



WELCOME

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

You could argue that the hotel and leisure industry is one of the main places where Biophilic Design has been most widely embraced for years. It is natural that for places where people "escape" the rat race to, would also be havens of comfort, peace, tranquillity, beauty, harmony. Hotel rooms with views of nature are the most expensive rooms in a hotel. We all want that connection to nature when we take our holiday. "Nature" is nearly always that special "place" we describe when we are asked to close our eyes and think of a location where we feel most relaxed, at ease and inspired.

There has also been an increase globally in people taking holidays that reconnect us to the natural world, whether it is by the sea, in the mountains, backpacking, walking, cycling, canoeing, camping, luxuriating in spa hotel, beach or a hotel which has a swimming pool. As all biophilic design specifiers know, this connection to nature is important for mental health, as well of course as encouraging a healthy lifestyle. The sense of awe we enjoy when immersed in nature can be profound.

The best hotels have nailed the lure that pulls us into staying with them. It's not the all-you-can-eat buffet (which is nice) but the thing which will

help us decide on two similar hotels will be the environment, the décor, the views. No one wants to stay in a hotel which is utilitarian and looks like the office they just left in the city, they want respite, beauty, harmony.

Bill Browning in his brilliant article in this issue explains that "Biophilic design has been listed as one of the top design trends in hospitality for several years. It can improve guest experience, create more memorable hotels, and even change the way guests utilise spaces."

And it's not just hotels. While we are focussed on hotels in this issue, we also look at other leisure spaces, including libraries, airports and others.

The spaces and places we spend our free or leisure time can rejuvenate us, help our mind, body and soul relax, unwind, replenish. I'll let you into a secret, these periods of respite, imagine if we could bring little moments that help you feel like this into the workplace when you got back? Ah, yes, we can, it's called Biophilic Design. Thank you for being part of this amazing Biophilic Design movement to create places that heal and harmonise.

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 **Retail.**

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 Retail, Childhood, Third Age, Light, Sound, Architecture, Interior Design.



SOULS PACE ATTHE BOATHOUSE

Biophilic Design - Case Study

Jessica Meins

Project:

Soulspace at The Boathouse

Client:

Web - Soulspace Instagram - @_soulspace

The Boathouse is a three-storey building on the banks of the River Wey in Guildford, which was completed in 2023. Purpose-built in the style of an old boat house, it is home to Soulspace, a new co-working and events concept; and The Boathouse Cafe, a relaxed riverside restaurant.

Creative studio Raw Clay was tasked with creating an identity and interior scheme that would work in harmony with the building's beautiful natural surroundings and the people using

Designer:

Web – Raw Clay Instagram – @_rawclay

Photography:

Web – Joey Kendal Brown Instagram – @joeykendalbrown

the space – creating a nurturing environment that would allow people to work, gather, and grow.

The brief was to use only sustainable materials throughout the space – specifying finishes that would age and weather with patina and character, making the feeling of 'soul' tangible. The river became central to the scheme, with each level of the building being inspired by another layer of its surroundings – river bed, water, and upwards to the tree canopy.





Biophilic design

Our brief was to ensure harmony between the Boathouse and its surroundings – blending the boundary between natural and manmade. As the building sits on the banks of the river, we built our design concept around the layers of a river, and the materials found there. We were keen to reference the river in a way that didn't feel themed or caricatured – it should be an elegant, underlying narrative that is present in every detail. We used a palette of materials inspired by the river including raw clay, rough stone, rippled glass, weathered wood, and patinated metal. These finishes appeared in different ways throughout the building, for example the ripple detail which was carved into the edge of the handmade desks, and featured in the choice of glass for divider screens and partitions, the undulating surface of the tiles in the bathrooms, and even the crockery and glassware in the kitchens.

The lower ground floor of Soulspace is inspired by the river bed, with references to sediment, rock, and clay throughout the scheme. We used deep reddish browns to envelop visitors in the earthy, below-ground Gathering Rooms spaces that need to foster connection and collaboration.

"WE CAME TO RAW CLAY WITH A FEELING

WE WANTED TO CREATE. WE DESCRIBED **OUR DREAM TO THEM, AND THEY SOMEHOW** MADE IT INTO A TANGIBLE REALITY THAT **COULD BE FELT BY OTHERS."**















Textured, rustic clay plaster moves in sedimentary layers, guiding you to the upper ground floor, which takes inspiration from the water. We use a recurring ripple detail throughout this floor – on the edge of timber desks, in the using tuneable lighting that changes choice of glass for partition screens, and in the styling of the shelves - which catches the light that reflects off the water outside.

The first floor takes us to the plants, trees and other flora lining the river, and we reference this with textural layers of different types of wood, and bespoke artwork celebrating nature's tones and shapes. This floor feels loftlike and relaxed – perfect for evening events.

We were also asked to use design to improve the wellbeing of those using the building. The starting point for this was to design a lighting scheme that would support the circadian rhythm – temperature throughout the day, mimicking daylight patterns to improve focus, mental health and sleep. Our use of natural materials and textures also supported this approach, along with a mix of open and enclosed spaces to enable members to retreat when needed.

https://www.rawclay.co.uk

https://soulspace.co.uk





Café Bean

"Biophilic Design provides a place of harmony and restoration in this delightful café in Muswell Hill, London."

Ola Jachymiak Studio

In our fast-paced, urbanized world, finding a moment of tranquillity and connection to nature can be challenging. However, a growing design movement known as biophilic design is changing the way we interact with our built environments, bringing the calming and restorative qualities of nature indoors. For our studio (Ola Jachymiak Studio), the biophilic design is not just a trend but a fundamental approach that shapes every project, including the recently completed Beam Cafe in Muswell Hill.

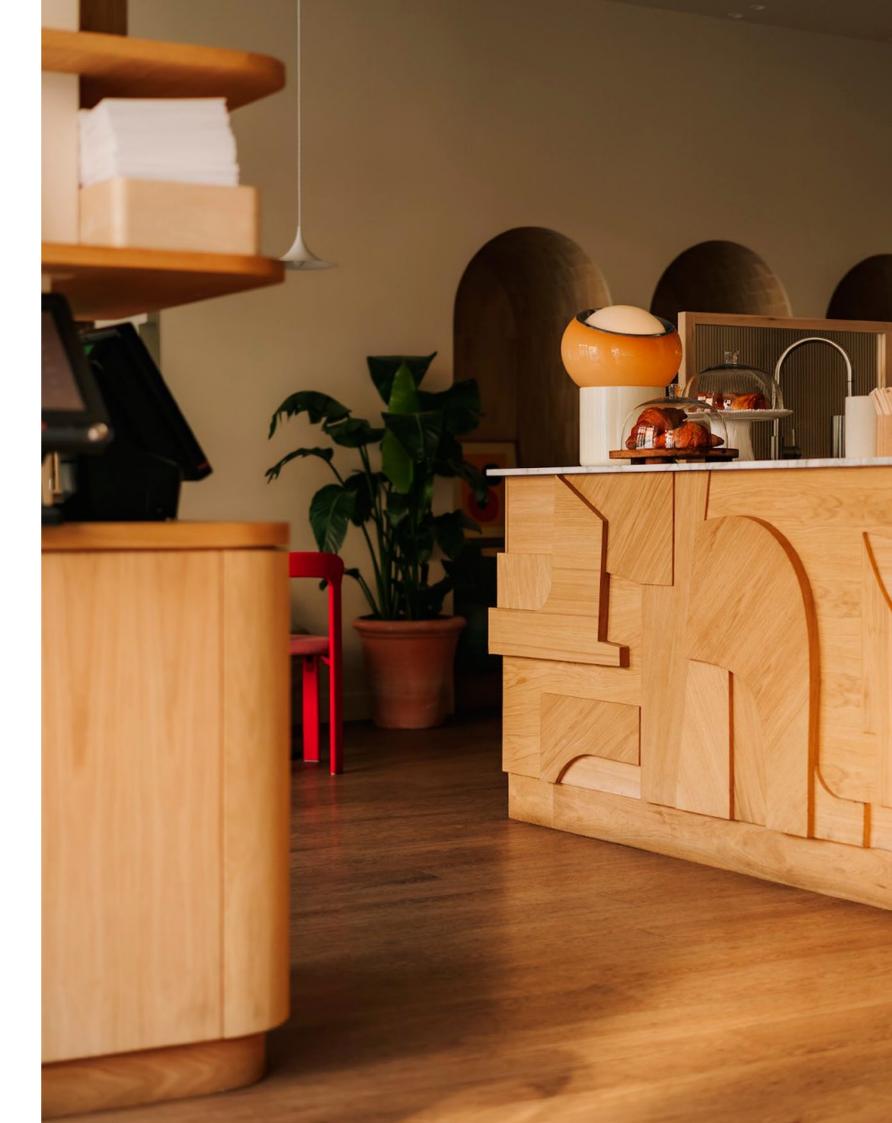
Biophilic design is an innovative approach that seeks to connect people/customers more closely to nature. It incorporates natural elements such as plants, natural materials, light, and colours into interior and architectural design. The philosophy behind biophilic design is rooted in the understanding that humans have an innate affinity for nature. This connection to nature is not just aesthetically pleasing but also has

profound implications for mental health and well-being.

We truly believe that being close to nature is fundamental for mental health. When I design a space, I think about the people who will use it, their emotions, and their overall feelings. Bringing vegetation into the space impacts mental health, calming emotions, and creating harmony.

The Beam Cafe in Muswell Hill exemplifies the principles of biophilic design. Every element of the cafe has been meticulously planned to foster a connection with nature and enhance the well-being of its customers.

The incorporation of palm trees and various flowers throughout the cafe serves multiple purposes. It reorganizes the space, adds a homely feeling, and creates an authentic, harmonious environment. It was instinctive for both my clients and me to integrate nature into the café.





LEISURE / HOTELS

Authentic raw clay tiles in the arches and terracotta tiles in the bathroom were chosen not only for their aesthetic appeal but also for their natural colours, which add cosiness and a connection to nature. The use of wooden veneer throughout the space introduces a warm shade, enhancing the inviting atmosphere.

To harness the mood-enhancing benefits of natural light, the cafe features an enlarged shop window, allowing sunlight to flood the interior. We placed seating by the windows to ensure customers could enjoy the sunlight while having their meals. The strategic use of natural light significantly impacts the mood and ambiance of the space.

Natural, earth tones like beige, reddish, terracotta, and green dominate the colour palette, reflecting the patterns and hues found in nature. Soft teddy fabrics from Pierre Frey cover the bespoke egg-shaped benches, adding comfort and a tactile connection to nature.

Numerous studies have shown that exposure to nature reduces levels of a stress hormone, and improves mood, attention, and focus. Biophilic design elements such as natural light, greenery, and natural materials have similar effects and can significantly enhance the quality of spending time in indoor spaces.

Biophilic design elements are crucial for creating a comfortable, relaxed, and cosy ambiance. We wanted to ensure that Beam Cafe customers feel this connection to nature and experience the calming effects while enjoying their food.

As our understanding of the relationship between the built environment and mental health continues to grow, biophilic design stands out as a vital approach to creating spaces that nurture and restore. Whether it's a bustling cafe or a quiet office, the principles of biophilic design can transform any space into a sanctuary of tranquillity and connection to nature.

https://olajachymiak.com https://www.cafebeam.co.uk

Photographer Migdal Studio









THE TEMPUS

A visual gallery of Biophilic Inspiration

Georgina Fraser

Nestled in a 150-acre country estate in winsome Northumberland, The Tempus is surrounded by lush green surroundings.

Blessed with views of the natural environment on tap, bringing the outside in was not necessarily a huge priority item on the design brief. However, Jeffreys Interiors couldn't help but be inspired by the location.

Elements of biophilic design have organically blended their way into the creative schemes, featuring in almost every room within the 15-bedroom boutique hotel and 100 cover bar and restaurant. This bonkers wonderland meets countryside escape, uses elements of nature to provide respite and joy within a man-made space.

Project: The Tempus Hotel

Size: 1300 sq m

Photographer: Jeffreys Interiors **Region:** North and North West

Project Summary:

The transformation of cattle sheds on a 150-acre estate in Northumberland into The Tempus, a unique hospitality venue, epitomises a creative and meticulous design process. The design goal was to offer a visually stunning experience in each of the 15 eclectic-themed bedrooms, from tropical to Eastern-inspired décors, enhancing the guest experience with vibrant colours and imaginative elements. Key features include a Van Gogh-inspired lighting installation and a variety of themed spaces like a bar and orangery, ensuring each visit feels like an adventure. Despite a complex design, the venue maintains visual cohesion and maximises the original estate's features, successfully blending heritage with modern luxury and achieving high acclaim post-launch.











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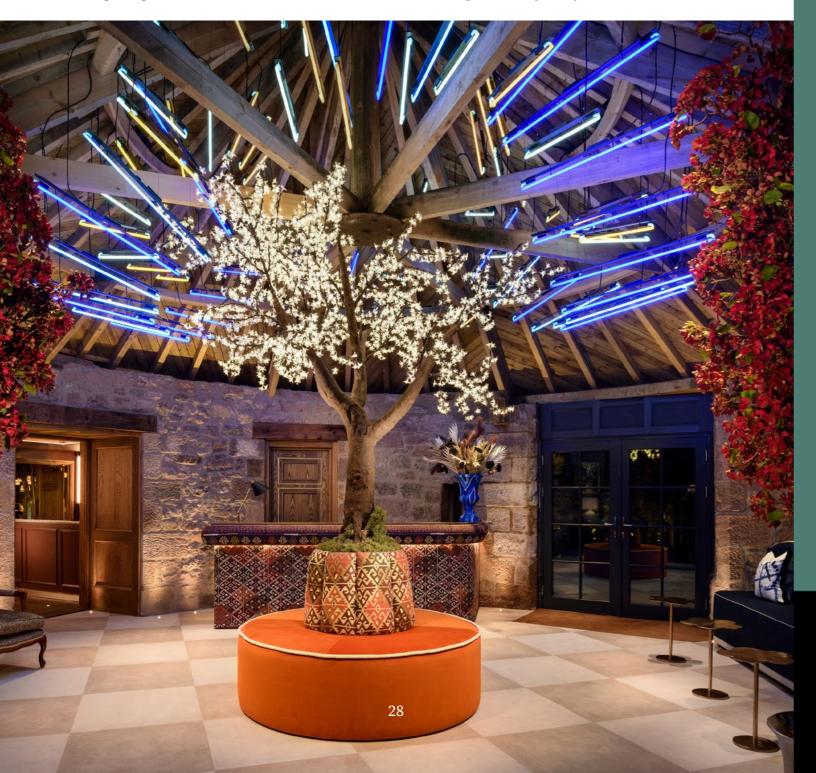
LEISURE / HOTELS

Natural light floods the orangery, huge apex windows in the suites allow guests to gaze out over the forests from their bed and greenery walls adorn the toilets, bringing life to a windowless room.

A huge LED tree welcomes guests into the gin gang entrance, forming the centrepiece of a custom starry night lighting installation. Booths in the bar were inspired by nearby Tugly Wood, made using tree branches sourced from the hotel grounds.

Birds, butterflies, leaves and flowers feature throughout the wallpaper and fabric patterns, adding to the whimsical nature of the space.

https://www.jeffreys-interiors.co.uk





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Biophilic Design and Fusion: The Interiors of 103 Parkway

"Located in vibrant heart of London's Camden Town, 103 Parkway, a fine dining sushi restaurant, seamlessly marries the flavours of French and Japanese cuisine with a thoughtfully crafted interior design."

Miglé Gri - CEO and Founder

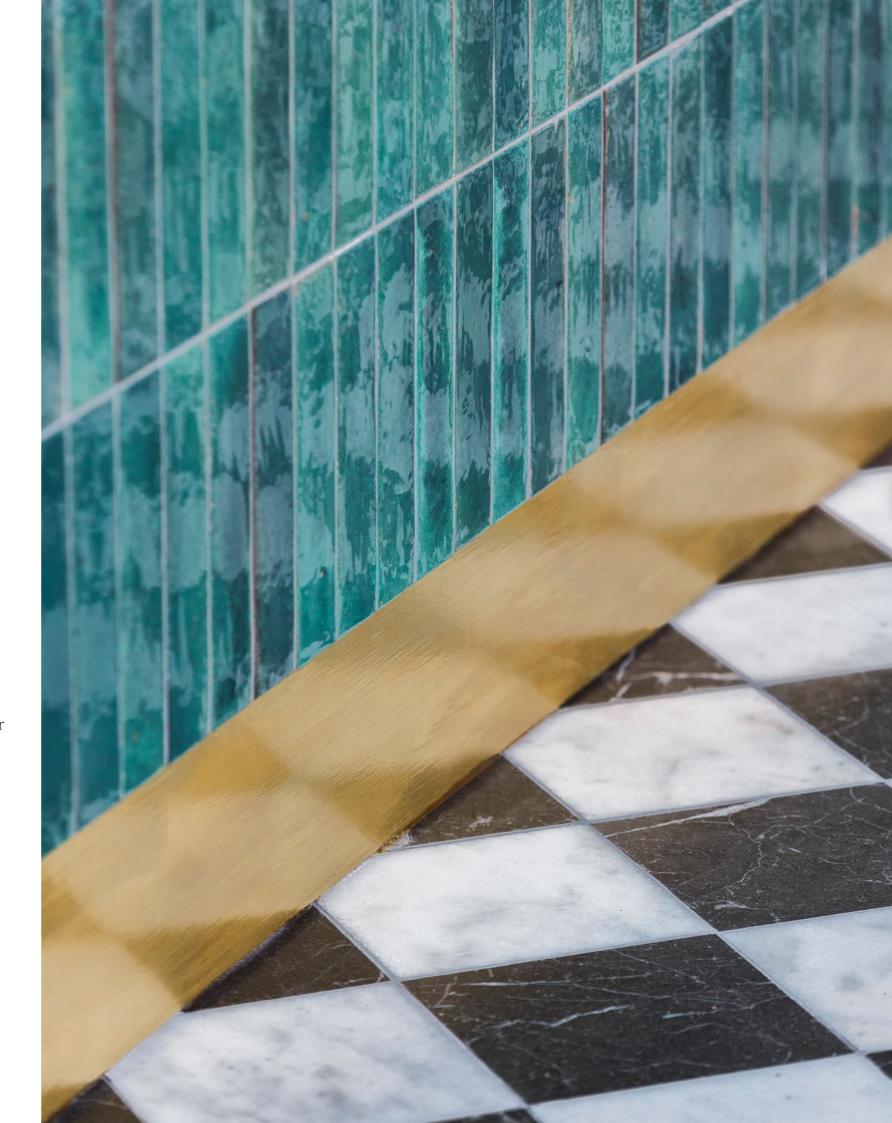
Stepping away from the culinary norms, this establishment embarks on a journey that not only tantalizes the taste buds but also immerses guests in a harmonious blend of Biophilic Design principles, emphasizing the profound connection to nature, the embrace of natural light, and the soothing palette of colours.

Bar Design: A Verdant Oasis

The focal point of the restaurant's ground floor is a custom U-shaped bar, exuding an air of vibrancy and sophistication.

Draped in Mandarin Stone's Hoxton Bottle Green Gloss Porcelain tiles, the bar radiates opulence and style, creating a mesmerizing centrepiece.

The ambiance in this area is further enhanced by the warm glow of Green Mini Cobbler Pendants, which cast delightful shadows against the glossy green tiles. This thoughtful blend of French and Japanese elements results in a captivating design that warmly invites guests to revel in a serene environment saturated with the tranquil hues of nature.







The powder rooms at 103 Parkway exemplify a delicate balance between Japanese culture and contemporary design. They showcase striking black and gold bonsai tree wallpaper from the Sanderson Design Group, offering guests a glimpse into a world brimming with cultural richness and a profound connection to nature. These traditional elements harmonize seamlessly with the custom-designed vanities, crafted from green Verde Laponia granite, presenting sleek lines and a rich colour palette that forms an exquisite contrast against the classic wallpaper. This graceful marriage of the old and the new epitomizes the core philosophy of 103 Parkway's design, where history and modernity coexist in exquisite harmony.

