry.

## The Rise of Eco-Tourism

Eco-tourism has gained momentum as travelers increasingly seek responsible and sustainable travel experiences. This trend has reshaped the travel industry, leading to a growing demand for accommodations that prioritize environmental and cultural preservation. In response, many hotels and resorts have embraced eco-friendly practices and sustainable design principles to cater to this evolving market.

## Defining Eco-Resorts and Eco-Lodges

Eco-resorts and eco-lodges are at the forefront of the eco-tourism movement, offering travelers the opportunity to stay in accommodations that are committed to minimizing their environmental impact. These establishments are designed to blend harmoniously with their natural surroundings and often feature sustainable building materials, energy-efficient systems, and a strong focus on community engagement and cultural preservation.

## Sustainable Design Principles

The design of eco-resorts and eco-lodges is guided by sustainable principles that prioritize energy efficiency, water conservation, and the use of renewable resources. Many of these properties are built using locally-sourced materials and are designed to minimize their carbon footprint. In addition, they often feature innovative design elements such as green roofs, rainwater harvesting systems, and passive cooling techniques to reduce energy consumption.

## Community Engagement and Cultural Preservation

Eco-tourism accommodations are also committed to engaging with local communities and preserving indigenous cultures. Many eco-resorts and eco-lodges offer guests the opportunity to participate in cultural experiences and community-based initiatives, such as supporting local artisans and conservation projects. This approach not only enriches the guest experience but also ensures that the economic benefits of tourism are shared with local communities.



## Certification and Recognition

The eco-tourism movement has been further supported by certification programs that recognize accommodations that meet stringent sustainability criteria. For example, Ecotourism Australia's certification program evaluates hotels' environmental performance, community engagement, and cultural preservation efforts. This recognition not only validates the commitment of these properties to sustainable practices but also helps travelers make informed choices about their accommodations.

## Australia's Sustainable Accommodations

Australia is home to a diverse range of sustainable accommodations, from boutique offerings to eco-resorts and lodges, actively working on minimizing their footprint. These properties are located in some of the country's most pristine natural environments, offering guests the opportunity to experience the beauty of Australia while supporting responsible and sustainable tourism.



The influence of eco-tourism on resort and hotel design in Australia has led to the rise of eco-friendly accommodations that prioritize environmental conservation, community engagement, and cultural preservation. The design and operation of eco-resorts and eco-lodges are guided by sustainable principles, with a strong emphasis on energy efficiency, water conservation, and the use of renewable resources. As the demand for responsible travel continues to grow, the eco-tourism movement is expected to play an increasingly important role in shaping the future of the hospitality industry in Australia.



ON-TREND DESIGNS:

# Modern Farmhouse

CASE STUDY

Stylishly blending rustic charm with modern elements, contemporary barn-style homes are becoming more prolific around Australia as homeowners seek a fusion of traditional warmth and sleek sophistication.

But how can you create a farmhouse design that captures on-trend features while still incorporating the timelessness of the style? By integrating [Hardie™ Oblique™ Cladding](#) in its recent Summer Farmhouse build, Bellevue Design and Construction is setting a new standard for what can be achieved in the Modern Farmhouse style.

## A sprawling farmhouse with all the trimmings

When Jak Lok and Philip Chak of [Bellevue Design and Construction](#) were approached to design a house – one that would be suitable on an acreage and just 15 minutes from the Brisbane CBD – they knew they had their work cut out for them.

“Our client wanted a unique house design in a premium location, and they were planning to have farm animals like horses, alpacas and chickens,” Lok says. “They wanted this house to be different and to stand out from the rest.”

“After the COVID lockdowns, their vision was to have a place that had everything on-site. That included a resort-style pool, sunken fireplace, outdoor pool house, tennis court, gym and theatre room.”

After locking in the brief, Lok and Chak immediately envisioned a modern American farmhouse. That meant wide frontage, plenty of character in the materials being used, and a high-pitched gable roof with vertical profile cladding. It would be an awe-inspiring sight when finished, but it would also be one of the most challenging homes Bellevue Design and Construction had ever built – due in large part to the steepness of the roof design.

