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SOURNAL of BIOPHILIC DESIGN





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ISSUE 13, January / February 2025 – CHILDHOOD
ISSUE 14, March / April 2025 – THIRD AGE
ISSUE 15, May / June 2025 – LIGHT
ISSUE 16, July / August 2025 – SOUND
ISSUE 17, September / October 2025 – ARCHITECTURE
ISSUE 18, November / December 2025 – INTERIOR DESIGN

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WELCOME

Welcome to the twelfth edition of The Journal of Biophilic Design.

As we come to celebrate the beginning of our third year for the Journal itself, and fifth year for the podcast series, the first Biophilic Design Conference, and the start of a whole series of events running throughout 2025, including a second conference and further collaborations with event partners across the globe, I wanted to say thank you.

Thank you for being a part of the whole journey, for listening, sharing your expertise and also if you are reading the Journal, then you care about people and planet. So, thank you. Thank you for all you do.

I took myself off to a Shepherd's Hut in the English countryside straight after the conference, with the idea that I'd be taking time off and relax. I had a deadline I'd forgotten about and so spent most of the day "off" I'd planned, to work on the project. Hey ho. One thing that being in nature and surrounded by nature teaches us though, is that things change, seasons change, life changes. As leaves and acorns fall, so mushrooms and oak trees grow. And everything seems to have a reason. So, as I sat in this Shepherd's hut, fire on, snuggling under a blanket, steaming mug of tea, window cracked open for some fresh air, I heard bird song, gentle wind in the trees, and watched the sun filter through the autumn leaves. It felt good. My mindset changed. At least I was in a place of beauty to write.

What has that got to do with retail? Well, when I finished the article, I took myself off to the little village nearby for a late lunch. I found this cute little bookshop which did coffee and vegan pastries. I ended up spending an hour there, chilling, eating, imbibing the fresh coffee and of course buying a few more books. Independent retail I think should really be celebrated (I think I might be using that term one time too many, but I feel like celebrating). Celebrating all the pioneers of "different". Those who want to create spaces and places for people to "be" in. I used to have a bookshop, artspace and coffee shop in Cambridgeshire, and for me I loved all the people who found harmony and happiness, and friendship within its walls, and among the pages of books on the shelves. Retail doesn't always have to start with a focus on money, money comes. If, like everything, it is created out of a vision to "create" something for people to enjoy, then the design, the energy, the out and input somehow edifies and nourishes not only the people who come but the business owner too.

Biophilic Design does this. If we design with nature in mind, we create beautiful habitats for people to flourish in. This issue looks at how retail is transformed by this nature connection as well.

Vanessa Champion PhD, AMRSPH

Editor and Founder

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HIGHLIGHTS

Each edition of The Journal of Biophilic Design has regular sections.

We highlight them here so you can navigate your way around the Journal.

If you would like to contribute to a future edition, please do contact our editor we would love to feature your research and case studies.

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Details of our contributors can be found on our website. Each edition of The Journal of Biophilic Design is published every other month. Next issue's focus is **Childhood**.

Sign up for our newsletter on our website to be reminded when the edition is out. Don't forget you can read this on your Kindle as well as buy a beautiful full colour printed edition to keep and refer back to, contact us for direct links.

If you would like to sponsor the Journal please contact us. Future editions will focus on Childhood, Third Age, Light, Sound, Architecture, Interior Design.





There is a gorgeous Biophilically designed store in London which sings Biophilia from the moment you peer through the windows. Open the door and you are greeted with the harmony of outside while offering a delightfully welcome haven to enjoy exploring the range that the ethical brand has to offer. How is this possible? This case study from Oliver Heath design shows how creativity, sustainability, sensory experience, artistry and brand material all come together with a Biophilic Design vision.

Lead design practice:

Fred Rigby Studio

Biophilic Design Strategy:

Oliver Heath Design

Project name/title:

LESTRANGE Coal Drops Yard

Client name:

LESTRANGE

Location:

King's Cross, London

Completion year:

2023

Overview:

LESTRANGE co-founders Tom Horne and Will Green enlisted biophilic design specialists Oliver Heath Design to provide a blueprint for a reimagined retail experience specially curated for LESTRANGE customers. The duo chose to commission British designer Fred Rigby, a longstanding collaborator of the menswear brand, to bring LESTRANGE's biophilic vision to life and design the store.

Appealing to the sensory experience at every touchpoint, biophilic elements extend from the lighting to materiality and even the audio experience of the space.

Wood from felled from London Plane trees, has been repurposed to partition the space and cocoons The Meadow. Conceived by award-winning garden designer Lottie Delamain, The Meadow is a curation of dried blooms and grasses of fibre and flax used in apparel.





The Island, constructed from London Planes, has a countertop made from recycled plastic yoghurt pots by start-up Smile Plastics, seamlessly housing the cash desk.

While wall finishes by Clayworks blend unfired clays which, when mixed with minerals and pigments, create one of the most sustainable plasters available.

> Photography by Felix Speller @felixspeller www.felixspeller.com

"Our Coal Drops Yard store captures the essence of LESTRANGE, inspiring through the intersection between thoughtful design and nature – from our garments to the very spaces we curate. We're thrilled to have collaborated with Fred and Oliver to bring this vision to life in a way that connects with every customer who walks through our doors."

Lauren Kam, Brand Marketing Lead, LESTRANGE

> www.oliverheathdesign.com https://fredrigbystudio.com https://lestrangelondon.com





Going with the flow for Alo Yoga

– Case Study –

Daniel Hunt

Worn by the likes of Hailey Bieber, Bella Hadid and Shawn Mendes, Alo Yoga is a US fashion and lifestyle brand which 'sits at the intersection of fashion, function and fitness' and is renowned for its studio-to-street performance apparel.

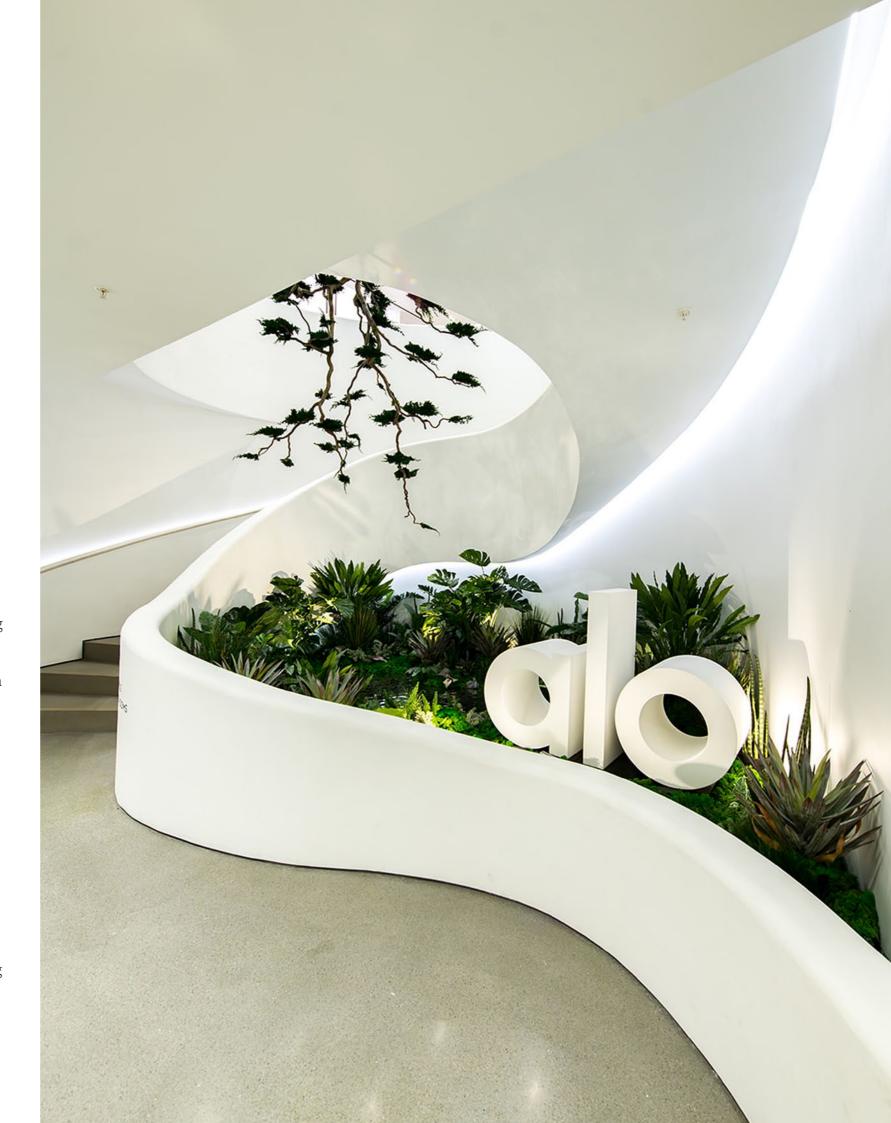
Alo Yoga's physical footprint is a core element of the athleisurewear brand's engagement and growth strategy. Its stores, referred to as sanctuaries, are designed to evoke a feeling of luxury and wellness, while offering an immersive shopping experience for a thriving community.

Chosen to translate the Los Angeles based brand's identity onto the streets of London Daniel Hunt, UK country head at commercial interiors specialist and certified B Corp, Agilité, takes a closer look at the Regent Street store.

Synonymous with blending fashion and mindfulness, Alo Yoga's traditional style of clean, light and minimalistic spaces keeps the focus on the products – with convenience, guest experience and community being a thread that runs through the entire floorplan.

With its Regent Street store marking the brand's second project with Agilité, Alo's objective was clear: to create a space that not only echoed its luxurious yet natural aesthetic but also embodied the principles of biophilic design. Something which can be seen by the impressive 5.2 metre organic sculptural representation of a gigantic Bonsai tree running through the centre of the space.

Working closely with June in March, a London-based design studio specialising in bespoke plant-based installations, the tree was suspended upside down – so the roots and tip were inverse – adding to the theatre. All elements used were natural preserved plant materials, with the trunk made of salix branches and leaves crafted from preserved juniper. Each component was deconstructed and reassembled with engineered bespoke attachments, with Agilité liaising with the relevant teams on- and off-site during the complex installation.





Journal of Biophilic Design

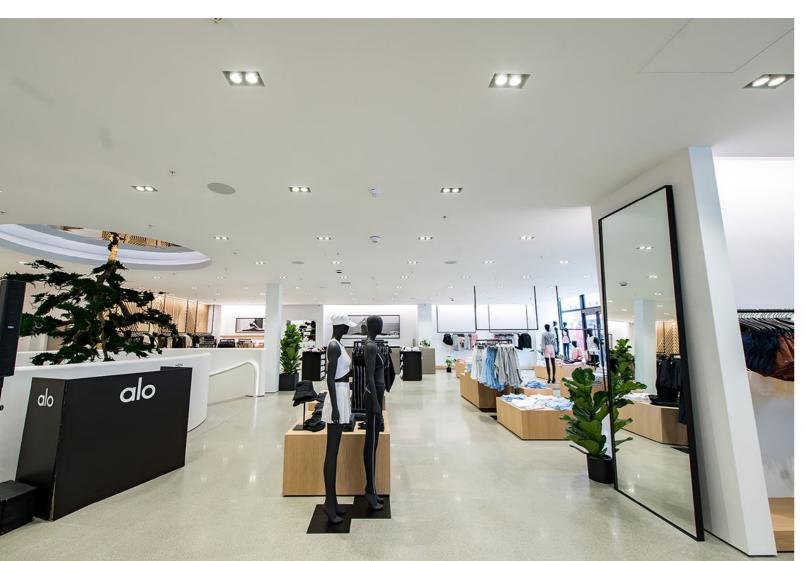
RETAIL

"The goal was to introduce a natural, calming atmosphere while ensuring the space remained true to Alo's signature minimalism," Emily Baylis, founder of June in March explains. "We used a combination of greenery and preserved plants to reduce maintenance costs and environmental impact." June in March's work is part of a larger trend towards sustainable retail, where biophilic design elements not only serve aesthetic purposes but also enhance the wellbeing of shoppers by connecting them to nature, even in the middle of a bustling city.

Framing the living centrepiece, visually striking elements, such as the micro cement staircase balustrade and unique polished concrete flooring are now standout features of the 1,200 sqm store. To align with Alo Yoga's objectives

and aesthetic vision – and having garnered knowledge during the King's Road store project – Agilité supported the client's design team by offering samples, specialist solutions and design coordination early in the process. A proactive approach that enabled Alo Yoga to select finishes and specifications ahead of installations, eliminating on-site decisions and potential disruptions to the project timeline.

Managing the procurement and delivery of materials into the UK, providing clear dates for arrival onto site and liaising with customs representatives was a core part of Agilité's scope of work, alongside design coordination which included 3D models of the space and helical staircase – ensuring the outcome matched the client's expectations.





As with all projects, effective communication was pivotal to success. Tasked with managing several critical aspects – including landlord works and long lead items – Agilité employed clear lines of communication with the landlord representative, while utilising Holobuilder for regular 360-degree photographic updates, keeping the US-based client informed of progress, without needing to travel to London.

Throughout the renovation, Agilité's project management ensured the sustainability goals of the brand were met, and implementation of water-efficient provisions, enhanced waste disposal and full material auditability fell in line with both B Corp standards and landlord requirements. Responsibility

extended to the neighbourhood too. Regent Street restrictions and regulations called for minimal disruption to nearby retail and office activities with a special focus placed on the floors above.

The result is a space that provides a sense of serenity, making the shopping experience as mindful and rejuvenating as the brand's ethos. This project not only exemplifies Alo Yoga's commitment to wellbeing but showcases how biophilic design is revolutionising the retail sector – creating engaging, sustainable environments that leave a lasting impression.

https://www.agilitesolutions.com/ projects/alo-yoga-regent-streetlondon-uk/

ENHANCING RETAIL ENVIRONMENTS WITH BIOPHILIC DESIGN

"Biophilic design is transforming retail spaces by incorporating natural elements that connect consumers with nature. This approach not only elevates the aesthetic appeal of retail environments but also enhances the shopping experience, encouraging purchases and fostering brand loyalty. This article explores the application of biophilic design in retail, including creating zones for respite, improving acoustics, and influencing consumer behaviour."

Frank Gschiegl



Figure 1

The Science behind biophilic design in retail

Biophilic design taps into our innate affinity for nature, known as the "biophilia hypothesis." Research shows that exposure to natural elements reduces stress and improves mood. In retail, these benefits translate to longer visits and increased spending. A 2019 study by the University of Washington revealed that shoppers in green-rich environments perceived stores as more trustworthy, leading to higher purchase rates.



Zones for respite

Retail environments can be overwhelming, with constant stimuli from lighting, sounds, and crowds.

Creating zones for respite – areas where shoppers can escape sensory overload – enhances the overall experience. These spaces might feature seating surrounded by plants or water features, offering a calming retreat. Providing such areas caters to the needs of all shoppers, including those sensitive to sensory stimuli, encouraging longer stays and more purchases.



Figure 2

Acoustics and atmosphere

Effective acoustics are crucial in retail design. Biophilic elements like living green walls not only enhance visual appeal but also absorb sound, reducing noise levels. This creates a quieter, more comfortable shopping environment, allowing customers to focus better on products, potentially leading to higher-value purchases.



Figure 3



Influencing purchases

Biophilic design can subtly guide consumer behaviour. Strategic placement of greenery can lead customers through the store, making them more likely to encounter and buy products. Natural light, organic textures, and nature-inspired colours create an ambiance that encourages exploration, essential for engaging customers with the brand.

Two beautiful examples

The Pasona Urban Farm in Tokyo is another example, where an office and retail space integrates an edible garden, offering a unique experience for visitors.

The Natura Siberica store in Copenhagen, Denmark, is a great example of biophilic design in a regular retail setting. The store features a lush interior with abundant greenery, including vertical gardens and natural wood elements, all bathed in natural light, creating a serene and nature-filled shopping environment.



Figure 4 – Pasona Urban Farm (Source: https://www.dezeen.com/2013/09/12/pasona-urban-farm-by-kono-designs/)



Figure 5 – Natura Siberica (Source: https://www.hik-russland.de/russische-naturkosmetikmarke-natura-siberica-kommt-nach-deutschland/)

Biophilic Influence on Product Lines

Biophilic design can extend to product offerings by encouraging retailers to collaborate with suppliers for sustainable, nature-inspired products. This not only enhances the in-store experience but also strengthens the brand's commitment to sustainability, a value increasingly important to consumers.

An example of biophilic influence on product lines can be seen in *Patagonia*, a brand that collaborates with suppliers to create products using sustainable materials such as organic cotton, recycled polyester, and hemp. Patagonia's commitment to environmentally friendly practices not only aligns with their biophilic retail environments but also resonates with consumers who value sustainability.





Conclusion

Integrating biophilic design into retail environments is a strategic move that enhances the shopping experience, reduces sensory overload, and drives sales. By connecting consumers with nature, retailers can differentiate themselves in a competitive market while fostering brand loyalty.

https://www.linkedin.com/in/ frankgschiegl/

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How Neurodiversity is supported through nature based solutions and Biophilic Design?

"When we are designing retail spaces and places where people will be lingering and mingling, it is worth bearing in mind how the space will be perceived by those of us who might be more sensitive. Biophilic Design, as always, should be your go to solution."

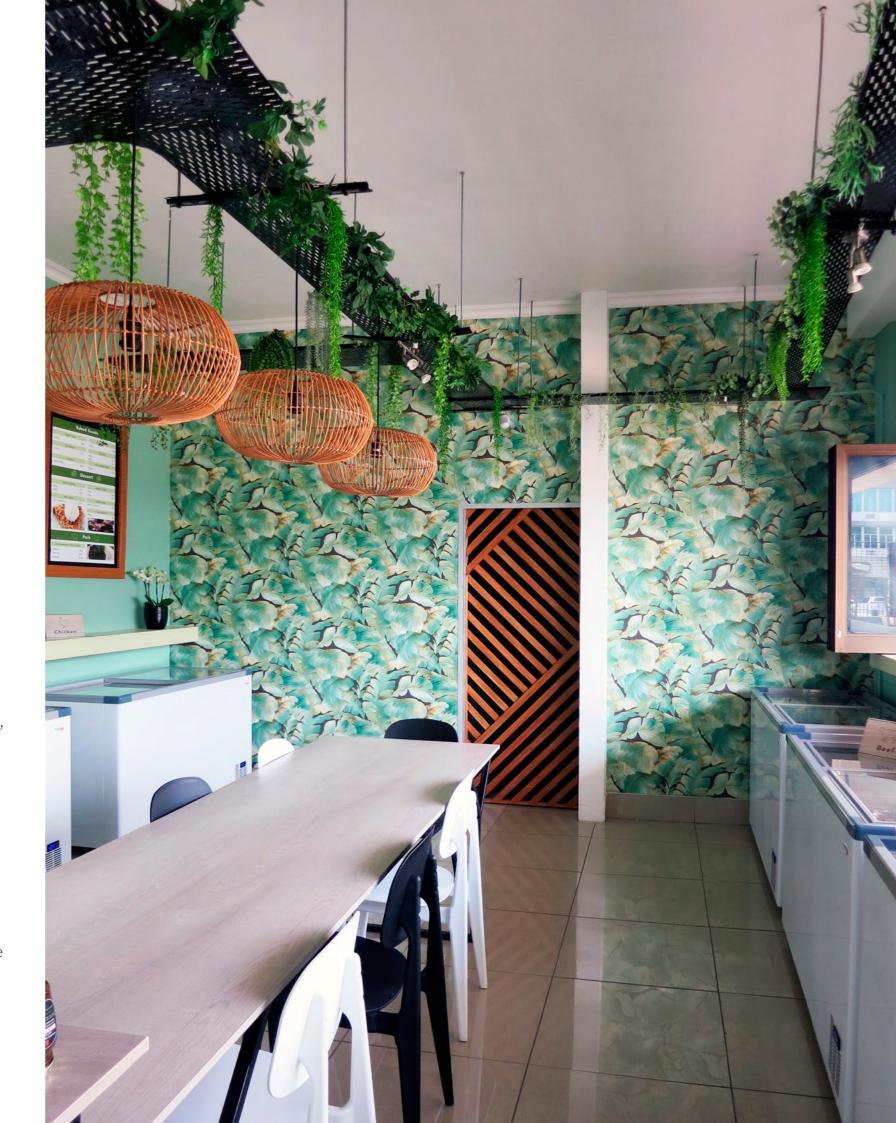
Nicolene Mausenbaum - Journal of Biophilic Design

The art of interior design plays a crucial role in the creation of spaces and places that not only accommodate individuals with diverse neurological needs; it also supports them and creates an inclusive environment.

Incorporating Biophilia and elements of Nature can further help to enhance spaces in a variety of ways, that are not only aesthetically pleasing, but can help create an environment that neurodiverse individuals can thrive in. Studies have suggested that exposure to nature can

enhance cognitive function and attention, which can be particularly helpful for individuals with neurodivergent conditions such as ADHD.

But what happens when neurodiverse individuals leave their personal spaces, their homes- and venture out into the world? This is where the creation of neurodiverse- inclusive commercial, educational, healthcare and corporate spaces become key in ensuring all individuals can thrive in the environment they are in.







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RETAIL

Nature, it's elements and patternseven man-made ones that embody the likeness of natural patterns like wallpaper patterns in a botanical theme – offer all of us as human beings a sense of comfort, providing a more calming and grounding sensory experience, and satisfies the inherent human need for connection to the natural world.

The sight of greenery, the sound of water, and the touch of natural materials can help stimulate the senses in a calming and engaging way, and has been shown to reduce stress and calm anxiety.

By combining different natural textures such as plants, wood, stone and natural fibers in an interior, as well as incorporating elements directly sourced from Nature such as pebbles and shells, offers both visual and tactile diversity, to create a rich, layered environment that engages multiple senses in a comforting manner.

Ideally, a space should have access to ample natural light and views of the outdoors, by ensuring there are large windows that are not obscured and if possible, include skylights. This helps to regulate circadian rhythms (ie, the natural passing of time) and can in turn help to improve mood, focus and concentration. Lighting that mimics natural light patterns can improve cognitive function for neurodiverse individuals who may struggle with concentration and alertness in environments with poor lighting.

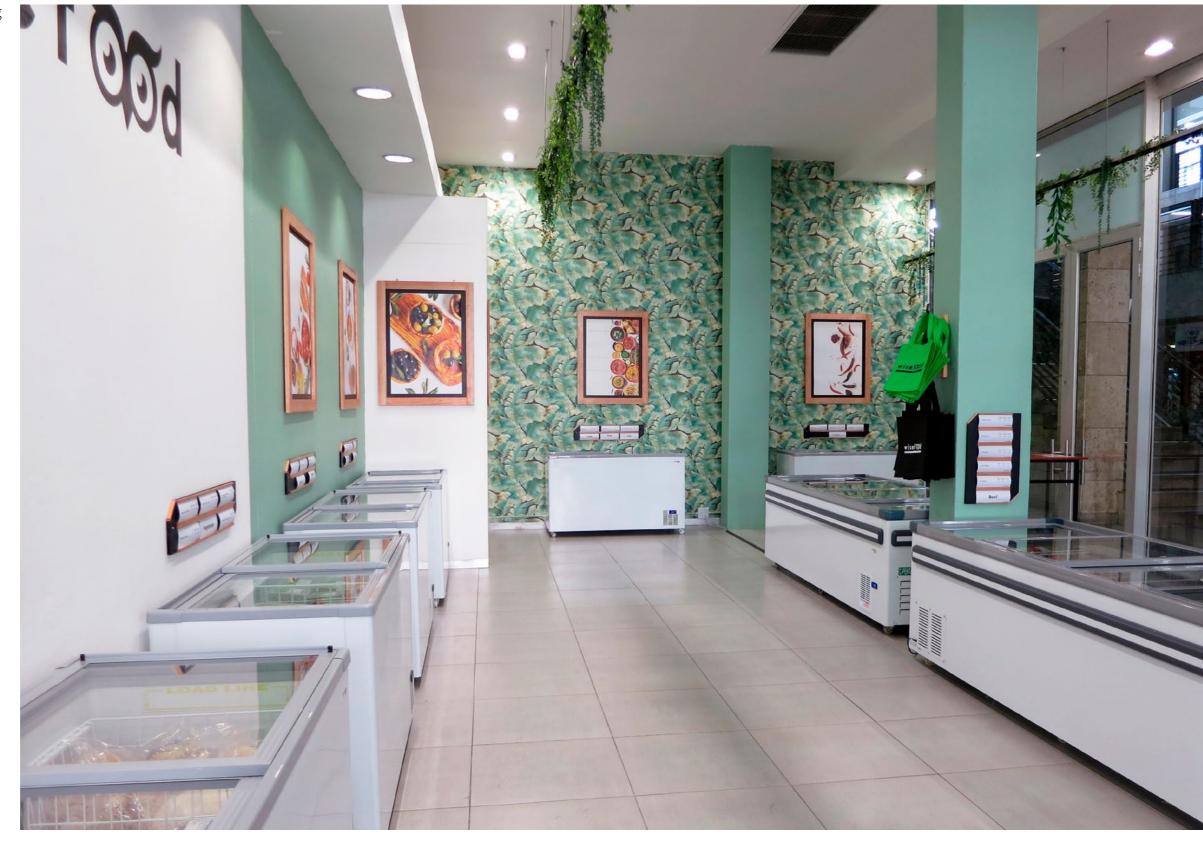




Further to this, having access to soothing sounds of nature, such as birdsong or running water, can help to reduce stress in individuals with sensory sensitivities and experience a sense of tranquility. Quiet areas with soft, natural lighting and textures can provide a refuge for individuals who are easily overstimulated, while more dynamic spaces with varied textures and visual stimuli can engage those who benefit from more sensory input.