Artwork: A Collage of Culture and Nature

The walls of 103 Parkway become a canvas for meticulously chosen Japanese artwork prints, ingeniously divided into sections to form an enthralling puzzle. This unique approach to wall art brings an air of intrigue and sophistication to the restaurant, all while underscoring

the profound connection to nature and culture. These artworks are thoughtfully illuminated by Pooky Turner picture lights, adding layers of depth and enchantment to the dining experience, creating an atmosphere that resonates with the beauty of the natural world and the rich tapestry of culture.

Conclusion: A Fusion of Nature and Elegance

The interior design of 103 Parkway is a testament to the enchanting synergy between French and Japanese design styles, forging an ambiance that stands the test of time and remains strikingly contemporary. From the timeless checkered natural marble flooring to the Japanese-inspired wallpaper and custom-designed furniture, each element has been meticulously selected to cultivate an inviting and sophisticated environment. 103 Parkway skilfully brings the allure of Japanese artistry to the heart of Camden Town, welcoming guests to embark on a culinary journey enveloped in elegance and culture, all while maintaining a steadfast connection to the natural world dining experience.

studioduquette.com





Journal of Biophilic Design LEISURE / HOTELS

From the Willy Wonka of Hotel Design to Khao Yai Resort in Thailand

"Biophilic Design one could argue sits above Sustainable Design, like an umbrella term that embraces regenerative design. If you follow the "direct nature connection" principles of Biophilic Design which we also know are the best patterns of Biophilic Design, you will also be going some way to producing sustainable design."

Chloe Bullock

During my research for my book, Sustainable Interior Design, some special hotels have popped up as such great examples for some of the approaches into sustainability.

I have loved following Bill Bensley's project over the years. Described as the "Willy Wonka of hotel design," he is such an enthusiastic advocate for nature and a skilful and talented one too - being a designer, architect and landscape architect. A project which wasn't completed in time to showcase in the book was WorldWild - a resort in Southern China where the humans are 'caged' albeit very luxuriously, while

the exotic and endangered animals roam free in the surrounding land. Now there's a new way of looking at things and placing nature at the centre! Bill has delivered Shinta Mani Wild resort, an important conservation project in Cambodia where the land had been rife with poaching and was going to be sold for

logging. Instead, a creatively designed resort has been created where visitors can choose to arrive by zipwire and anti-poachers protect the area, and wildlife corridors & trees are preserved.



Intercontinental Khao Yai Resort. Photo credit: InterContinental Khao Yai Resort







The Bide. Photo credit: Jake Balston

40

The project of Bill's I've written about in the Reuse chapter is one for the Intercontinental Hotel Group – the Intercontinental Khao Yai Resort in Thailand. Sitting on a national park where a hotel building was wanted in a wooded area. Bill's creative problemsolving approach to this was to reuse train carriages to create guest suites and villas – protecting the trees and root systems and providing a beautiful and luxurious biophilic experience for guests.

In the Sharing Economy chapter there is a holiday cabin in Dorset called The Bide which is a WikiHouse shared structure design following the tiny house concept. Self-built by its owners Caroline Jenkinson and Scott Lewis it is located on the edge of farmland, it demonstrates how micro living can be achieved with thoughtful design. It also has a low ecological footprint through the careful selection of materials, insulation and following Passive House principles.

Lastly, in the Place chapter is a wonderful project in India I discovered called Tipai demonstrates the social value of sustainability – where a former depleted teak farm has been brought back to flourish with biodiversity through following permaculture

principles. The local community has been pivotal in creating the project where tradition skills have been revived and people have been upskilled in creating forest villas with contemporary interiors that celebrate the honest materials and are furnished with Indian design and craft. As its designer Ariane Thakore Ginwala says "We weren't building a resort, we were sustaining a community."

Chloe Bullock is the founder of Materialise Interiors, Brighton-based B Corp certified interior design company. Named as this year's PETA's Compassionate Designer in their Vegan Homeware Awards. She is an active Sustainability Committee member of the British Institute of Interior Design (BIID). With 30 years experience of the design industry and most of that time in sustainability, Chloe works for clients in South East England and further away - online, supporting project teams with sustainable and regenerative design solutions - sourcing and materials. She also works with designers and architects to form sustainability strategies and statements for their own business. Chloe's book Sustainable Interior Design, was commissioned by the Royal Institute of British Architects (RIBA) and launched Spring 2024.

https://www.materialiseinteriors.com



Burwood Brickworks, The Body Shop, Goodee, Ace&Tate

Montegrotto Terme

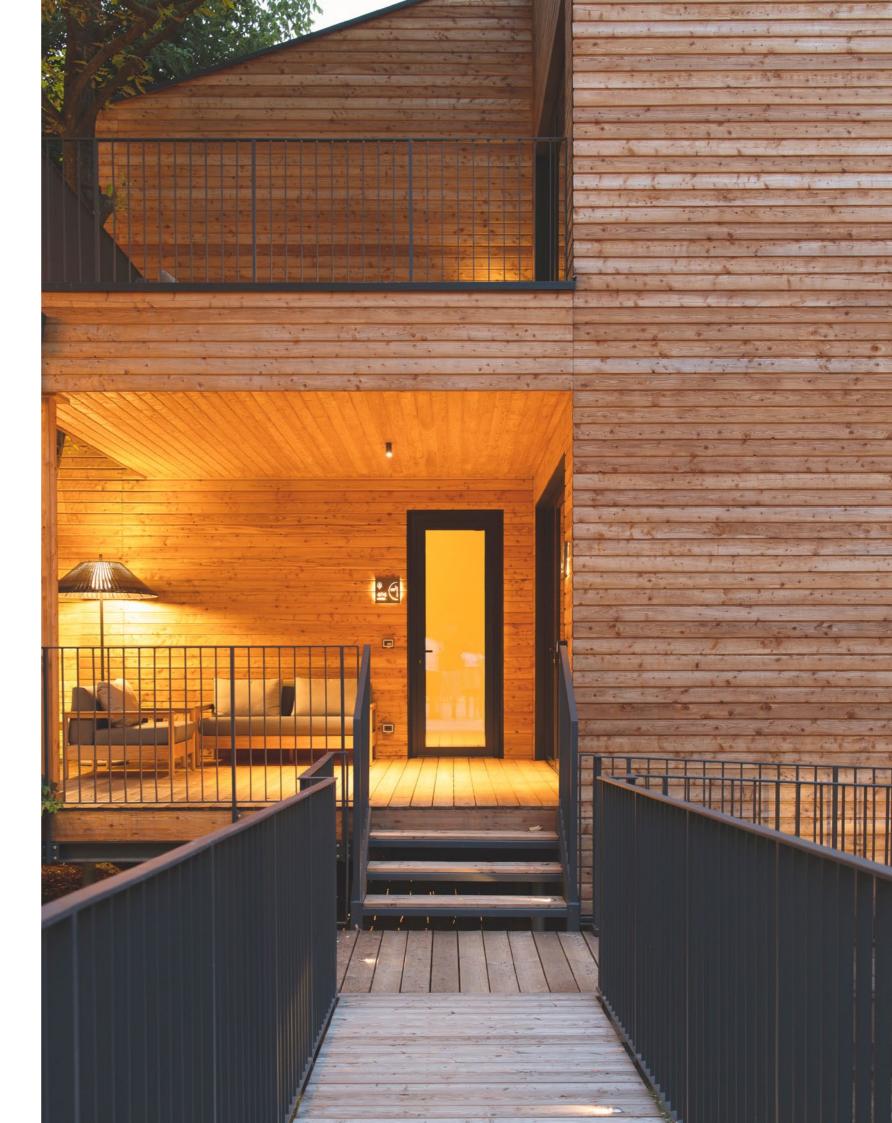
"Where design celebrates not only the natural landscape but also weaves the beautiful patterns of biophilic design into the very fabric of the hotel."

Alice Piovan

How can we elevate the hospitality experience to another level? This is the question that the owners of Hotel Terme Preistoriche, located in the picturesque town of Montegrotto Terme, Italy, asked themselves. The history of this place is deeply rooted in the past, dating back to the 2nd century AD, when the Romans discovered natural hot springs here with unique healing properties. These springs were used for socialisation, relaxation, and the development of activities for men and women. They transformed the place into a centre for physical and psychological regeneration, fully exploiting the natural resources offered by the land.

Over the centuries, Montegrotto

Terme has continued cultivating this tradition, remaining a reference point for those seeking the extraordinary healing properties of its thermal waters. However, the hotel owners wanted to elevate hospitality to a higher level, offering not only comfort and relaxation but also an immersive experience. This is where the innovative idea of Studio Apostoli comes in: drawing inspiration from nature with the same level of care with which nature bestows its wonders upon its inhabitants. The project for the hotel's expansion harmoniously integrates within the Parco Regionale dei Colli Euganei, a protected natural area boasting rich biodiversity and millennia-old history. This park, with its volcanic hills, lush forests, and diverse fauna, represents a unique ecosystem.





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The biophilic approach of Studio Apostoli is manifested in every detail of the hotel's design, creating an environment that promotes well-being but, above all, a connection with nature.

Natural elements such as plants, natural light, and organic materials are used and integrated to enhance the comfort and health of the visitors who can enjoy a profound connection with the surrounding systems.

The project

The respect for nature, partially imposed by the Regional Park of the Euganean Hills regulations, encouraged the designers to turn the new design into a distinctive feature. The project involves the renovation of an old pre-existing building, to which new blocks have been added, separate and independent, constructed with local materials. An essential aspect was the integration into the existing vegetation, preserving it as much as possible and allowing guests to appreciate its beauty from every angle, both outside and inside the rooms.

The trees are the true protagonists of the project. They physically traverse





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LEISURE / HOTELS

the new rooms, frame the entire new design, and were carefully studied with the help of a forestry technician before, during, and after the intervention to ensure their health. Some trees were cut down for safety and design needs, but their removal was not in vain: after careful analysis, they were reclaimed and transformed into furniture items within the rooms.

The new residential units are designed like nests on stilts, with an entire elevated system to respect and preserve the roots of the surrounding trees, which frame the new project, conveying the feeling of a natural refuge. An elevated path skirts the units, facilitating access to each entrance and ensuring inclusivity for people with disabilities.

The entire construction was carried out using prefabricated elements, because it was impossible to bring in heavy machinery into the protected area. The on-site assembly, completed in a few months, allowed for a reduction in both environmental impact and construction time. The only exception was the villa, restored with meticulous attention to preserve the historical integrity of the site.





The almost obsessive care for respecting the place and emphasizing the vegetation are perceivable in every corner. The tree trunks pass through the interior spaces, where they are given ample room to grow and continue their life despite other life developing around them.

- There are no clear divisions within the rooms with walls and doors, allowing for a constant visual connection with nature, intensified by large windows that eliminate any barriers between the inside and the outside.
- The large openings to the park dissolve

- boundaries, facilitating a free and fluid relationship between humans and the natural environment.
- There are no unaesthetic external curtains or shades; shading is naturally provided by the lush tree canopies, ensuring excellent liveability of the spaces.
- Additionally, the presence of deciduous trees allows winter light to penetrate the rooms when it is most needed, warming the interiors.
- The light, filtered through the branches, is never blinding but diffused and dynamic, creating a lively and ever-changing atmosphere.





LEISURE / HOTELS

This strategy enhances visual comfort and positively impacts the functioning of our circadian rhythm, providing the sense of relaxation and peace that was desired from the beginning. This careful design not only preserves but celebrates the symbiosis between architecture and nature.

The choice of colours was also carefully considered, favouring various shades of green and soft nuance with some colour accents to enhance the overall feeling of well-being. Green, a colour

closely linked to nature, has a profoundly positive impact on humans and promotes relaxation and regeneration. It is a colour that attracts and inspires renewal. This competent combination of colours helps make the spaces not only aesthetically pleasing but also therapeutic. Furthermore, each room is enriched by the assignment of a guardian insect or, in other words, a spirit animal such as a firefly, cricket, butterfly, bee, or cicada, reflecting the holistic approach to nature. All these natural elements, skilfully managed, add charm to the structure

but also strengthen the bond with nature, offering guests a multisensory experience, making each stay an immersive journey into nature and well-being. Thus, the combination of carefully chosen colours, the harmonious integration of natural elements, and the respect for the surrounding ecosystem create a unique refuge, where people can retreat to live an alternative experience where tranquillity and regeneration find a perfect environment.

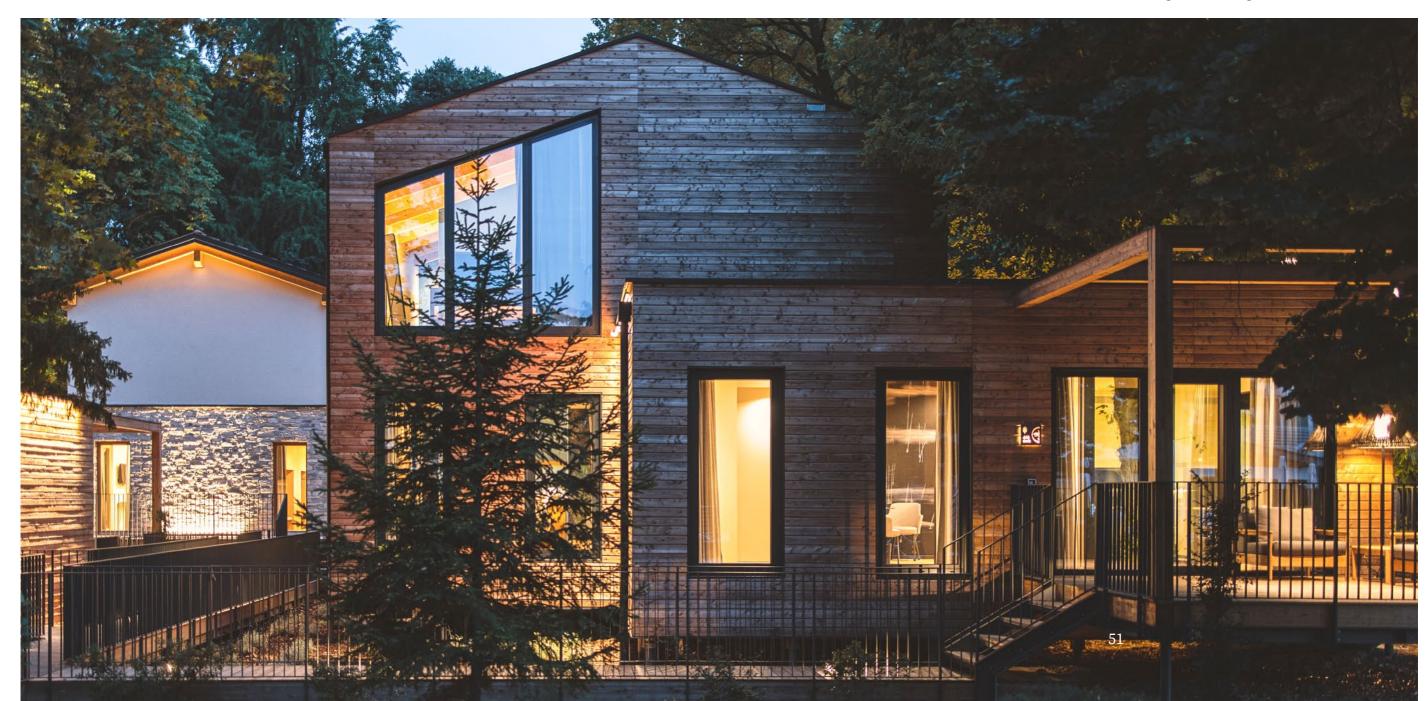
Alice Piovan is Regenerative Advisory Support for **Living Future Europe**

Hotel Terme Preistoriche: https://www.termepreistoriche.it/en

Studio Apostoli: https://albertoapostoli.com/?lang=en

Alice Piovan: https://www.linkedin.com/in/ alice-piovan-557a41b1/

Credits for the pictures: Alessandro Romagnoli (instagram @rhomans_).



Brilliant biophilia: exploring the power of plants in the museum of the future

"Research suggests that being surrounded by nature can boost our health and wellbeing, so why are museums and galleries so slow to embrace the movement to bring nature indoors?"

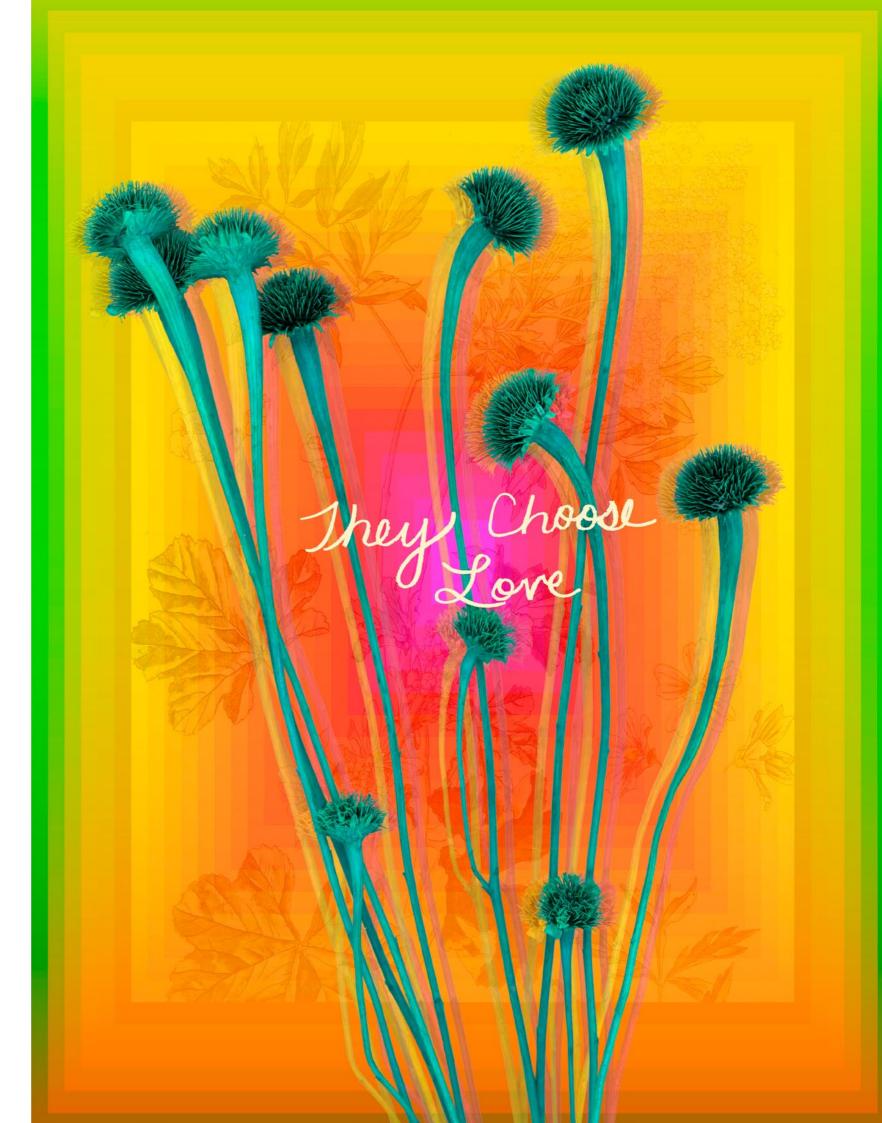
Echo Callaghan

There are an overwhelming number of studies which extoll the virtues of access to nature in improving our health, from studies that highlight the power of plants in reducing blood pressure, fatigue and even pain in post-operative patients to the role of biophilic design in making us more productive in the office. Views of nature and even the humble pot plant can improve our mental health, giving us fresher air to breathe and putting us in a better mood, but rarely do we see cultural institutions embracing the benefits for both their staff and their visitors.