“We knew we needed a vertical cladding exterior to achieve this Modern Farmhouse look,” Lok explains. So we gave our James Hardie rep a call to see if any products would be suitable.”



## Hardie™ Oblique™ Cladding steps up to the challenge

The Bellevue team knew they wanted a standout product that would take the Modern Farmhouse style to the next level. So when they spoke to their James Hardie representative and explained the brief in detail, it became immediately clear that Hardie™ Oblique™ Cladding would be the perfect fit.

“As soon as we saw the Hardie™ Oblique™ Cladding, though, we knew it was the one and we had to have it.”

Lok and his team used two types of Hardie™ Oblique™ Cladding cladding on all the external walls of the Summer Farmhouse project – both the 300mm and 200mm profiles. He says it just made sense to feature it so strongly throughout the home.

“It was the look we were trying to achieve,” he says. “We could not find a better product. We wanted vertical cladding almost like the [Axon™ Cladding](#) but with a more visible profile, which would give the farmhouse a bit more character.

“If it wasn’t for the Hardie™ Oblique™ Cladding we wouldn’t have achieved the look that we were after.”

## Taking the Modern Farmhouse style to new heights

Even though it was a product they had never used before, Lok says the Hardie™ Oblique™ Cladding was very easy to install and made light work of the exterior. He was especially pleased that nail holes are hidden and when overlapping the cladding it simply locks into place.

“Hardie™ Oblique™ Cladding definitely saved a lot of time,” he says. “Our second option was just timber batten, and that would have taken a lot longer to install. It also wouldn’t have stood out and been as unique as Hardie™ Oblique™ Cladding is.”

Being a custom builder, Lok says he loves building different styles of homes, and Hardie™ products make his job much easier.

“We use Hardie™ products for the majority of our houses due to the wide range of options that are suitable for our designs, and they achieve the look that our clients are after,” he says. This includes the [Hardie™ Architectural Collection](#), which delivers endless possibilities to achieve a range of looks.

Lok personally adores the Summer Farmhouse’s outdoor entertainment space, as well as the main living area with the loft and feature ceiling. With a happy design and building team, and even happier clients, Bellevue took the best of luxury farmhouse design and delivered a finished product that will keep guests inspired for years to come.

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Want to take advantage of the modern design forecast and give your clients the home they’ve been dreaming about? Learn more about how [Hardie™ Oblique™ Cladding](#) is perfect for a Modern Farmhouse exterior and interiors.

# THE EMERGENCE OF 3D Printing IN BUILDING CONSTRUCTION

## Investigating how 3D printing technology is being used in the construction industry.

The emergence of 3D printing technology in building construction is a rapidly developing industry that has the potential to revolutionize the construction industry. 3D printing, also known as additive manufacturing, is a process that involves creating three-dimensional objects by layering materials on top of each other. This technology has been used in various industries, including aerospace, automotive, and healthcare, and is now being explored in the construction industry. This article investigates how 3D printing technology is being used in the construction industry in Australia.

## The Potential of 3D Printing in Construction

The potential of 3D printing in construction is vast, with the technology offering several benefits, including:

- 1 Speed:** 3D printing can significantly reduce the time required to construct buildings, as the technology can print entire structures in a matter of hours.
- 2 Cost-Effective:** 3D printing can reduce the cost of construction by minimizing waste and reducing the need for labor.
- 3 Sustainability:** 3D printing can reduce the environmental impact of construction by minimizing waste and using sustainable materials.



## 3D Printing in Construction in Australia

The use of 3D printing in construction is still in its early stages in Australia, with several research projects and pilot programs underway. The University of Melbourne, for instance, is exploring the use of 3D printing technology to create affordable and sustainable housing solutions. Additionally, Monash University is developing a 3D printing system that can print large-scale concrete structures. These projects demonstrate the potential of 3D printing technology in the construction industry in Australia.

## Challenges and Limitations


Despite the potential benefits of 3D printing in construction, there are several challenges and limitations that need to be addressed. These include:

- 1 Regulatory Approval:** The use of 3D printing in construction requires regulatory approval, as the technology is still relatively new and untested.
- 2 Material Limitations:** The materials used in 3D printing are limited, and the technology is not yet capable of printing structures with the same strength and durability as traditional construction methods.
- 3 Cost:** The cost of 3D printing technology is still relatively high, making it challenging to implement on a large scale.