Acoustics play a large role in helping neurodiverse individuals thrive, as overbearing background noise can be distracting or overwhelming. Good acoustics and considered application of natural elements can further improve emotional well-being and create a sense of safety in the space, reducing the likelihood of sensory overload and associated stress. The choice of colours can even affect a space – use of soft greens (once again reminding us of the outside world), calming blues (reminiscent of water and the sea) and earth tones are soothing and can help reduce overstimulation, making environments more comfortable for neurodiverse individuals who may be sensitive to bright or chaotic surroundings.





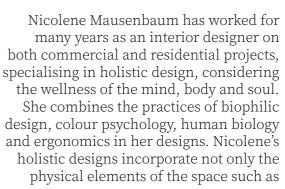
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RETAIL

The retail space shown that I created with my client is an example of how one may include Biophilic elements in a space - in this case, two iterations of it. The result is a calm, inviting space, that not only reflects Nature but is also symbolic of the owner's commitment to using only the best fresh ingredients to create delicious, healthy food- albeit frozen for the customer's convenience. The representation of natural elements like the hanging plants, the timber look of the light fittings and screen door and the soft Sage green are another nod to Nature, while the leaf pattern on the accent wallpaper brings a sense of natural complexity and rhythm into the space, creating a calming effect due to their familiar and non-chaotic repetition, and provides yet another subtle connection to the outdoors. All these elements culminate in an interior that provides a lovely example of how one may experience biophilic design in an interior- even in retail- that is also supportive of neurodiversity.

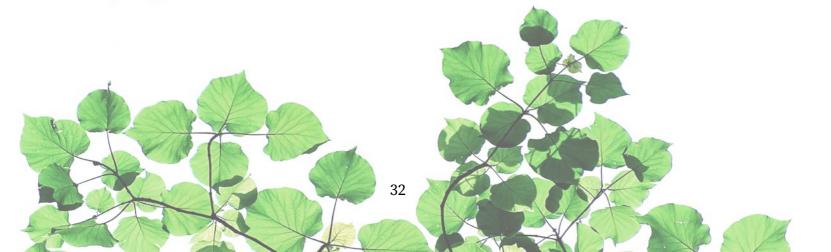
The inclusion of Biophilia in interiors allows for the creation of personalized spaces that can be adapted to individual needs in any kind of environment, ensuring that these spaces are not just functional, but also supportive of the diverse ways people experience the world, and conducive to their well-being.





lighting and furniture, they also incorporate the emotional and spiritual aspects, such as the energy flow and the connection to the nature of the space. Nicolene is a listed Professional Senior Interior Designer member of the IID - The African Institute of the Interior Design Professions.

https://dezyna.com



BIOPHILIA IN MASS TIMBER CONSTRUCTION NATURE MEETS INNOVATION: THE RISE OF

"Biophilia, the innate human connection to nature, is increasingly influencing the world of mass timber construction. It goes beyond just bringing nature-inspired decor to office or living spaces, now becoming a design philosophy integrated throughout entire structures and their foundations."

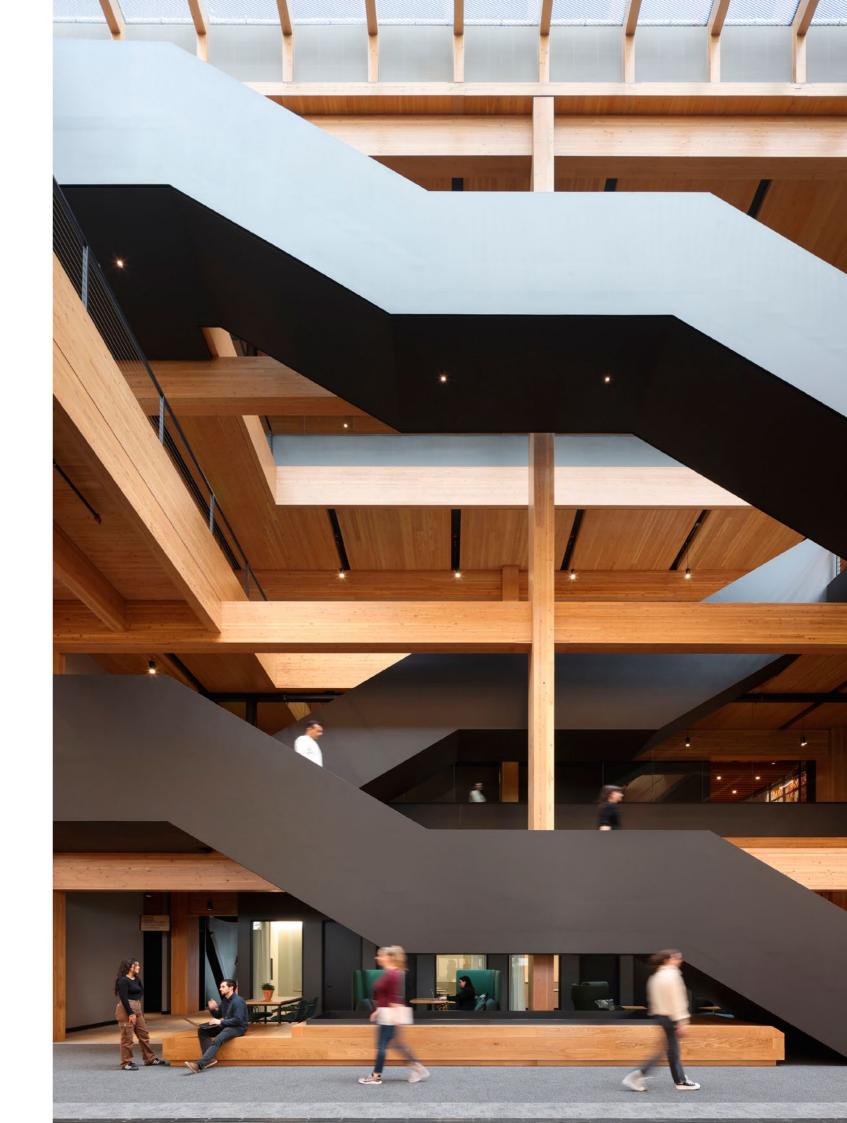
The benefits of biophilic spaces are unmatched, with supporting knowledge proving that these environments not only curate better focus and productivity but also have positive physiological and psychological effects. Energy and Buildings shared a 2018 study that confirmed the benefits of biophilia, showing that greenery and daylight contributed to better mental restoration, health, and creativity at work.

Moreover, prioritising biophilic elements in the design process inherently encourages more sustainable building practices by embracing organic materials that complement the natural aesthetics.

The Growing Timber Momentum

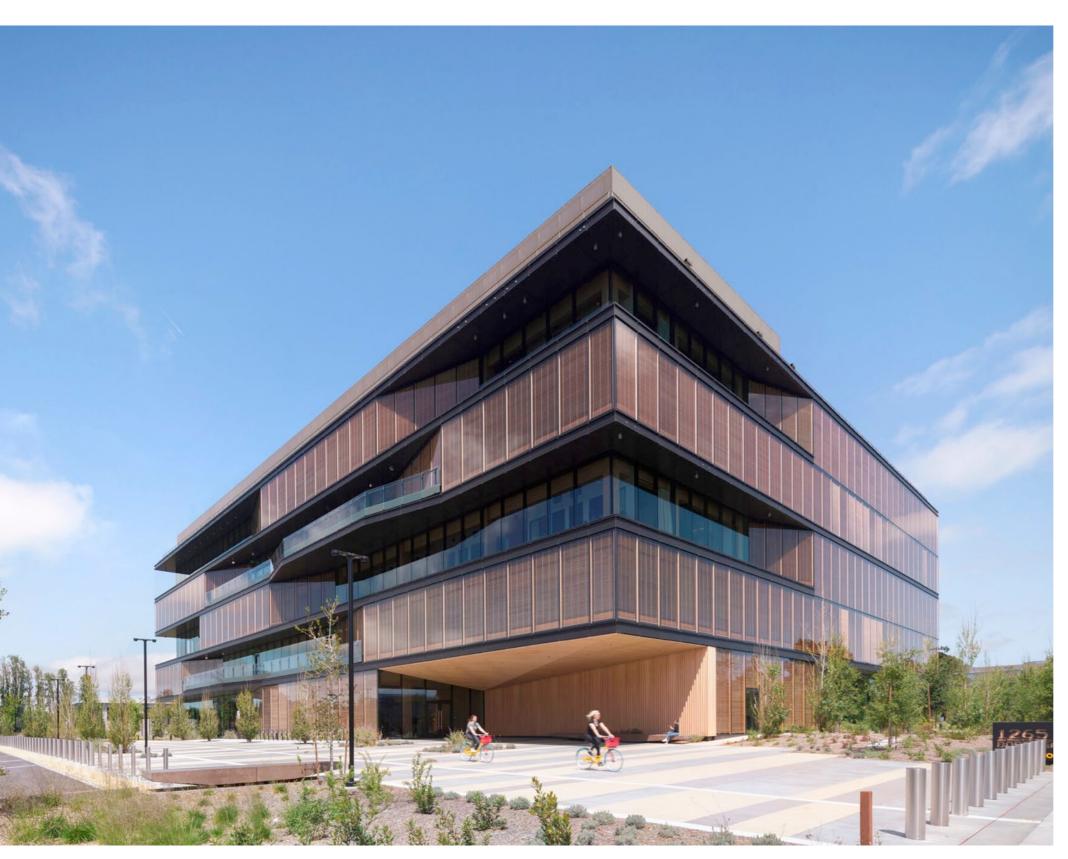
Mass timber's presence in Europe has been consistent, but now the North American market is teeming with opportunity. North America currently stands where Europe's mass timber market was ten years ago, with their cross-laminated timber (CLT) market projected to have a compound annual growth rate (CAGR) of 15.5% from 2023 to 2032.

Ricardo Brites



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Mass timber buildings are biophilic by nature and are a monument to the design style. In the US, 2,205 multifamily, commercial, or institutional mass timber projects were in progress or built as of June 2024. The region saw a rise in the application of the material around 2016, and its use has only expanded into many cities as a preferred material. What's driven the sudden surge? Mass timber provides exceptional structural advantages compared to traditional construction materials, like better strength-to-weight ratio, inherent seismic resilience, and possibilities for advanced prefabrication and consequent reduction in construction schedules. Furthermore, mass timber's renewable qualities make it an ideal option for organizations building in North America as climate change becomes clearer in focus and sustainability goals come to fruition.

The adaptation rate is on the rise with big-name companies who are turning inward to better their sustainability practices and the at-work experience for their staff, making going to the office more appealing while simultaneously achieving their climate goals.

2030 Goals on the Horizon

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There has been a noticeable shift in company ethos' surrounding sustainability in North America in the last few years. Many companies have fast-approaching green goals in 2030 that they must meet for their stakeholders, investors, and employees.

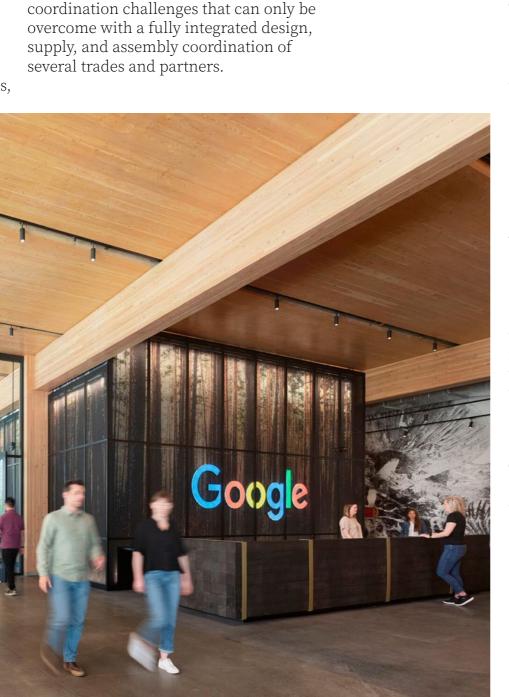
Many organizations have pledged to become netzero, a state where the carbon emissions produced are balanced by those removed from the atmosphere, cleaner, and more efficient, to name a few. These changes can be drastic, especially for tech companies with large carbon footprints. If reworking or building new offices is on the agenda, construction at a baseline can be carbon intensive. However, using a renewable material that directly draws carbon out of the environment and takes less time to build dramatically reduces the project's footprint.

Google and Biophilia

Google stands out as one of the companies leading the way to a biophilic and sustainable future, setting an example for those looking up to it. Google has a vision for scalable, sustainable building solutions and aims for carbon-free operations by 2030.

Mercer Mass Timber recently finished the Google Borregas project, a five-storey, 182,500-square-foot office building in Sunnyvale, CA. The structure exemplifies cutting-edge biophilic and structural design, advanced construction techniques, sustainable material sourcing, and significant carbon reduction.

It was crafted from CLT wall, floor, and roof panels, glue-laminated timber (glulam) girders, purlins, and columns. Cross-laminated timber slabs, in particular, were designed in some instances as a timber-concrete composite (TCC) to reduce overall structural depth and weight. TCC brings design and coordination challenges that can only be overcome with a fully integrated design, supply, and assembly coordination of several trades and partners.



Moreover, given that seismicity governs the lateral design in this region, using mass timber allowed the Structural Engineer to take advantage of the reduced self-weight of timber to reduce seismic demands (about 35pcf for timber vs 150pcf for concrete vs 490pcf for steel) to develop a cost-effective lateral system constituted of high-performance buckling restrained braces (BRB).

The common theme here is the intertwining of trades and specialities, only possible to deliver efficiently by using advanced design and coordination techniques like Virtual Design and Construction (VDC) from an early stage up to LOD400, where every structural element of the building is fully detailed, including all panels, beams, connectors and their delivery sequence.

Borregas features climate-responsive wooden blinds and high-performance glass for immersive views and increased efficiency to further the connection to nature. Employees can refuel with outdoor seating designed to encourage folks on the campus to enjoy the environment, furthering the biophilic principles behind the design. A four-story atrium bathing the space in natural light from a glulam skylight creates dynamic visual and physical connections among occupants.

The building is a hybrid structure, meaning mass timber and steel blend to create a visually unique but classic mass timber aesthetic. Blending natural materials, daylight, scenic views, and

organic textures allows employees to enjoy the space they work in and gain all the benefits from biophilic design while knowing they're in a space that is doing good for the environment.

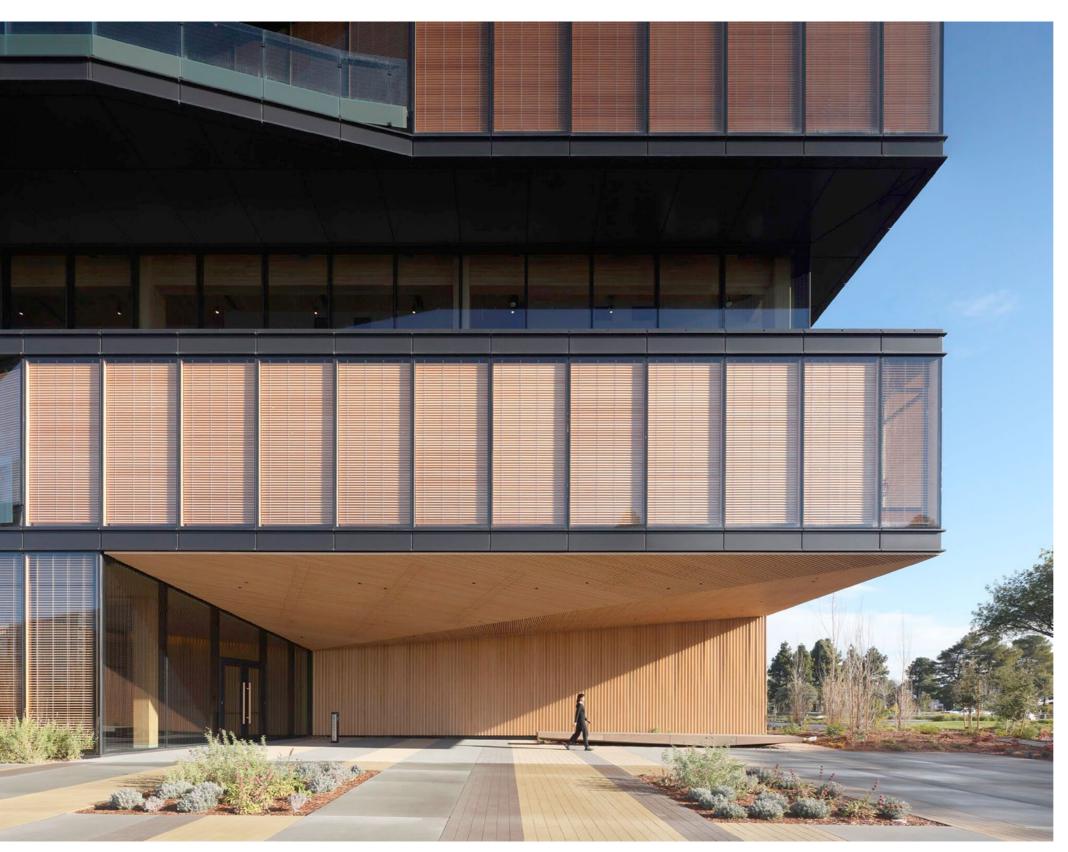
Google Borregas is a Leadership in Energy and Environmental Design (LEED) Platinum-certified project with the highest level of certification in the program. Google is sincerely dedicated to sustainability and occupant health, so going with mass timber for the structure was a clear decision, proving even more that ambitious biophilic and environmental goals can be met.

Engineering Challenges in Biophilic Design

Biophilic design presents unique engineering challenges, particularly in balancing sustainability with structural performance. For projects like Google Borregas, using mass timber offers clear environmental benefits but also introduces complexities. For example, TCC systems require precise coordination between structural engineering, material suppliers, and contractors to address challenges like transports & logistics, follow-on trades, temporary shoring, and on-site handling. Integrating high-performance systems, like BRBs, requires meticulous design considerations and collaboration across trades, underscoring the need for VDC tools to ensure precision from conception to completion.

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RETAIL



Incorporating biophilic elements into a high-performance structure also poses challenges in creating seamless connections between the natural environment and built space. Features like climate-responsive wooden blinds, expansive glazing, and large atriums for natural light demand careful consideration of building orientation, material performance, and occupant comfort. The hybrid mass timber-steel structure, exemplified by Borregas, further complicated the engineering process by requiring harmonization between different materials. Design teams must work together to integrate these materials while maintaining visual continuity and structural efficiency, all while meeting ambitious sustainability and certification goals, such as those set by LEED Platinum standards.

An Enriching Future Ahead

This is just the beginning of mass timber's fusion with biophilia. The push for biophilia is shaping the future of the built environment, and with companies like Google pushing the envelope, the potential for creating healthier, more sustainable spaces is becoming a reality. The momentum is undeniable, with North America rapidly catching up to Europe's timber revolution. Mercer Mass Timber's work on the Google Borregas project is a shining example of how these principles can be applied at scale, setting a new standard for sustainable, biophilic design and reassuring us of the positive impact on occupant health.

As more businesses adopt timber and biophilic designs to meet their 2030 climate goals, it's clear that the combination of environmental responsibility and human-centric design will continue to drive innovation in construction and support the well-being of those who live and work in these spaces. Biophilia and mass timber are at the heart of this transformation, paving the way for a more sustainable, connected future and sparking new creative possibilities in construction.

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www.mercermasstimber.com

Mount Street Store

A Biophilic Retail environment - Case Study

Simone Suss

How do we create retail environments using Biophilic Design?

Shopping is an immersive experience where customers interact with the physical embodiment of a brand's identity and values. Retail design shapes these environments, blending the digital and omnichannel experience with a physical representation of the brand.

Retail environments provide an opportunity for customers to experience the products and services on offer, creating an emotional connection between the consumer and the brand. By enhancing the customer experience, design of retail spaces can drive sales and enhance long term relationship with customers.





Journal of Biophilic Design

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People shop for many reasons. They may shop to socialise with friends and family so it's important to include respite areas within the retail setting so that, consumers may enjoy a more relaxed and enjoyable shopping experience. A comfortable, hospitable environment differentiates the store from competitors, fostering customer loyalty through positive experiences.

Biophilic design connects people to nature through the incorporation of natural and is becoming increasingly important in retail design. Creating zones for respite (for sensory overload), improved acoustics, encouraging purchases, including greenery in shopping centres and shops all mean we spend more and/or value the brand we are visiting.

Case Study

We collaborated with British Accessories Designer Sophia Webster on her Mount Street Store and created her first fully immersive customer experience. We incorporated the following Biophilic elements:

- 1. Natural daylight is fundamental to our wellbeing; it regulates circadian rhythms, releases serotonin, leads to better sleep and metabolic regulation. Retail outlets should maximise natural light through large windows and skylights, providing an abundance of natural light and connection with the outside. With this store we needed to balance natural daylight with the privacy required by high profile guests so included a sheer curtain which would let the daylight in whilst also keeping the area private
- 2. Rounded shapes and patterns found

- in nature promote relaxation so in addition to the round seating that we designed, we incorporated curved corners into the display units which also echoed the architectural details of Mount Street, Mayfair, London and give the store a sense of place and connection to the local environment.
- 3. The wooden floor and coir entrance mat incorporated natural materials into the design whilst also providing enhanced acoustic capabilities and a practical place for people to dry their shoes as they walked in from the (often rainy) London streets.
- 4. The use of greenery at the entrance enhances the design of the external store to make the space more inviting.
- 5. Leaves and flamingos (an important brand motif) were used in the architectural mouldings and cornicing to further enhance the branded space whilst connecting it to nature.
- 6. Social media has always been an important part of Sophia Webster's marketing strategy so we added neon butterfly wings to the space. Customers are encouraged to take photos of themselves trying on products in the store, enhancing the relationship between the bricks and mortar store with their online media channels (over 2.4 million Instagram followers).
- 7. The curved furniture is inviting and comfortable, providing respite for customers and their companions.
- 8. The cash desk includes a bright floral display which colourfully represents the brand and is also great fun to look at.



Shoppers are seeking more than just products, they want experiences.

"Biophilic design enhances the retail experience by the positive impact nature has on our wellbeing and a connection to the local community."

Having a positive experience in nature inspired spaces can help people recognise the benefits of a thriving natural world and motivate a more regenerative approach to consumerism. By encourage the restoration of nature and our relationship to it, consumers will be more conscious with their buying choices, connect with the materials and buy more consciously.

Simone Suss is Founder and Director of Studio Suss, an interior design studio creating regenerative spaces for private and commercial clients. She is recognised as a World's Top 100 Interior Designer, a Country and Townhouse 50 Finest UK Designer 2024 and has recently started creating her own furniture.

Simone is a member of the British Institute of Interior Design's Sustainability and Professional Practice Committee and represents the BIID on the Construction Industry Council Climate Change Committee. She is also a Founding Signatory of Interior Design Declares - a public declaration and commitment to taking positive action in response to climate breakdown and biodiversity collapse. She has a University of Cambridge Certificate in Sustainability Leadership, is currently studying a Masters in Regenerative Design at UAL St Martins and regularly talks at UK Design events and leading interior design schools.

www.studiosuss.com

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Social Hub at Eden, New Bailey

SET WITHIN ONE OF UK'S MOST ENVIRONMENTALLY-FRIENDLY OFFICE BUILDINGS

- Case Study -

SpaceInvader

SpaceInvader has created a stunning social hub on the ground and mezzanine floors of Eden, New Bailey - a newly-completed £36m office building in Salford, now one of the UK's most environmentally-friendly buildings. The new-build, 115,000 sq ft development - aimed at 'businesses who are serious about protecting the planet' - has been created by **The** English Cities Fund (ECF), a strategic partnership between master developer Muse, together with Legal & General and Homes England, the government's housing and regeneration agency. Eden forms part of New Bailey, ECF's wider £1bn, 50-acre Salford Central mixed-use regeneration masterplan.