The word biophilia comes from the Greek term for a love of life or living things, but in recent years this term has been used by the design community to refer to the insertion of the colours,

textures and shapes of nature into the built environment. From the world of workplace design to the hospitality and interior design sectors, embracing biophilic design and bringing the outside in has been an enduring trend in recent years.

But museums seem to have stood apart, not appearing to welcome the wave of biophilic design that has ushered in an era of more natural and organic spaces. Instead, nature is almost considered a niche interest in the museum world, left to botanic gardens or natural history museums to come to terms with. But with competition to engage the best staff and the highest number of visitors, should museums reconsider their position on bringing nature into the heart of their exhibitions?



LEISURE / HOTELS

Outside of the museum world, other cultural institutions have shown signs of embracing the wellbeing and interpretive opportunities of nature and art. Botanical gardens across the UK have launched collaborations with artists, bringing new audiences into the fold and creating new opportunities to engage with nature. Kew Garden's Queer Ecologies exhibition featured a commission by artist Jeffery Gibson, utilising previously unseen botanical drawings alongside text and intricate patterns to explore the artist's own perspective on the relationship between nature and queerness as a man of Choctaw-Cherokee heritage.

Exhibitions such as this which fuse plant life with artwork are increasingly common, as artists are drawn towards exploring topics such as climate change and institutions recognise the role of artistic storytelling in bringing their interpretation to life. From the living artwork of artist duo Ackroyd and Harvey and poet Ben Okri exhibited in the Turbine Hall at Tate Modern, to Hito Steverl's living installation *Green Screen* in the recent Dear Earth exhibition at the Hayward Gallery, it is now not at all unusual to see large contemporary galleries welcoming plant life into their hallowed halls.

But museums still lag behind when it comes to integrating biophilic design into their environments. Questions about the upkeep of plants and their tendency to encourage pests, as well as concerns around lending agreements which prohibit the positioning of plants near objects are genuine concerns, asking





difficult questions about conservation and care. For many organisations these hurdles result in a blanket ban on the use of plants within the premises, suggesting that, for these institutions, the risk to objects outweigh the benefits of investigating innovative solutions.

However, these concerns are not insurmountable, and the research suggests that plant-filled museums could help deepen the engagement of visitors, helping them concentrate on exhibitions for longer and making them happier – a sure sign that they are likely to return. Additionally, if galleries such as the Tate Modern are able to embrace plant life without risking their valuable collections, other museums too can look to follow suit.

Some museums have skirted the challenge by investing in their outdoor spaces. The Natural History Museum's soon-to-reopen Evolution Garden is a great example, reflecting the acknowledgement that garden spaces are beneficial to the visitor experience and can offer space for reflection as well as learning.

But how would you feel as a natural history enthusiast if you were able to encounter the bones of a long-extinct animal within the foliage that helped camouflage it? Plants offer opportunities for immersion in museums, offering a sense of real atmosphere without the saddening sight of painted backgrounds and plastic grasses. Opening up garden spaces is a positive a first step, but museums could also reconsider their defensive stance on bringing plants indoors.

On the other hand, there are some signs that fears around the invasion of pests are starting to thaw. Artist Tomás Saraceno's work, which celebrates the natural beauty of spiders' webs, encouraged the Rijksmuseum to dial back their cleaning habits, allowing them to embrace the critters that already inhabited the museum for the duration of the exhibition. Whilst it took some persuading, spiders were allowed to spin their webs unchecked across the museum, without any harm to the historic collection that the museum holds.

Whilst spider-art may not be everyone's cup of tea, this experiment in multispecies artistry highlights how outdated some of the panic around insects entering the museum really is. By embracing new attitudes and reconsidering their position, the Rijksmuseum were able to play host to an exciting and engaging exhibition without any consequential damage to their collections.

So, if the Rijksmuseum can embrace being overrun by spiders, then perhaps other museums can start to image new possibilities, if not for the sake of their visitors, then for the wellbeing of their workforce? Whilst care does need to be taken over historic collections, there is still room within this scope for experimentation and new approaches.

For an up-and-coming exhibition designed by Nissen Richards Studio, we are working with the venue's talented gardening team to use plants within the exhibition, with the plants able to be re-housed afterwards, meaning no cut stems. Utilising in-house knowledge and plants grown locally can create vibrant exhibitions and build relationships between curatorial and gardening teams, allowing for the cross-pollination of new ideas.

The power of plants is currently under-appreciated in museum contexts and outdated thinking prevents people from seeing a new way forward, but change is creeping up on museums and attitudes are beginning to shift, opening up opportunities for the museum to become healthier, happier and more resonant environments.

Echo Callaghan is Interpretation and Content Designer, Nissen Richards Studio www.nissenrichardsstudio.com

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LAKE COMO AND IL SERENO

"Lake Como is often associated with jet-set tourism, but let me assure you, there's a reason why it's so beloved - beyond its celebrity guests."

Odile Smith

Situated in the north of Italy in the Prealps, Lake Como is a glacial lake shaped like an upside-down "Y." The strong contrasts of colour, from the incredible mountains – often snow-topped in winter – to the green hills, the dark waters (Lake Como, being a glacial lake, is very deep), and, of course, the beautiful historic homes lining every side of the lake, create a truly breathtaking scene.

and stars alike – Pliny the Younger, Napoleon, Winston Churchill, Mary Shelley, the Gucci family, and more recently, George Clooney - and let's not forget the not-so-famous ... like me. The list goes on.

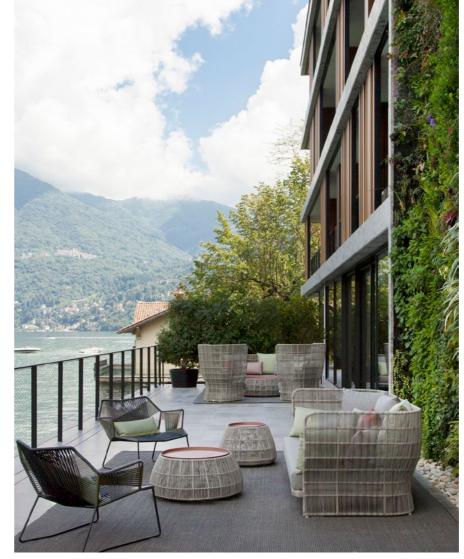
So, the question is, why? What attracts so many people to this place, and what compels hoteliers to invest here?

I believe that one of the lake's great attractions, beyond the jet-set crowd, is its setting – the beautiful backdrops of the Alps, the slowing pace of life as evening sets in, the incredible microclimate, and the stunning gardens. And, of course, its timeless elegance.

But I digress.

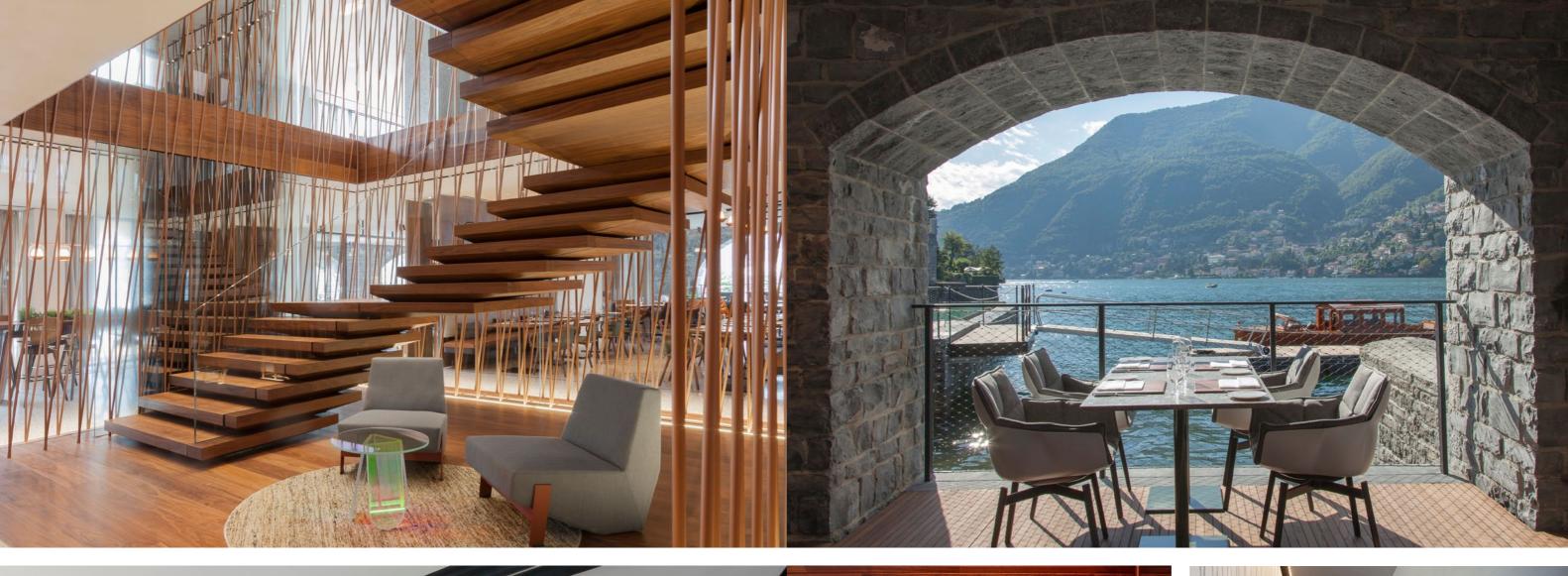
In the many years I've spent on Loved throughout the ages by statesmen this lake, I've found that the hotel which best captures the soul of the surrounding landscape, and the timeless elegance of this lifestyle is Il Sereno Hotel in Torno.

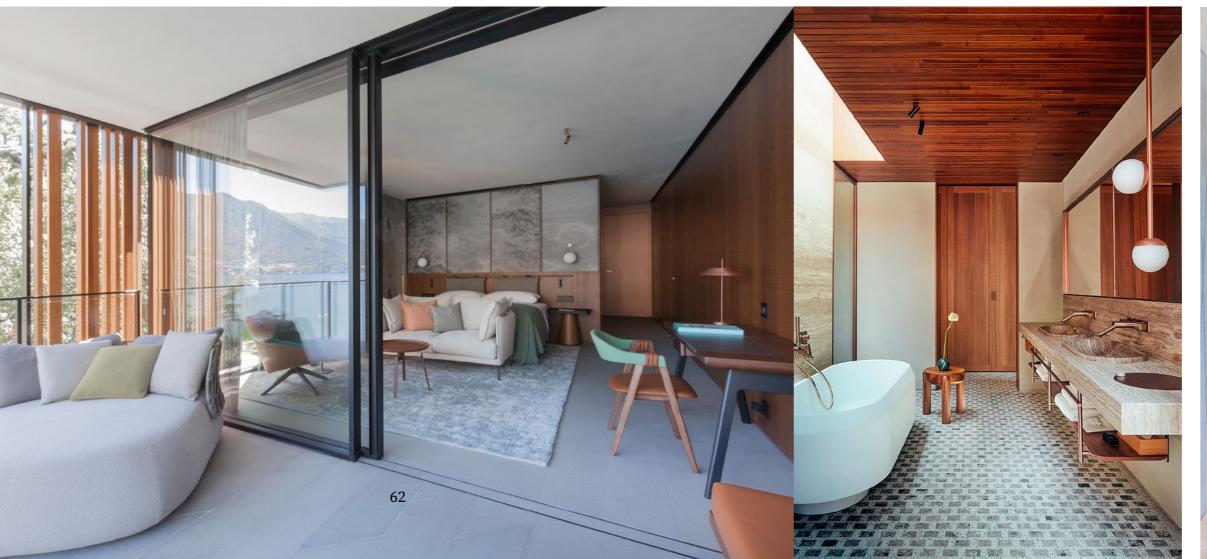
> Il Sereno, designed by Patricia Urquiola in collaboration with Patrick Blanc for the vertical green wall, truly allows you to feel and live an unforgettable experience; a biophilic experience.















When speaking with Patricia Urquiola's studio about what inspired her, her words describe it best . . .

"I was inspired by the colour of the Lake, and its glistening water, the nature of the dramatic mountains, and the adjacent village of Torno. The colour palette is the lake. It includes green, light-blue, copper, grey and natural tones. For Il Sereno we used natural materials (stone, wood, wool natural fibres) for a sustainable style and timeless elegance."

Some of these local materials used: Pietra di Moltrasio and Pietra di Fossena for the pavement, Travertino for the bathroom walls, Ceppo di Gre aka Ceppo Lombardo for the facade and for some interiors and furniture. Furthermore, granite and walnut wood for the boiserie and the wood panelling, ash for the pool deck

Although inspired by the harsh architectural structure of the rationalism of the Casa del Fascio by Giuseppe Terragni (Como city), for the lodges, Urquiola added wooden adjustable wooden panels, allowing the light to enter or shield according to the guest's wishes.

This choice contributes to creating a space in harmony with the natural environment to bring out the light but also to create the booth defining the various environments while maintaining the structure consistent with the landscape.

The vast staircase that connects the ground floor to the -1 floor, is made of a metal grid of tropicalized copper tubes with steps in walnut that give the idea of being suspended. The staircase, circumscribed by gradient stopsol

mirrored glass, permits to look outside; the lake and the mountains remain visible from the inside enabling to have the constant contact with the nature.

The hotel situated directly on the lake shore at Torno is recognizable even from a distance as you approach it with vour boat.

You cannot miss the vertical garden on the facade on the northern lakefront designed and created by Patrick Blank. This eases the rationalist style of the existing structure, and is a reminder that nature plays an important role in the hotel concept.

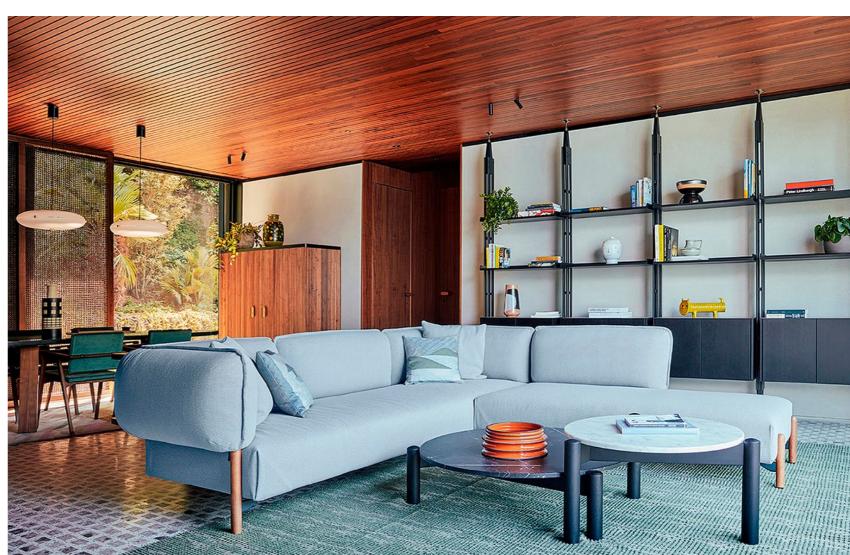
As you approach the hotel by the lake to enter a beautiful biophilic location

Blanc also created other two installations: outside, near the lobby window on the southern side, where the entrance is, we can find a green claw that emphasizes the importance and the presence of nature in this project and a vertical garden. The lake is always present. Every room has a lake view and the common areas.

"There is no 'wow' effect," says Urquiola, who instead points to a more subtle emotional response. "Guests should feel everything is in its place and there is nothing more than necessary."

Indeed, nothing is left to chance, as is in nature.

you know immediately that you are about Odile Smith is our correspondent in Italy. www.thebiophilichub.com



Nicla Diceglie

"When we think of Biophilic Design and colour often the mind turns to soft pastels, earth tones and muted hues, but nature is full of colour which we can also use to bring in the beauty of the natural world into our homes and workplaces."

Introduction

In the world of biophilic design, the connection between natural elements and the built environment is paramount. Traditionally, this relationship has been grounded in organic textures, soft tones, and a focus on greenery, water, and natural materials. Yet, as we deepen our understanding of nature's influence on human well-being, we are beginning to explore a more vibrant aspect of biophilic design: bold colours. This emerging trend embraces the full spectrum of nature's palette, going beyond the soothing greens and browns to incorporate the rich, striking hues that are just as much a part of our natural world.

Bold colours in biophilic design are not merely aesthetic choices; they are powerful tools that evoke emotion, enhance well-being, and strengthen our bond with nature. From the fiery reds of a sunset to the vivid blues of a mountain lake, these colours can transform spaces, energising and inspiring those who inhabit them.

In this article, we will explore the role of bold colours in biophilic design, discussing how these hues can be effectively integrated into spaces while maintaining the core principles of connecting people to nature. We'll delve into the psychology behind colours, showcase examples of biophilic designs that utilize bold tones, and offer practical tips for designers looking to incorporate this dynamic approach into their projects.



The Psychology of Bold Colours in Nature

Colour has a profound impact on our emotions and behaviour, and this influence is deeply rooted in our evolutionary relationship with the natural world. Certain colours are intrinsically linked to survival, signalling safety, danger, nourishment, or energy. For example, the red of ripe fruit attracts our attention as a source of sustenance, while the blue of a clear sky or ocean provides a sense of calm and stability.

Incorporating these natural colour cues into biophilic design can harness their psychological effects to improve the experience of built environments. Bold colours, when used thoughtfully, can evoke a range of emotional responses - from tranquillity and contemplation to vitality and excitement. Understanding these effects is crucial for designers who wish to create spaces that not only look beautiful but also promote well-being and productivity.

Red and orange are vibrant, warm colours that naturally draw attention. In nature, these colours are associated with action, warmth, and vitality. Think of the flickering flames of a campfire or the striking

petals of a tropical flower. When used in biophilic design, red and orange can energize a space, making it feel dynamic and lively. These colours are perfect for communal areas where people gather and interact, such as dining rooms, lounges, or meeting spaces.

However, designers must be mindful of the intensity of these hues. A little can go a long way. By incorporating red and orange through accents like cushions, artwork, or feature walls, rather than overwhelming a space with too much saturation, designers can harness their energising effects without creating overstimulation.

While blues and greens are more commonly associated with biophilic design, bold variations of these colours – deep indigos, turquoise waters, or the intense green of a rainforest – add depth and richness to a space. These colours

are naturally linked to tranquillity, peace, and mental clarity. The sight of a vast blue ocean or a canopy of lush trees invites relaxation and introspection.

Incorporating bold blues and greens in spaces designed for relaxation, such as bedrooms, spa areas, or meditation rooms, enhances their calming atmosphere.