## Future of 3D Printing in Construction

The future of 3D printing in construction is promising, with the technology expected to play an increasingly important role in the industry. As the technology continues to evolve, it is likely that 3D printing will become more affordable and capable of printing structures with the same strength and durability as traditional construction methods. Additionally, regulatory approval is likely to become more streamlined as the technology becomes more widely adopted.





The emergence of 3D printing technology in building construction is a rapidly developing industry that has the potential to revolutionize the construction industry. The technology offers several benefits, including speed, cost-effectiveness, and sustainability. While the use of 3D printing in construction is still in its early stages in Australia, several research projects and pilot programs are underway, demonstrating the potential of the technology. However, there are several challenges and limitations that need to be addressed, including regulatory approval, material limitations, and cost. As the technology continues to evolve, it is likely that 3D printing will become more affordable and capable of printing structures with the same strength and durability as traditional construction methods.

# UNVEILING Tapware Trends:

A DESIGNER'S GUIDE TO  
ELEVATING INTERIOR SPACES



In the dynamic world of interior design, tapware emerges as a pivotal element, infusing spaces with both functionality and aesthetic allure. As guardians of style and innovation, interior designers are constantly on the lookout for emerging trends that redefine the landscape of tapware design. In this article, we explore the latest trends in tapware design, offering insights and inspirations to elevate your interior creations.

## Sculpted Metallics

Metallic finishes, including gold, bronze, and brass, continue to dominate the tapware scene, exuding an air of sophistication and luxury. These finishes, with their lustrous sheen and timeless appeal, lend a touch of opulence to any space. Embrace sculpted forms and intricate detailing to create statement pieces that elevate the overall design aesthetic. Both our “Opal” and “Opal Progressive” collections captures this beauty.



## Artisanal Accents

For those seeking to add a touch of character and charm to their interiors, artisanal finishes such as bronze, ceramics, and aged metals offer a unique and distinctive aesthetic. These handcrafted pieces bring warmth and personality to spaces, infusing them with a sense of craftsmanship and heritage. Embrace organic forms and imperfect textures to create tapware that tells a story and adds depth to the overall design narrative. Our recently launched “York” range is an ideal consideration with the choice of porcelain as an added design element really making the finish pop.

## Matte Magnificence

Matte black and matte white tapware have emerged as frontrunners in contemporary design schemes, offering a sleek and modern alternative to traditional finishes. Their understated elegance and versatility make them ideal for spaces seeking a minimalist aesthetic with a touch of drama. Experiment with geometric shapes and clean lines to achieve a harmonious balance between form and function. Both finishes are available within our most popular “Mecca” collection.

## Chic Chrome and Brushed Nickel

Chrome and brushed nickel finishes remain perennial favourites among interior designers, owing to their timeless appeal and versatility. These finishes seamlessly blend into a variety of design styles, from classic to contemporary, adding a touch of sophistication and refinement. Explore innovative designs and sleek silhouettes to create tapware that transcends trends and stands the test of time. Our most versatile “Bianca” collection speaks to this to perfection.



As interior designers, you play a crucial role in shaping the way people experience and interact with their surroundings. By staying abreast of emerging trends in tapware design and embracing innovative approaches, Nero can support you to create spaces that not only reflect the personalities and lifestyles of your clients but also inspire and delight for years to come.

With an array of options and styles to choose from, tapware design offers endless possibilities for creativity and expression. Let your imagination soar as you explore the latest trends and experiment with innovative designs to craft interiors that are as functional as they are beautiful.



THE GROWING TREND OF

# Modular Construction

IN COMMERCIAL PROJECTS

## **Examining the rise of modular construction methods in commercial architecture.**

The emergence of modular construction in the commercial sector has garnered significant attention in the construction industry. This innovative approach involves building modules in a factory-controlled environment and then transporting them to the construction site for assembly. The use of modular construction in commercial projects is gaining momentum due to its potential to significantly reduce construction times, improve quality control, and enhance sustainability. This article examines the growing trend of modular construction in commercial projects, its impact on the construction industry, and the potential benefits it offers.