The ground-breaking, 12-storey building was designed by architecture firm **Make** and is a *LETI Pioneer* project, created to achieve net zero operational

carbon and to champion sustainability, resource efficiency and wellbeing at every level. The building incorporates high-efficiency air source heat pumps and photovoltaic panels to generate on-site electricity, whilst its highly-insulated façade is now Europe's largest green wall, entirely fed by harvested rainwater and devised to absorb air pollution, enhance biodiversity, reduce urban temperatures and provide thermal benefits.

When the opportunity came up to pitch for the design of the building's interior amenity spaces, Manchester-based designers **SpaceInvader** jumped at the chance, determined to use the practice's extensive knowledge of designing sustainably to help push boundaries and create a scheme that would sit in harmony with the building's many eco-friendly achievements.

Background

Eden, New Bailey is located directly across from Muse's Riverside House HQ, where SpaceInvader created the interiors scheme in 2019, with the office going on to win a number of awards, including a BCO North Award, an OAS Development Award, a Northern Design Award and a GOLD London Design Award.

The new commission for **Eden** came about after **SpaceInvader Founder/Director John Williams** had been talking to **Muse** about the agency's ever-developing sustainable approach, which included extensive materials research, the incorporation of future-facing usage flexibility and the tangible integration of local community interests. **SpaceInvader** was subsequently invited to pitch for the social hub space, going on to win the commission.



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Brief

The brief for the new social hub comprised of 3,067 sq ft of ground floor space and a further 1,130 sq ft on the mezzanine level - was that it should be a cohesive offer, embodying both the needs of tenants and the local community and that it should harmonise with the building's exterior and sustainable credentials. The key to achieving the required cohesion was to make the space busy and active through a series of amenity provisions, offering local-operator F&B, co-working and collaboration areas, alongside wellness and retail/events spaces available to the local community. Along with a strong sustainability narrative, the interior spaces also needed to achieve a sense of balance for users through mindfulness, offering a strong wellbeing sensibility and good quality food and drink.

Approach

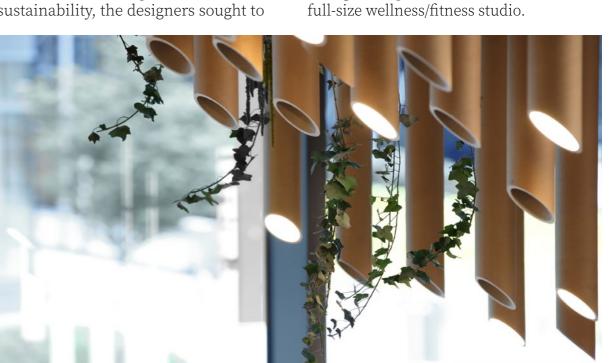
The key design concept was 'flourish', directly inspired by the façade's live planting, and relating to both sustainability and the wellbeing of all who use the building. When it came to sustainability, the designers sought to

feature a selection of reclaimed, low VOC and carbon-conscious materials.

"We started by thinking about carbon reduction and embodying that approach through the creation of a central sculptural piece for the ground floor social hub space", John Williams explained. "This would serve as a focus point for tenants on entry and also as a way to draw attention from passers-by and attract users from the local community. The sculptural piece, created together with lighting specialists Light Forms, was inspired by close-up photos of carbon rods and consists of recycled tubes and suspended rods with a bespoke-designed LED fitting. We also used natural materials throughout as part of our approach, including a recycled gym floor and cork for the acoustic panels in the F&B space."

The various spaces within the amenity offer were to include co-working, meeting, presentation and lounge areas; sustainable F&B and an accent throughout on nature, biophilia, social connection and contemplation. Cycling and shower facilities would be incorporated to encourage more active travel into work, whilst an elevated area - 'The Canopy' – offers a serene environment for contemplation and wellbeing, incorporating a treatment room and











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Lighting

The lighting design for the scheme needed to help create a variety of zones with different moods for taskoriented work or relaxation. Lighting is also a major feature of the ground floor sculptural installation and was developed, as with the amenity lighting scheme throughout, with Paul Shoosmith of Light Forms. To enhance the scheme's human-centric experience further, the majority of the light fixtures have tuneable white LEDs, allowing the colour temperature of the space to change to suit the environment and reflect natural circadian rhythms. All architectural fixtures are also DALI dimmable, enabling complete control of the light output and energy consumption throughout the space.

The New Social Hub

When entering the space, sculptural elements, such as the tubular ceiling feature and the curved, white-clad staircase to the rear, emphasise drama and scale. The arrival sequence then flows naturally from one space to another, with the sculptural ceiling guiding visitors through the main thoroughfare.

An elevated platform directly opposite the entrance creates a more private level for retreating for a phone call or lounging with a coffee. This includes a zoned-off quiet room and a bookable 8-person meeting space. The platform itself is made of the same re-used *Junckers* recycled gym flooring used throughout the building.





The co-working area is a key place for social interaction and collaboration: a place for employees and visitors to have informal meetings, or small presentations. Furniture here is varied to suit different length tasks. The event space is provided as an opportunity for giving people the chance to develop and grow.

The café space – now operated by local operator **Spice & Grind** - holds the key values of the building. This is a space for giving back to the occupants and the local community by encouraging social interaction. The approach here was for a design with a higher sensory threshold, meaning sights, sounds, and smells are more intensified, giving the space a real buzz.

All furniture was carefully chosen for this project on the basis of sustainable credentials, with FSC timber used throughout. "The cafeteria area also features an Ecorek countertop from Diamek Glass in Leeds" Abigail Tucker, Senior Interior Designer at SpaceInvader commented, "which is made from 85% recycled glass, whilst planting features intensively throughout the ground floor space to carry the building's external language inside."

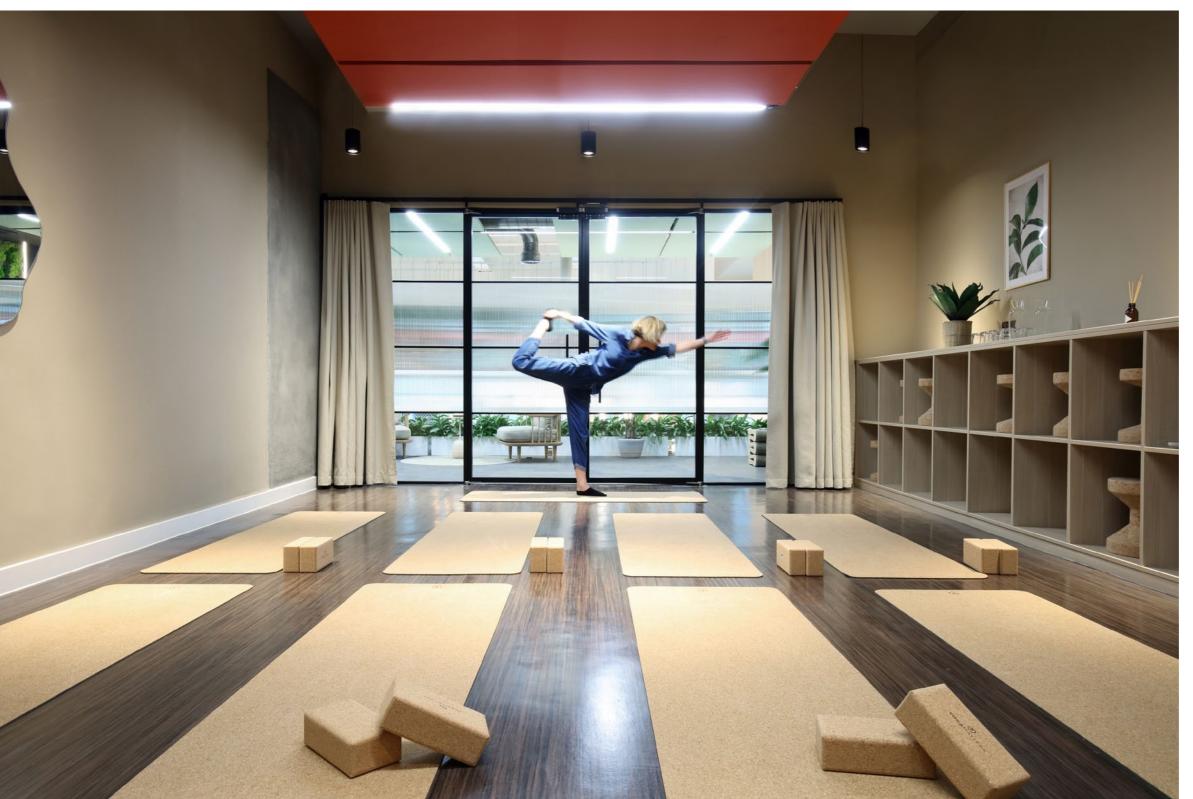
The mezzanine canopy area, accessed via the rear platform, is a place to escape from the bustling ground floor. This area is a low sensory threshold, with colours, textures, lighting and smells that are quieter and softer to create a calming atmosphere. A canopy effect in the mezzanine is created via planting in the ceiling and a self-replenishing water station encourages users to bring their own water containers.





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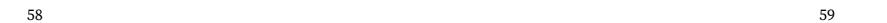


Planting includes troughs and plants known for climbing, which will create a green wall over time by wrapping around the balustrade. The canopy space also incorporates a treatment room and a full-size studio, featuring a sustainable and adaptable vinyl floor, to cater for a variety of wellness-related activities and treatments. The latter can also be booked as a presentation space, with a joinery unit that allows for yoga mats and small stools to be stored out of sight, embodying the scheme's approach to adaptable spaces. A darker palette throughout the mezzanine area reflects this calm and meditative atmosphere, inspired by the concept of a tree house.

Phil Marsden, Managing Director North West for Muse, commented: "Watching Eden emerge on Salford's skyline over the last two years has been an incredible journey. We wanted the ground floor and mezzanine space to be a focal point for the building, attracting use from both tenants and the local community. We had to move away from the traditional office reception and create a space that could be used for collaboration, meeting, relaxing and events. The space also had to be done using sustainable materials and meeting the health and wellbeing aspirations for Eden."

www.spaceinvaderdesign.co.uk

Photography credit: Pip Rustage



BURWOOD BRICKWORKS RETAIL CENTRE:

A LIVING BUILDING CHALLENGE BIOPHILIC DESIGN CASE STUDY

"Through the combined approaches of biophilic design and regenerative development, this project has become a living experiment in how commercial spaces can embrace principles that promote restoration, health, and community. By integrating natural systems and materials, fostering connections to the local environment, and prioritising human and ecological well-being, the project sets a new standard for what retail developments can achieve."

Stephen Choi

Introduction

Burwood Brickworks, located in Melbourne, Australia, has been described by many as "the most sustainable shopping centre in the world". As a newbuild development, it aimed to redefine retail architecture by harmonising commercial viability with environmental and social responsibility. The project was driven by Frasers Property Australia, who set an ambitious brief for the centre to achieve Petal Certification under the rigorous Living Building Challenge (LBC). Opened in December 2019, this 18,568 square metre development includes a mix of supermarket, specialty retail, six-screen cinema, food and beverage, a medical centre, a

childcare centre, an urban farm, and community-oriented spaces.

The Living Building Challenge is administered by the International Living Future Institute. It's commonly understood as the world's most rigorous green performance standard for buildings. It requires buildings to operate as self-sufficient entities that produce more energy than they consume, use water responsibly, and be created from non-toxic materials that consider the whole lifecycle. To meet the challenge, Burwood Brickworks needed to incorporate regenerative design features, which not only reduce environmental impact but also have a positive influence on the ecosystem and community of which it is part.

Regenerative Design at Burwood Brickworks

Burwood Brickworks achieved Petal Certification under LBC version 3.1, successfully meeting goals in key areas known as "Petals," including Place, Health and Happiness, Materials, Equity, and Beauty. A major regenerative feature is the integration of over 5,000 square metres of urban agriculture into the shopping centre. This includes rooftop and vertical gardens, as well as a closed-loop hydroponic system. Additionally, extensive solar arrays mixed with off-site renewable electricity produces more energy than the building consumes, and advanced water management systems capture rainwater for use throughout the building and in agriculture. Waste reduction efforts, such as incorporating over ninety salvaged materials in the construction and providing recycling or over a dozen different waste streams, support a circular economy and have reduced the building's embodied carbon to less than half of a comparable contemporary shopping centre.

Biophilic Design Patterns at Burwood Brickworks

A significant part of the success of Burwood Brickworks lies in its commitment to biophilic design, which taps into the innate human desire to connect with the natural world - of which we are all part. This approach goes beyond aesthetics. Integrating biophilic design elements at Burwood Brickworks tried to zero in on stress reduction, increased productivity, and improved cognitive function for staff, enhancing the mood and well-being of shoppers, and the health and healing process for those coming to visit the centre for medical purposes. Combined with a concurrent technical focus on air quality within the building, many aspects of the biophilic design approach contributes to a measurably healthier indoor environment.



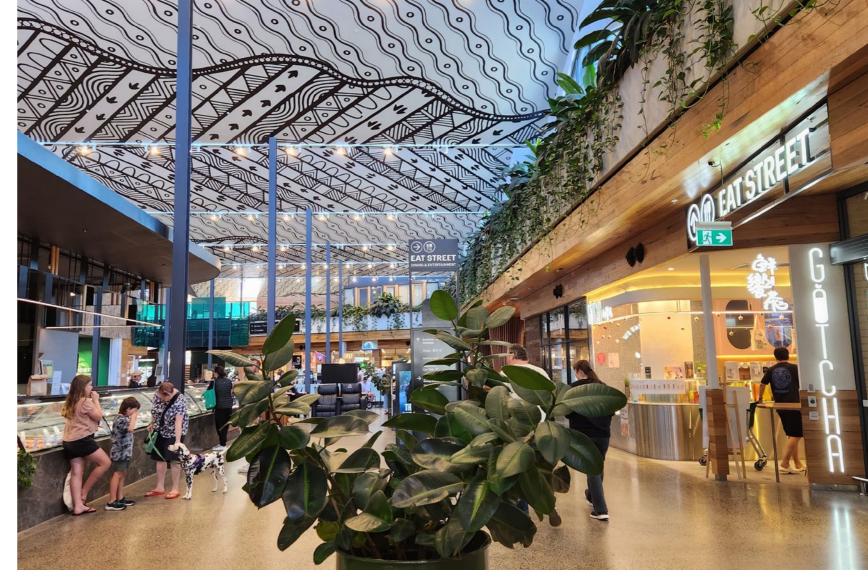
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Some of the biophilic design elements are subtle, and some are overt. Here are some example, and the aims of each:

- The centre's rooftop farm is perhaps the most visible aspect of its biophilic strategy. Freely accessible and connected to spaces such as a community room, restaurant, and childcare centre, the urban farm predominantly features vertical planting and raised beds. This farm provides fresh produce for the centre's restaurants and serves as an educational tool. Throughout the year, over seventy types of produce are harvested, offering visitors a hands-on experience with food production and demonstrating the farm-to-plate cycle and home-replicable practices like animal husbandry, composting, and worm farming.
- Natural light is carefully integrated into the design through strategically placed windows, solar tubes, and

- operable skylights, which bring daylight into regularly occupied spaces. This connection to the outdoors allows visitors to orient themselves by observing the weather and the sun's position, while the varying intensity of daylight throughout the day helps support circadian rhythms and reduces reliance on artificial lighting.
- Water is also a recurring theme in the design. Communal washbasins and natural or piped irrigation systems are highlighted with interpretive signage, while artwork on the central sawtooth ceiling, created by a Wurundjeri artist, reflects the story of the local river system. The Wurundjeri people, Indigenous to this part of Melbourne, have a deep spiritual connection to the land, rivers, and natural environment, and their cultural heritage includes knowledge of regenerative land management, storytelling, and ceremonial practices.



- In terms of design, there is a conscious effort to avoid rigid straight lines and boxes, instead favouring softer, curved forms and variations. The floor plan includes quieter zones that offer refuge, providing moments of introspection, relaxation, or social connection in more intimate settings. In contrast, open, expansive spaces provide broad views of the central mall, giving visitors a sense of safety and an understanding of the layout.
- Reusing materials places the building in a moment in time and intends to help occupants connect with a "spirit of place". For example, suspended from the ceiling above a travelator is the old timber that was used as

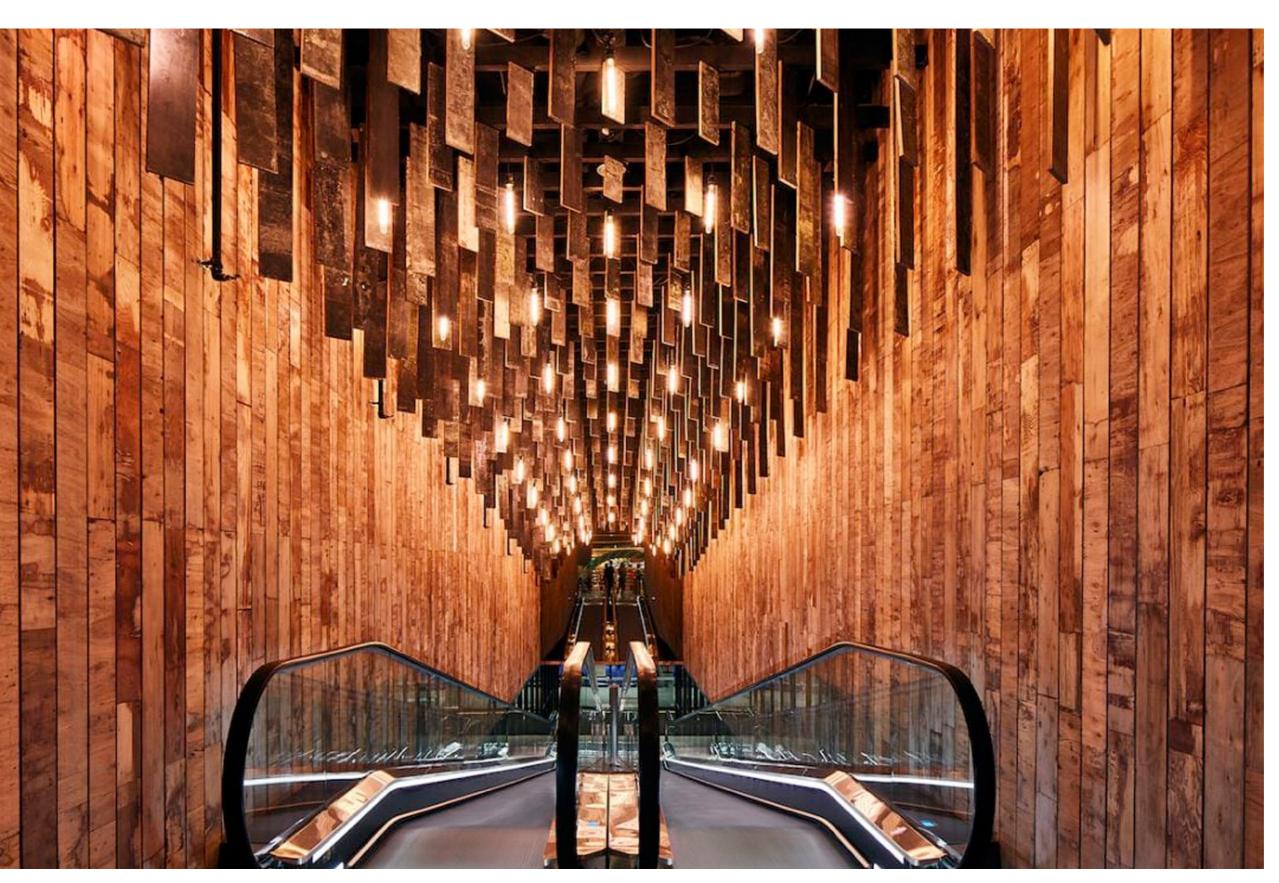
- formwork into which concrete was poured. The main entry facade is constructed of recovered bricks that were actually manufactured from the earth and quarry upon which the new shopping centre is now located.
- The building's primary entrances incorporate tactile materials such as timber, cork, and brick, while local Indigenous artwork and hyper-local visual features engage visitors. Subtle olfactory and auditory elements, such as essential oil diffusion and seasonal bird recordings, enhance the biophilic experience. Feedback from visitors has shown that these combined sensory cues promote a sense of calm rarely associated with retail environments.



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Summary

In many ways, Burwood Brickworks is just a neighbourhood shopping centre in a typical suburb, serving the daily needs of everyday people. However, through the combined approaches of biophilic design and regenerative development, it has become a living experiment in how commercial spaces can embrace principles that promote restoration, health, and community. By integrating natural systems and materials, fostering connections to the local environment, and prioritising human and ecological well-being, the project sets a new standard for what retail developments can achieve.

As the world's first Petal-Certified retail centre,
Burwood Brickworks
provides an example of
the potential of biophilic
design to enrich human
experiences while
attempting to demonstrate
that a project can be socially
just, culturally rich, and
ecologically restorative.

http://www.architectureforchange.com

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Top tips from Designers' Notebooks

"Whether you are just starting out as a retail designer, or are a brand looking to enhance your space, have a look at some of these tried and tested design hacks in your next project."

Dr Vanessa Champion

There are some really wonderful examples where Biophilic Design has enhanced retail spaces. We asked a few industry designers about their own practice and if they could recommend any examples which stood out for them.

"When it comes to biophilic design in retail, adding features that are inspired by nature can have a huge effect on how customers feel and their health. I have seen some amazing instances where retail settings have deftly included trees, plants, natural light, and other aspects to improve both aesthetic appeal and utility," says Vincent Larson, Interior Designer at CopperSmith.

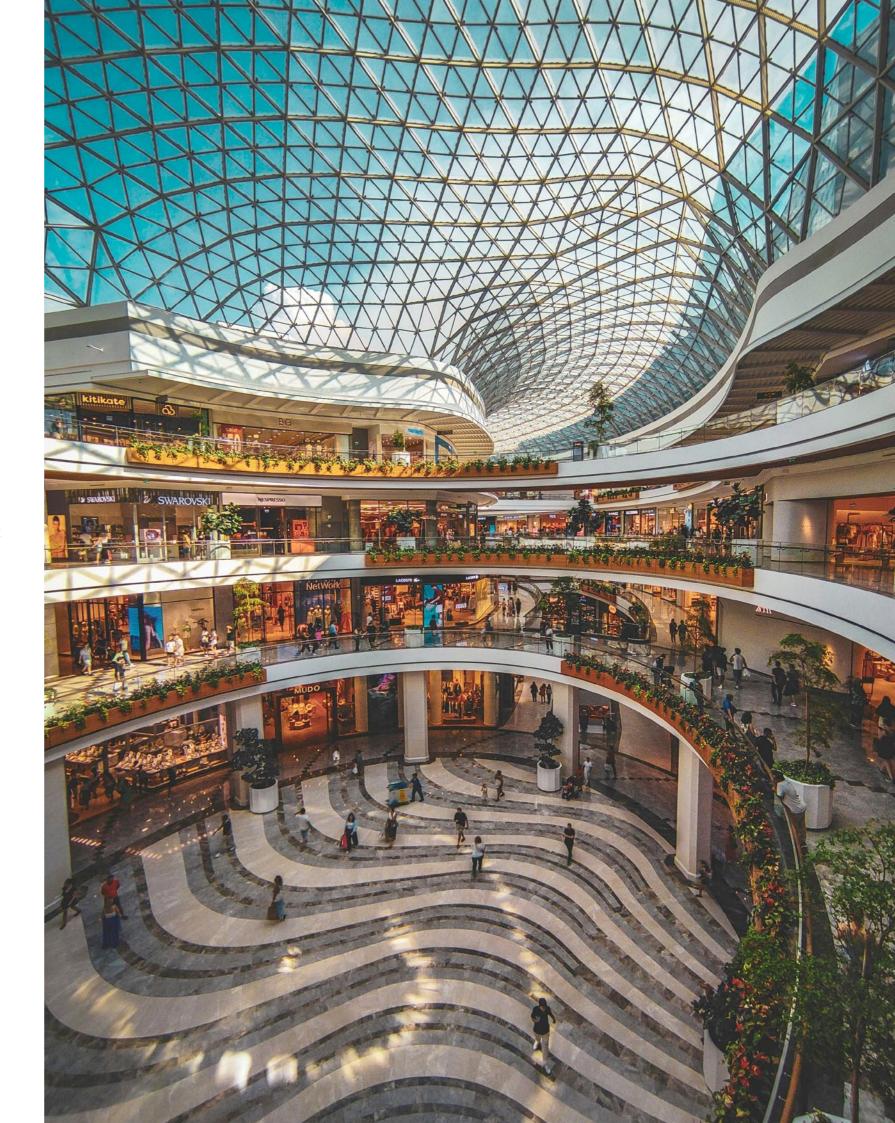
"One such instance is the Aesop shop in Singapore. Comprising of an amazing indoor garden with a range of rich plants and natural materials, this retail space is designed with a calming earth-tone palette and timber fittings to create a peaceful environment that contrasts wonderfully with the metropolitan surroundings. Strategically positioned skylights allow natural light to pass through, therefore improving the openness and connection to the surroundings."