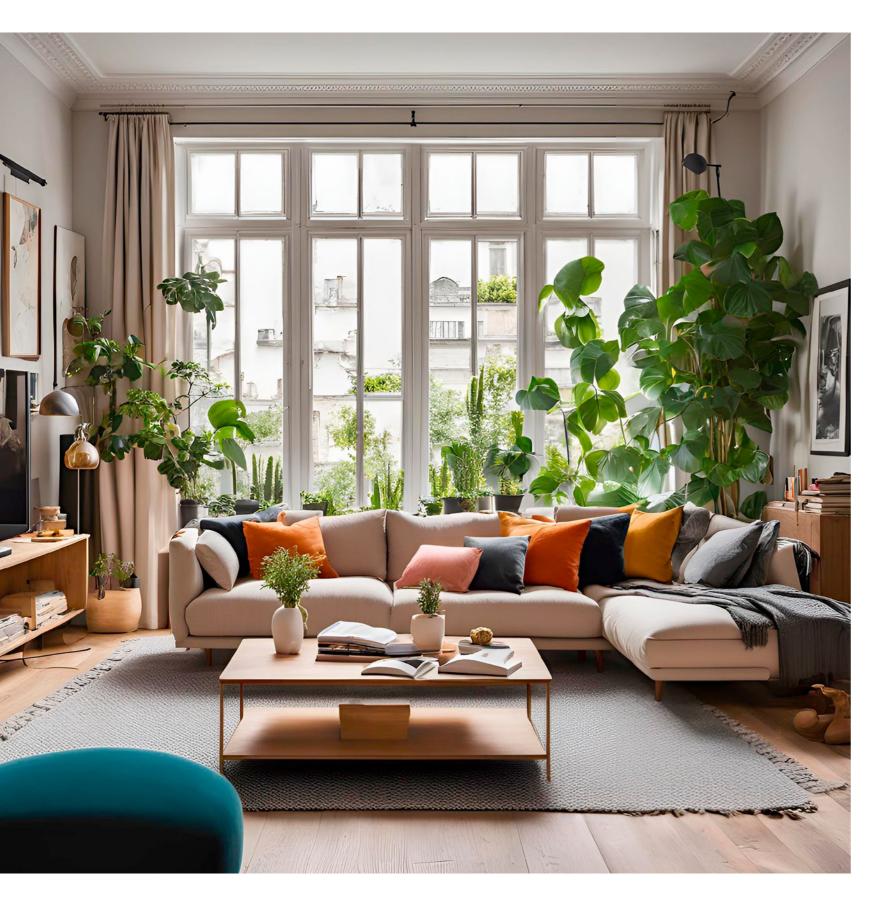
These colours can also work well in offices or learning environments, where they promote focus and reduce stress.

Yellow, the colour of the sun, is inherently linked to happiness, warmth, and positivity. Golden hues can add a sense of brightness and optimism to a space, much like a ray of sunlight streaming through the trees. In biophilic design, these colours are best used in areas that benefit from a sense of warmth and invitation, such as entryways, living rooms, or creative workspaces.

Bold yellows and golds can also be used to highlight specific features in a design, drawing the eye to a particular element much like sunlight catches on a flower or leaf. These colours can be energising without being overwhelming, offering a balance of warmth and vibrancy.



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Purple and magenta are less common in nature but no less powerful. These colours often signify creativity, imagination, and even spirituality. The deep purples of a twilight sky or the rich magentas of a blooming orchid can add a touch of the extraordinary to biophilic design, evoking a sense of wonder and magic.

Spaces that encourage creativity and exploration – such as art studios, libraries, or reading nooks – can benefit from the infusion of these colours. Purple and magenta stimulate the mind, encouraging creative thinking and fostering a sense of intrigue and possibility.

Designing with Bold Colours: Practical Considerations

Integrating bold colours into biophilic design requires a delicate balance between vibrancy and harmony. Here are some practical tips for designers:

Start with Nature: Take inspiration directly from natural landscapes. Whether it's the intense blue of the Mediterranean or the fiery red of autumn leaves, nature offers a vast array of bold colour combinations that can guide your design.

Balance is Key: While bold colours can bring energy and emotion to a space, it's important not to overwhelm. Use them strategically, as accents or focal points, rather than letting them dominate the entire design.

Consider the Function: The psychological impact of colour should

guide your choices. In spaces where relaxation is key, such as bedrooms or lounges, opt for calming blues and greens. In more active areas, such as kitchens or gyms, warmer tones like reds and oranges can enhance the energy of the space.

Use Natural Materials: Pair bold colours with natural materials like wood, stone, or textiles to ground the design. This not only enhances the connection to nature but also prevents the colours from feeling too artificial or out of place.

Experiment with Lighting: Lighting plays a critical role in how colours are perceived. Natural light will highlight the vibrancy of bold colours, while softer, indirect lighting can tone them down for a more subdued effect.

Embracing bold colours in biophilic design allows us to tap into the full richness of nature's palette, enhancing both the aesthetic appeal and the emotional resonance of our spaces. These colours are not just decorative; they are powerful tools that can shape the way we feel, think, and interact with our environment.

By thoughtfully integrating bold hues, designers can create dynamic, engaging spaces that not only bring us closer to nature but also inspire and invigorate our everyday lives. As we continue to explore the possibilities of biophilic design, the use of bold colours promises to open up new avenues for creativity, well-being, and connection to the natural world.

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Embracing Nature in the Hotel and Leisure Sector

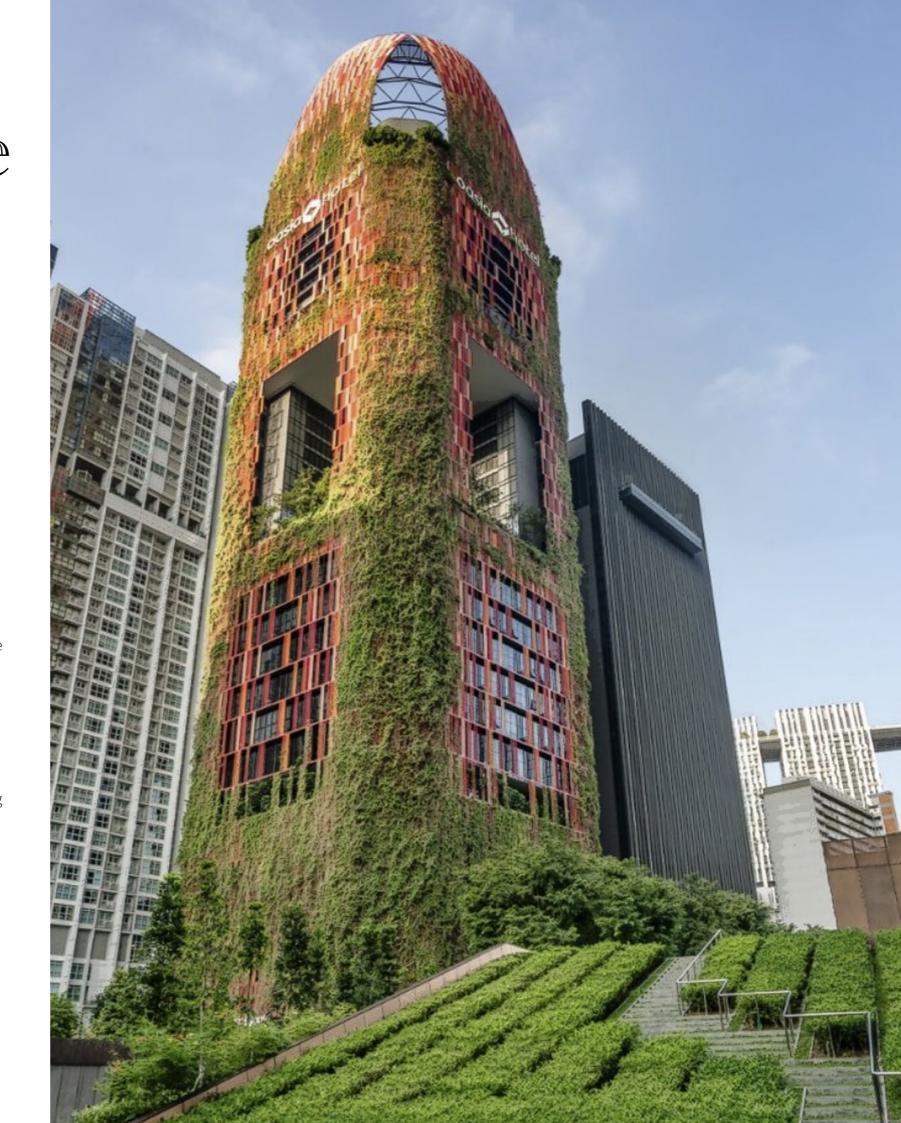
"There are many examples where Biophilic Design has been embraced by designers and architects in the hotel and leisure industry."

Natalie Arestis

Situated in the north of Italy in the In this era of urbanisation, when we find ourselves so often distanced from nature, architects and designers are weaving the natural world back into our daily lives with Biophilic Design. They are shaping buildings to do much more than merely serve a purpose. These Biophilic buildings inspire emotion, bring tranquillity, and evoke a deep sense of well-being. From lush vertical gardens to light-flooded atriums, spaces that blur the boundaries between indoor comfort and outdoor beauty, these visionaries are redefining how humans relate to their setting – turning buildings into living, breathing extensions of the natural world.

Oasia Hotel Downtown, Singapore.

The Oasia Hotel Downtown in Singapore stands as a stunning example of urban biophilic design. Designed by WOHA Architects, the hotel features a distinctive façade adorned with a lush green screen of climbing plants, creating a vertical garden that stands out amidst the concrete jungle. The incorporation of sky gardens and terraces at various levels of the building not only enhances visual appeal but also promotes biodiversity and improves air quality. Guests can enjoy open-air spaces and extensive greenery, making the hotel a refreshing oasis in the heart of the city.



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Parkroyal Collection Pickering,

Singapore. Also in Singapore, the Parkroyal Collection Pickering is renowned for its "hotel-in-a-garden" concept. Designed by WOHA, the hotel integrates over 15,000 square meters of sky gardens, reflecting pools, and cascading vertical greenery. These natural elements reduce heat absorption, promote energy efficiency, and provide guests with serene, nature-filled views from their rooms. The innovative design fosters a strong connection between guests and nature, even within an urban setting.

Adega Pico Winery & Hotel, Portugal.

Located in the Azores, the Adega Pico Winery & Hotel designed by DRDH Architects and Sami Arquitectos, is recognized for its integration of biophilic principles. The design respects the natural topography and utilizes traditional construction techniques and materials. This approach not only preserves the natural beauty of the region but also enhances the visitor experience by providing a deep connection to the landscape, vineyards, and local culture.

Other places where we spend our leisure time.

Metaxa Centre, Greece – The Metaxa Centre on the island of Samos in Greece, a RIBA award-winning project designed by K-Studio, exemplifies biophilic design by seamlessly blending with its natural surroundings. The centre's architecture incorporates local stone and wood, creating a harmonious relationship with the landscape. Large windows and open spaces allow for ample natural light and stunning views of the surrounding environment, deepening a connection with nature for visitors.





Sharanam Centre for Rural Development, India

- The Sharanam Centre for Rural Development in India, another RIBA winner designed by Jateen Lad, is a testament to sustainable and biophilic design. Constructed using locally sourced materials, the building integrates with the rural landscape, promoting environmental stewardship and community wellbeing. The use of natural ventilation, open courtyards, and green spaces enhances the connection to the natural world, creating a nurturing and inspiring environment for its users.



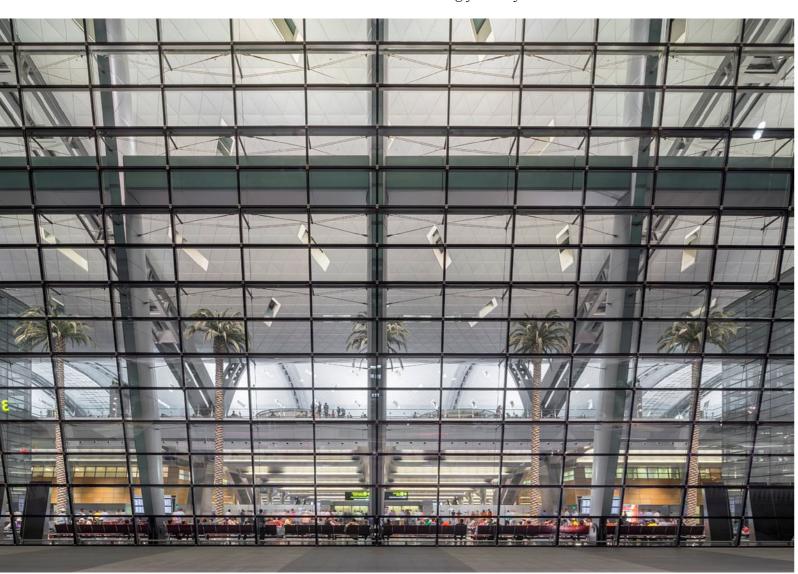


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Singapore Changi Airport – Singapore's Changi Airport by Safdie Architects, is a global leader in integrating biophilic design into its architecture. The airport features extensive indoor gardens, including the famous Butterfly Garden and the Jewel Changi, which houses the world's tallest indoor waterfall. These natural elements create a calming and refreshing environment for travellers, reducing stress and enhancing the overall travel experience.

Hamad International Airport, Doha -

Hamad International Airport in Doha, Qatar, designed by HOK Architects, is another prime example of biophilic design in an airport setting. The airport incorporates extensive landscaping, indoor gardens, and water features that create a serene atmosphere. The use of natural light and open spaces further enhances the sense of connection to the natural environment, providing travellers with a more pleasant and relaxing journey.

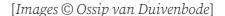


Hamad International Airport – Photo by Tim Griffith

Libraries and Community Spaces

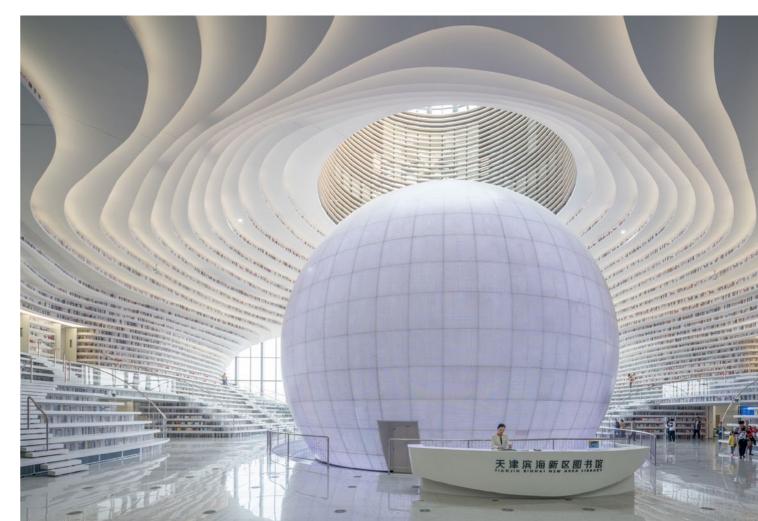
Tianjin Binhai Library, China -

The Tianjin Binhai Library in China, nicknamed The Eye and designed by Rotterdam-based architectural firm MVRDV, is a striking example of biophilic design in a public space. The library's architecture features a continuous flow of bookshelves that mimic the natural landscape, creating an immersive and inspiring environment for visitors. The incorporation of large, elliptical windows allows natural light to flood the interior, enhancing the connection to the outside world and creating a vibrant, inviting space for learning and community engagement.











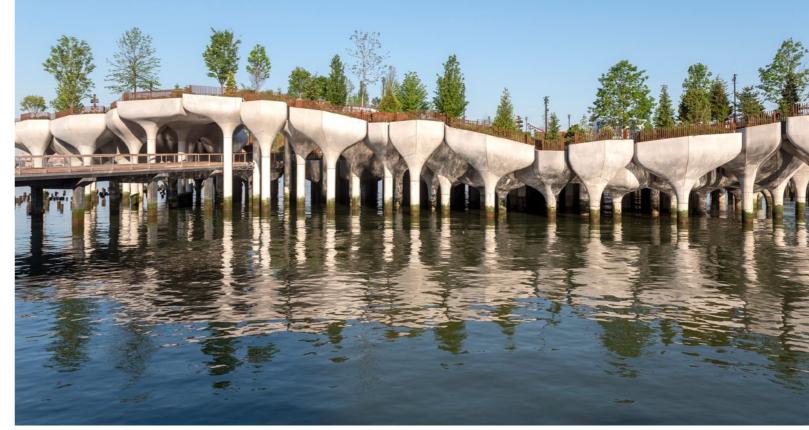
Little Island, USA – Heatherwick studio's Little Island in New York City is an iconic project that brings biophilic design to an urban park setting. The park is built on concrete piles and features lush green

spaces, rolling hills, and diverse plant life. This innovative design provides city dwellers with a much-needed escape to nature, promoting relaxation and well-being amidst the urban landscape.



Photo by Timothy Schenck

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Photos by Timothy Schenck



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The High Line, USA – The High Line, also in New York City, is a transformative urban park project that repurposed an old railway line into a linear green space. The design incorporates native plant species and provides visitors with

a unique experience of nature elevated above the city streets. The High Line serves as a model for integrating biophilic design into urban infrastructure, fostering community interaction and environmental sustainability.

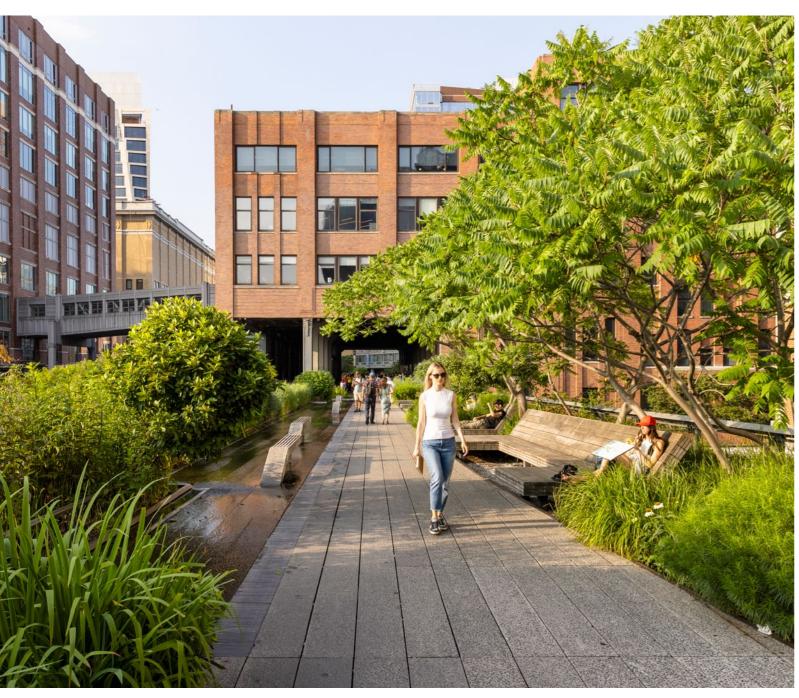


Photo above by Andrew Frasz





The integration of biophilic design into architecture is more than just a trend – it's a movement that speaks to our fundamental need to connect with nature. By creating spaces that blend seamlessly with their natural surroundings, architects and designers are not only crafting aesthetically pleasing environments but also nurturing the human spirit. These buildings, infused with life and greenery, evoke emotions of peace, joy, and awe, proving that when we bring nature back into our lives, we create places that resonate deeply with our innate desire for harmony and well-being. As we move forward, the continued embrace of biophilic principles promises to transform our built environments into sanctuaries that inspire and rejuvenate, highlighting the enduring importance of our relationship with the natural world.

Photos above amd left by Timothy Schenck

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Biophilic Luxury

In an increasingly chaotic world, the most sought-after luxury is often the opportunity to escape - an escape not just from the pressures of daily life, but into a deeper, more meaningful connection with nature. Hotels and retreats are embracing this need by weaving biophilic design into their architecture, creating spaces where guests can immerse themselves in the natural world. This connection to nature is not just an aesthetic choice; it is the heart of the experience, providing the emotional reset that so many seek. By sensitively blending structures with their surroundings, these places offer more than just physical comfort - they offer a profound sense of balance and restoration, allowing guests to reconnect with the environment and themselves.