## **The Rise of Modular Construction in Commercial Projects**

Modular construction has emerged as a rapidly growing trend in the construction industry, particularly in the commercial sector. This approach involves the off-site fabrication of building modules in a controlled factory environment, followed by their transportation to the construction site for assembly. The use of modular construction in commercial projects is gaining traction due to its potential to significantly reduce construction times, improve quality control, and enhance sustainability.

## Benefits of Modular Construction in Commercial Projects

The use of modular construction in commercial projects offers several key benefits, including:

- 1 Faster Construction Times:** Modular construction can significantly reduce construction times, as the off-site fabrication of building modules can be carried out concurrently with on-site preparation. This can lead to shorter project timelines and earlier occupancy of the completed building.
- 2 Improved Quality Control:** The controlled factory environment in which building modules are fabricated can lead to improved quality control. This can result in a higher standard of construction and a reduced likelihood of defects or rework.
- 3 Enhanced Sustainability:** Modular construction is a more sustainable building method than traditional construction, as it can lead to reduced material waste and improved energy efficiency. The off-site fabrication of building modules can also help to minimize the environmental impact of construction activities.
- 4 Reduced Risk:** Modular construction can help to reduce the risk of construction delays and cost overruns. The controlled factory environment and concurrent on-site preparation can lead to a more predictable construction process.

## The Potential Impact of Modular Construction on the Construction Industry

The growing trend of modular construction in commercial projects has the potential to significantly impact the construction industry. This innovative approach is expected to lead to changes in traditional construction practices, with an increased focus on off-site fabrication and improved collaboration between on-site and off-site construction teams. The use of modular construction in commercial projects is also expected to lead to changes in project management practices, with an increased emphasis on concurrent activities and improved coordination between different phases of the construction process.



## The Future of Modular Construction in Commercial Projects

The future of modular construction in commercial projects is promising, with the potential for continued growth and innovation in the construction industry. This innovative approach offers several key benefits, including faster construction times, improved quality control, and enhanced sustainability. As the construction industry continues to evolve, the use of modular construction in commercial projects is expected to become increasingly prevalent, with a greater emphasis on off-site fabrication and improved collaboration between on-site and off-site construction teams.

In conclusion, the growing trend of modular construction in commercial projects is expected to significantly impact the construction industry. This innovative approach offers several key benefits, including faster construction times, improved quality control, and enhanced sustainability. As the construction industry continues to evolve, the use of modular construction in commercial projects is expected to become increasingly prevalent, with a greater emphasis on off-site fabrication and improved collaboration between on-site and off-site construction teams.

# Fawkner House:

A MASTERPIECE OF PROGRESSIVE DESIGN AND SUSTAINABLE INNOVATION

In the heart of South Yarra, Victoria, stands a testament to architectural brilliance and forward-thinking design: the award-winning Fawkner House. This boutique apartment project, masterfully crafted by renowned Australian Architect Rob Mills, is a harmonious blend of organic mass, distinctive form, and diverse spaces, drawing inspiration from Le Corbusier's iconic 1954 chapel Notre Dame du Haut in Ronchamp, France.

At the core of Fawkner House's design philosophy lies a commitment to sustainability and occupant well-being. From the outset, Creative Director Rob Mills placed the utmost importance on acoustics, air quality, and eco-friendly practices, ensuring that the building not only captivates the eye but also nurtures its inhabitants.

To bring this vision to life, Sto Australia joined forces with the project architect, render contractor South East Solid Plastering, and builder VCon. Together, they transformed the award-winning design into a breathtaking reality, employing Sto's cutting-edge, sustainable products to create a living work of art.





Sto is a global brand name in facades and interior systems in render, interior finishes, decorative paints, rainscreen cladding, acoustic insulation, and concrete restoration ([www.sto.com](http://www.sto.com)). Operating in 81 countries with over 5,000 employees and global revenue of over 1.5 Billion Euro(s) annually. Established in 1836 and still family owned, Sto operates from head offices out of Germany and US. Since 1952, we have painted, rendered and mechanical fixed over 640 million square kilometres of façade systems to date. In Australia, we also acquired Unitex render and finishes company expanding our local footprint.