James Scaife, director of Olson and Baker

says: "Biophilic design in retail is more than just a trend; it's a strategic advantage backed by research. Studies show that biophilic elements – like natural materials, organic shapes, and greenery - enhance consumer well-being and increase spending. By creating spaces that mirror nature, retailers tap into Attention Restoration Theory, which suggests that natural environments help reduce mental fatigue and improve focus. This means customers are not only more inclined to stay longer but also more willing to make purchases. We advocate for biophilic design because it blends aesthetic beauty with measurable business outcomes, creating spaces that are both inviting and profitable."

So which Biophilic Design elements have the greatest impact?

Brian Curran is an architect and interior designer with over 8 years of experience and is director of Drafting Services. "Circadian lighting that mimics natural daylight can improve customer mood and energy levels while shopping. I noticed a significant difference in customer behaviour and purchasing patterns when implementing this design element."



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Nitya Seth, is an interior designer at NITYANAMYA and has seventeen years of experience including biophilic design principles in retail spaces in India: "I designed a shopping mall that had open sky windows and arranged windows strategically for natural light to flood the entire space. I also utilised circadian rhythm lighting within a high-end boutique establishment that replicates how daylight transitions naturally throughout the day; thereby enhancing buyer's moods and staff's energy levels."

Incorporating Prospect and Refuge in retail can really enhance the shopper's experience. In a string of independent bookshops, Nitya created little corners with comfy chairs (refuge) amid open spaces (prospect). "This equilibrium provided visitors with comfortable places for rest and larger zones for browsing to enhance their overall experience." She also added potted plants as well as vertical gardens to bring nature closer, purify air quality, and add life to the premises.

Nitya shares how she also uses soundscaping. "In one recent project I included a subtle soundscape composed of natural sounds like running water and birdsong which formed a calm and welcoming environment."

Plants and natural colour patterns, tones and materials are essential also in a Biophilic Designer's retail toolkit. Vincent Larson added: "The Bangkok Central Embassy shopping mall is a great example of biophilic design. The mall's architecture makes great use of vegetation; hanging gardens and living walls abound. The use of sustainable materials like bamboo and repurposed wood accentuates the ecofriendly story as natural light penetrates the inside areas."

Vincent also highlighs The Milan Starbucks Reserve Roastery (which is gorgeous by the way, and a real "experience"!): "The design team has deftly combined modern store space with natural surroundings. Combining warm, natural elements like stone and wood with lots of natural light and indoor plants produces an appealing and pleasant space."

Brian Curran recommends "utilising eco-friendly materials in store fixtures and furniture such as reclaimed wood, recycled metal, and natural fabrics that create a sustainable and biophilic aesthetic. I have seen an increase in customer loyalty and brand trust when retailers prioritize sustainability in their design choices. For instance, using recycled materials can also serve as a great marketing strategy to attract environmentally conscious customers. This appeals to environmentally conscious the brand with eco-friendly values."

For Nitya Seth, "Biophilic design changes retail environments by linking human beings to their surrounding natural environments, thereby improving customer satisfaction and wellness. Using a natural colour palette like soft earth colours and curved shapes inside store layouts create an intimate peaceful ambiance that make customers take their time to explore or remain there longer than they intended."

If you are a designer and have some brilliant examples of Biophilic Design in retail do reach out to us on social media and tag us "Journal of Biophilic Design". We would love to see how Biophilic Design is transforming how we negotiate retail spaces and interact with brands.



Bringing Mature's Elements into Retail Spaces

"Bringing elements of water, shelter, natural light, living plants, and important visual cues, into a retail space is vital to making a space that welcomes us and keeps us engaged in a positive way throughout the visit. And when we respond well to a retail space, we stay longer, engage with more products, and purchase more."

Lyn M. Falk

Retail started a long time ago in tents filled with goods we needed in our lives. Today, retail encompasses all sorts of selling environments that sell things we don't just need in our lives, but want, or think we want/need. How can we make today's selling spaces more sustainable, healthy, and just more pleasant to be in? You don't have to look further than the outdoors and life-giving nature.

Because generations of our ancestors grew up living outdoors, they were keenly tuned in to the weather, seasons, sun and sky, foliage and fauna, as well as their predators. This sort of living over thousands of years has shaped who we are today and is still very present in our DNA. Bringing elements of water, shelter, natural light, living plants, and important visual cues, into a retail space is vital to making a space that welcomes us and keeps us engaged in a positive way throughout the visit. And when we respond well to a retail space, we stay longer, engage with more products, and purchase more.

Here are five tips for making your retail space more nature/human friendly.

1. Greenery

We all know green plants clean the air but looking at green plants can also help reduce stress and make one feel better overall. This helps explain the continued popularity in "living green walls" inside public spaces. Caution: use only real foliage (not plastic!) and be sure the plants stay healthy as unhealthy greens will deplete vital energy in a space.

2. Water

With humans being made of up to 60% water, and needing water to survive, this liquid is a vital and attractive element for all of us. Adding a water feature not only adds moisture to the air (much needed in winter months or desert climates), but it also provides a soothing sound. Offering free water from a water dispenser is always a hospitable touch (brand the base of the dispenser!), as is putting bowls of water outside the front door for dogs walking by.





It's important for customers entering a store to be able to see what's ahead in the store. (Think of early ancestors looking out of an elevated cave or from the top of a hill, scouting for food or predators). Strategically placing focal point displays will attract the eye, and then the feet follow the eyes. Whether it's department signs, an elevated display platform, or flat screens up

on the wall, these help direct customers into and around the store. This allows our left brain to make sense of the space which makes customers feel more in control. We all like to know where we're going.

4. Accessible Aisles

Once a customer is in the store, accessible aisles is important to not only to navigate the store, but again, to bring a sense of control to the customer. Getting turned around or lost in a cluttered store can create uneasiness during the shopper's journey. Subconsciously, everyone wants to know "how to get out" or "escape" if necessary.

5. Lighting

We are all, always attracted to natural light. But if your store is facing east, south, or west, you know how hard the sun can be on air conditioning bills, and merchandise in the windows. Awnings, UV glass films, or operable shades are often needed to control this life-giving source of energy!

Multiple types of lighting such as track lighting and floor lamps in a Kelvin temperature range of 3000-3500 will add the sort of variety our eyes and bodies respond best to if you consider the sun's natural pattern, while offering the best color rendering for your product lines.

When it comes to adding artificial light sources, it's important to have multiple types, as our energy becomes stifled when we are under one artificial light source for more than a short period of time. So, in addition to your overhead lights that provide ambient light, add track lighting for highlighting focal point displays. Bringing in floor or table lamps may also add to the ambience of the store.

Keeping the bulbs in the 3000-3500 Kelvin temperature range will bring about the best color rendering for your product lines (unless you're illuminating diamonds which need 5-6000K). Our eyes and bodies respond well to a variety of light sources in our environments, just as our ancestors were used to the sun's light changing throughout the day.

Bearing these tips in mind will help you create a more energetically vibrant store, which will ultimately make for a more pleasant shopping experience. And when customers are content, they will stay longer and have more opportunities to become emotionally engaged in the experience and product lines, and all this leads to more sales!

Lyn is the Owner/President of Retailworks Inc., Holistic Commercial Interior Designer and Consumer Behavior Specialist

lfalk@retailworksinc.com





The Neuroscience of Biophilic Retail Design

"There is SO much evidence that proves just how beneficial Biophilic Design is in the retail space, not just for profit but for staff and customers too. Our Science Editor collates some of this extensive research for us here."

Dr Sally Augustin

Biophilically designing stores is a very good idea indeed. Neuroscience studies have yielded the following findings, for example:

- Sales revenues are significantly greater in stores with more natural light (Heschong Mahone Group, Inc., 2003).
- Data collected in shopping malls indicates that plants can boost sociability in public settings (Joye, Willems, Brengman, and Wolf, 2010). They also aid wellbeing, and lower stress in stores with complicated layouts and ones that are spatially dense, all of which results in shoppers looking at more merchandise (Brengman, Willems, and Joye, 2012). Research with artificial plants reveals that when they are placed at the entrances to stores, the odds increase that people will enter, explore, spend more time talking to salespeople, and remain inside (Buber, Ruso, Gadner, Atzwanger, and Gruber, 2007). The Buber-lead team also identified positive implications

- of including water elements in retail spaces.
- Rosenbaum, Ramirez, and Matos (2018) report that their "research assesses consumers' neural activation in response to natural elements present in a lifestyle center, as measured by electroencephalography (EEG). The study builds on previous research that demonstrates not only consumer preferences for greenery in shopping areas but also the stress-reducing, or restorative, health benefits that consumers may receive by spending time in green areas. . . . Participants recruited in a shopping mall viewed a video that showed a customer journey through a lifestyle center that either featured biophilic design or did not. . . . data [collected] indicate that biophilia design elements stimulate consumers' neural activities associated with excitement, interest, decreased stress, engagement, attention, and relaxation, thus explaining why shoppers tend to respond positively to retail greenery."



- Sina and Wu (2023) evaluated how biophilic design and other factors influence retail design-related outcomes using virtual reality, reporting that "The main objective of this study is to understand the impacts of retail greenery and correlated colour temperature in biophilic design on consumers' emotions, perceptions (pleasure, arousal, perceived merchandise quality) and responses (satisfaction and purchase intentions) in virtual reality fashion stores. . . . The results showed that consumers prefer a retail greenery application over a non-retail greenery application. Cool lighting creates higher arousal than warm lighting. . . . under the retail greenery condition, cool lighting creates higher pleasure and perceived merchandise quality than warm lighting. . . . under the non-retail greenery condition, utilitarian shopping value generates higher pleasure, arousal, satisfaction, and purchase intentions than hedonic [pleasure-related] shopping orientations. Non-retail greenery conditions are utilitarian-/goal-directed."
- Windhager, Atzwanger, Bookstein, and Schaefer (2011) conducted a fascinating study involving live fish in a household size aquarium. They report that their project "examined whether urban Europeans pay increased attention to natural stimuli even in an unnatural environment. An aquarium was installed in the window display of a Vienna, Austria, shopping mall and its effect on the responses of passers-by recorded. Assessment was by review of videotapes and quantification of duration of stay

- in front of the window, periods of facing the window, and such communications as pointing in the presence of others. . . . As expected, all the behavioral measures of attention and exploration that were assessed indeed increased when the aquarium was present."
- Spendrup, Unter, and Isgren (2016) found that "nature sounds positively and directly influence WTB [willingness to buy] organic foods in groups of customers (men) that have relatively low initial intentions to buy. . . . our study concludes that nature sounds might be an effective, yet subtle in-store tool to use on groups of consumers who might otherwise respond negatively to more overt forms of sustainable food information."

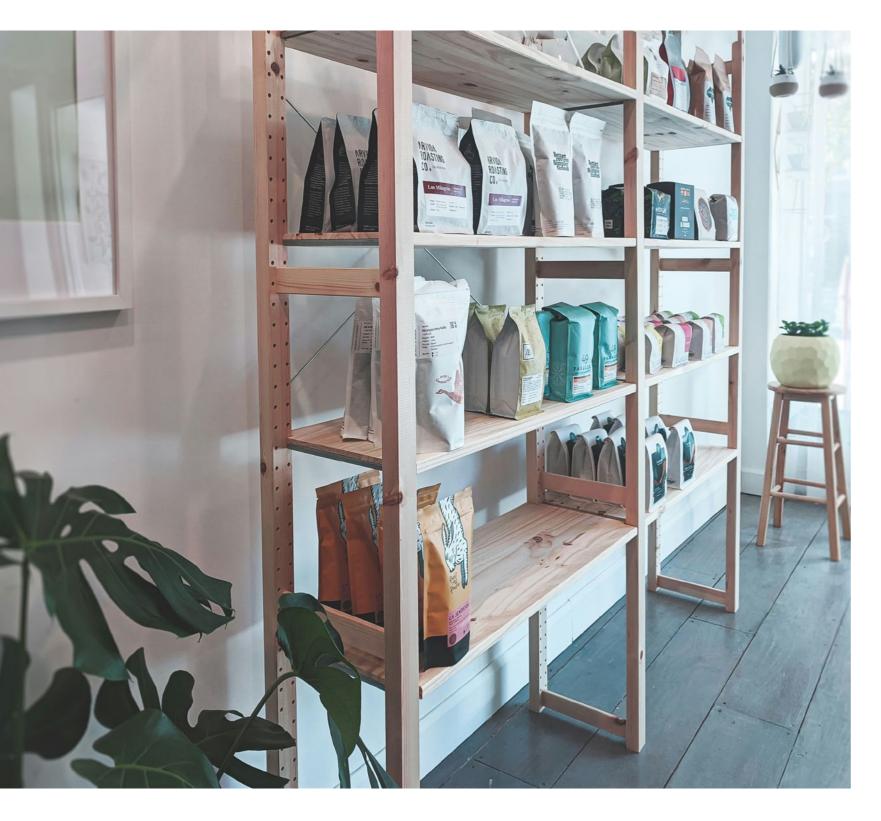


- Providing shoppers with prospect and refuge encourages them to remain in an area (Ellard, 2009).
- The Wijesooriya/Brambilla (2021) team link biophilic design to greater satisfaction with retail spaces.
- Shin, Lee, Min, and Legendre (2023) report that "Many service and retail facilities, such as hotels, restaurants, hospitals, and airports, are incorporating nature elements into their building design. . . . when biophilic attributes are moderately implemented, they can elevate aesthetic and attractiveness perceptions, but this effect tapers off if the implementation is excessive. . . . this study confirms that WTPP [willingness to pay a price premium] is enhanced via increased aesthetic value and luxury perceptions when biophilic attributes are present (vs. absent. . .). . . . An adequate level of nature elements, when implemented in biophilic-scarce areas, can improve customers' perceptions of aesthetic value and luxury. This, in turn, improves customers' WTPP for the service."
- Castro and colleagues (2022) share that their research: "develops, proposes, and tests a conceptual framework for consumer responses to environments that incorporate materials, textures, shapes, colors, and patterns that quote nature. It shows that when present in a consumer context, these biophilic design elements elicit what we label the friluftsliv response: a

- response characterized by a positive connection to place that elicits both drive and contentment-based affective [emotional] reactions. The results indicate that consumer environments rich in biophilic design elements can positively influence important marketing variables, such as situational consumer anxiety and retailer choice."
- Bruckberger and teammates (2023) found that "Retailing groundedness may lead to increased customers' willingness to pay, loyalty, and positive word-of-mouth, longer and more frequent customer visits, as well as greater employee satisfaction and retention. . . . retailers can create a connection between customers and place is by embedding the store into the local environment. . . . Retailers may thus create feelings of groundedness in their customers by creating a store environment that evokes experiences that customers find in nature. This could be achieved by biophilic design, for example, by equipping the store with natural elements." Grounding experiences can be multisensory.
- Ortegon-Cortazar and Royo-Vela (2019) found via surveys distributed at shopping centres that "A biophilic atmosphere can improve the attraction capacity within a highly competitive [retail] environment."

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THE SCIENCE THE SCIENCE



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Cultivating historic wisdom: Including nature in specialist mental health, learning disability and autism services

"Nature based practice can be encouraged in all parts of the treatment pathway, for people with all severities of symptom and all levels of restriction on their liberty. The shift in ecological consciousness that has clinicians seeking opportunities for including nature within practice is leading us to embed it within our clinical models and where we do that then ultimately it needs to be at the centre of the design of our estate."

Mathew Page

In the mid-nineties, as an 18-year-old looking to find my place in the world, I walked into the reception of the newly built mental health (MH) unit serving the county of Gloucestershire, and asked the receptionist what I needed to do to get a job there.

The facility was pressed into the crowded estate of a large acute hospital, its small boundary marked on one side by an 8' brick wall, opposite enormous crumbling buildings brooding with dereliction.

The hospital, I would later learn, was built on the grounds of the original "asylum", a vast Victorian enterprise, constructed at the beginning of the nineteenth century on the edge of the city. The greedy gobbling of the expanding conurbation now hid it amongst the overbuilt landscape.

The once innovative architecture of the main hospital is now apartments, with little to indicate to residents the aspirations of the original designers, who sought to provide vast light filled spaces surrounded by gardens and farmland where occupation was seen as a primary intervention.

A few years later I was back at the same hospital, as a nurse leader running the new low secure unit. The nomenclature of MH care can be confused and often is mis-described. As opposed to the acute services which provide inpatient care for the main population, secure care is reserved for those experiencing the riskiest behaviours and often for people who have become associated with the criminal justice system.



THE SCIENCE

Our new building, folded into the same over populated site, was filled with technology and had a utilitarian architecture with lessons learned from neighbouring units generous space for activity and wide corridors served by high roof lights.

Institutions, especially MH units, if not well led, can have tendency to serve the interests of the institution and not the patient. Tragically history is littered with examples of inadequate care and abuse because enough attention wasn't paid to this phenomena. Poor quality MH units will see an over reliance on physical security (doors, walls and fences), unnecessary use of procedural security

(searches, checks, observation) and little use of relational security (building positive powerful intervention of all. professional therapeutic relationships between patients and staff). My unit was good at the two former concepts and we needed our effort to go into the latter. We sought ways to provide opportunities to develop patient focussed compassionate relationships which would make it a pleasant place to live and work and provide an environment where people could thrive and recover. When working with people who often had no recent experience of a positive non-abusive relationship, offering nourishing human



Planned new Learning Disabilities and Autism Unit, Blackberry Hill, Bristol Photo credit: Avon and Wiltshire Mental Health Partnership NHS Trust

interaction was perhaps the most

Noticing that the trust still owned a nearby plot of land, which had once been a horticultural project, I began to investigate the value of using gardening as a means of offering an engagement activity where the therapeutic relationship could be fostered. As I read through the theories attached to such programmes it became evident that the task itself could hold a very specific psychological value.

The concept that captivated me, was that of fascination. I couldn't get it out of my head. The theory being that humans are built with an innate fascination with plants due to our need to cultivate them to perpetuate our own survival and that of our species (Kaplan 1995). It was one of those moments where you learn something that you already know.

The application of this principle within a clinical setting was what I really wanted to explore. The wellbeing of the general population was of course important but I wanted to know what this meant for people experiencing the psychosis that had led to their admission to our low secure unit. Psychosis is probably the most loaded and misrepresented of any type of illness. Think of it as a human mind being bombarded with a thousand things that aren't real or helpful thoughts, beliefs, memories, voices. You can see how enabling someone to have a few moments of fascination - focussed entirely on one thing, excluding the other nine hundred and ninety-nine would be profoundly soothing. An ice bath for an acute fever.

Twenty years later, the project is still going strong. Mind's report: Ecotherapy opened up a timely discussion amongst clinicians that brought attention to the success of well-established programmes of work and encouraged an ecoconscious group of practitioners to begin including nature in their work (Mind 2007).

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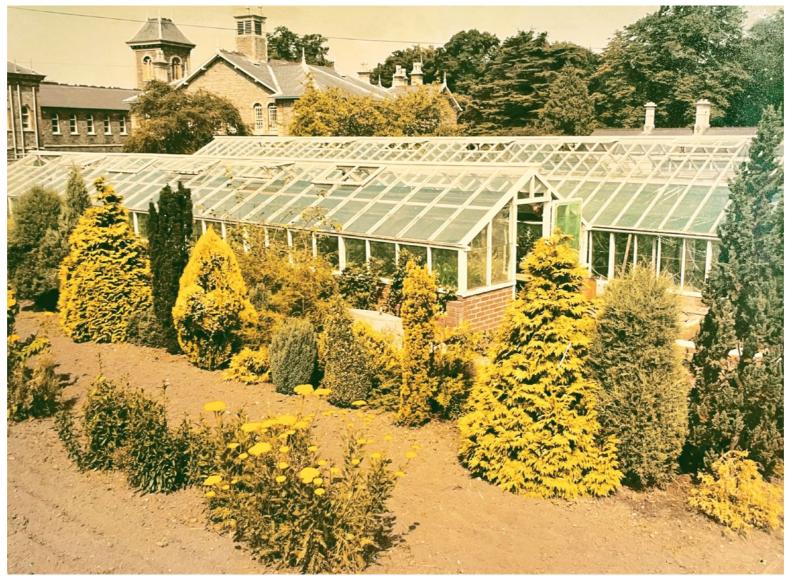
THE SCIENCE

In 2021 NHS England commissioned seven national pilot sites to develop activities within communities under the label Green Social Prescribing (NHS England 2023). In my own area – Bristol, North Somerset and South Gloucestershire people have access to a range of activities in forests, in water, on our city farms and using photography to focus on nature in urban areas.

The national research programme has looked at two years' worth of data and found that of the 8000 people receiving support:

- there was good access for populations underserved by other treatment approaches
- there have been notable improvements in
- happiness
- life satisfaction
- feeling that life is worthwhile
- anxiety
- physical activity
- there is a strong economic case with a return on investment of £2.42 per £1 spent (Haywood et al 2024)

Generating robust large-scale data which demonstrates an effective approach to tackling health inequalities, improvements in clinical outcome with good financial efficiency should mean that MH services will begin to invest more in such interventions and rather than being seen as peripheral, will become core to the treatment models on offer.



Glenside Hospital prior to closure

Photo credit: Glenside Hospital Museum

The enthusiasm amongst local community organisations and highly specialist clinicians in my local area has demonstrated that nature-based practice can be encouraged in all parts of the treatment pathway, for people with all severities of symptom and all levels of restriction on their liberty.

Being scalable, interventions can start with simply bringing natural objects into therapy or relocating a session outdoors through to people working in a horticultural therapy programme. Community MH teams, hospital teams and those providing specialist psychological support to refugees and asylum seekers are all working with nature (Page 2024).

The shift in ecological consciousness that has clinicians seeking opportunities for including nature within practice is leading us to embed it within our clinical models and where we do that then ultimately it needs to be at the centre of the design of our estate.

MH units designed since the pandemic will have different characteristics to their predecessors. We now know that we need bedroom and corridor design that allows for the cohorting of those with infectious illnesses, ventilation which allows air straight out and not pushed around the ward and we need more space for clinicians to "don and doff" their personal protective equipment (PPE), shower and change.

Just as previous designs had encountered problems with an over preoccupation with security or observation at the expense of the therapeutic milieu, we need to learn how to weave these sometimes-competing demands into the form of our buildings.

In Bristol in the west of England, Avon and Wiltshire Mental Health Partnership NHS Trust is building a new unit for adults with learning disabilities and / or autism and concurrent MH problems where people will stay for up to several months.

Nature is quite literally at the centre of the building design with an open-air courtyard around which bedrooms and communal areas are cloistered. The architects have coproduced the design with clinicians and people with lived experience of receiving care. Each of the ten bedrooms then has its own private garden which will give its residents control over whether they are indoors or outside and the ability to choose to use the open air as part of their personal self-calming techniques.

The development of the clinical model is being influenced by the evidence of the value of nature in practice that may well make the service unique when it opens later in 2025.

With Lord Darzi's review recognising the urgency of developing the NHS estate in line with contemporary needs, the coming decade is likely to offer a rare opportunity for services and their buildings to be designed holistically (Darzi 2024). Lessons need to be learned from a previous generation of designs which saw no need for connection with nature to realise its intrinsic necessity in human wellbeing and as the evidence increasingly shows, the likelihood of improved patient experience, clinical outcome and long-term financial efficiency.



Glenside Garden today, now part of the University of the West of England Photo credit: Glenside Hospital Museum

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https://www.linkedin.com/in/mathew https://www.awp.nhs.uk/ -page-mentalhealth https://bnssg.icb.nhs.uk/ health-and-care/healthier-with-nature

Hearing health

"Biophilically designed spaces help our ears keep healthy.

Here is a reminder why acoustics should be an important part
in your design solutions and product specifying."