Luxury Resorts

Amangiri, Utah, USA (Designer/ Architect: Wendell Burnette Architects (primary), along with Marwan Al-Sayed and Rick Joy) - Tucked away in the rugged desert landscape of southern Utah, the Amangiri Resort epitomizes biophilic design with its seamless integration into the surrounding environment. The resort's architecture uses natural materials like sandstone and concrete, echoing the hues and textures of the desert. Amangiri's design not only respects the land but also enhances its dramatic beauty, with buildings that appear to emerge naturally from the earth. Large windows and outdoor terraces offer unobstructed views of the vast, otherworldly landscape, allowing

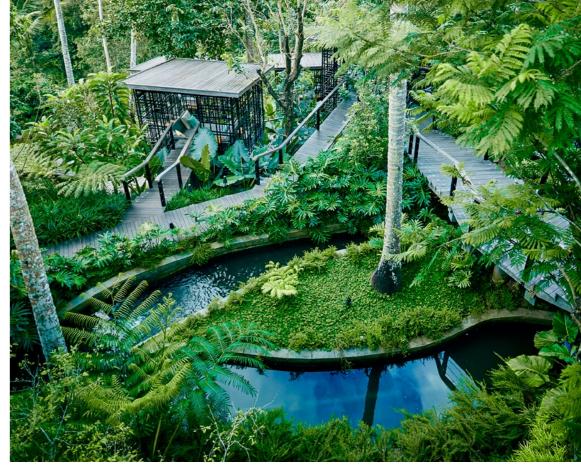
guests to feel fully immersed in the natural splendour of the region.

Six Senses, Fiji (designed by Waterfall Architects in Australia) - Six Senses Fiji is a resort that exemplifies the harmonious blending of luxury with nature. Located on Malolo Island, the resort is built with sustainability at its core, using locally sourced materials and renewable energy sources. The architecture is designed to minimize environmental impact, with villas that blur the lines between indoor and outdoor spaces, offering panoramic views of the ocean or lush tropical gardens. This thoughtful design fosters a deep connection with the natural surroundings, providing a serene retreat that rejuvenates both body and soul.

Hoshinoya Bali, Indonesia (Designer/ Architect: Azuma Architect & Associates in collaboration with Hoshino Resorts. Hoshinoya Bali is a luxury resort that draws inspiration from traditional Balinese villages, integrating seamlessly with its lush jungle surroundings. The resort's villas are connected by a network of water canals, inspired by the region's ancient Subak irrigation system. This connection to water, along with the abundant greenery and use of natural materials, creates a tranquil environment that reflects the spiritual and cultural heritage of Bali. Guests are invited to immerse themselves in the beauty of the landscape, with each villa offering serene views of the jungle and the Pakerisan River.

Therme Vals, Switzerland (Designer/ Architect: Peter Zumthor) – Designed by architect Peter Zumthor, Therme Vals in Switzerland is a wellness centre that offers a deeply meditative experience through its biophilic design. The building is constructed from locally quarried Valser quartzite, blending seamlessly with the surrounding mountains. The use of stone and water in the design creates a sensory connection to the natural world, offering a sanctuary where guests can unwind and rejuvenate. The thermal baths, set within a minimalist, light-filled space, encourage a profound sense of tranquility, connecting visitors to the elemental forces of nature.





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Shinta Mani Wild, Cambodia (Designer/ Architect: Bill Bensley of Bensley Design Studios – Nestled within a lush rainforest in Cambodia, Shinta Mani Wild is a luxury tented camp that offers a unique wellness experience through its deep connection to the environment. The camp is designed to have minimal impact on the surrounding ecosystem, with structures that blend into the landscape. Guests can immerse themselves in nature through activities such as foraging and river kayaking, while the design of the camp itself fosters a sense of adventure and discovery. The integration of natural elements into the design ensures that every moment spent at Shinta Mani Wild is a celebration of the surrounding wilderness.

Connecting to the landscape and environment

Treehotel, Sweden (Designer/ Architects: Multiple architects, including Tham & Videgård Arkitekter (Mirrorcube), SandellSandberg (Cabin), and Inredningsgruppen (Bird's Nest) – Treehotel in Sweden takes the concept of biophilic design to new heights literally. Set in a pristine forest, each treehouse at this innovative hotel is designed by a different architect, resulting in a collection of unique, nature-inspired structures that coexist harmoniously with the landscape. From the mirrored "Mirrorcube" that reflects the surrounding trees to the bird's nest-inspired design of the "Nest," Treehotel offers guests an unparalleled opportunity to live among the treetops, surrounded by the serene beauty of the Swedish wilderness.

Woodman's Treehouse, UK -

Designer/Architect: Guy Mallinson of Mallinson Ltd. Located in Dorset, UK, Woodman's Treehouse is a luxurious yet rustic retreat that embraces biophilic principles. Built around a 200-year-old oak tree, the treehouse is constructed using sustainable materials and is designed to have minimal impact on its environment. The structure features large windows that bring the outside in, offering panoramic views of the surrounding woodland. The treehouse's design encourages guests to reconnect with nature, providing a peaceful retreat where they can experience the sights and sounds of the forest in comfort.

Whitepod, Switzerland

Designer/Architect: Montalba Architects – Whitepod is an eco-luxury resort in the Swiss Alps that offers a unique biophilic experience through its geodesic dome accommodations. These pods are designed to blend into the snowy landscape, providing stunning panoramic views of the mountains. The minimalist design and use of natural materials create a cozy, intimate atmosphere that allows guests to feel at one with their surroundings. The resort emphasizes sustainability and a low-impact lifestyle, encouraging guests to explore the natural beauty of the Alps while minimizing their environmental footprint.



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Alila Jabal Akhdar, Oman (Designer/ Architect: Atkins (architectural design) in collaboration with P49 Deesign (interior design) – Perched high in the Al Hajar Mountains of Oman, Alila Jabal Akhdar is a luxury resort that exemplifies biophilic design through its deep connection to the dramatic landscape. The resort is built using traditional Omani techniques and locally

sourced stone, ensuring that it blends seamlessly with its surroundings. The architecture emphasizes open spaces and panoramic views, allowing guests to fully appreciate the breathtaking beauty of the mountains and valleys. The resort's design fosters a sense of serenity and connection to the natural world, offering a luxurious escape in one of the most stunning settings on earth.



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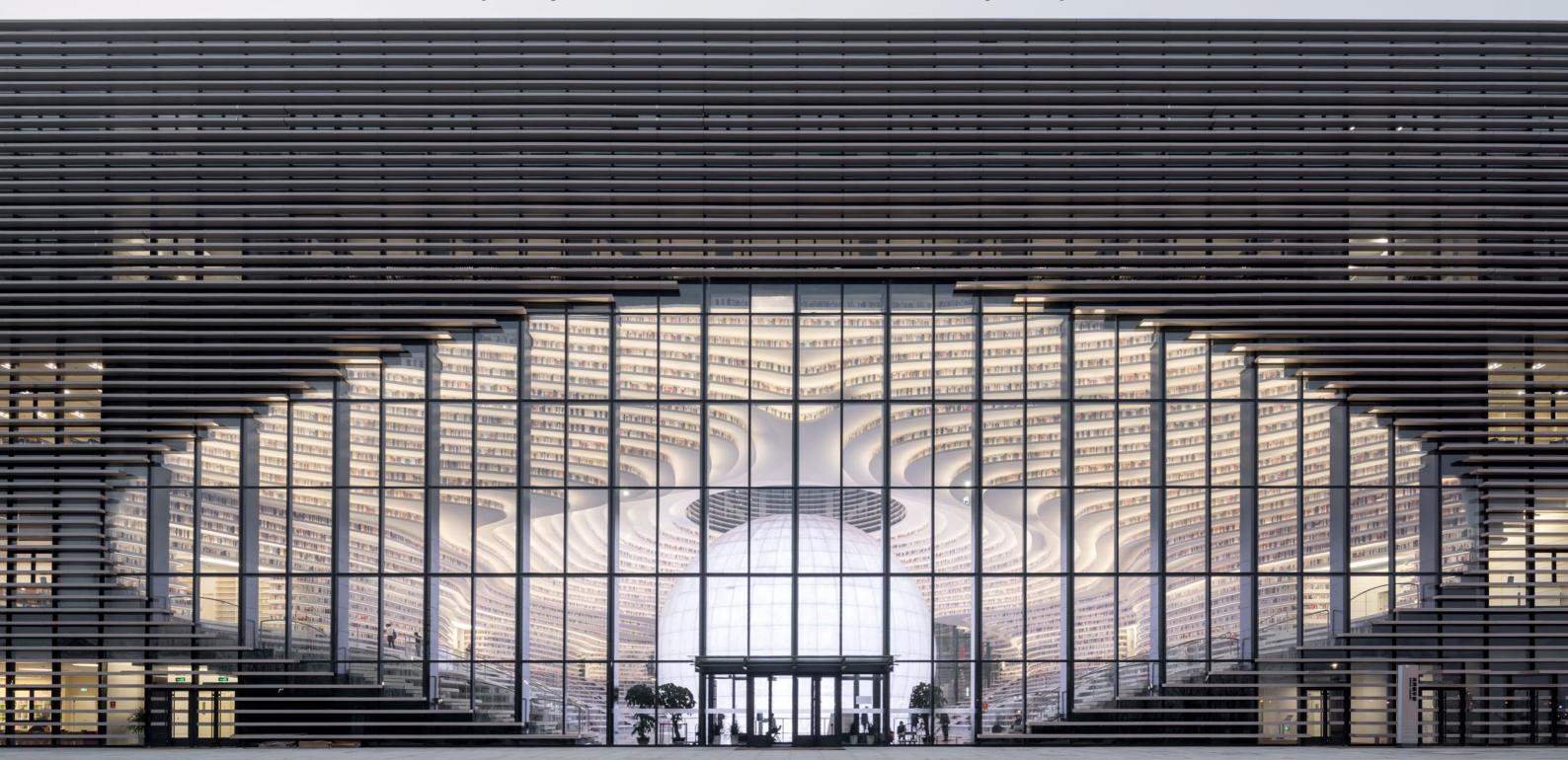
All these projects reveal how biophilic design elevates hotels and retreats beyond mere luxury, transforming them into sanctuaries that offer an essential escape into nature. The emotional connection to the natural

world is the defining element of this escape, providing the opportunity to create that sense of balance and renewal. By creating environments that seamlessly integrate with their surroundings, these spaces invite

visitors to step away from the stresses of modern life and into a deeper, more harmonious relationship with nature. This connection is not just a luxury; it is a necessity for the well-being of the soul, and as biophilic design continues

to shape hospitality, it will remain central to creating spaces that truly nourish and rejuvenate.

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How Biophilic Design IN PRISONS CAN ENCOURAGE REHABILITATION

"Seeking to challenge the stigma of prison design as tired, cold and grey, new architectural practices backed by academic research are becoming vital in the quest for prisoner reform. Here, prison architectural designer at Pick Everard, Helena Pombares, explores how the potential for prisoner rehabilitation can be maximised through combining inspiration from biophilia and nature with a coherent design philosophy."

Helena Pombares

Architects will design a wide range of facilities in their careers, from gymnasiums and spas to hospitals and rehabilitation centres, where wellbeing and personal growth are central to the design briefs. Yet it is often less of a priority, or not mentioned at all, when we talk about our prisons.

Pick Everard have been working closely with the Ministry of Justice to create world-class prison facilities that promote real rehabilitation of inmates back into society. Ensuring this proper rehabilitation comes from having the right environments, with the team playing a vital role in bringing key design elements together to meet the requirements.

For the future integration of reformed prisoners within society, it is crucial that prison environments foster and support rehabilitation, whether classroom and workspaces or more general living quarters. Academics have recognised this fact, with a broad selection of research emphasising the clear link between the built environment and prisoner health, along with that of staff and visitors.

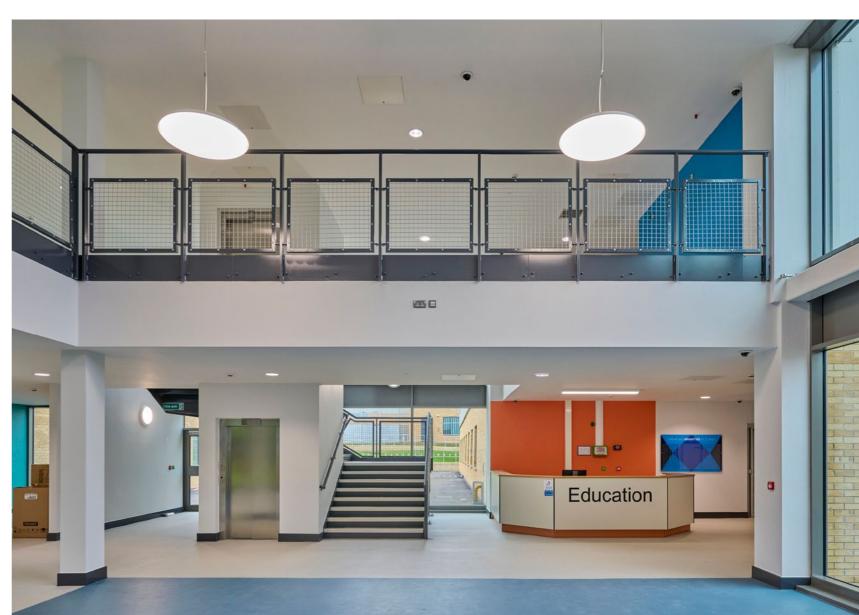
Professor Alan Dilani explored this further through his salutogenic architecture concept, which explores how a built space should be designed and developed with the intention of promoting health, happiness, and wellbeing among its users.

The concept outlines that a building must have a sense of coherence, defined through three aspects. Firstly, the way the user understands the space must be clear so they can navigate its purpose through a structured and logical layout. In turn, this informs the second aspect of how well a user can manage the space without undue stress. Finally, the third aspect focuses on a space's purpose, placing precedence on an eloquent, suggestive and revealing environment over one that is closed or cut off.

These key aspects of coherence are about making the environment as readable and as understandable as possible, something particularly important for

people who suffer from acute mental health issues. Given that prisons have the highest concentration of mental health conditions besides hospitals, this must play a role in our approach to prison design to ultimately feed into fostering positive rehabilitation.

Further research showcases the positive effect nature has on prisoners, much in the same way it impacts us all. Professor Dominique Moran uncovered a correlation between the proximity to nature and lower levels of self-harm and violence, with positive benefits also felt by staff as a knock-on impact from lower levels of stress and fewer absences due to illness or poor health.



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The salutogenic approach to architecture and biophilic design combine to deliver a psychosocially supportive approach to prison design. However, in promoting a model framework for the current and ongoing analysis of prison design, it is not enough simply for an architectural team to understand its requirement in isolation.

Pick Everard has a close connection to academia in each of our prison projects, in doing so, they are creating spaces that support prisoners and staff in their everyday objectives now and for the future, while also balancing key outcomes around security and sustainability for the client too.

There are plenty of opportunities to incorporate biophilia into prison estate design, such as outwards views of landscaping and greenery, access to natural light and interior design approaches. Coordinating these with a security-centric approach means that the space created follows good design principles, fosters rehabilitation, and ensures safety all at once.

Ultimately, to achieve supportive prison design, all stakeholders from the government and prison management organisations through to operational staff – and indeed prisoners themselves – must be unified in the ambition to deliver modern centres of true rehabilitation.

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THE SCIENCE

The Economics of Biophilic Design for Hospitality

"There is nothing which has yet been contrived by man, by which so much happiness is produced as by a good tavern or inn."

Samuel Johnson

William D. Browning & Catherine O. Ryan

Hospitality design should be about creating great experiences for guests, however, sometimes it feels like that has been forgotten in some hotels. Biophilic design can address that issue. This article focuses on creating biophilic experiences and on the benefits of biophilic design on the economics of hospitality.

Each year, 1.3 billion room nights are booked in the U.S. alone (Oxford Economics, 2019). With a clientele growing in both number and expectations, and disruptors like Airbnb, the hospitality industry has gone through significant changes in the past few decades, including recovering from the impact of a global pandemic. For economic viability, the ideal hospitality design would not just maximize occupancy and price per room but would also impart a memorable guest experience that creates life-long loyalty

and keeps guests and visitors engaged and spending more time and money on-site.

Gen Y travellers – now accounting for 70% of all hotel stays – expect bespoke experiences, local cultural connection, and visual "wow" (Barkley Inc & FutureCast, 2016). Concurrently, demands for mental restoration and wellness have created new markets in wellness tourism and, along with the growing prevalence of remote working, have contributed to competition in the hospitality sector. The market for wellness tourism has surpassed \$639 billion and the World Travel & Tourism Council's (WTTC) 2021 report on emerging consumer trends predicts that the focus and spending on travel related to self-care, wellness, and stress relief will continue to grow in the foreseeable future (WTTC, 2021; Yeung & Johnston, 2018, GWI, 2018, GWI, 2018).

The Role of Biophilic Design

Hotel guest rooms, lobbies and amenities have each been targeted for brand innovation and differentiation. Over the past decade, studies have shed light on the powerful impact of biophilic design on not just the guest experience but also on guest preferences and perceptions. From design motifs, vegetation, natural materials, views to nature, and other means of creating connections to place, biophilic design is measuring up to be a flexible and profitable strategy for hotels.



Amanpuri, courtesy of William Browning

THE SCIENCE

NATURE VIEWS

Views to nature and the presence of indoor vegetation have been shown to impact visual appeal. But what creates this visual appeal? The most ubiquitous connection to nature emphasized in hotels is a room's view. Several studies have found significant price premiums for real estate with views; however, few studies have taken aim at hotel rooms. One of the most direct assessments of price premiums associated with view characteristics in hospitality was conducted by Terrapin Bright Green in collaboration with Interface and Gensler. Analysing 100 hotels around the world, the paper found an 11% premium for an urban hotel's average daily rate for a room with a view - in particular, a water view - compared to rooms with other types of views (Browning et al., 2016). For resorts, the price premium was even higher, at 18% for rooms with views to water.

This approximate price premium for nature views is also confirmed by a study of hotels in Zurich, Switzerland. In one of the hotels, rooms with wide open views to the city and Lake Zürich, with the Alps in the distance, booked for between 12% and 30% higher than rooms with a view of only trees (Lange & Schaeffer, 2001). The rooms with the distant city, lake and mountain view also had occupancy rates averaging close to 100%, a contrast to the hotel's average occupancy of 80%.

INDOOR VEGETATION

Not all rooms can have a nice view. A connection to nature can also be abstracted to be utilized indoors, such as with vegetated vignettes. Participants viewing lobby designs that included

plants showed more positive emotions and satisfaction, which then had a significant impact on participants' booking intentions (Nanua, et al., 2020). Some research has also pointed to a desire and subsequent price premium for biophilic design indoors. A survey of Gen Y hotel-goers conducted by Orbitz in 2019 found that 61% felt plants boosted their mood and their perception of their health on the go; approximately 50% would be more likely to "book a hotel that features photos of plants in rooms"; and 24% would be willing to "spend \$50" to \$100 more for a plant-filled [guest] room" (Berg, 2019). Encouraged by these results, Orbitz partnered with Garfield Park Conservatory and The Kimpton Gray in Chicago to offer 10 plant-filled pop-up guest rooms representing five different planting themes (The Fern Room, Palm House, Sugar from the Sun, The Desert House, and Aroid House). Guest rooms were priced at "Deluxe" rates from \$368 to \$563 per night – a slight premium over the hotel's "Standard" rate, and according to Orbitz, all 10 rooms were sold out (McMillan, 2019, Orbitz, n.d.).

GUEST PERCEPTION: Lobbies & Amenities

More than a first impression, the hotel lobby is the place where a great many guest needs are met. With a renewed appreciation for common spaces, the purpose and design of the lobby have transformed into a "home away from home" trend, becoming more welcoming and less austere (Frochot & Kreziak, 2019). Lobby spaces are more like living rooms, offering "private-public" areas, which resonate with travellers, and with Gen Y in particular (Sterkenberg, 2017).



citizenM lobby, courtesy of Catherine Ryan

The lobby is being reimagined as a space where travellers can spend a whole day in various private and public spaces (Durst, 2018). The lobby experience can also be a top reason why travellers choose a hotel over the fast-growing market of Airbnb or VRBO accommodations (Nagy, 2018). Common spaces have thus received an increasing proportion of renovation capital in recent years (Manley, 2018).