The building's exterior walls and curved facade are adorned with a bespoke Unitex Veneto refined render finish, while the interior walls are graced with the elegance of Sto Venetian plaster. These 100% acrylic, German-engineered, and reinforced wall plasters and renders have been trusted worldwide for over half a century, offering unparalleled flexibility, durability, and beauty.

The result is a crack- and blemish-free surface with vivid, color-stable textures that will endure for generations. The render's versatility perfectly complements the sweeping curves of the facades, while the flawless interior surfaces allow natural light to dance across tall ceilings, accentuating intricate walls and luxurious materials.

Fawcner House stands as a shining example of what can be achieved when visionary design meets innovative, sustainable materials. It is a showcase of architectural excellence and build quality, setting a new standard for progressive, eco-conscious living in the heart of Victoria.



A photograph of an outdoor educational space. In the foreground, there is a green lawn with scattered brown leaves. A paved path leads from the bottom right towards the center. To the left, a wooden pergola structure with a black metal railing surrounds a wooden table and chairs. In the background, a modern building with large glass windows and doors is visible. The sky is a mix of blue and light pink, suggesting dusk or dawn. A tall silver pole with a black shade sail is on the right side.

# Designing Educational Spaces

FOR ENHANCED LEARNING EXPERIENCES



Designer: Tung Fei Lau

## How architectural design is influencing the development of educational facilities.

The design of educational spaces has a significant impact on the learning experience of students. The architectural design of educational facilities can influence the development of learning environments that are conducive to enhanced learning experiences. This article examines the growing trend of designing educational spaces for enhanced learning experiences, focusing on the impact of architectural design on the development of educational facilities.

## The Role of Architecture in Facilitating Learning

The role of architecture in facilitating learning is critical, as the design of educational spaces can significantly impact the learning experience of students. The design of educational facilities should be focused on creating spaces that are conducive to learning, with a focus on functionality, flexibility, and sustainability. The design of educational spaces should also be focused on creating spaces that are engaging and inspiring, with a focus on promoting collaboration and creativity.

## Designing Educational Spaces for Enhanced Learning Experiences

Designing educational spaces for enhanced learning experiences involves creating spaces that are functional, flexible, and sustainable. The design of educational facilities should be focused on creating spaces that are engaging and inspiring, with a focus on promoting collaboration and creativity. The design of educational spaces should also be focused on creating spaces that are conducive to learning, with a focus on functionality, flexibility, and sustainability.

## Innovative Approaches to Educational Space Design

Innovative approaches to educational space design are emerging, with a focus on creating spaces that are engaging, inspiring, and functional. These approaches include:

- 1 **Decentralized Layouts:** Decentralized layouts can help make learning spaces more about the students' experience and less about simply presenting information. A classroom layout that is decentralized can help to create a more collaborative and interactive learning environment.
- 2 **Presentation Environments:** Innovative presentation areas can help to achieve the best educational outcomes by providing spaces where students can talk, listen, and learn. These types of communication-centered lessons can be enhanced by comfortable spaces designed for presentations.
- 3 **Quiet Zones:** Creatively designed spaces that are meant for reflection, concentration, and introspection can benefit students of all levels. While there are multiple benefits to open, collaborative spaces for student learning, there is also much to be said for quiet zones that allow students to focus and concentrate.

○ The design of educational facilities should be focused on **creating spaces that are conducive to learning, with a focus on functionality, flexibility, and sustainability.**

## The Future of Educational Space Design

The future of educational space design is promising, with the potential for continued growth and innovation in the design of educational facilities. The design of educational spaces will continue to evolve, with a focus on creating spaces that are engaging, inspiring, and functional. The design of educational spaces will also continue to focus on creating spaces that are conducive to learning, with a focus on functionality, flexibility, and sustainability.