Andrea Harman

Here at Ecophon we spend a lot of time ensuring that a room's acoustics is beneficial to the activities taking place and for every user; including people with health conditions that may have affected their hearing and people with hearing loss. In these instances, the role of good room acoustics is key in enabling people to in attend and be involved in activities taking place.

We also become involved in hearing conservation and hearing health.

Hearing loss and general health

Hearing loss affects 18million people in the UK, affecting 1 in 3 adults. We know that there are links between hearing loss and cognitive decline, with even mild hearing loss doubling the risk of developing dementia. It is also recognised that many people with hearing loss are more socially isolated and this can lead to depression and poor mental health. Evidence is starting to show that this is sometimes a modifiable risk (one we can do something about) and in these instances hearing aids help. Being able to hear helps keep our brains healthy.

Hearing loss causes

Hearing loss can occur at any stage of our lives and has many different causes from childhood illnesses and chronic ear infections through to long term health conditions.

One of the main causes of hearing damage is loud noise. Sustained exposure to high levels of noise or even a one off event can lead to hearing loss; but how loud is loud?

Whilst we know that certain events and hobbies such as clay pigeon shooting, car and motorbike racing, music events and jobs such as those where power tools and loud machinery are used are noisy and often involve the use of hearing protection; we do not think about this so much in social situations. According to the RNID if you can't talk to someone situated about 2m (6ft) away without shouting because of background noise, it's likely that noise levels are high. Also be aware of the levels of noise when using headphones as the volume is often set high. The World Health Organisation states that worldwide over 1 billion young adults are at risk of permanent, avoidable hearing loss due to unsafe listening practices.



Journal of Biophilic Design

THE SCIENCE

If you can't hear properly (including ringing in your ears) for a few hours or more after an event it is likely you have been exposed to noise that's loud enough to damage your hearing and you may have developed a slight and permanent hearing loss. If noise is so loud that it hurts your ears, you should immediately leave or stop whatever is causing this. Continued exposure to loud noise, leads to more noticeable damage.

If you experience sudden hearing loss then it is important to contact your GP or NHS 111 straight away, as whilst it may be nothing serious for certain conditions there is a short window of effectiveness for treatment.

But how can we protect our hearing against noise?

There are many things we can do to help protect our hearing in noisy situations below are a few examples

- When using headphones or at a music event take frequent breaks away from the sound (at least 5 minutes per hour for headphones).
- Set a volume limiter at a safe level on your audio device (please also do this for your children)
- Take earplugs on a night out or for a noisy hobby; there are many types to choose from including ones that do not muffle sound but do make levels safer

- Use noise cancelling headphones to take out background noise; the volume then doesn't need to be so high
- In a music venue stay away from the speakers
- If you work in a noisy venue or your role involves listening through headphones or earpieces then you should be offered hearing protection at work
- Wear hearing protection correctly

Please remember to routinely have your hearing tested this helps identify hearing loss and any ear abnormalities at an early stage

> Andrea Harman, Concept Developer Healthcare, Saint-Gobain Ecophon

> > https://www.ecophon.com/uk/

Sources:

National Deaf children's Society: www.ndcs.org.uk

World health Organisation factsheet: https://www.who.int/news-room/factsheets/detail/deafness-and-hearing-loss

RNID: https://rnid.org.uk

UKHCA: www.hearingconservation.org.uk



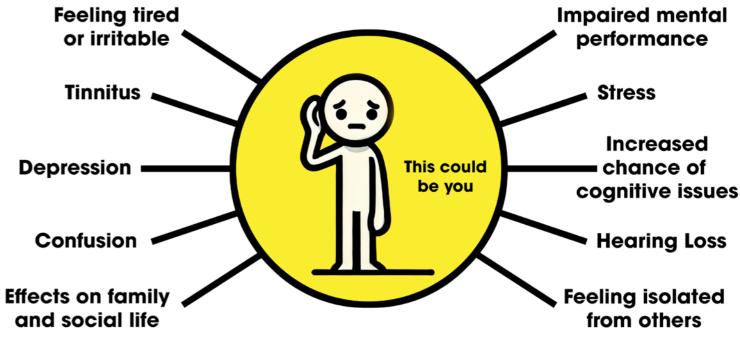
You only have one set of ears!



Damage to your hearing health can be caused by any of these sources







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Plants for Profit: The Undervalued Role of Plants in Retail

- Case Study -

"If you've ever been to a retail store, you may have noticed that the atmosphere can be a bit... intense. It's not hard to imagine why. Retail environments are often loud, crowded, and full of sensory overload. But what if there was a simple, cost-effective solution that could alleviate some of that stress while also enhancing the customer experience and even increasing sales?"

Scott Togher

In retail, subtle environmental cues play a major role in shaping how customers perceive a store and their overall shopping experience. These cues – ranging from music to lighting and store layout – are often processed unconsciously, making it difficult to pinpoint their exact effects. Yet, they all work together to influence behaviour and decision-making.

This is where biophilic design, specifically the use of plants, comes into play. A recent study by Margrét G. Kristjánsson, "Greenery in the Indoor Retail Environment," sought to explore how the presence of greenery in retail spaces affects consumers' perceptions and behaviours. The study investigated whether plants in retail environments could:

- Positively influence consumers' environmental perceptions,
- Increase probable shopping behaviour,
- Enhance consumers' willingness to pay for products.

The study involved 306 participants who were shown images of retail settings with varying amounts of greenery – none, a moderate amount, and a high amount of plants. After viewing the images, participants answered questions about their perceptions of the store and their shopping preferences.





Journal of Biophilic Design **PLANTS**

Here's what the study revealed:

The store setting is visually pleasing and desirable

No plants: 3.48 | Medium plants: 3.62 | Many plants: 3.65

The clothes in the store appear to be of high quality

No plants: 3.36 | Medium plants: 3.36 | Many plants: 3.44

How often would you like to visit the store

No plants: 1.61 | Medium plants: 1.63 | Many plants: 1.66

How much would you be willing to pay for the shirt

No plants: 3.54 | Medium plants: 3.65 | Many plants: 3.84

How much would you be willing to pay for the purse

No plants: 2.25 | Medium plants: 2.27 | Many plants: 2.33

Although the scores may look largely similar, there is an unmistakable correlation between the use of plants in retail and customer behaviours. These marginal differences in behaviour repeated consistently over the course of a year can really add up and have a measurable impact which majorly outweighs the cost of investment in plants.

But why is this important, particularly now?

In today's retail landscape, the traditional high street is undergoing profound changes. With the rise of online shopping and the closure of many brick-and-mortar stores, physical retail spaces must evolve to survive. Consumers no longer visit stores just to make a purchase – they expect an experience.

This shift means retailers need to offer something that online shopping can't: a multisensory, engaging environment that makes the trip to a physical store worthwhile. Incorporating elements of nature, such as plants, is a powerful way to create such an environment. Research shows that biophilic design can reduce stress, improve mood, and encourage customers to spend more time in a store – ultimately leading to increased sales.

There are many ways to incorporate greenery into retail spaces, from small potted plants to larger installations like living walls. Beyond the aesthetic appeal, these natural elements create a calming, welcoming atmosphere that can make customers feel more comfortable and connected to the space. By doing so, retailers can enhance the overall shopping experience and stand out in an increasingly competitive market. In an era where customer expectations are shifting and the high street is under pressure, offering more than just products is crucial. Biophilic design, and particularly the integration of plants, provides an opportunity to elevate the in-store experience, making it a destination in itself.





PLANTS

Mini Case Study - Islander

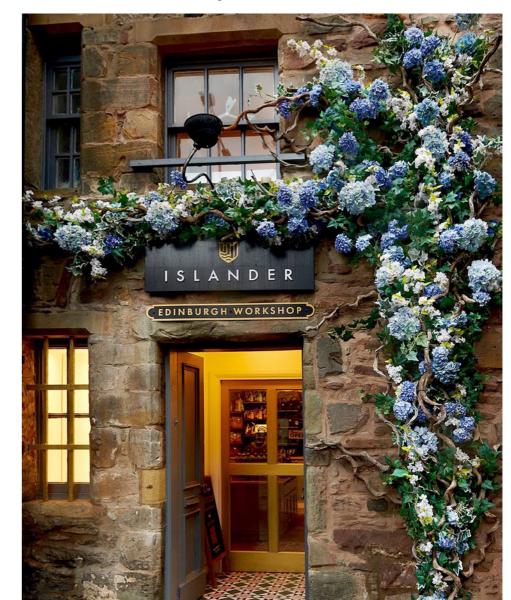
Islander UK, a premier online and high street retailer, has been a fashion destination since its establishment in 2010. Specialising in contemporary Harris Tweed bags, footwear, and accessories, the company is renowned for blending modern fashion with traditional craftsmanship.

Islander first approached Benholm Group to create an exterior floral display for their Edinburgh Workshop, requesting a design that incorporated the colours of their signature tartan. Benholm Group delivered a striking installation featuring twisted vines, ivy foliage, and floral blossoms reflecting the hues of the tartan, climbing up and around the entrance sign, adding vibrant contrast to the stony exterior.

Islander has turned their vibrant floral displays into a powerful marketing tool, introducing them at their other locations across Scotland. These eye-catching backdrops have become a favourite among customers, who enjoy posing with the custom bags they've crafted in the store's workshops, perfectly framed by the floral displays. These photos not only enhance the in-store experience but also generate significant social media exposure for the Islander brand, helping to attract new customers and broaden the brand's visibility through user-generated content.

www.benholm.com





PLANT OF THE MONTH The Vanda Orchido

Ian Drummond

If I had to name my favourite plant and in doing so consider all the things we look for in the world of indoor planting, the vanda orchid would be the one, because it has it all.

It has a beguiling, otherworldly kind of beauty that's unique. The roots for example, have no requirement for soil, so float free of any earthy containment like silvery tendrils suspended in the air or clinging to the bark of a tree or a fissured rock. The blooms are dramatic,

my favourite is violet in colour and often speckled or lightly dappled, like the wings of an exotic butterfly. They vary in scale from the truly tiny to goliaths several feet tall.

The drama only continues in its ideal presentation because this plant is perhaps shown to its best advantage when hung in multiples on invisible wire, to create a 'living curtain', suspended from the ceiling, roots trailing toward the floor. It is utterly perfect for a wet room, forming a living shower curtain, and you don't get closer to nature in an interior than that.

As an epiphytic and native to the Philippines and other parts of southeast Asia, it does require a good deal of humidity and moisture, but regular misting is a small price to pay to enjoy this degree of floral perfection.

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https://www.plantsatwork.org.uk

Don't forget to buy Ian Drummond's totally brilliant book, "At Home with Plants".



PLANTS

"As online sales continue to boom exponentially, designing a retail space to become a destination for shoppers has never been tougher than it is today. That being said, there are exciting and highly effective ways to draw shoppers, sometimes subliminally, into your space."

Incorporating biophilic design into an interior retail environment operates on a subconscious human level and in leveraging the power of plants, we automatically create the best possible environment for shoppers. Humans are instinctively drawn to nature and this is particularly significant when inside a super mall, when even natural light is absent or limited, though the principle applies to any store. It's the inclusion of nature that creates a sense of respite and peace, that's multi-sensory – sometimes shoppers won't even know why they have entered a retail space, but once they are in, they're in.

Anthropologie offers a great example of this with stores featuring ambitious and permanent biophilic design – green walls spanning multiple floors, extensive in-store planting, window displays brimming with green. Even luxury heritage stores like Harrods have seen the light when it comes to biophilic design – I worked with them for years where they embraced the concept of ambitious green and floral planting in eye-catching window displays and within departments inside the store.

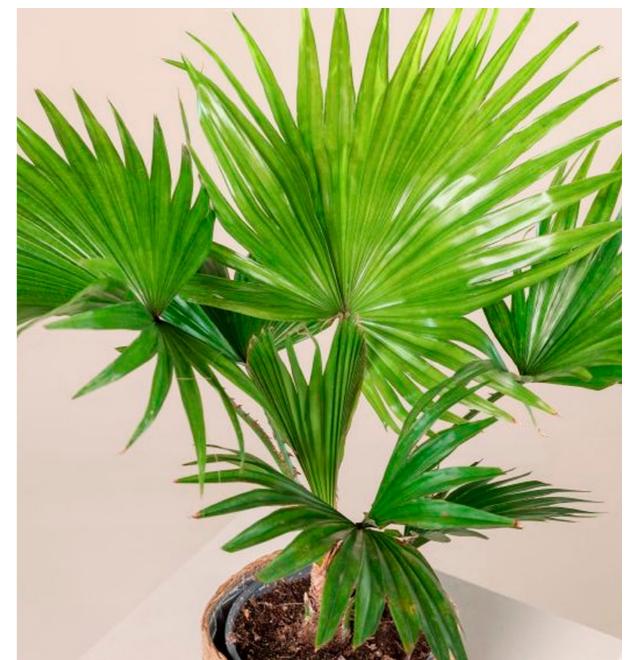
Plants can also provide compelling visual answers to campaign questions and given their infinity of structure and colour, they are an impactful choice for bringing store campaigns to life. Studies also show that biophilic

Ian Drummond

elements can actually increase the perceived value of the products they sit alongside – visually appealing spaces are associated with higher quality products and this can boost sales further. As a design concept, plants are also unique in that they can enhance and harmonise with almost any campaign – there is a plant for any product. Anything can be made more 'wholesome' with the inclusion of planting because the purity of the green vibe brings an innate emotional link with an organic kind of health and a heightened sense of wellbeing. However, even a product or

concept as artificial as spatial computing would be enhanced by biophilic design, particularly one that suggests a pinpoint-precise kind of zen – a series of air plants in terrariums for example. Sometimes restraint is as powerful as abundance.

In home lifestyle stores such as West Elm, natural elements are a fundamental part of creating visually appealing room designs so that customers associate that sofa, coffee table or accessory with a particular kind of aspirational living, and plants play a key role in creating this emotional connection.



PLANTS

Over in the US, I worked with Macy's in New York, which has a different approach to collaborations, in that they bring the flower festival to them. Macy's Flower Festival incorporates their flagship stores in NYC, Chicago and San Francisco, and is an annual 'must see' event featuring breathtaking flora native to many different landscapes, all blooming in unison. The show runs for a two-week period each spring, and offers a one-of-a-kind opportunity to see displays on store countertops and windows, but also surprising, bespoke architecture such as grand bridges, columns, walls and topiaries.

Spin off collaborations can also incorporate workshops as part of a bigger campaign. I created a series of workshops for IKEA's LAGOM drive (translation: 'just enough') to support their theme of re-using what we can and minimising waste. The advantages of working with plants lies in their appeal to all ages and therefore creating activities using something as simple as glass jars

for terrariums or indoor bulb planting attracts both children and adults.

Where there is a restaurant, bar or café within a retail space, this is also an ideal opportunity to bring in the plants as it's the fastest way to create the right kind of atmosphere as well as a sense of permanence. In the age of the pop-up, more and more retailers and vendors understand that the quickest way to create an enticing and on-brand vibe is to incorporate plants and trees that harmonise with the food and the theme. Selfridges rooftop sanctuary – Alto by San Carlo al fresco terrace and bar – perched above the polluted drama of Oxford Street (not that you would even know) is a prime example of this. With the use of trellis, terracotta, foliage and lemon trees (both real and faux) an enchanting Italian garden has been created, encapsulating the powerful transformative essence of biophilic design.

> Plantman.about.town@gmail.com https://www.plantsatwork.org.uk



Chinese Fan Palm

Linking with the plant world can also create so many opportunities and creative collaborations for retailers to increase brand exposure. I worked with IKEA on an award-winning campaign to create a powerful bond with nature, culminating in a series of unprecedented installations at RHS Chelsea Flower Show. 'At Home with Plants' featured

a living room, bedroom and bathroom room set to demonstrate how to use plants in the home. For '#PlantsWork' we created an open-plan home office installation, abundant with plants, to showcase not only the beauty of plants in the home and working environment, but also to highlight their scientifically proven health and creativity benefits.



BREATHE, GRIEVE & BLOOM:

RE-DESIGNING THE DEATH SPACE

"Our connection to nature doesn't end when we die. Where and how we chose to pass into the afterlife, however you perceive it, also has implications on the planet. When we think of the Thereafter, maybe we should rethink how we leave more flowers behind."

Debbie Malynn

Discussions of death are never easy, in particular here in the UK. Culturally it is not within our language; we don't like to talk about it before it happens and when it does occur, we don't quite know what to say. Euphemisms roll off the tongue, we talk of someone as 'passed away' or 'gone to sleep', neither of which speak the truth. Inherited traditions have served us well but are no longer fit for purpose socially and environmentally.

There is no denying it, death is one of the most emotionally transformative events we all go through. The tectonic plates of the world we once knew have shifted and life is now - permanently – a different place. But what if we had a more open dialogue with and about death within our day to day? Could it help us navigate our grief and grow while living with loss?

I am not suggesting that we live life focusing on our demise but one thing is for sure, it will happen to us all so let's make this as honest, open, kind and honest to ourselves and each other as possible.

THE FUNERAL LANDSCAPE

As the living we feel the restorative power of being amongst nature. In our death we have a natural desire to return to it. Since 1890, the lack of space in our cemeteries has ruled out burial as our dominant mode of exit. As much as a Natural Burial might appeal to the environmentally-conscious, access from our cities and finite space do not make this a viable sustainable option at scale.



ENVIRONMENT, PEOPLE, PLANET

Cremation became commonplace in the UK in the 20th Century

- Today, 79% of us opt for cremation as our exit
- 600,000 cremations took place in 2022 ¹ With our ever-increasing population this will only increase.
- Each cremation produces between 106-258 kilograms of carbon dioxide, (depending on body size) the equivalent to driving a car 609 miles!

The environmental impact of cremation needs no further explaining, a challenge the industry is having to address. However, until we have more sustainable options available, cremation will continue to lead.

Saying Goodbye is by no means a one-day event. As a funeral director, following a cremation, I have seen the emotional weight of the return of ashes on a family. It is enormously real: this is the first physical encounter of life in its new form. The question, 'what to do with the ashes?' is not easy or straightforward.

As much as Direct Cremation is a welcome newcomer to our funeral options it is not without concern. We do not yet know the psychological effects of not physically saying goodbye. Historically we have always marked our loved ones' deaths with a ceremony large or small. As our society becomes increasingly secular society the funeral is beginning to take a back seat and is no longer seen as central to honouring a life, instead the space of grief is coming to the forefront in our society. Grief is described as love with no-where to go, but what happens if grief has nowhere to

go? Grief is a complex and unpredictable journey.

THERE IS STRENGTH IN COMMUNITY THERE IS HEALING IN NATURE

As the shape and form of the funeral evolves, we must address the sociological & ecological consequences of these choices. Our expanding towns and cities continue to accommodate the living; we cannot ignore our dead. We need space to breathe, space to grieve and we need to look after the planet. So how can we enable life and death to sit side by side in a positive and nurturing way?

The benefits and necessity of green space within our communities is recognised within urban developments. Planting a shrub or a tree memorial is a known ritual for anchoring our grief. What if we combined the two? With green space so limited, if we repurposed these precious commodities to permit the burial of ashes we would create beautiful memorial gardens within the architecture of our urban lives. If the dead are placed to rest within the community, we provide space for the living to anchor their grief, remember, honour, frequent and stay connected within daily life. This effective repurposing of the physical space supports the cultural shift toward a healthier life of living with loss.

Whilst pocket parks, green spaces and gardens nurture the living, it is our responsibility to respect and nurture them back. However, before we all go out and start burying ashes willy-nilly it is vital we understand the complexity of cremains within the ecosystem.



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THE TRUTH ABOUT ASHES

It is not widely known that cremated remains, 'ashes', are toxic for the environment. The main misconception is that they are more like fossil than ash. However, the cremation process removes all organic matter and bacteria from the bone, resulting in matter that becomes stable and cannot naturally degrade, forming a solid non-nutritional mass.

If buried into regular soil, toxic levels of sodium and a high alkaline pH (11.8.) prevent the natural agricultural nutrients within the bone from becoming active in the environment. The result of this; anything planted has little to no chance of survival, and surrounding plant life does not thrive.

RETURN TO NATURE

In the quest for sustainable solutions to this dichotomy of death I could not be more delighted to introduce the revolutionary Return to Nature (RTN) soil. This nutrition-rich compound has been created to neutralise and compost cremated remains completely returning them to nature and as it does so it actively nourishes the land with stunning effect. We return to nature whilst encouraging trees, plants, flowers, lawns to flourish, quite literally transforming loss into life.

Repurposing green space with the aid of RTN, this is glorious biophilia in the fabric of our emotional, cultural and planetary health. Here's to creating a society that honours life in death and death in life, protecting the environment for future generations.

www.thereafter.uk

Thereafter Funeral Services were awarded the title of 'Most Promising New Comer to the Trade' by the AGFD Awards the other week (Association of Green Funeral Directors

¹ Cremation Society of Great Britain, latest report





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A Design Co-operative that celebrates Biophilic Sustainability

A personal account of what drives a designer to be biophilic and sustainable

Gigi Cooke

As a UK-based furniture designer, my practice Gigi Cooke centres on creating pieces for the conscious consumer, emphasising sustainability, quality, and a connection between the material and the product. All of my pieces are made from local timber which is Grown in Britain certified. Growing up in a biodiverse landscape of Jersey has influenced my work, shaping my material choices and my commitment to minimising my environmental impact.

My goal is to design furniture that resonates with buyers on a personal level, fostering an emotional connection between the user and the pieces. This connection enhances the value of the product, encouraging the buyer to care for it over a long period. All my pieces are crafted locally, with sustainability at the heart of my practice.

To be truly a sustainable practise I need to balance social, environmental,

economic, and ethical considerations is key to maintaining a sustainable practice. To achieve this, I prioritise transparency in my work, particularly in sourcing materials. I use only Grown in Britain and FSC-certified timber, ensuring traceability and responsible sourcing. This commitment not only supports sustainable forestry but also assures consumers that their purchase is contributing to a more eco-conscious lifestyle.

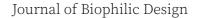
The shift in consumer preferences toward sustainable living is an exciting trend that I aim to align with. Today's buyers are more aware of their environmental impact and seek out products that reflect these values. My approach encourages users to invest in adaptable, long lasting furniture, reducing the environmental cost. Each piece I create is made from locally sourced British timber, celebrating the unique grains and characteristics of the wood.











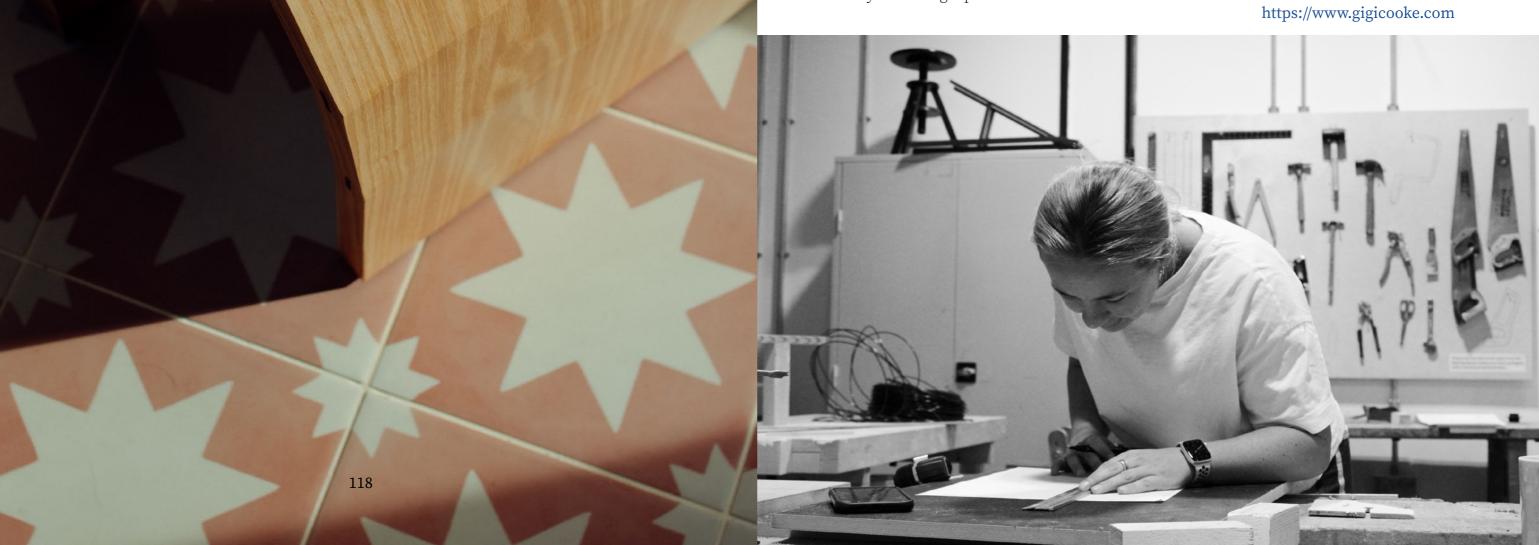
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As a small practice presents it creates challenges, particularly in terms of pricing. Due to limited ordering quantities, I am unable to reduce costs as larger manufacturers might. This results in higher prices for the consumer. My role as a business owner is to educate customers about the value of supporting local, small-scale production. I emphasise the long-term benefits of investing in high-quality, durable furniture that will last for years.