Lobbies also play a leading role in hotel economics when incorporating ancillary services and experiences. Since the economic impact of each guest is dependent upon both the room price and how their time is spent, a fully booked hotel can increase revenue when greater dwell time is achieved in communal spaces with revenue-generating amenities. To understand the overall economic impact of a guest – and rationale for biophilic common spaces – hoteliers track total revenue per available room (TRevPAR), often valued on a per-occupied-room basis. TRevPAR accounts for additional revenue from operated amenities - food and beverage, spas, conferences, golfing, banqueting – and paints a far more comprehensive picture of a hotel's economic performance. In a particularly notable example, Accor's lifestyle hotels are estimated to earn more than 50% of their revenue from local traffic taking advantage of such amenities (Sperance, 2021). There is some indication that this shift in opportunity value is occurring across multiple hotel market segments. with resorts benefiting the most (e.g., Mandelbaum, 2020).

THE SCIENCE

DWELL TIME

More than a first impression, the hotel lIn the Human Spaces 2.0 report on biophilic design in hospitality, lobby utilization was assessed across six midtown Manhattan hotels, half with biophilic lobbies, half with conventional lobbies. In the biophilic lobbies, 36% of lobby occupants were identified as either actively or passively using the lobby space, as compared to 25% in the conventional lobbies (Browning et. al, 2016).

A disposition to dwell in biophilic lobbies was shown again in a scenario-based experiment, in which Seung Hyun Lee (2019) assessed emotional response, quality perceptions, and behavioural intentions for three different biophilic features (plants, water features, and natural light) compared to a control hotel environment. Analysis revealed significantly higher levels of pleasure and arousal, higher perceived quality, and more favourable attitudes for each of the three biophilic features. Furthermore, higher enjoyment and greater willingness to spend more time and money was reported for the biophilic The content of customer reviews has lobbies (Lee, 2019).

GUEST EXPERIENCE & SATISFACTION

Guest experience has risen to the top of the list as Gen Y travellers make up an increasing share of business. Among those travellers, 72% say they would rather spend money on experiences than material goods (Gherini, 2018); more than half want to learn from communities they visit, and 45% see travel as a means to get connected

to other cultures (Barkley Inc & FutureCast, 2016).

From an economic standpoint, evidence of improved guest experience may manifest as loyalty (repeat business), positive reviews, social media posts, and word-of-mouth buzz. Travellers are increasingly turning to user-generated content to choose a hospitality destination: "87% of millennials use Facebook for travel inspiration; more than 50% use Twitter or Pinterest" (Barkley Inc & FutureCast, 2016). Thus, a place or experience worthy of a social media post can market itself.

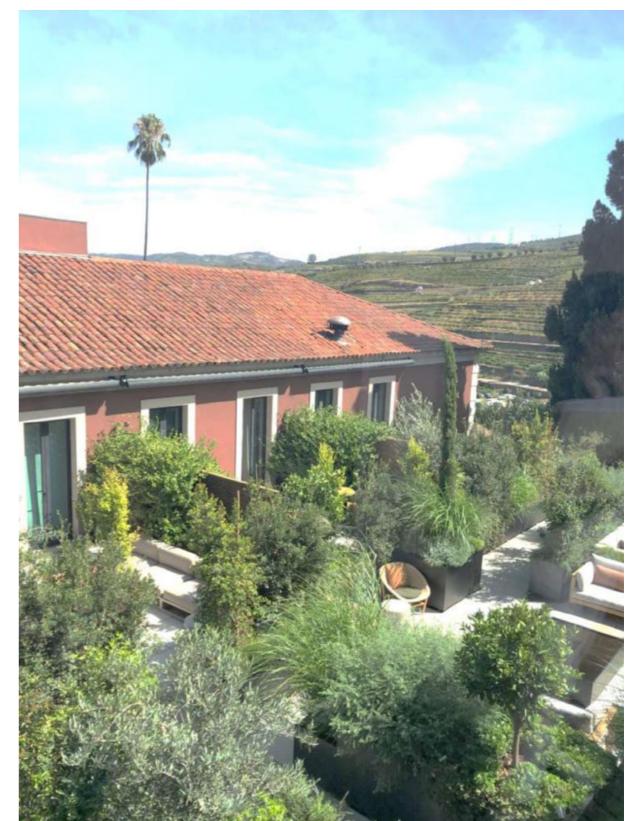
Guest satisfaction with the physical environment has a strong positive impact on intentions to return (Worsfold et al., 2016). Repeat guests are incredibly valuable for hotels. When profiled in the 1990s, the highly biophilic Inn of the Anasazi in Santa Fe, NM, was running at 83% annual occupancy, with a third of the guests being return customers (Wilson, et al., 1998).

GUEST REVIEWS

been shown to relate directly with hotel design. In one example, referencing TripAdvisor reviews as the basis of analysis, guests' reviews for hotels with conventional lobbies were found to most often dwell on maintenance and service related topics, while guests of biophilic hotels most often dwelled on the design and decor related topics (Browning et al., 2016). Furthermore, guest reviews for the biophilic hotels mentioned "experience" twice as often as those for the conventional hotels.

For mental restoration, biophilic servicescapes have resulted in outcomes superior to conventionally designed servicescapes. Services provided in spaces enabled by the incorporation of biophilic elements (e.g., vegetation, natural finishes, daylight) have been

shown to result in far better evaluations for at least four experiential dimensions fascination, feelings of being "away", pleasure, and excitement – all of which are key to restoration (Rosenbaum, 2009, Purani & Kumar, 2018).



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BOUTIQUE-BUILDING CASE STUDY: Six Senses Douro Valley Hotel & Spa

Nestled in UNESCO World Heritage-listed Douro Valley, Portugal, the Six Senses Douro Valley Resort and Spa is surrounded by rolling hills and wine vineyards overlooking the River Douro. Essential to the Six Senses Douro Valley experience is having stunning views out to the historic wine country.

Of the resort's 60 guest accommodations, four shared the inconvenient trait of having an unmarketable view of a barren rooftop, and were consequently offered at a lower, "Standard" price bracket from other rooms. Despite being available at a more economical price point, these rooms were not booked as frequently as

at a more economical price point, these root

Westin Gen 5 Guest Room Prototype, courtesy of Westi

"Deluxe" rooms with similar interior design and layout. To improve the economic return of these four rooms, Clodagh Design teamed up with Italian landscape architect Topiaris to incorporate lushly landscaped private terraces in hopes of transforming the guest experience of each room.

In the renovation, the adjacent rooftop was transformed, including the removal of an underutilized skylight well, into a terrace accessible to the guest rooms. The design team partitioned the area into four private terraces linked to a lush common space. No changes were made to the guest room interiors. By offering an alternative but equally biophilic experience, the four accommodations now have occupancy rates comparable to those with the valley views.

This exterior transformation enabled the guest rooms to be upgraded from the Standard to the Deluxe price bracket, boosting RevPAR and yielding a healthy return on investment. In 2017, Six Senses Douro Valley was recognized as a Best of the Best Virtuoso Winner for 'Best Achievement in Design'. (Ryan, et al., 2023)

BRAND-FRANCHISE CASE STUDY: Westin Hotels

At the brand level, the design team at Marriott extended the idea of Westin's highly popular "Heavenly Bed" to apply to the entire guest room. The new brand experience would focus on wellness, with biophilic design explicitly part of the design strategy for the guest rooms. Two interventions addressed lighting, including an overhead perforated panel in the guest room entryway and perforated sconces by the bed headboard. The diffused light splashes fractal light patterns on the walls - much like the dappled light in a forest – and is intended to help lower stress the moment a guest opens the door. While it would be hard to quantify how a lighting installation could increase the average daily rate (ADR) for the room, Westin's branding team felt that the advertising value of guests posting a picture of this feature on social media would be greater than the cost of the installation at any of their franchised hotels.

At the franchise level, the refresh of the atrium at Westin Peachtree Plaza in downtown Atlanta aimed to transform an underutilized but dramatic multi-story volume into a convivial gathering space. Three main biophilic interventions were incorporated:

- Partitions with a biophilic perforation pattern were spaced along the below-grade atrium perimeter and near the bar to make partial refuge space for small-group gatherings with longer dwell times;
- Supergraphics of magnolia flowers were affixed to the concrete core wall, adding dimension and intrigue to the volume; and

Parkroyal on Pickering, courtesy of William Browning

• Green walls were installed at reception desks that primarily benefit reception staff yet offer a more welcoming arrival experience for guests.

The refresh also retained upper-level experiences, most notable of which are perceptions of prospect and risk, which encourage exploration, help with wayfinding, and lure patrons down to a variety of seating options to encourage dwell time and purchases from the bar. (Ryan, et al. 20230)

BRANDING & PRICE POINTS CASE STUDY Parkroyal on Pickering

Singapore is becoming known for the biophilic design strategy called Green Area Ratio, which is the ratio of horizontal planted surfaces to the footprint of the building. Local code now requires a Green Area Ratio greater than 1:1.



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With more than 2.7 times its footprint in lush planted green areas, extensive water features, and amazing biomorphic forms, the local cab drivers refer to the Parkroyal on Pickering as the 'jungle hotel.' According to the architect Richard Hassel of WOHA, as the hotel was about to open, the owners realized that the experience would be substantially different than the other hotels in the Parkroyal Hotels & Resorts brand. It was too late to completely rebrand the property, so it was instead renamed a "Parkroyal Collection Hotel". Bookings have been better than original projections and the operators have increased the average rack rate for the hotel.

Hospitality Suggested Strategies

Some biophilic design strategies to support guests and hotel staff.

- Green walls and plants in lobbies
- Guest rooms with a view to the outdoors
- Artwork featuring local landscapes and other local nature
- Fabrics and flooring that use biomorphic forms and fractals
- Wood and natural materials
- Niches, booths and high back chairs for refuge in lobbies

Biophilic design has been listed as one of the top design trends in hospitality for several years. (Fox, 2017) It can improve guest experience, create more memorable hotels, and even change the way guests utilise spaces. All of which, as Samuel Johnson said, results in a place where "...so much happiness is produced..."

https://www.terrapinbrightgreen.com

Much of the information in this article is adapted from the new edition of **The Economics of Biophilia** (Ryan, Browning & Walker, 2023) and Human Spaces 2.0 (Browning, et al. 2106) which can be accessed through the Terrapin Bright Green website. Additional information on biophilic design for hospitality can be found in *Nature Inside, A Biophilic Design Guide* (Browning & Ryan, 2020).

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Biophilia -Leisure & Hotels

Ian Drummond

On a trip to Amsterdam last year, I happened to stay at the Hotel Jakarta and truly it would be hard to offer a finer example of the positive impact of imaginative biophilic design within an interior. From the moment of arrival, the connection with nature was instantaneous and profound.

The hotel is engineered in steel and glass and situated at the tip of a harbour island with water views on both sides – a beautiful aspect, but the interior matches anything on the exterior. Historical connections between Amsterdam and Indonesia are ambitiously explored throughout the building to create a soothing paradise of bountiful, living green, just moments from the city centre.

A subtropical atrium, reaching five storeys in height, anchors the interior to the earth. Created in collaboration with Amsterdam's botanical gardens, it has been abundantly planted with mature palms, musa bajoo and bamboo, but this is not something to be viewed from only one perspective.

A series of multi-level open walkways lined with bamboo, weave throughout the planting to link guests to the spa, while creating a deep connection with the natural world. Even the menu reflects this ethos, with much emphasis on plant-based ingredients with sustainability at their core.

Notably, this is part of a wider eco approach to both the build and infrastructure of this hotel. Rainwater is stored beneath the hotel, greywater is recycled and heat is recaptured. Underground thermal energy is used for heating and cooling, alongside solar panels, natural light and ventilation which all combine to create a space that functions at its peak, with minimum cost to the environment.

The visual success of this building lies in a biophilic design philosophy that places human wellbeing at its heart. Hoteliers now understand how important it is to design spaces where natural materials and living things are integral and blur the boundary between the natural world and the interior landscape.



PLANTS



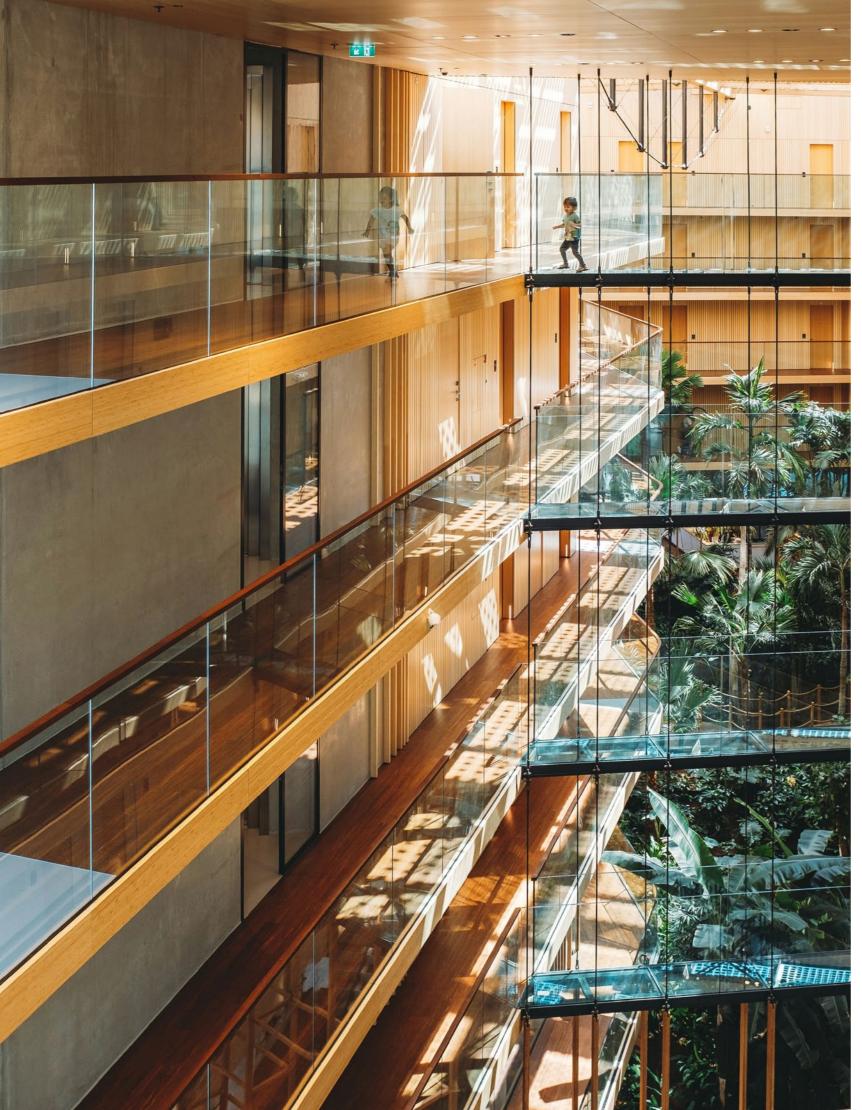
Research clearly shows that a hotel design founded on an understanding and respect for biophilia increases the likelihood of a unique and positive guest experience during their stay. In an urban environment it is of particular importance for guests to feel removed from the stress, noise and sensory overstimulation that can occur in cities. Furthermore, recent studies have shown that more than a third of guests prefer to stay in biophilic spaces, rather than hotels without these features.

In hotels where there is a business and working element, even when considering in-room work stations, it's worth noting how much biophilic design can increase productivity and creativity, particularly now that these facts are becoming more widely known. It follows therefore that visitors and guests are increasingly looking for plants and natural elements within their workspaces, and leading hotels are becoming increasingly wise to this.

In an age where google review and Tripadvisor can make or break the success of a hotel or leisure facility, guest satisfaction is more important than ever, and happy customers are twice as likely to give positive feedback after their stay or visit. It should also be noted that nature-inspired, biophilic design creates an immersive 'experience', and for guests this can result in a 'feel good' sense of relaxation and happiness that is truly memorable. Good memories turn into good reviews.

https://www.iandrummonddesign.com https://www.plantsatwork.org.uk

Photos by Andrea Leopardi





Growing Organically

5 simple ways to kick start your own organic self-reliance

Lara Cowan

Imagine walking past supermarket shelves past rows of uniform, pesticide drenched fruit and vegetables, scared for the world but feeling calm because your garden is thriving with organic food.

That's organic self-reliance.

The intensive, monoculture agricultural system depletes the soil and water quality, the key resources it depends on, leading to unsustainable practices and ultimately death of organisms in the soil, loss of life of our key pollinators and disease amongst those of us who consume the crops grown this way.

Permaculture, in contrast, focuses on creating clean, regenerative systems that improve over time, enhancing yield and biodiversity and bringing purity to the whole field to fork system.

Here are five ways to garden organically:

Start growing your own food sustainably, even as a beginner gardener:

- **Native Plants:** Choose crops that thrive naturally in your local climate to reduce struggle and increase success.
- Rainwater Harvesting: Capture and store rain to water your garden sustainably.
- Recycle Organics: Turn your kitchen scraps and yard waste into rich soil.
- **Food Forests:** Integrate companion planting to support a diverse ecosystem that maintains itself.
- **Avoid Chemicals:** Utilise natural pest control methods and organic solutions to encourage a healthy garden.

Make Compost Tea in Easy Steps:

- 1. Gather weeds and garden clippings.
- 2. Submerge in water and let sit for a week.
- 3. Strain and dilute 50:50 with water
- 4. Use the liquid to water your plants, delivering a nutrient-rich boost.



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PLANTS



Embrace these organic techniques to enrich your soil:

Mulching – Layer organic matter to suppress weeds, retain moisture, and gradually improve soil fertility.

Composting – Convert kitchen scraps and garden waste into gold for your garden beds.

Compost Teas – Brew nutrient-rich liquid fertilizer to boost plant health and soil vitality.

Planting Nitrogen Fixers -Integrate beans, peas, and clover to naturally replenish nitrogen in your soil.

Planting Ground Cover

- Establish low-growing plants to protect and enrich the soil, reducing erosion and water loss.

Interested in learning more? Contact Lara@Botanicshed.com



PLANTS

PLANT OF THE MONTH

Balms

Ian Drummond

Bringing the subtropical into any interior is always a good thing because there's something about the jungle that screams GREEN NATURE like nothing else. The trouble with tropical planting is that it can sometimes be a little high maintenance – sensitive to cold, sometimes sensitive to too much light and heat, often there's a need for humidity and therefore misting and general water levels need to be just so – it can be a problem.

It's at this point, that palms present themselves, triffid like, as a near perfect solution and here are a few prized for both good looks and a comparative ease of care:

Sago Palm

While technically the Sago Palm is not an actual palm tree and is in fact a member of the cycad family, let's not get hung up on this minor detail. With its bluegreen fronds that grow from a sturdy trunk it looks every bit the part. Slow growing and easy to please, it makes a great accent plant within a grouping, ultimately reaching 2.5 metres in height.



Cascade Palm

This low-growing beauty reaches only 1 metre in height, making it ideal for fitting into a tight space. It has dark green, glossy leaves that grow densely from several thin shoots. Due to its Central American rainforest origins, this one will need some extra misting, but because it's a manageable size, this shouldn't be too much of a problem.

https://www.iandrummonddesign.com https://www.plantsatwork.org.uk

Check out Ian's brilliant and beautifully designed book: *At Home with Plants: Transform Your Home with Plants*

Ian Drummond (Author)
Kara O'Reilly (Author)

Chinese Fan Palm/European Fan Palm

Both of these are a great choice for indoor landscaping with quintessential fan-like fronds so typical of tropical planting and so elegant. Unusually resilient and easy to maintain, they are able to thrive in most interior conditions and will reach an impressive height.





I Moved to Oslo just as Norway broke Temperature Records

Until this heatwave, Norway and Sweden measured more than 30 degrees Celsius in September. These are new national records, set by a considerable margin

Alexander Verbeek

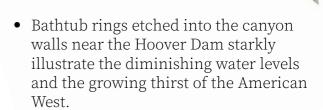
Early September 2024, a new national heat record was set in Norway, coinciding with my arrival in Oslo, the country's capital. For the first time in recorded history, temperatures soared above 30 degrees Celsius in September, reaching a staggering 30.6 degrees. I vividly recall the struggle of hauling heavy luggage up three flights of stairs, followed by the refreshing relief of a cool shower once the ordeal was over.