The design of educational spaces has a significant impact on the learning experience of students. The architectural design of educational facilities can influence the development of learning environments that are conducive to enhanced learning experiences. Innovative approaches to educational space design, such as decentralized layouts, presentation environments, and quiet zones, are emerging, with a focus on creating spaces that are engaging, inspiring, and functional. The future of educational space design is promising, with the potential for continued growth and innovation in the design of educational facilities.



# Indigenous Cultural Elements

## IN MODERN ARCHITECTURE

The incorporation of indigenous cultural elements in modern architecture is a growing trend that is gaining momentum in Australia. This approach involves the integration of traditional indigenous design principles and practices into contemporary architectural designs, creating innovative and culturally significant buildings that promote sustainable development and cultural preservation. This article showcases architectural designs that respectfully integrate indigenous cultural elements, highlighting the importance of this approach in promoting cultural identity and heritage.







## The Essence of Indigenous Architecture

Indigenous architecture is a reflection of the cultural identity and historical legacy of indigenous communities. It encompasses the unique building techniques, materials, and designs developed by these communities over centuries, often in harmony with the natural environment. Indigenous architectural styles vary across different regions, exhibiting a deep connection with the land, spirituality, and traditions. From the intricately carved totem poles of the Northwest Pacific Coast tribes in North America to the intricately woven thatched roofs of the Torres Strait Islanders in Australia, indigenous architecture is a testament to the creativity and ingenuity of these communities.

## Incorporating Indigenous Cultural Elements in Modern Architecture

Incorporating indigenous cultural elements in modern architecture involves the integration of traditional

indigenous design principles and practices into contemporary architectural designs. This approach requires a deep understanding of the cultural values, traditions, and building techniques of indigenous communities, as well as a commitment to respecting and preserving their cultural heritage.

Architects and designers are increasingly incorporating indigenous cultural elements into their designs, creating innovative and culturally significant buildings that promote sustainable development and cultural preservation. For example, the National Museum of the American Indian in Washington, DC, USA, incorporates traditional indigenous design elements, such as the use of natural materials and the incorporation of symbolic motifs, into its contemporary architectural design. Similarly, the design of the Aboriginal Art and Cultures Centre in Adelaide, Australia, incorporates traditional indigenous design elements, such as the use of natural materials and the incorporation of symbolic motifs, into its contemporary architectural design.



Designer: Chris Knierim

○ By integrating traditional indigenous design principles and practices into contemporary architectural designs, **architects and designers can create buildings that reflect the cultural identity and heritage of indigenous communities.**

## The Importance of Cultural Preservation

The incorporation of indigenous cultural elements in modern architecture is an important step in promoting cultural preservation and identity. By integrating traditional indigenous design principles and practices into contemporary architectural designs, architects and designers can create buildings that reflect the cultural identity and heritage of indigenous communities. This approach can also help to promote sustainable development and local economic growth, as it encourages the use of local materials and the involvement of local artisans.

## Challenges and Limitations

Despite the potential benefits of incorporating indigenous cultural elements in modern architecture, there are several challenges and limitations that need to be addressed.

These include:

- 1 Cultural Appropriation:** The incorporation of indigenous cultural elements in modern architecture can be seen as cultural appropriation if not done respectfully and with the involvement of indigenous communities.
- 2 Lack of Understanding:** The incorporation of indigenous cultural elements in modern architecture requires a deep understanding of the cultural values, traditions, and building techniques of indigenous communities. Without this understanding, the incorporation of indigenous cultural elements can be superficial and insensitive.
- 3 Cost:** The incorporation of indigenous cultural elements in modern architecture can be costly, as it often requires the involvement of local artisans and the use of local materials.