Balancing commercial success with sustainability requires making informed decisions about sourcing materials, manufacturing processes, and marketing strategies. Being transparent about my sustainable practices builds trust and loyalty with consumers, creating a meaningful connection that extends beyond a single purchase.

In an effort to further support independent designers, my business partner, Henry Davison, and I have launched an online platform to help emerging UK-based designers enter the retail market. We noticed a gap where independent designers, especially those in the first five years of their careers, struggle to sell their work and connect with the professional world of sales and retail. Our platform not only showcases their work through pop-up stores and exhibitions but also provides support in areas such as pricing, material sourcing, and small-scale manufacturing. By helping designers navigate these challenges, we aim to disrupt the existing retail system and promote innovation and sustainability in the furniture industry.

> Gigi Cooke's has been featured in GQ, Vogue and many other titles



The Fascination of Trees

"The more we come to understand trees from all the new research that is emerging, the more, hopefully, we will respect the valuable role they play in our ecosystem too."

Maria Fenn

From a young age, I felt a deep connection to trees. The sound of tree felling would bring me to tears, as I sensed the distress and pain of these magnificent beings. To me, the act of cutting down a tree felt like a violation of a sacred life form. For many, the idea that trees have feelings or consciousness might seem far-fetched, but emerging scientific research supports what many intuitively know: trees are more than just inanimate objects; they are living, conscious beings with their own forms of communication, electromagnetic fields, and even what could be described as a heart.

The Electromagnetic Fields of Trees

Like all living organisms, trees have an electromagnetic field, often referred to as an auric field. This field is not just a passive byproduct of life but plays an active role in communication and interaction with their environment. Scientific studies have shown that trees respond to external stimuli, such as light, touch, and even human presence, through changes in their electromagnetic fields. These fields are generated by the electrical impulses within the tree, much like the

bioelectrical activity in the human body that underpins our nervous system.

Research conducted by scientists such as Dr. Cleve Backster and others demonstrated that plants, including trees, can respond to human emotions and intentions. Backster's work, initially focused on lie detector tests, evolved into experiments where plants reacted to the thoughts and emotions of humans, showing measurable changes in their electrical activity. These findings suggest that trees are not only aware of their surroundings but also sensitive to the energies around them.

Communication Through Smell and Signals

Trees have a sophisticated communication system that allows them to interact with each other and their environment. One of the primary methods of communication is through chemical signals, particularly volatile organic compounds (VOCs). Trees release these chemicals into the air to send messages to other trees. For example, when a tree is attacked by insects, it can release VOCs that signal nearby trees to ramp up their own defences by producing chemicals that repel the attackers.



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This chemical signalling extends beyond just defence; it also plays a role in mutual support among trees. Studies by ecologist Suzanne Simard revealed that trees share nutrients through an underground network of mycorrhizal fungi, often referred to as the "Wood Wide Web." This network allows trees to transfer water, carbon, nitrogen, and other essential nutrients to each other, particularly helping younger or weaker trees in the community. This level of cooperation suggests a level of awareness and intent that challenges our conventional understanding of plant life.

Consciousness and the Heart of Trees

The idea that trees have a form of consciousness is supported by the discovery of what could be described as a "heart" in trees. Researchers have found that trees have a pulsing mechanism that functions similarly to a heartbeat, helping to pump water and nutrients throughout the tree. This rhythmic pulsation has been observed in various species and is believed to be vital for the tree's internal regulation.

Moreover, the concept of plant consciousness has been explored through the work of Stefano Mancuso, a leading researcher in plant neurobiology. Mancuso's research indicates that plants, including trees, exhibit complex behaviours such as problem-solving, learning, and memory. They respond to stimuli in ways that suggest a level of awareness, adapting to changes in their

environment and communicating those changes to other plants.

Our Responsibility to the Trees

Understanding the profound interconnectedness and sentience of trees compels us to re-evaluate how we treat these ancient beings. Trees are not just resources to be harvested; they are vital members of our global ecosystem, providing oxygen, sequestering carbon, supporting biodiversity, and even enhancing our mental well-being.

When we recognise that trees have their own electromagnetic fields, communication networks, and perhaps even a consciousness, it becomes clear that we have a responsibility to protect and respect them. The destruction of trees not only disrupts these intricate networks but also silences voices that have been part of the Earth's symphony for millennia.

By listening to the whispers of the trees, we can learn to coexist more harmoniously with the natural world. This involves preserving forests, planting trees, and making choices that reflect our deep gratitude and respect for these silent sentinels of life. Trees have always been there to support and protect us; it is time we reciprocate, recognising their intrinsic value and ensuring that their voices continue to be heard for generations to come.

mariafenn.co.uk

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Let's Go Shopping... In 2034

"How will the retail look in the future? How will our purchasing decisions change? In a world increasingly focused on sustainability and personal connection, biophilic design - which emphasizes harmony with nature - speaks to these core values."

Odile Smith

Just a couple of weeks ago I found myself sitting in a café across from my friend Emanuele, just opposite the Ferrari store in the heart of Milan. As we sat soaking in the last of the September sun over plates of fettuccini in the café's *dehors*, we couldn't help but reminisce about the exhilarating experience of opening luxury brand retail locations. But soon, our conversation shifted toward how much the retail landscape has changed – and how much more it's poised to evolve.

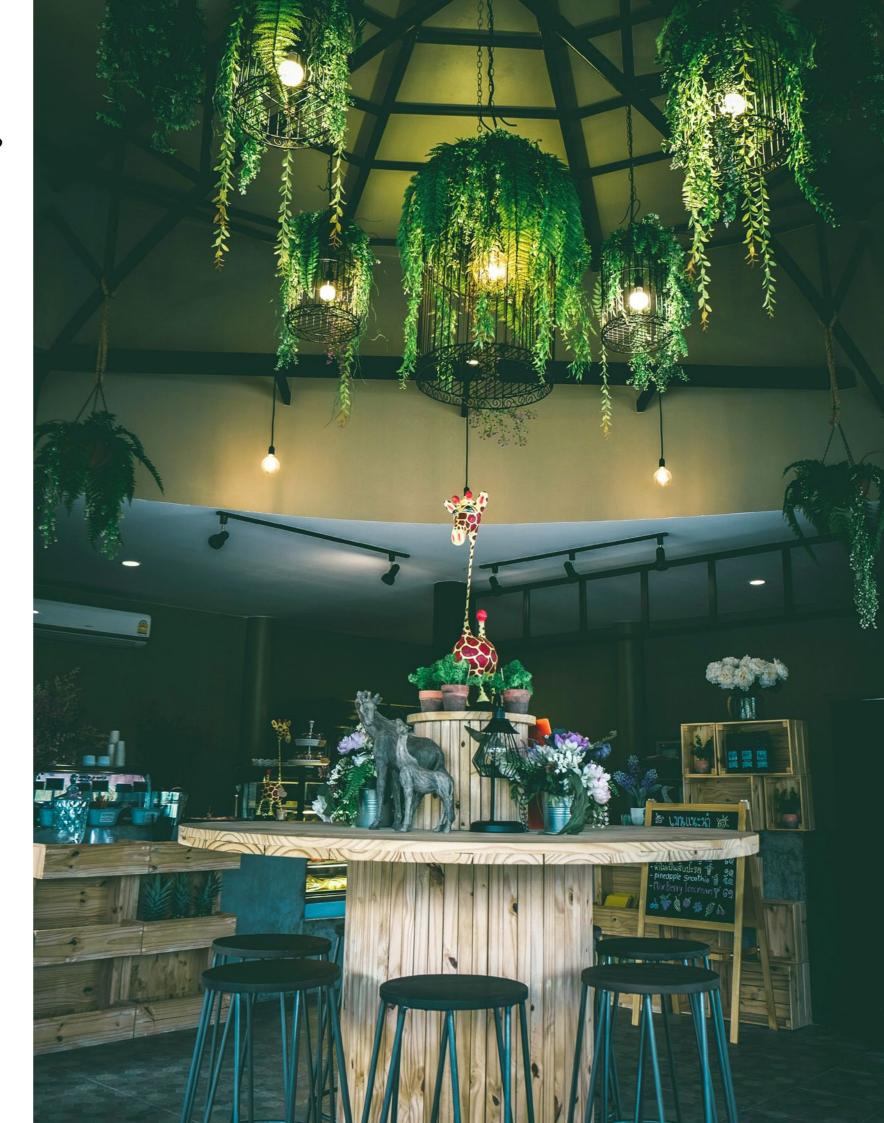
"Luxury brands will always be luxury brands," Emanuele said thoughtfully. "But there's a crack forming, and this crack could shake not just the fashion world, but interiors and the way we shop."

The surge of second-hand fashion, both online and in brick-and-mortar shops, is no passing trend. It's part of a much larger shift toward circular consumption, driven by growing consumer awareness of sustainability. And as our conversation unfolded, it became clear that this ethos

of second-hand culture is transforming not only how we dress but how we design our homes and commercial spaces.

I shared a statistic that caught Emanuele's attention: "I read that According to ThredUp's 2023 Resale Report, the global second-hand apparel market is expected to hit \$350 billion by 2033, up from \$96 billion in 2021." This growth is three times faster than traditional retail, and it's being propelled by Gen Z and Millennials, who are keenly aware of the environmental impact of fast fashion – everything from waste and water usage to carbon emissions. "And, I may add Thank god! because I was shocked to see Ghana devasted, transformed into the world's dump due to the excess consumption of fast fashion. Personally, I will not be buying new clothes so lightly anymore."

Emanuele nodded. "And it's not just about clothes. People are starting to make these sustainable choices in their homes too."



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This shift in mindset is echoed in the world the digital side of the equation. In of interior design, where second-hand and vintage furniture shops are thriving. Did you know that the global second-hand furniture market was valued at \$27 billion in 2021 and is projected to grow to \$47 billion by 2026?

The rise of second-hand pieces in interiors isn't just about cost-effectiveness – it's about reducing our environmental footprint. People want unique, storied objects, not mass-produced items that carry no history or character.

Emanuele highlighted how this trend is being reflected in the work of architects and interior designers. In his book 'Retailoring', he emphasizes how "upcycling" has emerged as a major trend in both residential and commercial design projects. "Designers are no longer just sourcing new materials," he said. "They're building AROUND the materials they find – vintage furniture, reclaimed wood, upcycled fixtures - creating spaces that reflect the personal tastes and values of their clients."

Incorporating second-hand and upcycled elements into designs is more than just being environmentally conscious: it's a smart business move. These designs resonate with clients, particularly those who care deeply about sustainability. As Emanuele pointed out, "It's about crafting a cohesive brand message that's aligned with consumers' values, and that needs to be clear at every touchpoint"

But as we reflected on this earth-conscious transformation, we couldn't ignore

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'Retailoring', Emanuele argues that by 2034, retail spaces will look completely different from today. "Stores will evolve into experiential hubs," he said, "where the history and ethos of each piece of furniture or clothing become central to the shopping experience."

By 2034, retail won't just be about acquiring products; it will be about storytelling and heritage. Consumers will want to know the origins of what they're buying – the materials, the previous lives of the objects – and they will value the personal connection this provides. These new experiential hubs will blend the digital with the physical, ensuring that the entire customer journey is immersive, from online research to in-store validation.

As we sipped our espresso, Emanuele added, "Today's consumer doesn't walk into a store blindly anymore. They've already done the research online. By the time they enter a shop, it's not about discovering the product – it's about feeling it, experiencing it, validating what they already know. That's the future of retail."

However, to remain in business we still need to stay profitable, it is therefore essential to rethink the key performance indicators (KPIs) we use to measure success.

While traditional economic KPIs like turnover, profit, and conversion rates both online and offline - remain crucial, they're no longer the sole benchmarks of performance.

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In the 'neoretail' era, we must account for consumers' evolving priorities, such as sustainability, transparency, these must be constantly and consistently monitored and communicated in a way that resonates not only with customers' needs but also with the brand identity. Customer experiences are also key to create and maintain brand loyalty and return customers, so we will need to find metrics that will be able us to measure this: such as time spent with the customer in store.

Metrics that measure customer engagement, environmental impact, and the lifespan of products in circular consumption models are becoming just as vital as financial outcomes: and for this, the role of data is pivotal.

By tracking how customers interact with both physical and digital spaces, and how they value the stories behind the products they purchase, we can better tailor the retail experience to align with their values.

These new KPIs are necessary to ensure that the transition towards a more sustainable retail business model remain both profitable and aligned with our values and meet those of the consumers.

As we began to wrap up, our conversation circled back to a topic I'm particularly passionate about – biophilic design. We agreed that the rise of second-hand fashion and furniture is not just about aesthetics or cost; it reflects a deeper, more conscious connection to the world around us. And in a world increasingly focused on sustainability and personal

connection, biophilic design – which emphasizes harmony with nature – speaks to these core values.

As we stood up to leave, the sun still shining over Milan, it was clear that retail is undergoing a full-scale transformation. Whether it's fashion. interiors, or the very way we experience stores, the future will be about more than just products – it will be about stories, connections both with humans and nature, something digital experiences cannot bring.

Odile Smith is our correspondent in Italy www.thebiophilichub.com

Link to Emanuele's book: Amazon.it: Retailoring. Strategie e prospettive per il NeoRetail - Sacerdote, Emanuele - Libri



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"Following London Fashion Week, One Dress: PLANET is now touring key environmental conferences around the world, including New York Climate Week and COPs 16 and 29, helping to stimulate the rapidly developing conversation around ecocide law and showcasing most eloquently the benefits and beauty of working in harmony with nature."

The stunning **One Dress: PLANET** debuted at TAMMAM's catwalk show at St James's Piccadilly as part of London Fashion Week on 12th September.

The dress is the result of a collaboration between sustainable fashion pioneers TAMMAM and **Stop Ecocide International**, the organisation driving the global conversation on ecocide law.

Conceived as a piece of collaborative textile art, connecting creators and consumers, the One Dress: PLANET project was designed to both challenge the way we manufacture and consume fashion and to stimulate discussion around the need for the most serious environmental harms to be criminalised – celebrating the beauty of our planet whilst advocating for its protection.

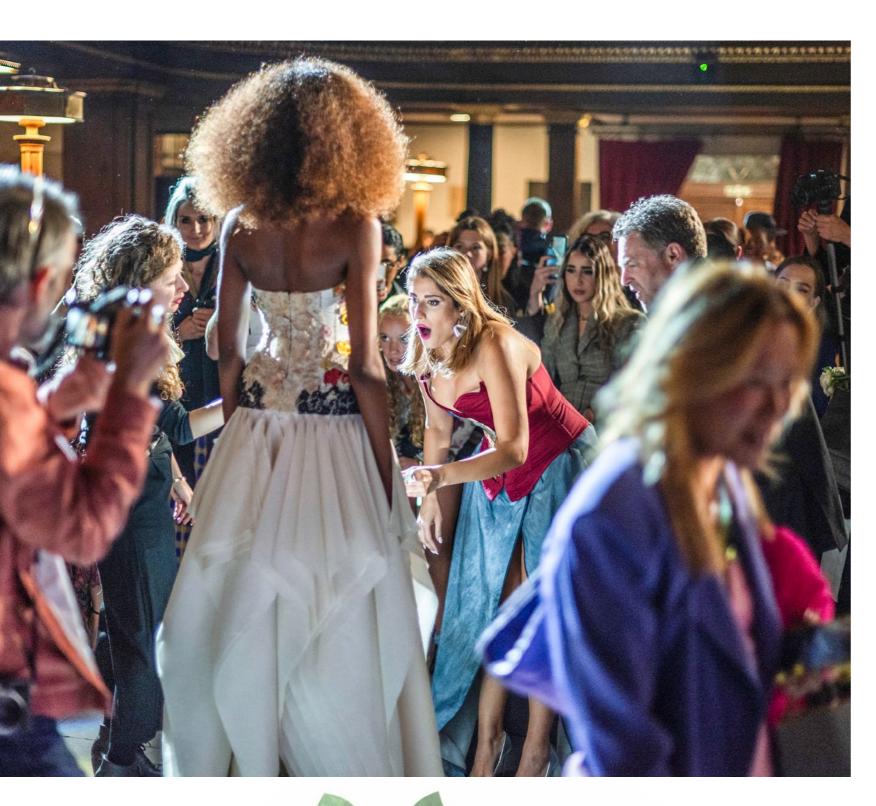
Tammam's collaboration with Stop Ecocide International reflects the growing civil society support for using international criminal law to address the most severe forms of ecological degradation. Recent Ipsos polling shows that 72% of people globally support the criminalisation of ecocide. This strong public demand is now being matched at the policy

Sue Miller



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level, with the European Union's recently revised Environmental Crime Directive addressing severe environmental harm 'comparable to ecocide'. In September 2024, Vanuatu, Fiji, and Samoa further advanced the cause by formally proposing an amendment to the Rome Statute to include ecocide as a crime under the International Criminal Court.

The dress was in essence crowdfunded, enabling many individuals to sponsor embroideries of diverse plant species from different ecosystems and environments, all endangered through human activity. The embroideries were then hand-stitched by artisans and cooperatives in London, Bangalore and beyond. Offering fair employment, the opportunity to be part of something that will make a difference, and fostering an understanding of the issue of ecocide among both creators, customers and sponsors ensured that One Dress: PLANET has multiple layers of purpose.

Each element of the dress resonates with integrity. The dress itself is made of 100% organic fair trade certified cotton, a stock fabric left over from past collections, initially purchased as a surplus material from one of TAMMAM's partner producers in India. The corset was created as part of a training program to pass couture skills on to young stitching technicians. The embroideries were made with surplus, reclaimed and vintage yarns, mostly 100% cotton, and backed onto offcut cotton fabric.

The "leaves" of the skirt were made of a fabric developed in partnership with the Kanhirode weavers co-operative, in Kerala, India, and hand woven on traditional looms, using a unique mixture of organic certified cotton, Tencel Luxe and regenerative cotton. Finally, the words on the leaves of the skirt, taken from the legal definition of ecocide, were printed with Air Ink – an ink made out of recycled air pollution. Ouite the statement piece.

Following London Fashion Week, the dress is now touring key environmental conferences around the world, including New York Climate Week and COPs 16 and 29, helping to stimulate the rapidly developing conversation around ecocide law and showcasing most eloquently the benefits and beauty of working in harmony with nature.

For those wishing to be part of this great project, there is still a small amount of space on the dress, and flora can continue to be dedicated until the bodice is completely covered, ensuring that, as it travels, it will continue to grow and develop alongside the important ecocide conversation.

Sue Miller, Head of Global Networks, Stop Ecocide International

www.tammam.co.uk/onedress





A Systemic Perspective on The Climate Emergency, National Infrastructure Transformation and Opportunities for Biophilic Design

"The transformative journey to Net Zero or a Doughnut Economy, will create opportunities for the application of Biophilic Design principles and biophilically inspired ways of thinking."

Dr Tom Dolan

The Climate emergency is a Wicked Problem of problems [1,2] (resilience, net zero, sustainability). Both the climate emergency, and our current inability to respond successfully are inevitable long-term consequences of a deeply embedded, but erroneous 'Not Zero emissions' mindset regarding GHG, and other polluting, emissions as externalities for which the polluter need not pay [3].

As a wicked problem, a successful response to the climate emergency will require transformation of the systems from which it has emerged.

National infrastructure directly or indirectly, enables all aspects of modern life. It influences the level of GHG, and other polluting emissions arising from the supply chains, societal and economic activity it enables, as well as from the built environment, places and people that it serves.

It is, therefore, a system in need of transformation [2].

This transformation into a Net zero enabling, resilience enhancing, sustainability supporting system is an essential component of effective net zero strategy and a successful global response to the climate emergency [4].

The above transformation of National infrastructure is a nationally significant, globally replicable, leverage point [2].

It is an opportunity to simultaneously alleviate a barrier to and catalyse progress toward, net zero targets and other climate emergency priorities.

Making infrastructure more resilient is an opportunity to provide a more resilient foundation upon which we can build wider societal resilience to the impacts of Global Warming.

The Paris Agreement and Net Zero targets are clear signals of global and national intent. They signify a clear rejection of a 'not zero' mindset, and for the first time create pressure against GHG emissions.



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The conclusion from the COP28 global stocktake stated that "Parties are not yet collectively on track toward achieving the purpose of the Paris Agreement and its long-term goals." [5] This demonstrates, more than net zero targets will be needed to initiate, and direct, the unprecedented speed, scale and breadth of systemic transformation required to achieve net zero.

To have an impact, net zero targets must be backed by fit for purpose system goals, rules, processes, structures and approaches to governance which are all explicitly aligned with a Net Zero mindset [2,3]. Rejecting and even banishing the 'not zero' emissions mindset will remove systemic barriers and lay the necessary foundations for systemic transformation.

Unfortunately, the majority of the system goals, rules, structures and processes in operation today rose to prominence in the context of a 'not zero' mindset. Consequently, they are not aligned with either net zero targets, or climate emergency priorities, and therefore, are not fit for purpose. In fact, they are more likely to act as a source of systemic resistance to transformation. We need an urgent review of all infrastructure related governance *structures* [2] to establish fit for purpose governance *approaches* aligned with net zero targets and with wider climate emergency priorities.

It is important to acknowledge that while reaching net zero by 2050 (in UNFCCC terms the #RacetoZero) is essential in order to limit global warming to 1.5°C, the pursuit of net zero targets is at best only a **partial** response to the climate emergency.

Global warming of at least 1.5°C is already inevitable... With this in mind, to respond effectively to the climate emergency, in addition to prioritising net zero, we must prepare for, adapt to and be capable of responding resiliently to the disruptive impacts of 1.5°C of global warming. This temperature rise is already inevitable even if net zero targets are met [7], (or in UNFCCC terms we must simultaneously #RacetoZero and #RacetoResilience).

The need to transform national infrastructure into a net zero enabling and resilience enhancing system, creates an opportunity to reimagine the purpose of National Infrastructure. It also helps establish an aspirational vision of the full range of outcomes we want our national infrastructure to play a role in enabling. I believe that the Doughnut economy model [8] provides the perfect framework for a reimagination of this type. The 12 social foundations it identifies represent additional environmental, societal or economic outcomes we should expect our national infrastructure to be capable of enabling. Whilst the 9 planetary boundaries it identifies indicate the type of challenges that we need national infrastructure to be resilient to, avoid exacerbating, and ideally help to mitigate.

Therefore, I firmly believe, that in order to maximise our chances of completing both the #RacetoZero and #RacetoResilience, we must embrace The Doughnut Economy model [8] and instead embark on a #RaceintotheDoughnut.

A #RaceintotheDoughnut can help us complete the #RacetoZero and #RacetoResilience, whilst simultaneously aspiring to exploit the necessary

infrastructural transformation to establish a national infrastructure capable of providing universal access to the suite of 12 essential societal foundations, without cumulatively exceeding any of 9 critical planetary

boundaries, by creating a regenerative

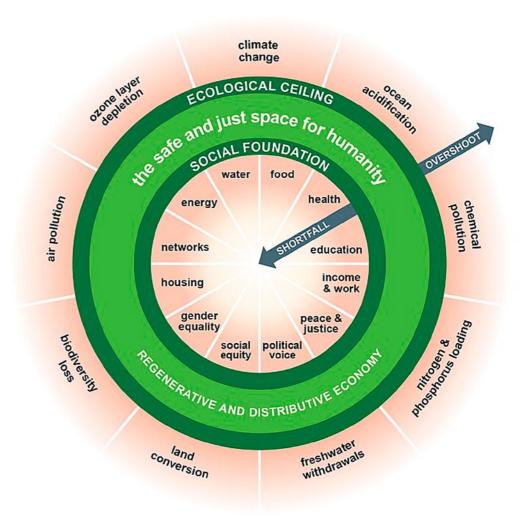
and distributive global economy.

our mission destination.