Norway's neighbour, Sweden, also experienced an unprecedented heatwave, with temperatures climbing to 31.1 degrees Celsius, marking its own record for September.

ENVIRONMENT, PEOPLE, PLANET

Until about five years ago, my work revolved around climate change issues, based on solid scientific insights rather than personal narratives. Since then, my perspective has changed since I witnessed firsthand the effects of climate change, I had warned about for years.•

- I walked through extreme heatwaves and the choking smoke of forest fires in Spain.
- In Ottawa, Canada, I experienced the iconic Rideau Canal skating rink—the largest in the world—fail to freeze for the first time in history.
- I lived in Canada as forest fires grew so large they shattered all previous records, colouring the skyline of New York in an orange haze. These wildfires kept smouldering underground in snowless winter areas for the first time, so they reemerged earlier than ever, defying the seasonal norms.
- I travelled along the Colorado River and witnessed the struggle to provide enough water for the thirsty American West.



I observed changes in the dunes of my beloved Dutch island, where migratory birds now choose to stay through the winter, no longer needing to migrate due to milder temperatures.

- I witnessed unusual droughts in the Netherlands, a country renowned for its water management, now training flood prevention experts in drought management.
- And then, on the day I moved to Oslo, Norway, that country broke another record.



ENVIRONMENT, PEOPLE, PLANET

The extreme weather events we witness are not isolated incidents but examples of an alarming global trend.

According to the Copernicus Climate Change Service, the summer of 2024 has set new temperature benchmarks globally. Average temperatures for June to August reached 0.69 degrees Celsius above the 1991-2020 average, surpassing the previous record set in 2023.

August 2024 tied with August 2023 as the warmest on record globally, with an average surface air temperature of 16.82 degrees Celsius, 1.51 degrees above pre-industrial levels. This summer marked the 13th month in a 14-month period where global average temperatures exceeded 1.5 degrees above pre-industrial levels.

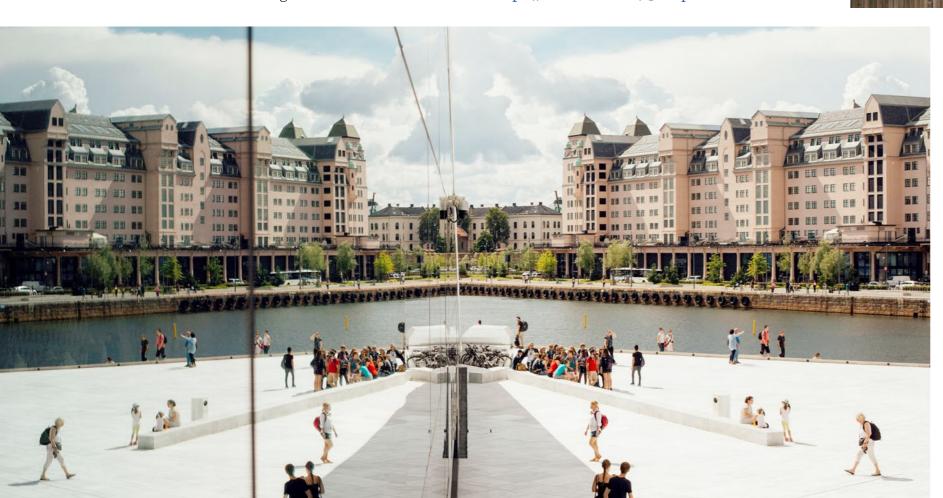
When we talk about climate change, there are just a few numbers you need to know. The 1.5-degree level is one of them. Those 13 months may not count as having structurally breached the limit set in the Paris Agreement, but even temporarily crossing this level of warming is a stark reminder of the urgency of the climate crisis.

The consequences of these rising temperatures are severe and diverse. The summer of 2024 has brought recordbreaking heat and intensified droughts and wildfires across the continent.

Areas in southern and eastern Europe faced severe drought conditions, while northern regions experienced heavy precipitation, leading to flooding.

Have you also personally experienced climate change after years of only reading about it?

https://substack.com/@theplanet







ENVIRONMENT, PEOPLE, PLANET

Insects play vital roles in ecosystems and human life from Pollination to Pest Control. They also aerate the soil which improves the structure of the soil and helps plants grow more healthily. One of the ways they do this is through decomposing dead organic matter in our gardens. We always think of bees and butterflies as the celebrities of the insect world, pollinating our gardens, helping turn blossom into apples and the like, but we might forget that other flies and beetles also help pollinate crops. Ensuring we plant for all pollinators not only enriches our plants and food chain, but also gives our brains something beautiful to watch and process.

I've recently been exploring how an increase in Biodiversity can improve our mental health. The more diverse a space encourages our brains to explore and restore. The Journal of Biophilic Design is launching a series of research projects with different universities, if you would like your university department to get involved do reach out to us. One of the things I would like to drill down into is this: does the variety of species have a positive impact on our brains. One would Wood and colleagues investigated the think yes, because a more biodiverse rich visual environment, then our brains will think that the land is plentiful and therefore lots to eat and so is a safe and happy place to be. Because Biophilic Design advocates creating spaces that make our brains happy through this direct connection to nature, one would assume that this is correct. If you know of any research do reach out.

Of course studies have shown that spending time in diverse natural environments can reduce stress, anxiety,

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and depression. Biodiversity contributes to the richness of these environments (Kaplan, S. (1995). "The restorative benefits of nature: Toward an integrative framework." Journal of Environmental *Psychology*, 15(3), 169-182). It also offers Cognitive Benefits, where exposure to a variety of natural environments can enhance cognitive function, creativity, and problem-solving skills, and therefore biodiverse spaces improve the restorative quality of outdoor environments (Berman, M. G., Jonides, J., & Kaplan, S. (2008). "The influence of nature on cognitive fatigue." Environmental Behavior, 40(5), 793-807). A diverse range of flora and fauna can improve mood and provide mental stimulation, contributing to overall psychological well-being (Maller, C., Townsend, M., Pryor, A., Brown, P., & St Leger, L. (2006). "Health benefits of contact with nature in children and teenagers: A systematic review" Journal of Pediatrics and Child Health, 42(12), 896-901).

Our Science Editor, Dr Sally Augustin shares some key research:

impact of species diversity within a space on mental refreshment. Their research revealed that variations in ecological quality – such as the number of species present and the integrity of ecological processes – could significantly affect the connection between access to green spaces and the associated benefits for human health and well-being. The team examined the relationship between green space uality and restorative benefits within an urban population in Bradford, United Kingdom. They selected 12 urban parks for their study and conducted

botanical and faunal surveys to assess biodiversity. Additionally, the team surveyed park users to gauge psychological restoration through four self-reported measures: overall restoration, attention-capturing distractions, escape from daily life, and site preference. Their findings indicated that biodiversity was a strong predictor of restorative benefits, accounting for 43% of the variance in restorative benefits across the parks, with little influence from other factors. (Emma Wood, Alice Harsant, Martin Dallimer, Anna de Chavez, Rosemary McEachan, and Christopher Hassall. 2018. "Not All Green Space is Created Equal: Biodiversity Predicts Psychological Restorative Benefits from Urban Green Space." Frontiers in Psychology, vol. 9, article 2320, http://dx.doi.org/10.3389/

fpsyg.2018.02320).

Methorst and colleagues explored the connection between local biodiversity and human well-being. The researchers highlighted that their study "examined the relationship between species diversity and human well-being on a continental scale, while accounting for other known factors influencing well-being. We analyzed socio-economic data from over 26,000 European citizens across 26 countries and combined it with macroecological data on species diversity and natural characteristics in Europe. Human well-being was assessed through self-reported life satisfaction, while species diversity was measured by the richness of various taxonomic groups, including birds, mammals, and trees. . . . Bird species richness was found to be positively linked with life satisfaction across Europe. We

identified a relatively strong relationship, suggesting that the impact of bird species richness on life satisfaction may be comparable to that of income. . . . This study suggests that conservation efforts aimed at protecting birds and their habitats could also enhance human well-being." (Joel Methorst, Katrin Rehdanz, Thomas Mueller, Bernd Hansjurgens, Aletta Bonn, and Katrin Bohning-Gaese. "The Importance of Species Diversity for Human Well-Being in Europe." Ecological Economics, in press, https://doi.org/10.1016/j. ecolecon.2020.106917).

Cracknell's (2012) research suggests that even observing an empty aquarium can be physiologically and emotionally restorative, but the presence of fish enhances these effects. The study found that the tank with medium biodiversity produced the most restorative effects, although the differences from the low biodiversity tank were often not significant. Based on the data, the researcher anticipates further significant improvements as biodiversity increases in the next phase of restocking. While the study details the types and numbers of fish used in each condition, it does not specify the size of the aquarium. Participants viewed the tank for 10 minutes before their psychological states were assessed. (Deborah Cracknell. 2012. "The Restorative Potential of Aquarium Biodiversity." Bulletin of People-Environment Studies, vol. 39, Autumn, pp. 18-21).

Weir (2020) highlights findings from various studies that underscore the psychological benefits of nature-based experiences. For instance, Weir notes that "Berman and colleagues discovered

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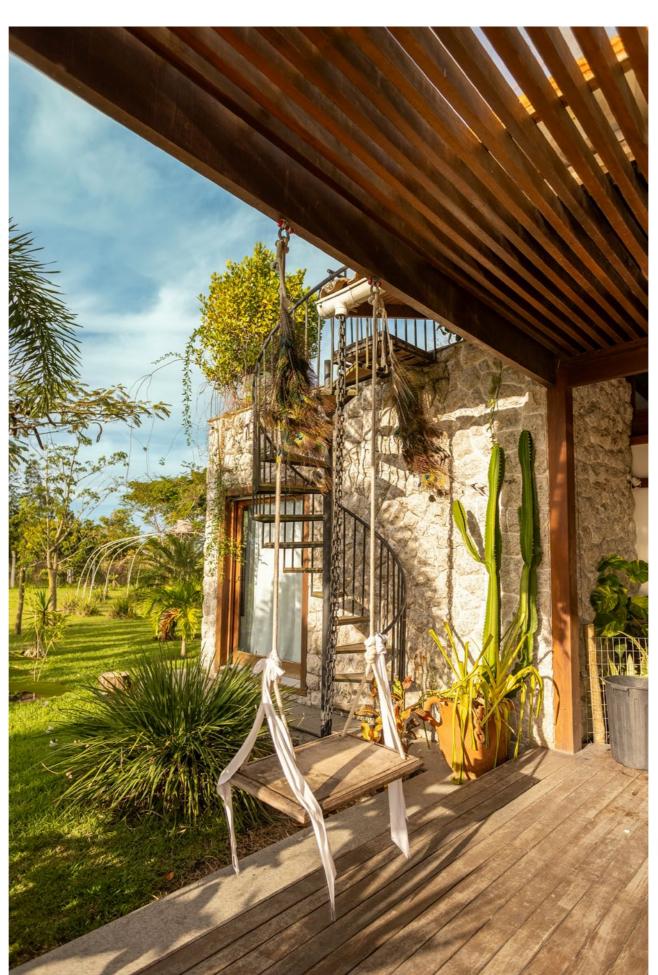
ENVIRONMENT, PEOPLE, PLANET

that participants who listened to nature sounds, such as crickets chirping and waves crashing, performed better on demanding cognitive tests compared to those who listened to other sounds like traffic or a busy café. . . . [Franz and colleagues] observed that any form of exposure to nature – whether in person or through video – resulted in improved attention, positive emotions, and enhanced ability to reflect on personal issues. . . . [A team led by White at the University of Exeter] concluded that while direct interaction with nature is most beneficial, virtual reality can serve as a valuable alternative for those unable to spend time outdoors. . . . White and his team also found that individuals who watched nature videos featuring a diverse mix of flora and fauna experienced lower anxiety, increased vitality, and improved mood compared to those who watched videos of less biodiverse landscapes." (Kirsten Weir. 2020. "Nurtured by Nature." Monitor on Psychology, vol. 51, no. 3, pp. 50-56).

All this research highlights the point that rich biodiversity in local environments enhances a person's connection to their surroundings, which leads to improved mental health and community well-being (Pretty, J. (2004). "How nature contributes to mental and physical health." *Spirituality & Health International*, 5(2), 68-78).

So, what's the point of all this if you're a designer or specifier? Well, from the title, I would encourage you to find a delicious notebook (handmade even better, or digital if that floats your boat). Use it to start creating your own directory of suppliers and lists of species which will enhance your next project. Also reach out, connect and learn from these amazing not-for-profit entities which research and share education on our natural world. They have done all the hard work. Learn what plants are best for increasing bees and pollinators, learn which habitats beetles needs and why they are good for the garden.

Why? The next time you're sitting down at a client site and trying to justify why they shouldn't engineer out those trees and bushes you specified, explain to them just why they need them for their Biodiversity Net Gain targets and their ESG reporting. . . . We would like to think that people would include them because they are beautiful and enhance the design, but add to this why it's the ethical and right thing to do, AND that including them will help them improve their BNG reporting, you might be able to change their minds.



Also check out:

Buglife has worked with experts across the country to highlight a set of B-Lines. These are wildlife corridors are designed to enable insects to move through our countryside and encourage communities and organisations to create insect-friendly habitats. The B-Lines act as a transport network for insects. www.buglife.org.uk/our-work/b-lines

If butterflies are your thing, check out the Butterfly Conservation who run a range of monitoring schemes the National Moth Recording Scheme and UK Butterfly Monitoring Scheme. www. butterfly-conservation.org

Wildlife Trusts website is full of resources, this Take Action for Insects is just one of them: https://www.wildlifetrusts.org/take-action-insects

Alongside amazing presentations on interior design and wellbeing, the NHS, the Dept of Education, architects, sensory design and more, we also will be welcoming David Mooney, CEO of London Wildlife Trusts at the Biophilic Design Conference on the 12th November 2024 where he will be discussing community spaces as well as the history of conservation and the built environment. www.biophilicdesignconference.com



The Impact of Yearly Interior Design Trends on the Environment

Do we need to replace everything every season?

Paige Hodsman

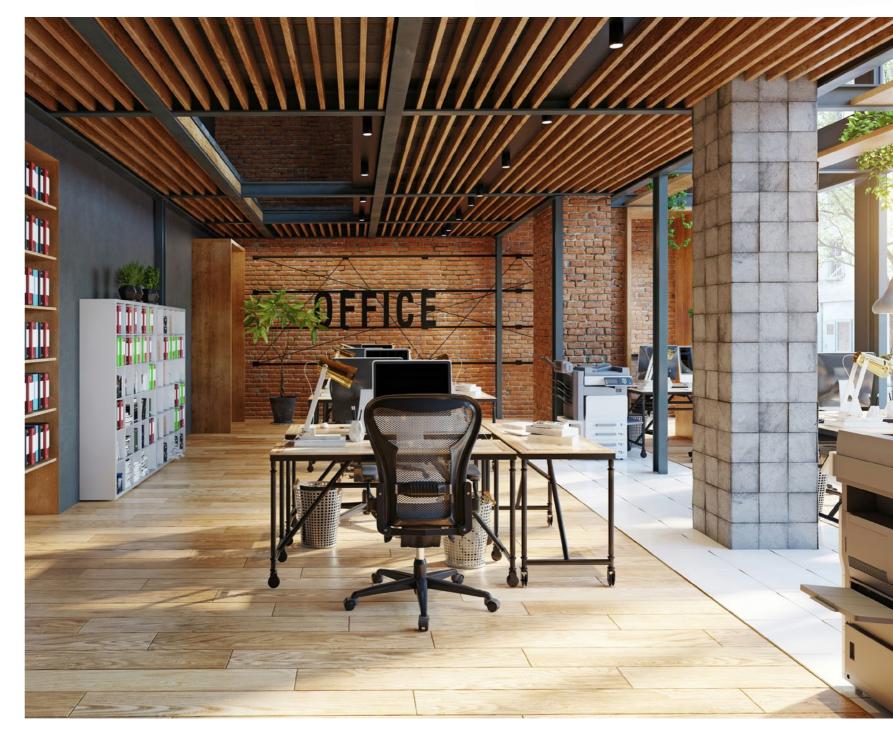
Publications like Forbes¹ and others often introduce new interior design trends annually, leading to rapid changes in what is considered trendy and modern. While these changes bring a sense of freshness and modernity, they also have negative consequences for the environment. The quick turnover of interior designs results in increased waste and the use of non-sustainable materials, leaving a significant carbon footprint.

More renovations and updates lead to more furniture and materials being thrown out, resulting in even more waste being dumped in landfills and harming the environment. Even with the best of intentions, very little is reused or recycled. According to Qualisflow², the cumulative effect of numerous smaller DIY projects, as opposed to large-scale construction,

adds up, with much of the waste not being effectively managed or recycled at all. Perhaps too, there persists a negative stigma for reusing materials.³

The constant need for new materials to keep up with the trends leads to overusing natural resources like wood, stone and metals (WWF, 2024; EPA, 2024; Carbon Trust, 2024)⁴. The process of making and shipping new design products requires a lot of energy, which adds to the depletion of nonrenewable resources and increases carbon emissions. Not to mention the trendy items that aren't built to last and are often replaced, adding to the environmental impact. Some design trends also favour complex materials that are difficult to reuse or recycle and use plastics and chemicals, which can take forever to decompose and release harmful toxins into the water and soil.





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To fix this, a concerted effort is needed to promote more sustainable design practices. Changing the stigma and improving the practice of reuse, using durable renewable materials and using energy-efficient solutions. Most importantly, as consumers, we can make a big difference by thinking more about how and how often we redecorate our spaces.

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- ¹ https://www.forbes.com/sites/amandalauren/2023/12/04/8-interior-design-trends-going-away-in-2024
- ² https://www.qualisflow.com/construction-waste-management-solution/
- ³ https://www.re-thinkingthefuture.com/rtf-fresh-perspectives/a1258-the-cons-of-conservation-and-adaptive- re-use/
- ⁴ https://www.worldwildlife.org/industries/timber; https://www.epa.gov/; https://www.carbontrust.com/



Creative planting for biophilic spaces

There's so much more to biophilic design than just adding plants. However, the world's best biophilic designers know that one of the most authentic elements of contact with Nature is through the creative use of plants. We've been helping interior designers create and maintain beautiful interior planting schemes throughout the UK for almost 30 years.

The Benholm Group

Design Installation Maintenance



where creativity blossoms



Steven Edge

"As the architect the late Dr Stephen Kellert said 'Biophilia is the missing link in Sustainable Design'."

From 1980-91 I was a partner in the award winning multi-disciplinary design consultancy Deacon Edge. Operating from our central London studios in High Holborn, we designed energy efficient interiors for mainly workplace, retail, exhibition, and residential interiors for clients including e.g. Citibank, Conoco, Canon, Kuwait Petroleum, Lloyd's Register of Shipping and Adam and the Ants.

In the mid-80s I particularly remember going to a meeting at one of our clients' offices in Mayfair, behind one of the famous hotels in Park Lane, near the Hyde Park Corner end, when the hotel was being remodelled. And I was shocked and appalled when walking past it, at the sight of the contractors trashing dozens of 2m high rosewood wall panels in skips, which must have been ripped out of some of the bedrooms. At the time not only was Rosewood, along with Teak and other endangered hardwoods, on the list of timbers which were protected and so we didn't specify them. They were also part of what we now call 'Nature in the Space' in biophilic interiors, which should have been retained but instead, were being destroyed.