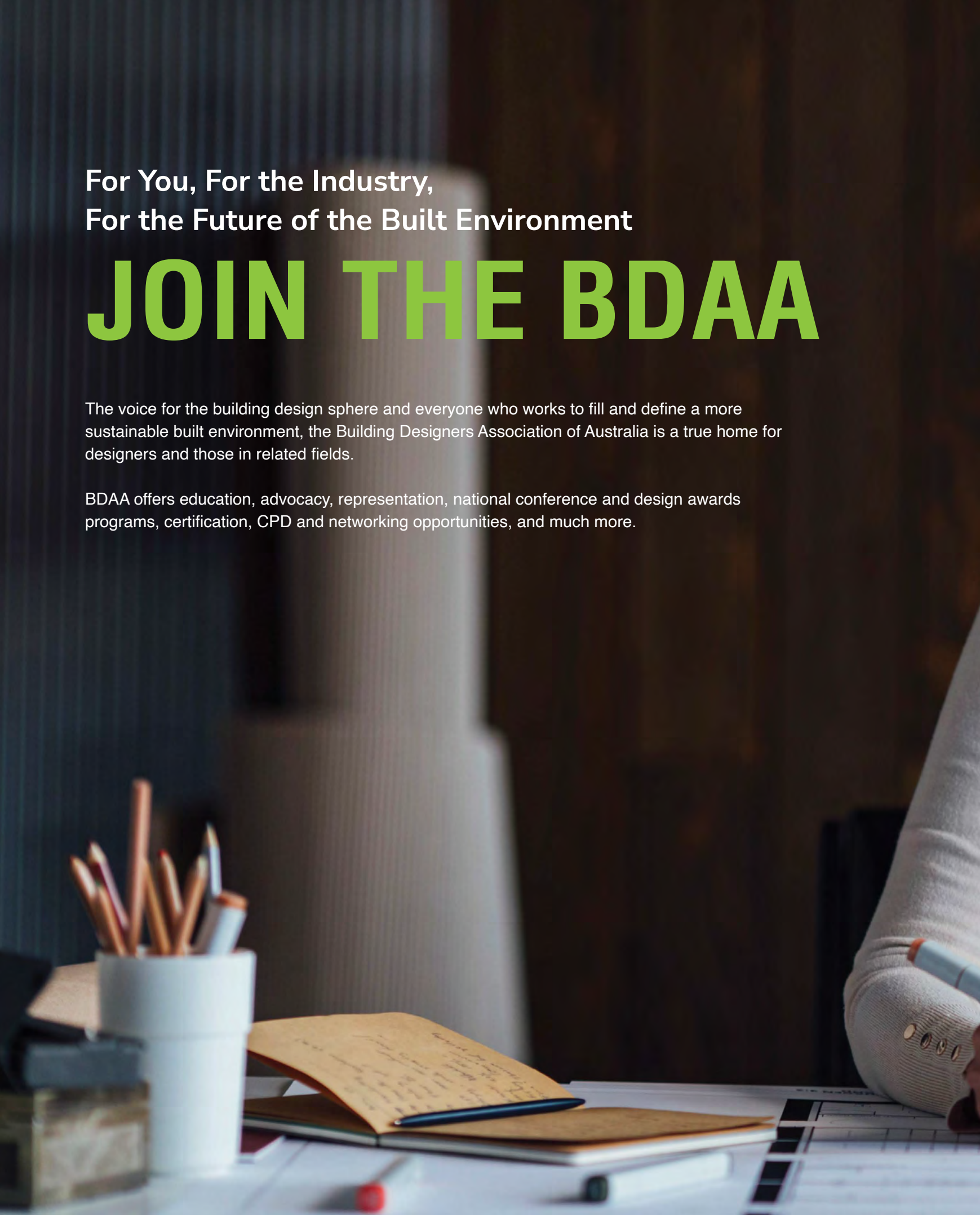
The incorporation of indigenous cultural elements in modern architecture is a growing trend that is gaining momentum in Australia. This approach involves the integration of traditional indigenous design principles and practices into contemporary architectural designs, creating innovative and culturally significant buildings that promote sustainable development and cultural preservation. While there are challenges and limitations to this approach, the potential benefits in promoting cultural identity and heritage make it an important step in the development of modern architecture.

For You, For the Industry,  
For the Future of the Built Environment

# JOIN THE BDAA

The voice for the building design sphere and everyone who works to fill and define a more sustainable built environment, the Building Designers Association of Australia is a true home for designers and those in related fields.

BDAA offers education, advocacy, representation, national conference and design awards programs, certification, CPD and networking opportunities, and much more.





**Join the BDAA  
today for a  
brighter, more  
sustainable  
tomorrow.**



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