Once a destination is established, fit for purpose governance approaches aligned with that destination can be developed. Once these are in place, we can accelerate progress toward our chosen destination by launching a Moonshot [9] Mission [10] tasked with establishing a diverse long-term, collaborative, dynamic, multi-faceted, multi-scale, cradle-to-cradle and synergistic portfolio of systemically targeted interventions needed to reach

However, my key point is that regardless of the destination we choose to aspire to, the journey:

- i) must begin with rejection of an obsolete net zero emissions mindset GHG, and other polluting, emissions can no longer be regarded as externalities for which the polluter need not pay;
- ii) will require new fit for purpose governance structures aligned with climate emergency priorities;
- iii) will not succeed unless national infrastructure is transformed from a driver of GHG emissions into a net zero enabling, resilience enhancing, sustainability supporting system;
- iv) must result in a system that is resilient to the disruptive impacts of at least the 1.5°C climate change.





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Opportunities for Biophilic Design Thinking

All of which, I believe, will create opportunities for the application of biophilic design thinking. These opportunities include, but are probably not limited to:

- A need for new biophilically inspired ways of thinking about, how to conceptualise and address infrastructure related challenges, and/or challenges that have traditionally been addressed by infrastructure provision
- A biophilic, climate positive, reimagining of the roles landscapes, the built environment and infrastructure systems can play in
- Reducing the vulnerability of coastal communities/cities /places to tidal flooding.
- Reducing the vulnerability of all communities / cities / places to surface water flooding.
- Reducing the frequency, and impact, of sewage discharges from overflows.
- The provision of potable water
- The provision of heating and cooling services
- mitigating urban heat island effects.
- tackling other climate emergency challenges and
- creating the type of society in which we want to live
- The application of biophilic, climate positive and nature positive design principles to deliver projects, and ultimately create infrastructure systems, built environments and landscapes, that are biophilic and climate positive across the lifecycle.





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- The application of biophilic design principles/thinking to support the design and delivery of multi-faceted infrastructure projects. Projects that fulfil their primary purpose, whilst simultaneously enabling one or more of the following activities:
 - i) To mitigate levels of polluting emissions;
 - ii) to increase levels of natural sequestration;
 - iii) to support adaptation, and enhance systemic resilience, to the disruptive impacts of future climate change (i.e. to generate net resilience gain);
 - iv) to influence the flow of storm water through the built environment and reduce the risk of surface water flooding;
 - v) to enhance the sustainability and liveability of the places we live;
 - vi) to generate wider societally beneficially outcomes (health, fairness.)

Dr Tom Dolan is a UKCRIC Senior Research Fellow and C-DICE Postdoctoral Research Fellow at University College London

Latest Paper: Systemic Perspectives on National Infrastructure for a Sustainable, Resilient Net Zero Future https://www.frontiersin.org/ articles/10.3389/fbuil.2021.752765/full

Latest UKCRIC Connections Article: COP28 and The First Global Stocktake: Personal Reflections on an Affirmational, Inspirational and Disappointing Experience and an Opportunity Missed https://discovery.ucl.ac.uk/id/ eprint/10186998/

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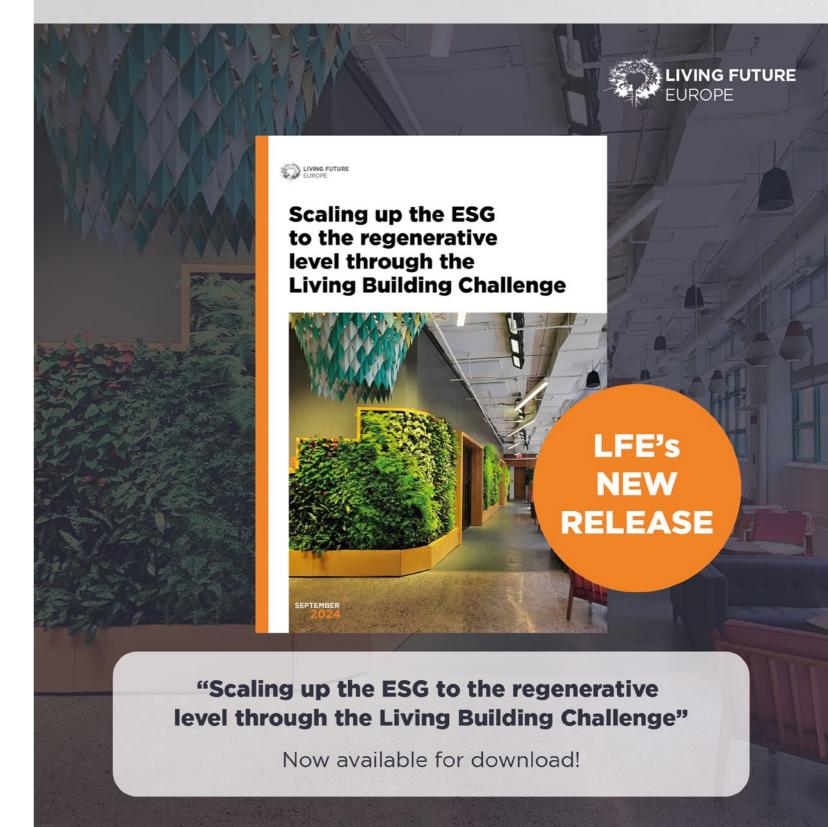
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"Scaling up the ESG to the regenerative level through the Living Building Challenge"

A new publication from the LFE Technical Advisory Group is now available!





Sustainable and Regenerative Retail

"Amanda is the Wild Edge Walker and lives in Jersey. She shares with us some innovative ideas and regenerative projects which stem from the need we are witnessing in society for a different way of doing things, to support community wellbeing for people and the planet."

Amanda Bond MA BCST

Living on an island we are very reliant on the weather, and other environmental conditions to support a healthy agricultural farming community to supply us with local, high-quality foods. In recent years, supermarkets have largely taken over from small retailers. Talking with an organic farmer, Rob Le Gresley of Anneville Farm recently, he shared how difficult it is to just get their produce to market. The weather this spring was incredibly challenging, resulting in the loss of 6 weeks of growing time for them. If farmers like Rob and his family are not supported, we lose a precious way of life, traditions and connection with the land. If we rely solely on big supermarkets, we lose connection with local, seasonal foods. What happens when a boat cannot reach the island, empty shelves! The necessity for food security is a stark reality as storms increase.

Back in the 90s, I was a fulltime Mum raising 4 young children. As I had lived in London working as a cook many years before and had completed an advanced cookery certificate at the Cordon Bleu Cookery School, London in 1988, I was invariably cooking from scratch, sourcing great ingredients to ensure the family's health and wellbeing. I began to source high-quality meat from Piper's Farm, Devon, when I gathered a group of other like-minded Mums together to import a monthly, frozen order. I chose Piper's as my roots are in Devon, and they were working with other local farmers to supply excellent produce. This was lacking in Jersey at the time.

I rarely bought from big chains, preferring to buy less, but always quality, natural products from suppliers that cared for the environment.



Fast forward to now, 25 to 30 years later, with an interest in textiles and natural materials, I signed up to a regenerative project instigated by Justine Aldersey-Williams, 'Growing Slow Textiles.' Over the course of 9 months a group of us gathered online, learning the many facets of growing flax, woad and Japanese indigo from seed to producing woven and dyed cloth. We heard from wonderfully skilled presenters, from the history and culture of flax/linen, and indigo, to plant connection, to harvesting skills, spinning and weaving to a final product. Justine finally made a pair of jeans from cloth she had grown, harvested, spun, woven and dyed herself. She has now joined forces with a local organic farm inspector, Mark Palmer, collaborating to create Homegrown Colour Ltd., a new botanical textile dye producer currently pioneering the commercial upscale of British Indigo from organic Woad.

The experience of joining this project led me to seek funding to join a Diploma in Herbology with the Royal Botanic Garden Edinburgh. The aims of the 2-year course are to create your own Physic Garden of medicinal herbs, and make herbal remedies from same, as well as conduct individual research into medicinal herbs. One of my tutors is Dr. Sally Gouldstone, founder of Seilich Botanicals, an award-winning skincare range made from the wildflowers grown in her meadow in Scotland.

With such inspiring mentors, it's not surprising that I am now planning similar projects here in Jersey! Since

April, I have been collaborating with Elise Stubbs of the Jersey Flower Farm, who offered me a plot to grow medicinal herbs from seed, sourced from EarthSong Seeds, a small organic seed company in the Southwest of England. It's been a wonderful experience observing and learning from the herbs as they have grown and developed. I've been busy infusing, drying and tincturing recently, gaining new insights along the way. My aim is to grow more medicinal and culinary herbs to produce a small range of skincare and wildcrafted culinary products, including hydrosols, drawing on my experience as a therapist for 18 years in creating formulations.

Next year, we will establish a wildflower meadow together, conservation and regeneration of this lost landscape being a core motive in developing this collaboration together. Together we also share a passion for print and textiles, so growing Woad and other natural dye plants to produce dyes, inks and paints for eco-printing will be a focus too, combining skills and experience.

Jersey has local businesses that support small producers:

SCOOP, The Sustainable Cooperative, founded by India Hamilton and Kaspar Wimberley, a NPO which aims to remove unnecessary packaging and support producers who care most for the environment. They now work with government and partner organisations to create and promote more sustainable food systems.





Le Tacheron Farm – run by Charles, Alan and John Edward Le Maistre, producing sustainable, stone-ground flour, heritage grains, grass-fed beef, as well as hay and wildflowers. Just a couple of weeks ago, Le Tacheron (meaning team) hosted the ReGen Gathering in their new barn, attracting people involved in regenerative farming from all over the British Isles. In addition, presenters included

Ecological Medicine practitioner, Dr. Jenny Goodman, and the amazing filmmaker and producer, Peter Byck from Arizona, founder of the Global Institute of Sustainability and Innovation. He shared stories of the making of the series of films, 'Roots So Deep.' Many other inspiring presenters shared stories of collaborative enerprises, sustaining interconnected businesses that care for community and the Earth. The value of healthy soil could not be overstated.

All of these innovative ideas and regenerative projects stem from the need we are witnessing in society for a different way of doing things, to counter the growth mentality, and support community wellbeing for people and the planet.

https://wildedgewalker.earth





THE BIOPHILIA EFFECT ~ A SENSE OF PLACE AND BELONGING

"Retail design needs a vision: a vision of place-based relationships.

These relationships are rooted in a specific place, reflect its unique characteristics and values, and foster a sense of belonging and connection."

Chintamani Bird

Coming into this life as newborns, there was one thing that we were born to do. We were born to have the instinct to survive, and our genetic makeup and brains' mission is to find the best way to do this.

We are all complex, multifaceted individuals, and embracing our uniqueness and authenticity is immeasurably important. Despite being as unique as our fingerprints, profound similarities connect us in mysterious ways through evolution and survival.

What makes us different is often seen as a barrier to our connection with ourselves, our communities, and the world around us. Feeling like we belong is essential to our physical, emotional and mental wellbeing. Our survival depends on finding our tribe and feeling a sense of belonging.

The celebration of our stories, filled with tears, regrets, hopes, and joy, should be shared. Despite our differences, there's an undeniable similarity in our need to feel connected to something larger than ourselves, driven by survival, genetics, and evolution. This need for connection and belonging is not unique to me; it's universal, and you are not alone in feeling it. You are understood.

In today's world, characterised by disconnecting technology, the struggle to seek physical and emotional connections and celebrate our authenticity is real and relatable.

So, how does one go about this? Through my ups and downs, I'm on a quest for the one truth in my life, a place where fear doesn't dominate my waking and sleeping moments. I'm seeking my identity, acceptance, connection, and belonging, a journey that is not always straightforward. But it's a journey that has taught me so much and continues to inspire me every day.

How can I connect with the outside world? How can I connect with my inner self and what truly matters in my life? There is no trying to fit in; or hide in plain sight. Finding acceptance in the same

emptiness and measure my value as a human being is and unattainable, unrealistic goal.

Irrespective of the path life has taken me, I find myself seeking my identity and connection beyond my own self. Through desperation, dissociation, isolation, depression, and anxiety, my journey has been a relentless quest for self-soothing, self-discovery, acceptance, and love. It's a journey that I believe many of us can relate to, a journey that inspires us in our shared human experience.

How can I satisfy these feelings, fears, frustrations, hopes, and wishes and give myself what I truly need?

I SHOP!

- I shop for answers.
- I shop for the meaning and purpose in life.
- I shop to feel better.

When I engage in retail therapy, I'm not just purchasing items. I'm on a quest for my identity, searching for a connection, yearning to feel that I might one day belong to something greater than myself. This drive is ingrained in us. I am hoping to find my tribe and finally feel like I belong. It's part of who we are as humans, our survival instinct, our genetic makeup, and our evolutionary history.

Going into retail stores I am hoping to connect to something bigger than myself, to find acceptance, be self-soothed, and shop for my identity. I hope to see my spirit of place in the nameless, faceless brands. But this was not where the answer existed for me. So, the search continued until something inside me changed, I wanted change.

Through trials and traumas, we need to celebrate that we are alive, and we can make a difference in every action that we make. It is now time that we not only survive! But thrive with a genuine connection with something greater than ourselves, the world around us. The communities the surround us and the environments that we live in.

Today sharing what biophilic design is, supports individuals mental health, biodiversity and the environment. Biophilic retail design is all about creativity and colour, finding uniqueness, and celebrating the difference between the retail environment and the natural world. I don't want to be immersed in the same, same methodology that brands and retailers seem to design, which promotes placelessness. When I go into these shopping centres it feels like there is no pursuit to understand an individual's needs, beyond the company's spreadsheet and R.O.I. Never looking deeper or caring about the designing better for people and planet. Because without the planet, there will be no people, so change is the only option! Biophilic design is the solution.

There must be a willingness to change and make a difference. Make a difference for the world and for people.

I think having these massive shopping centres that you can get lost in is not as productive as the developer may think. The disconnect I feel intensifies because it denies me the very thing that I am looking for. A connection to something greater than myself. Evolution tells us what the missing link is. The something bigger than myself is, Mother Earth, and all of its complexities.

Finding a boutique that exudes a different approach by knowing who they are; and understanding who I am. By weaving place-based relationships within the fabric of the design gives me pleasure and fulfilment. Seeing the differences in colour, texture, organic forms, pattern, individuality, and beauty excites me. Creating a place where my curiosity is sparked, so I am inquisitive and wonder what is around the corner. With this intrigue I venture deeper into the store. I honour creativity and seek it out. I seek the wonder and awe in the natural textures and materials and see the opportunity for playfulness with what is, and what could be. My mind cannot understand clutter, and I am bored with bland environments, so blending spatial harmony with pools of light, allows my brain to rest on one thing at a time. Colour, texture, using local materials that are indigenous to place. I want to see and connect to the beautiful Black Butt timber, sandstone and granite from my home in the mountains.

I no longer feel a sense of shame and defectiveness when I align myself with my values of joy, playfulness, courage, and adventure. Being alive and connected to the very thing that sustains me is the ultimate joy and sincerely humbles my heart, mind, and soul.

"Retail design should create spaces that call forth this innate knowledge that we belong to something greater than ourselves. It needs colour, sunlight, natural materials, fractals, dynamic balance and tension, attraction and beauty, contrast, somewhere a person can stay and be present for more than a moment."

My planet. My home. My love.

It's about the natural materials and textures and wanting to pause a while to get that uplifting sense of pure freedom. Gone are the days when I tried to walk around a place made of artificial materials and synthetic fabrics. Neon lights are great for five minutes. But give me life, something that inspires me to be more than I am today. One of my favourite things is to find artists who share their love for the environment and are quirky. You will never see me in a place that promotes the artificial because it is short-lived and easily dismissed, disregarded and given to landfill.

Retail design needs a vision: a vision of place-based relationships. These relationships are rooted in a specific place, reflect its unique characteristics and values, and foster a sense of belonging and connection. Retail design should create spaces that call forth this innate knowledge that we belong to something greater than ourselves. It needs colour, sunlight, natural materials, fractals, dynamic balance and tension, attraction and beauty, contrast, somewhere a person can stay and be present for more than a moment.

Biophilic design is a sophisticated approach that encourages inspiring design through physical and emotional exploration to spark further curiosity for the inhabitants. It involves appreciating the intricate patterns and the effects of time on objects, such as potted plants, fresh or dried flowers. Rather than feeling crowded, the design creates positive and negative spaces, offering a sense of prospect and refuge.

Retail design shouldn't be a sea of generic, unremarkable brands. It can honour the history of a location, whether it's Edinburgh or Melbourne, by incorporating local materials and diverse sensory experiences through lighting and textures. Retail biophilic design provides an opportunity for innovation, supports mental wellbeing, and fosters the human and nature connection we all seek, but may be looking for in the wrong places.

Biophilic design allows you to connect and feel your heart, mind, body, and soul. The truth is that biophilic design heals. It's time to heal. Heal ourselves, heal each other and heal the planet!

https://studiochintamani.com

Biophilia Impact on Wellness and Health

"Why do we need this nature-inspired design? Let's have a quick recap on why Biophilic Design is good for our health and wellbeing."

Kate Cheer

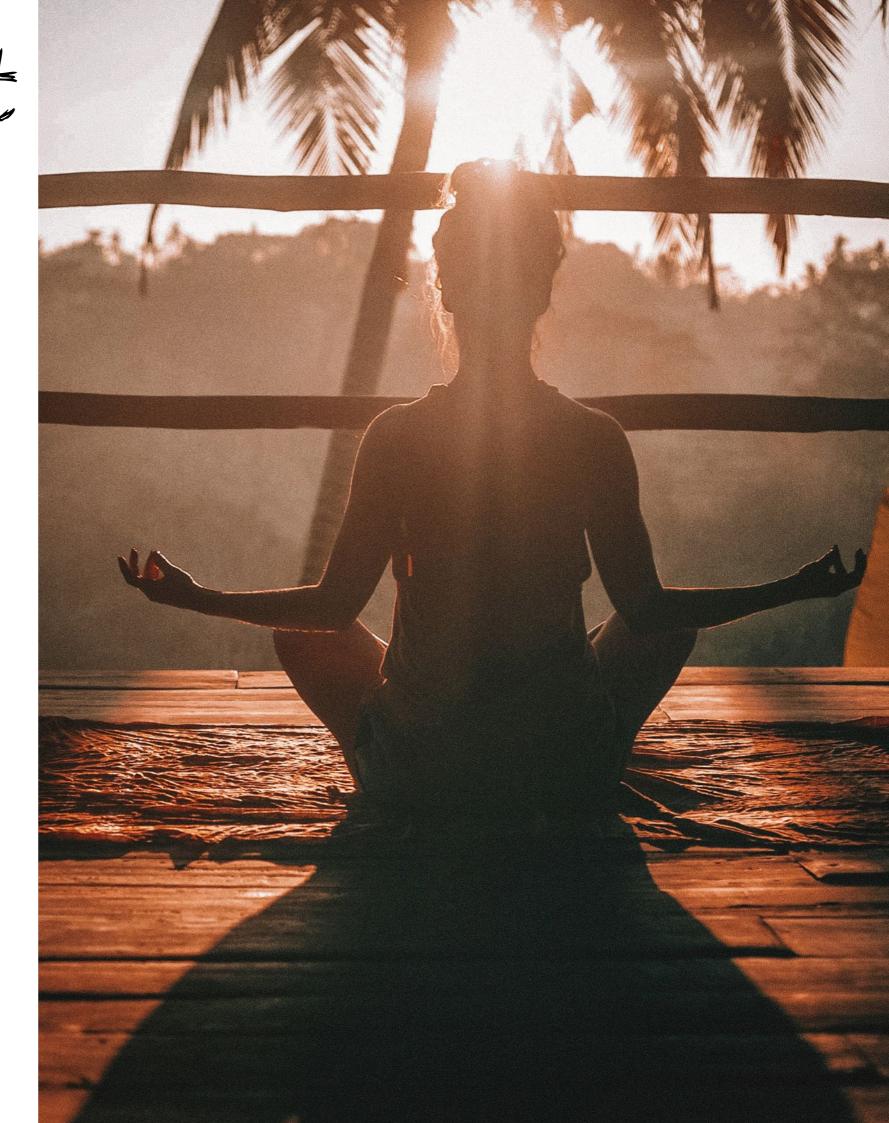
Throughout the millions of years our species has evolved, humans have co-existed in a close relationship with a natural environment that makes us biologically receptive to the shapes, colours, sounds, smells and textures found in nature. But in recent years a disconnection has grown between our need to connect with nature vs our daily experiences of living in the modern world. Could this be the root cause of the global increase of dis-ease in our physical, mental and emotional wellbeing?

Drawing on emerging research, biophilic design paradigms are fast gathering recognition for their ability to not only re-connect humans to nature but also improve wellbeing.

Through incorporating elements within the architectural design and physical space of commercial and residential buildings that replicates nature in multiple ways, we can help to fulfil our inherent need to be closer to the everevolving cycle and patterns of nature in our life and work environments.

A key element of biophilic design is ensuring the space has plentiful natural light. Light is a form of energy that's necessary to regulate our circadian rhythm, improve sleep quality in home environments and increase alertness and productivity in the workplace. Sunlight is also necessary for the synthesis of vitamin D, which is linked to the production of serotonin, the "happy" neurotransmitter that's key to our mental and emotional wellbeing. Improving light therefore enhances both the overall functionality as well as the nurturing qualities of the indoor space.

Biophilia also has the power to improve our mental health through the calm and tranquil experience of a space that evokes a reduction in the stress response. Time in nature is associated with lower cortisol levels and incorporating natural elements into the design of interior spaces allows individuals to benefit and engage with the calming effects of nature even when spending time indoors.



Studies have proven that improved cognitive function comes from the use of nature-inspired design elements that you can see, feel and touch. For example, natural materials that replicate the textures in nature, plants and greenery or visuals of green spaces, the use of water features and acoustics that create multi-sensory experiences within indoor environments.

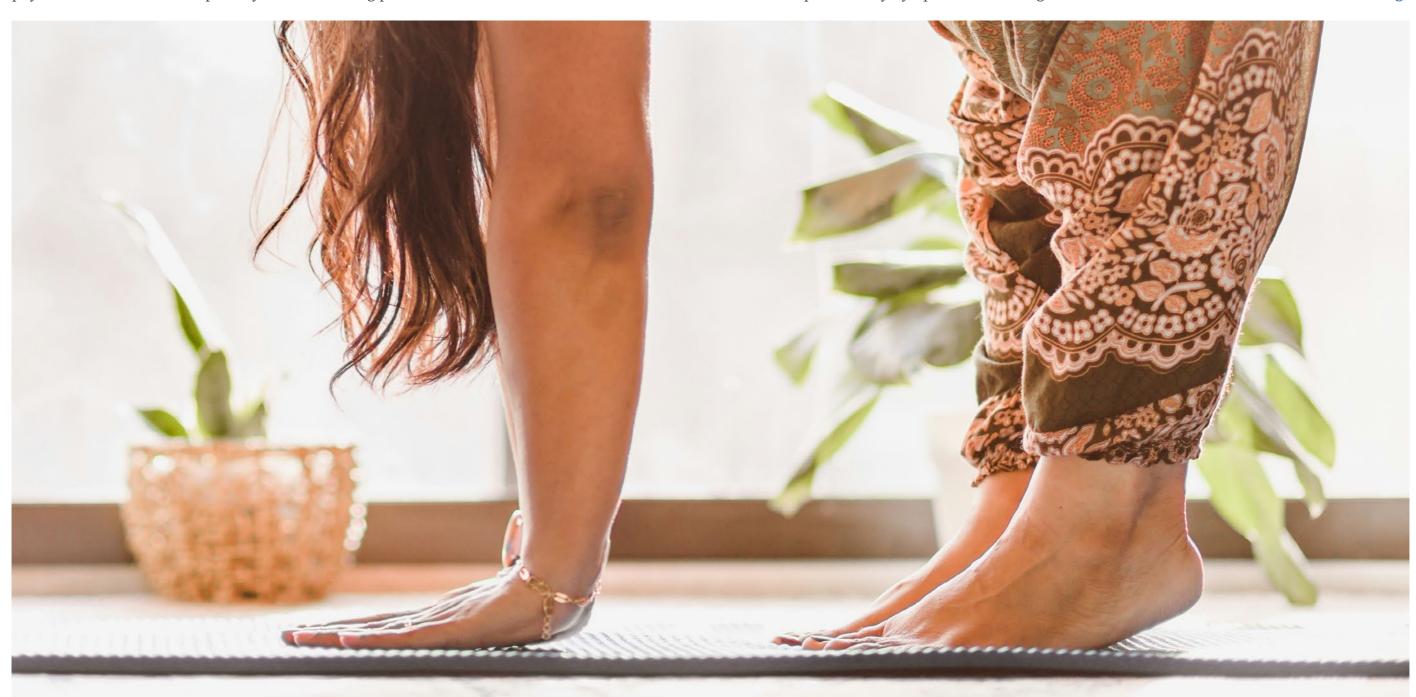
Beyond its impact on mental health, biophilic design also provides positive physical health benefits. Especially in environments where individuals are healing from physical sickness and injury. A traditional Japanese practice of Shinrin-Yoku, also known as 'forest bathing', has been shown in studies to promote a healthier immune system. Through using untreated woods and replicating other elements of biophilia into interior and architectural design, it's possible to provide an environment that results in faster recovery times with less medication thanks to the design principles contributing to the overall healing process.

Our breath, the very essence of life, can also be improved by considering air quality. By enhancing ventilation and increasing fresh air into the space, it's possible to create a healthier indoor environment that creates healthier individuals. Poor ventilation increases CO2 levels, increases fatigue and reduces cognitive function. Excellent quality natural ventilation has been proven to reduce sickness and absenteeism in workplaces by 35% and helps reduce transmission of airborne infections and viruses. As well as boosting productivity by up to 18%. Making it

a positive design decision for all.

As a Holistic Wellness Coach and former Interior Designer, I'm excited for this synthesis of wellness and interiors through biophilic design concepts. For the health and wellbeing of future generations rests on the mindful decisions we make today in creating healthier buildings for tomorrow.

Kate Cheer, Holistic Wellness & Resilience Coach https://www.instagram.com/katecheercoaching/



Our Gmazing, Sacred Stories of Mature

"Our personal stories of nature, our biophilic experiences, have the greatest power to open our hearts, raise our consciousness, and inspire the wonder of magic and mystery that is the natural world."

Maureen Calamia

A few years ago, I was telling a friend about a big project that I was working on that – after countless hours and months of dedication – had completely flopped. I felt dejected.

We were sitting under the shade of a huge oak tree by the water, when my friend asked, "So what's next?"

I shrugged my shoulders, and before I could respond, nothing prepared me for what happened next.

Suddenly, I received a big "download." I could feel it come down from the tree. The energy that I've come to know as spirit – the chills that descend from crown to feet. That is when I know that spirit, or divine source, is present. And it comes with a deep knowing.

At that moment, I knew what I was being asked to do next, without question.

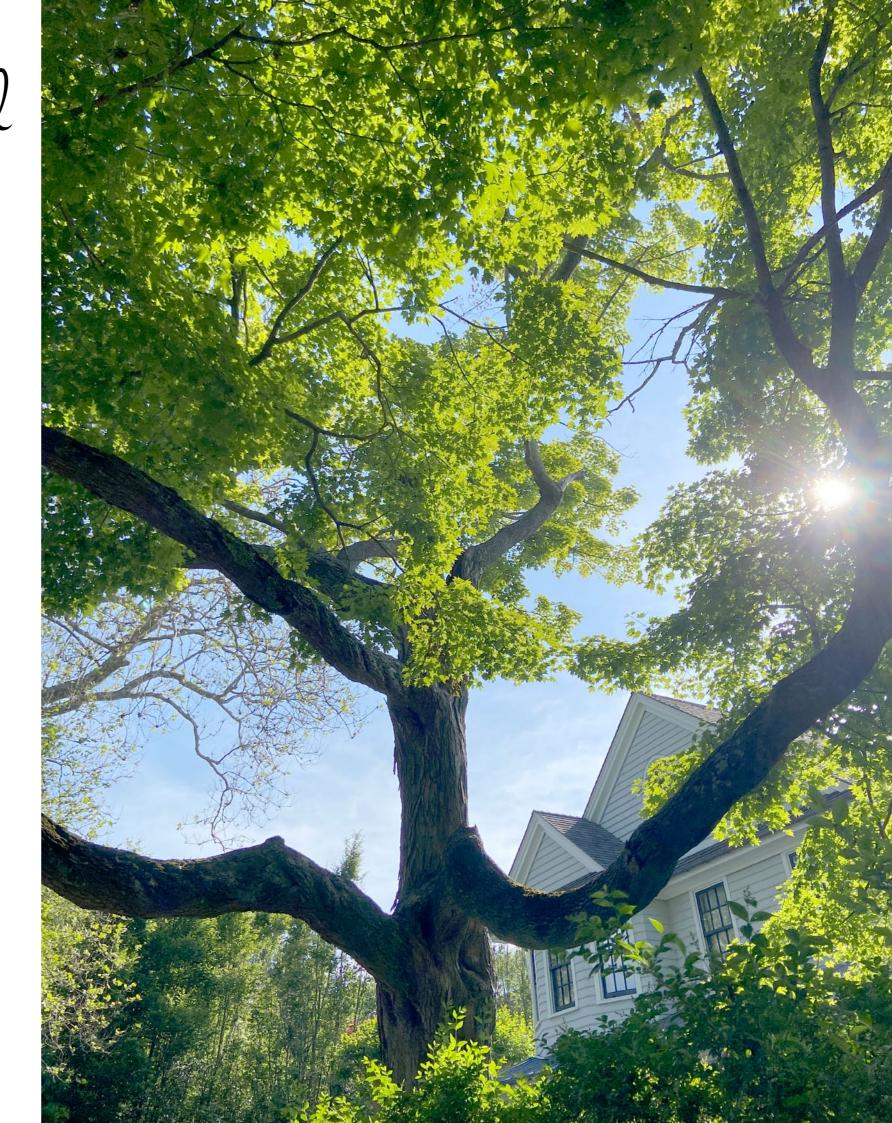
This experience with the oak tree was both ordinary and extraordinary. It

was *ordinary* because, when we allow ourselves to not know, when we give ourselves space, when we are open and seeking, nature (aka spirit) will provide the answers.

This story was also *extraordinary*, because of my reaction to it. I saw it as something significant and meaningful, and I followed its message. In fact, I changed the direction of my work not only for the next few years but my entire career path.

I wonder how many of you have had a similar occurrence. When something magical happened, caught you offguard, and urged you to completely change your path. And have you heeded this message?

I'm only asking this, because I think our automatic response to something magical is, "cool!" But then, we either forget about it or ascribe it to serendipity, nothing more. We don't take concrete action based on this message. But then, sometimes, we do.



Journal of Biophilic Design

WELLBEING

That time, under the tree, I immediately knew that my next step was to write a book that I had shelved years ago.

I wanted, I needed, to write a book about our stories of sacred connection to nature. I immediately started putting together a list of people to interview and outlined the So, this story of my encounter with an proposal to gain their participation.

What I found, over the course of the past couple of years, interviewing people and writing this book was, that these stories have a multifaceted role.

Gifted storytellers can transform us with their talent for empathetic storytelling. But everyone can benefit from sharing and hearing these stories.

Stories of profound nature connection can help us heal. Storytelling is a fundamental part of being human. Stories let us share information in a way that creates an emotional connection. Stories are often memorable and can be retold.

The language of our stories is filled with emotion and feeling. We are moved. When we are moved by our stories, we can move others by retelling them. And that is a gift – a gift that everyone has.

Sharing these stories with others is a powerful transmission of meaning. Through the use of metaphors and symbols, they help us make meaning and sense in our lives.

Hearing these stories can spark remembrance of our own. Even if we have forgotten about an experience, it can be called up into consciousness and remind us of the feeling we had when we first experienced it.

And perhaps most importantly, sharing these stories normalizes them. When we hear that others have had a striking experience or deep encounter with nature, we feel less vulnerable about sharing our own.

oak has helped me in two ways:

- It reminded me to listen and deepen my relationship with nature, for it will guide me when I am lost
- And realize that our personal stories of nature experiences have the greatest power to open our hearts, raise our consciousness, and inspire the wonder of magic and mystery that is the natural world.

And that will heal us all. Both personally and collectively.

When we share our stories of being moved, we are moved, again, and have the power to move others. Behavior change comes not from the mind, by from the heart. And from this place, we are empowered and motivated to change our relationship with the natural world.

The Enchanted Earth: Embracing the Power of Nature to Discover the Wild in You is due out December 2024 by Mango Publishing. The Enchanted Earth Podcast with Maureen Calamia is available on YouTube, Spotify, Apple Podcast.

Maureen is the author of Creating Luminous Spaces (Conari Press, 2018) and The Enchanted Earth (Mango Publishing) coming out April 2025. She is also an experienced workshop leader and event speaker, and a frequent guest speaker at The Lodge at Woodloch, a top destination spa in Northeastern PA.

www.luminous-spaces.com



The Role of Biophilic Design in Retail Spaces

Enhancing Well-being and Boosting Economics

Dr. Owen Wiseman, ND

If you've been a reader of JBD for a while now, you're familiar with biophilic design, which incorporates natural elements into built environments.

What you may not know is that it is increasingly recognized for its ability to enhance the well-being of individuals while simultaneously boosting economic outcomes. Retail spaces, in particular, are prime candidates for this approach, as the inclusion of natural elements can create environments that not only make people happier and healthier but also encourage more positive spending behaviours.

The Science Behind Biophilic Design

This form of design is grounded in the innate human connection to nature, a concept known as biophilia. This relationship, which has evolved over millennia, means that our brains and bodies respond positively to natural stimuli – such as plants, water features, natural light, and organic materials – by

reducing stress and promoting relaxation. These responses are not just subjective experiences but are backed by scientific research showing that environments with natural elements can lower cortisol levels¹, improve mood², and enhance cognitive function³.

What Do You Notice When You Enter a Store?

Think about how you feel when you first enter a store.

What do you notice?

Is it the warm, inviting atmosphere created by natural light pouring through large windows, the soft rustle of leaves from potted plants, or the calming sound of a water fountain? Or is it the harsh fluorescent lighting, stark white walls, and rows of uniform shelves that make you feel like you're in a sterile, impersonal environment?



WELLBEING

These first impressions are powerful.

In a space filled with natural elements – like a boutique with greenery, wooden accents, and gentle lighting – you might feel a sense of calm and relaxation, as if you've stepped into a small oasis. The environment invites you to slow down, take your time, and enjoy the experience of browsing. In contrast, a store with harsh lighting and a lack of natural elements can make you feel rushed, overwhelmed, and eager to leave as quickly as possible!

Enhancing Well-being in Retail Environments

Incorporating nature-based design elements into retail spaces can have a profound impact on customer well-being. For example, the presence of indoor plants, green walls, and natural light can create a calming atmosphere that reduces stress and increases overall satisfaction. Customers in these spaces tend to stay longer, enjoy their shopping experience more, and are more likely to return. 4,5 This is because such environments tap into our deep desire to connect with the environment, providing a refuge from the often chaotic and overstimulating modern world.

Economic Benefits and Spending Behaviors

The economic benefits of biophilic design in retail spaces extend beyond customer satisfaction. Research indicates that environments designed with biophilic principles can lead to increased sales.5 Customers in these

spaces often experience an enhanced mood and a stronger emotional connection to the space, which can lead to increased spending.⁶ The calming and positive atmosphere created by natural elements can reduce decision fatigue, making customers more likely to make purchases.⁷

Additionally, biophilic design can enhance brand perception, positioning a retail brand as eco-conscious and customer oriented. In an era where consumers are increasingly concerned about sustainability and the environment, biophilic design can differentiate a brand and build customer loyalty. This, in turn, can lead to repeat business and positive word-of-mouth, further driving economic growth.

Practical Implications for Retailers

For retailers looking to implement biophilic design, there are several practical strategies to consider:

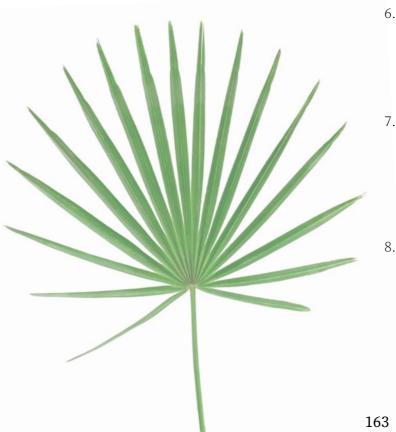
- Introducing indoor plants, green walls, and water features can significantly enhance the aesthetic and atmosphere of a retail space.
- Utilizing natural materials such as wood and stone, along with maximizing natural light, can further deepen the connection to nature.
- Retailers can also consider creating outdoor spaces or integrating elements of nature into the storefront, making the shopping experience begin as soon as customers approach the store.
- Offering seating areas surrounded by greenery can encourage customers to linger, increasing the likelihood of purchases.

Conclusion

Biophilic design in retail spaces offers a powerful opportunity to create environments that support the well-being of customers and employees alike. By fostering a deeper connection to nature, these spaces not only contribute to happier and healthier individuals but also improve economic outcomes by encouraging positive spending behaviors. As consumers continue to seek out experiences that align with their values of sustainability and wellness, biophilic design will undoubtedly become an essential component of successful retail strategies.

Incorporating these natural elements into retail environments is not just a trend – it's a smart business decision that can lead to long-term benefits for both customers and retailers.

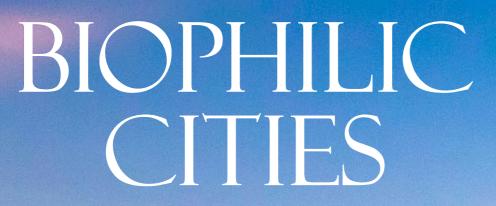
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THE DAVIDSON PRIZE

"The winner of the 2024 Davidson Prize explores how vacant retail space in the UK's towns and cities could be reinvented to bring life back to the increasingly hollowed-out town-centres."

Marie Chamillard, Director, Alan Davidson Foundation

Established in 2020, The Davidson Prize is an annual design ideas competition that focuses on the contemporary home. The prize was launched by the Alan Davidson Foundation in memory of Alan Davidson, the architectural visualisation pioneer who lost his battle against Motor Neurone Disease in 2018. Alan had a passion for storytelling and communication. He was an industry leader and the founder of Hayes Davidson, one of the world's leading visualisation studios.

Throughout his life Alan was a great believer in how a well-designed home enhances life, particularly in terms of health and wellbeing. The prize celebrates innovative design ideas, encourages cross-disciplinary collaboration and promotes compelling visual communication to wide audiences.

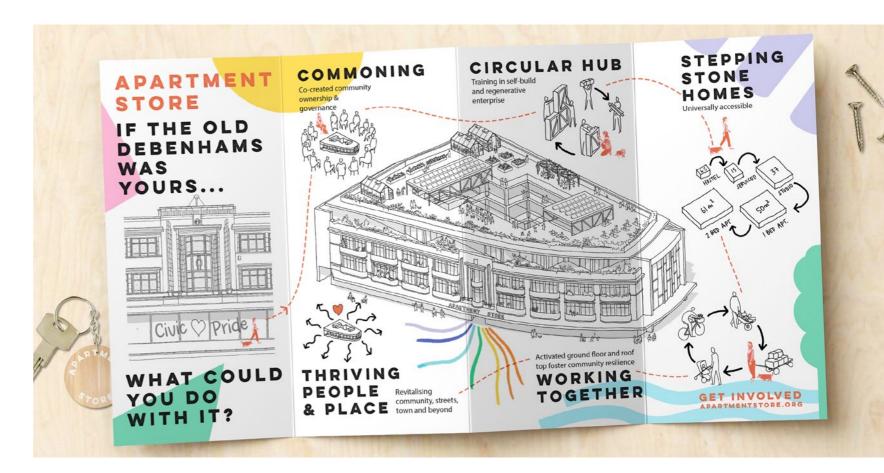
Each year, we invite teams from across the UK and Ireland to consider a different aspect of the home, with themes to date addressing home working, co-living and homelessness.

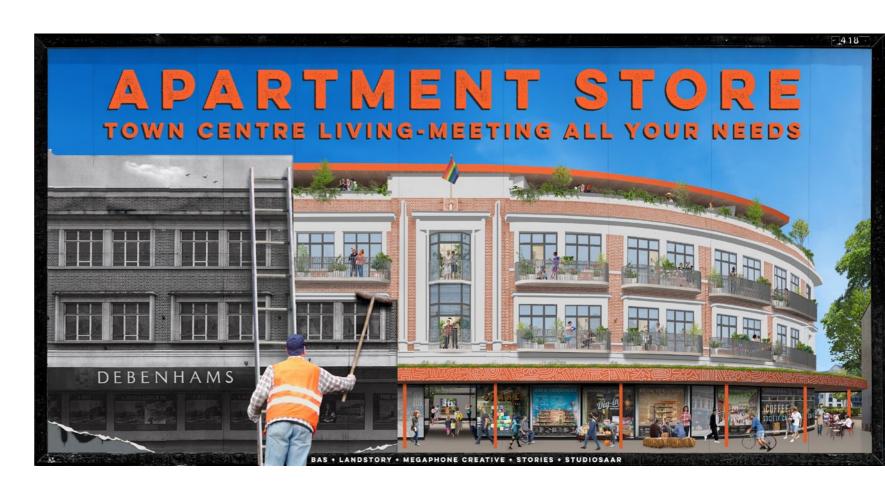
This year's theme, "Rethinking Home – Adapt and Reuse", asked teams to

respond to the two urgent imperatives of the housing shortage and climate crisis. Entrants were given a brief to rethink the ideal home by investigating creative ways of reusing or mining existing structures in the UK or Ireland in combination with bio-based or sustainable materials to provide a minimum of five homes.

The jury panel was charged with the difficult task of narrowing down the entrants to a 17-strong longlist and then down to a shortlist of three before crowning an overall winner – following a chance for the team to expand their concept and present it to the panel.

Entrants presented radical and exciting concepts for the sustainable creation of new housing. Ideas ranged from reusing gasholders, electricity pylons and abandoned quarries to agricultural buildings, ex-telephone exchanges and decommissioned airports. Proposals pulled from an extensive inventory of sustainable building materials, including locally sourced willow, flax, hemp and straw, recycled aeroplane insulation, structural cork, wool and site-grown bamboo.





Journal of Biophilic Design
BIOPHILIC CITIES

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BIOPHILIC CITIES

This year's winning project, Apartment Store, by architecture practice Studio Saar, with developer Stories, placemaking consultant BAS, landscape architect Landstory and filmmaker Megaphone Creative, reimagined a redundant Art Deco department store in Taunton, Somerset, into new homes and a buzzing circular economy hub.

Their idea explores how vacant retail space in the UK's towns and cities could be reinvented to bring life back to the

increasingly hollowed-out town-centres.

Their proposal incorporates the use of local skills and materials to create community owned and co-designed homes on the upper levels, with communal spaces dedicated to repair, making and biomaterials – including a tools library, education space and Common Room for local decision making about the circular economy – at the ground floor, and a roof garden for collective food growing.





Through the design process, the team launched the website **apartmentstore.org** to engage Taunton's communities in the design process bringing to life the vision of what an ideal home of the future for the local residents may look like.

As we prepare for our fifth year, we hope to continue pushing the boundaries of home design and communicate how design innovation can be used for the betterment of all.

Marie Chamillard, Director, Alan Davidson Foundation https://thedavidsonprize.com

You can read more about the winning entry here: https://thedavidsonprize.com/awards/2024/apartment-store-1



BIOPHILIC CITIES

How can Biophilia Rescue the Disappearing High Street?

"Applying the principles of biophilic design – both to our external spaces with tree-lined streets and to our internal, temperature-controlled ones – is the key to a high street that survives long into the future."

Steve Edge

"Lining both sides of these corridors, which get their light from above, are the most elegant shops, so that the arcade is a city, a world in miniature." Walter Benjamin 'Arcades Project'

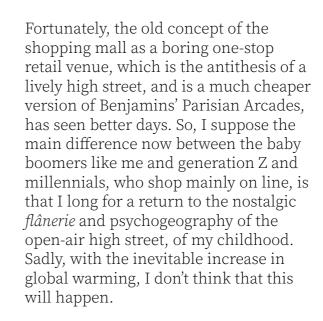
I'm old enough to remember High Streets in the 1950s without any chain stores, but with *flaneurs* casually strolling around and all interacting. Streets lined with independent shops like haberdashers, milliners and men's-outfitters which weren't designed, but instead they were all fitted-out with the same timber and glass fronted drawer units, stacked up high to the ceiling, and built in countertops that were made to last. Where you were greeted by the cheerful sales-patter of a seamstress or tailor, ready to measure you for your next outfit, which would last you a lifetime.

A high street resplendent with greengrocers, butchers, bakers, fishmongers, and chemists galore, who knew you and your family well and the nearest thing to a supermarket was the Co-op. And even the Sainsburys opposite Surbiton station, in Surrey, where I lived when I was a student studying interior design at Kingston College of Art & Design in the early 1970s, was then only a corner shop.

Fast-forward just over fifty years, to a world where the commerciality of marketing companies and advertising agencies, with their branding of products, mass manufacturing and globalisation which has transformed the high street, into a sequence of spaces where only the strong can survive. Spaces where the view from the upper tier of a shopping mall, provides consumers with a panoramic scan of the fast food and fast fashion outlets below, and is sometimes referred to as an example of 'Prospect', one of Terrapin Bright Greens '14 Aspects of Biophilic Design'. However, I tend to disagree with this image, as it reminds me of the dystopian scenes of a shopping mall overrun by zombies, in the classic 1978 movie 'Dawn of the Dead' directed by George A Romero.



BIOPHILIC CITIES



So, what can biophilia do to help?

Firstly, retailers can treat all workers and shoppers alike, and show more respect for the health and wellbeing of all occupiers of internal retail spaces and apply for BREEAM and WELL Standards when remodelling.

Secondly, if high streets are to survive long-term and heat islands combatted, then town planners and developers, could do well to heed the research that shows that tree-lined high streets, can provide green canopies, which would create a better footfall from customers.

Finally, as global warming intensifies it's inevitable that we will all shop in more temperature controlled indoor environments. If so, then let's make them as biophilic as possible, like these being proposed in China's future city in Qingdao, by CLOU architects, who were inspired by the primitivist jungle paintings, of the late 19th Century Parisian Henri Rousseau; hopefully Walter Benjamin would have been impressed.

Steve Edge is a biophilic design consultant, and a Senior Fellow of the Higher Education Academy, with over 40 years' experience in academe and the design and construction industry.

www.salvedge.co.uk

References:

- 1. P.31 of Marxist Philosopher Walter Benjamin's A polemic on the rise of consumerism in Hausmann's Paris in the 19th C, and the world of the *flaneur* https://alicefryart.wordpress.com/2017/10/22/key-quotes-walter-benjamin-the-arcades-project/
- 2. CLOU architects, Qingdao https://www.archdaily.com/996616/qingdao-future-city-clou-architects





FINALWORD

Dr Vanessa Champion

Editor

This month saw the first Biophilic Design Conference run by The Journal of Biophilic Design. We held it at the Barbican in London. Surrounded by trees in the conservatory, we discussed, plotted, schemed and celebrated how Biophilic Design is transforming spaces and places for people and planet. We also looked at how economic values of these spaces improve, from employee wellbeing and therefore how this supports the bottom line, to how we can shift where we spend our money to support regenerative efforts in society and on a city and global level.

This issue looks at different aspects of Retail spaces, from a brand owner point of view to a consumer's perspective. It also looks at how we spend, where we spend and changing habits.

Biophilic Design is also design for life in all senses. It is a design practice we can all employ, how we choose to live and "design" our lives. How and where we choose to spend our money or trade our time.

WE are at a pivotal moment in history.

There is a mental health crisis, poverty crisis, resources crisis, climate crisis, and yet there is still so much hope.

There is hope, because so many people are pulling together, doing different,

talking, exchanging ideas, collaborating, making a difference. Behind the scenes I've been knocking on various political doors and associations to help add another voice and highlight the Biophilic Design movement, the benefits and the successes.

2025 will see a whole series of Biophilic Design events run by us in collaboration with so many wonderful people, academics, practitioner designers, architects, landscape architects, ecologists, healthcare workers, teachers, psychologists, construction industry, materials suppliers (from paint to artisan designs). Plus we are media partner and chairing and convening panels on Biophilic Design at Workspace Design Show, Surface Design Show, FutureBuild, Anticipate London, The Workplace Event, Biophilic Institute, Watercooler and more.

We have to have everyone around the table. We always learn so much from each other, don't we? The Journal exists to support the industry, to help give voice to Biophilia in all its guises, to support you in your professional practice and to make our world a better place to live in. Thank you for being part of it.

www.journalofbiophilicdesign.com



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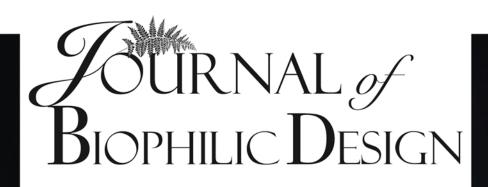








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