This is arguably when my interest in sustainable design and eventually biophilia, really took off. Why didn't other interior designers think the same as me? Who were these hotel designers who didn't care about retaining some of the existing, which was obviously of high quality? Instead, they had to impose their 'creative individuality' on the project. Fortunately, now through the emergence of concepts like Adaptive Reuse, interior designers are encouraged to retain as much of the existing structural fabric as possible.







Home as Sanctuary

"Biophilic Design helps designers and architects create places of sanctuary for downtime. Home is where we can also enjoy whiling away the hours, unwinding or enjoying our hobbies and leisure time. Including nature connection in every home is such a vital part of mental and physical health restoration which Carl Jung recognized."

Valerie Andrews

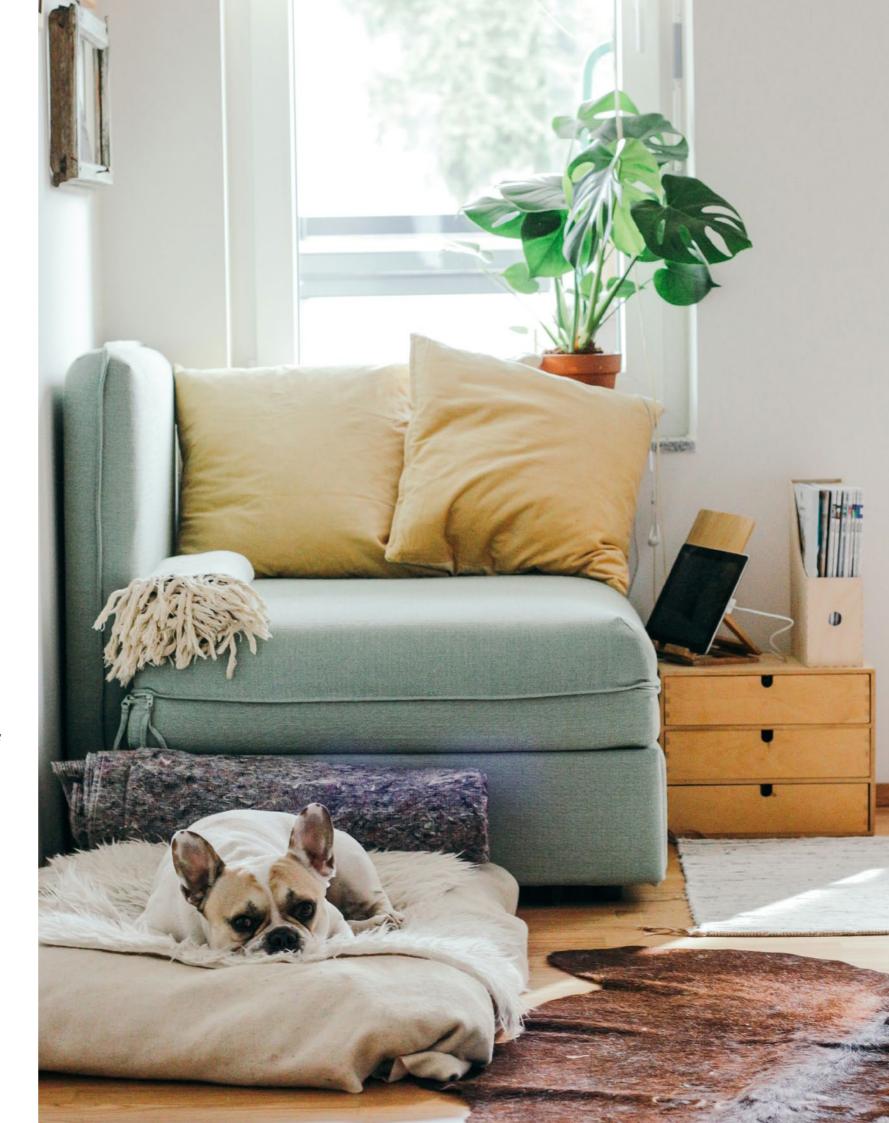
The Swiss psychiatrist C.G. Jung felt home provides a much-needed respite from the speed and stress of modern life. He had two houses- an elegant home in Kusnacht, where he received patients and played the role of the renowned clinician- and a primitive cottage on the lake at Bollingen where he retreated to tend his soul. This was his creative sanctuary:

"I have found the way to live here as part of nature, to live in my own time," Jung said. "People. are always living as if something better is to happen ... They are up in the head and don't think to live their lives!" For Jung, the more primitive the setting the better. "I have done without electricity, and tend the fireplace and stove myself," he explained in *Memories*, *Dreams*, *Reflections*. "Evenings, I light the old lamps ... I pump the water from the well. I chop the wood and cook the food.

These simple acts make man simple, and how difficult it is to be simple!"

Most recently, Berkeley, California architect Clare Cooper Marcus has explored the house as a mirror of the self, noting that how we arrange our rooms reflects our personalities.

In Honey for a Child's Heart: The Imaginative Use of Books in Family Life, Gladys Hunt reminds us that home should ideally provide us with a safe haven: "My favorite definition (of home) a place where one is free from attack, a place where one experiences secure relationships and affirmation," she writes. "It's a place where people share and understand each other. Its relationships are nurturing. The people in it do not need to be perfect; instead, they need to be honest, loving, supportive, recognizing a common humanity that makes all of us vulnerable."



WELLBEING



WELLBEING

In *The Architecture of Happiness*, Alain de Botton describes home as a shell that protects us from the pressures of the outside world. "We need a home in the psychological sense as much as we need one in the physical," he observes, "to compensate for a vulnerability. We need a refuge to shore up our states of mind because so much of the world is opposed to our allegiances. We need our rooms to align us to desirable versions of ourselves and to keep alive the important, evanescent sides of us."

We often turn to home renovation hoping for a deeper change, "We depend on our surroundings obliquely to embody the moods and ideas we respect and then to remind us of them,' says Botton, "We look to our buildings to hold us, like a kind of psychological mold, to a helpful vision of ourselves. We arrange around us material forms which communicate to us what we need - but are at constant risk of forgetting what we need – within. We turn to wallpaper, benches, paintings and streets to staunch the disappearance of our true selves." Our fascination with design magazines, home décor and renovation, are often symptoms of a loss of soul - an indication that we need to look more deeply at what home means to us, and at our need for sanctuary.

Yet we cannot discount our need for creature comforts. At the close of the 19th century, the German sociologist Max Weber described our feeling for the contents of our homes as a kind of I-Thou relationship with the material world. "Culture will come when every man will know how to address himself to the inanimate simple things of life, when people feel at one with their surroundings, when they are able to "touch things with love and see them with a penetrating eye." Home is a place we tend our longings and belongings – and discover that all things want to be cared for and acknowledged. This is how we develop an I-Thou relationship with the material world.

Houses also connect us to the flow of nature. The novelist Laurence Durrell once said, "Each landscape asks the same question. I am looking at myself in you. Do you see yourself in me?"

When artist Vincent Adelus bought a house in Saint-Mihiel, France, he invited a group of friends to make paintings for its many tall windows. As passersby look up, they find a symphony of colour – and the house appears to be a living, breathing thing. This installation reminds us that houses can surprise us – and that every dwelling is much richer, and more complex, than it first appears.

Reinventing Home: Culture Creativity Character https://reinventinghome.org

This article is adapted from the introduction to *Sanctuary: The Inner Life of Home* edited by Valerie Andrews and featuring essays on home from experts in psychology, architecture, history, cosmology, and storytelling.



WELLBEING

RICHARD LOUV, INSPIRATION, AND AN ENCHANTED BOOK

Maureen Calamia

In his 2005 book, *The Last Child in the Woods*, Richard Louv wrote about the challenge of nature disconnection among our children. He coined the term nature deficit disorder (NDD) to describe the near separation of today's youth from the outdoors and laid the facts for a comprehensive conclusion that NDD is highly correlated to the alarming rise of childhood diseases, diabetes and obesity, mental illness, and other societal challenges, such as ADHD (attention deficit hyperactive disorder), and even rates of depression and suicide.

Louv said, in essence, that technology is helpful and desired, but that it needs to be counterbalanced by exposure to, and experience in, nature. The more technology, the more nature needs to be in our lives.

Although he was initially talking about children, Louv's next book, *The Nature Principle*, shared how this view pertains to all humanity.

Shortly after reading this book, back in 2009, I attended an educator's conference to hear him speak. So important was this message that I realized it was going to be part of my path. But what would I do?

Louv shared a story about speaking at a conference for builders and contractors, a mostly male audience. At the beginning of his talk, he shared a story of a place he visited as a child that was no longer there. It wasn't long before some from the audience also shared their stories. And the tone of the meeting shifted subtly into a more conscious, I would say "heart-centered," dialogue.

If sharing these stories around an auditorium had this level of impact, what kind of impact could a book filled with these precious, tender stories provide? How many people would this book touch? Would it open their hearts to the mystery of this enchanted world? I held onto this book idea for ten years.

Nature connection

In September of 2020, while talking with a friend under a huge oak tree about what was next for me, I suddenly got a "divine download." The time was right. In the height of the Covid-19 pandemic, people had, more than ever before in modern times, been turning to nature for recreation and finding solace.

Being cooped up in our homes for months at a time, with little else to do for entertainment, we spent our leisure time in the fresh air. Sales of outdoor equipment skyrocketed. National Park attendance was the highest ever reported. People filled local parks.

With the disruption of life as usual, the entire planet was on an historic pause. The pandemic allowed many of us to reflect and reconsider our lifestyles, where we lived, who we were spending time with, and mostly our priorities. Many people moved, left their jobs, or separated from their spouses.

This pause and redirection gave people time to reflect on their beliefs and purpose. In my own circles, I see many more people awaking to a more mindful path in life.



Journal of Biophilic Design

WELLBEING

And there is an opportunity now to nurture the spark of a deeper spirituality, which has the power to transform us individually as well as globally. Now is the time when we need to marry both rational and intuitive, the masculine and the feminine. To continue our scientific quests while allowing the deep mysteries of the universe to inspire us with awe and wonder.

To date, there are thousands of studies demonstrating that time spent in nature contributes to greater physical wellbeing, as well as reduces stress, depression, improves attention and focus, and contributes to a greater quality of life. But what about the impact of nature on our spirit?

That seems to be a bit jiggly.

While scientific research can objectively measure the positive impacts of nature on the physical body, we can only gather subjective reports of transcendence, awe, or other divine experiences of the sacred within the natural world.

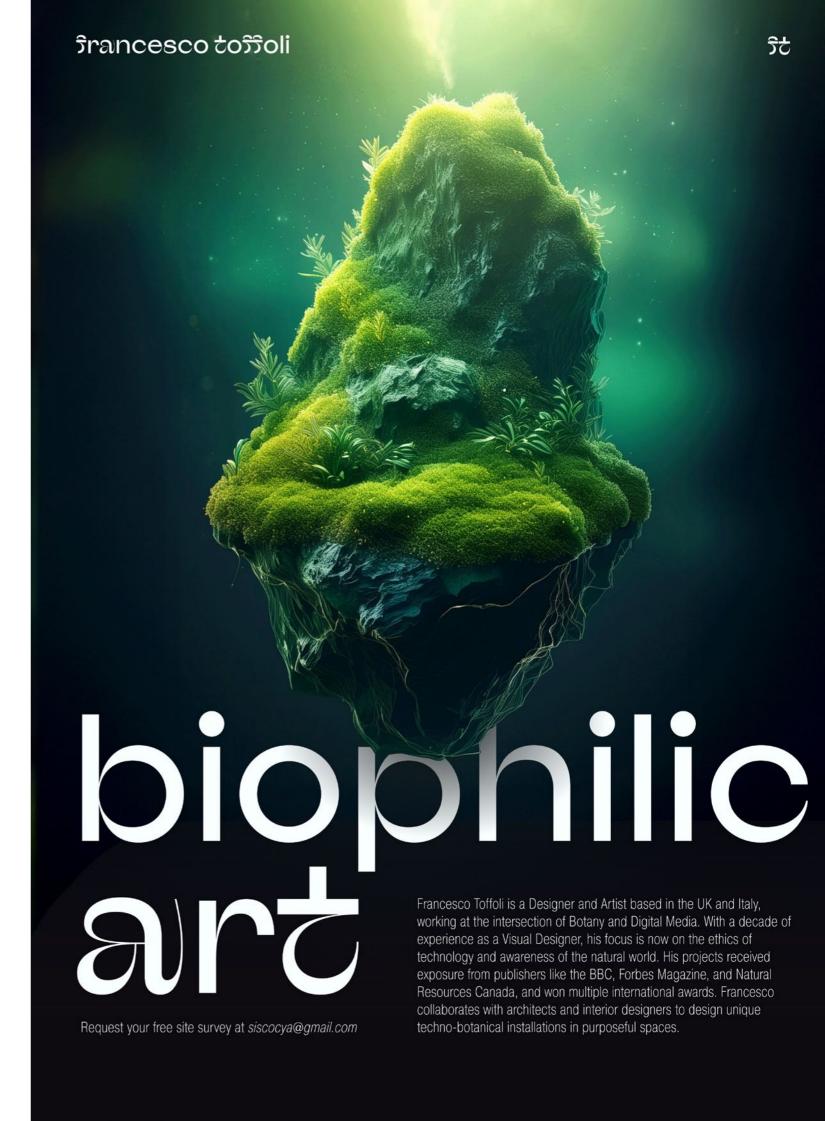


"By comprehending and strengthening the bonds between spirituality, science, and nature, we may come closer to achieving an environmental ethic that better equips us to confront two of the most imperiling crises of our time – global environmental destruction and an impoverished spirituality." – The Good in Nature and Humanity: Connecting Science, Religion, and Spirituality with the Natural World, edited by Stephen R. Kellert and Timothy J. Farnham

As we move into this post-Covid world, we need restorative practices more than ever to combat overwhelming stress in our personal as well as collective lives. And to help us shift our maligned behaviour toward the planet, we need to open our hearts.

https://www.luminous-spaces.com

Excerpt from *The Enchanted Earth: The Power of Nature to Transform*, due out Spring 2025 by Mango Publishing "I do believe that sharing our personal stories of magical connection to the earth and the more-than-human beings, be it a rock, a tree, or a landscape, has the power to transform us."



The Future of Kitchen Layout and its impact on Mental Health

"When we talk about ways in which we can improve the health and wellbeing of our teams we look at open conversations which challenge stigma, leadership skills and work life balance (to name a few) but, did you know that the design of the kitchen can have a huge impact on the health and wellbeing of your team as well?"

Emmy Webster

The aim with any kitchen layout is to encourage ergonomics and ease of use/ access. When we start to switch our minds to how we can further improve our designs to reduce stress on the body and mind there are several things to consider:

You could start by looking at designing menus or implementing equipment which reduce the amount of mise en place required and thus reduce the time pre and post service in order to save energy for the main service. Instead of looking at what would look good on the menu, start to design menus by the level of stress it could cause during peak service times. If it rates higher than 7 on a 1-10 scale, consider ways in which you can reduce the stressful elements or look to remove them from the menu.

When you're standing on your feet for extended periods of time the body is put under tremendous stress. As a result, knee and back pain are common complaints in hospitality. Additionally heat and noise are also directly linked to increased rates of stress.

Consider switching to induction hobs which work to reduce the heat when compared to conventional gas burners but also ensure that clean down times are a lot quicker as you don't have to wait for the induction to cool down for as long and with flat services can quickly wipe clean. In addition 90% of the energy from induction hobs go directly into the cooking process as opposed to 40% when compared to standard gas.

Noisy fans can impact concentration as well as reduce efficiency of communication amongst team members. Investment into low noise fans can also be invaluable to reducing stress levels within a high-pressured environments.

Combine that with cooling systems for each station means that you're pro-actively looking to address any residual heating issues whilst also combating noise.

Both footwear and ultra hygienic floor material should be considered when looking to reduce the impact on the body. Investments into both areas to combat back and knee pain may increase your expenditure initially but will greatly reduce the risk of longer-term costs to the business as a result of presenteeism or absenteeism. Added to that, consider looking at easy-to-clean floor materials that reduce the post service clean down.

WELLBEING

Our bodies produce vitamin D which works to increase our serotonin levels and combat the effects of high levels of stress and mental health issues. In environments that are often in basements or have limited natural daylight consider using LED lighting panels instead of fluorescent tubes. Lighting is another important consideration in kitchen design and shouldn't be underestimated as good lighting can also improve circadian rhythms and sleep patterns which can also increase productivity whilst improving mood.

Adjustable work benches are also something to be considered. Does the same person work at the same section seven days a week? It could be worth considering adjustable benches in order to save people of different heights having to bend or lean over their section.

Where are the prep items stored once they are complete? Are they within arm's reach that limit the need for excessive movement? How about designing working spaces which reduce the amount of movement required to operate a section?

Ticket layout, yes, we said ticket layout. Although not normally considered to impact the wellbeing of our teams it's not an area to be underestimated. How long or how easy it is to read long table orders can also have an impact on the team's wellbeing. By designing easy-to-read tickets that fit the needs of the kitchen you can greatly reduce the thinking time it takes to navigate complex orders and can directly contribute to improvements in efficiency and most importantly, health.



You could also consider flat screen panels on each section that give a breakdown of exactly what's coming up next. This saves the need for the Head Chef to shout the orders and could improve the speed in which different elements of dishes are produced.

Ulltimately there are many small tweaks we can make within the workplace that don't require masses of investment. However, it's important to recognise that whilst investments in new kitchens may increase, by implementing some of the suggestions above your return on the investment over the next 10–20 years could increase by reducing absenteeism, presenteeism and turnover rates by directly creating an environment which people feel happy and comfortable to work in.

Have you considered your team's wellbeing in your kitchen layout?

Biophilic Design aims to support the wellbeing of people using the space, we have followed the work of The Burnt Chef project since they launched in 2019. When we are implementing Biophilic Design in a hotel, restaurant or café, let's consider the issues above, and see how we can use the biophilia effect to enhance the wellbeing of those you can't see but who are the beating hearts of any restaurant and hotel.

The Burnt Chef Project is a not-for-profit social enterprise committed to addressing mental health issues within the hospitality industry. Through advocacy, training, and support services, The Burnt Chef Project aims to create a healthier, more sustainable working environment for all hospitality professionals.

www.theburntchefproject.com

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Lyn M. Falk

Whether you're running a spa, hotel, or retreat centre, it's important to create a space that nourishes your guest's mind, body, and spirit. To create a space that really enhances our health, it must work in harmony with our energetic vibration. How do we do that? By designing with the immutable Laws of Nature in mind. That means bringing tried and true elements of nature into every decision made when it comes to laying out the space and selecting materials/finishes.

Below are 6 things to think about when designing or refreshing your hospitality spaces.

Natural Elements

Bringing in the natural elements creates a vital environment:

- **Earth** elements via plants, wood, cotton, and hemp, are grounding
- **Fire** via gas or real fireplace, or candles, is invigorating
- **Water** via a water feature, cleanses and brings clarity
- **Wind** via mobiles, or ceiling fan, cleanses and brings lightness
- **Animals** via wool, silk, or a resident dog(!), connects us with the energy of other living creatures

Avoid as many materials that contain toxic chemicals as possible, i.e.: resins/adhesives/plastics, that can off-gas for years, creating unhealthy indoor air.

Movement

Is the space so still that it doesn't feel alive? Windows allow for the eyes to see wind in the trees, birds flying about, or clouds moving across the sky. Without windows, a ceiling fan can serve as a moving visual while circulating air, videos of people or animals at play can make visitors smile, or a fish tank full of lively fish can keep customers engaged for quite a while.





TRESACROWD

"Biophilic Cities help breathe life into the social fabric as well as support healthier air quality, reducing heat island affects, and also help our mental health and wellbeing. This article is a call to designers to ensure we include trees in our urban and architectural specifiations. Trees are vital for so many reasons, in fact they are so important that we really do need a national strategy. As the old saying goes: "The best time to plant a tree was twenty years ago. The second best is now."

Chris Churchman

Do we have room for trees in our cities?

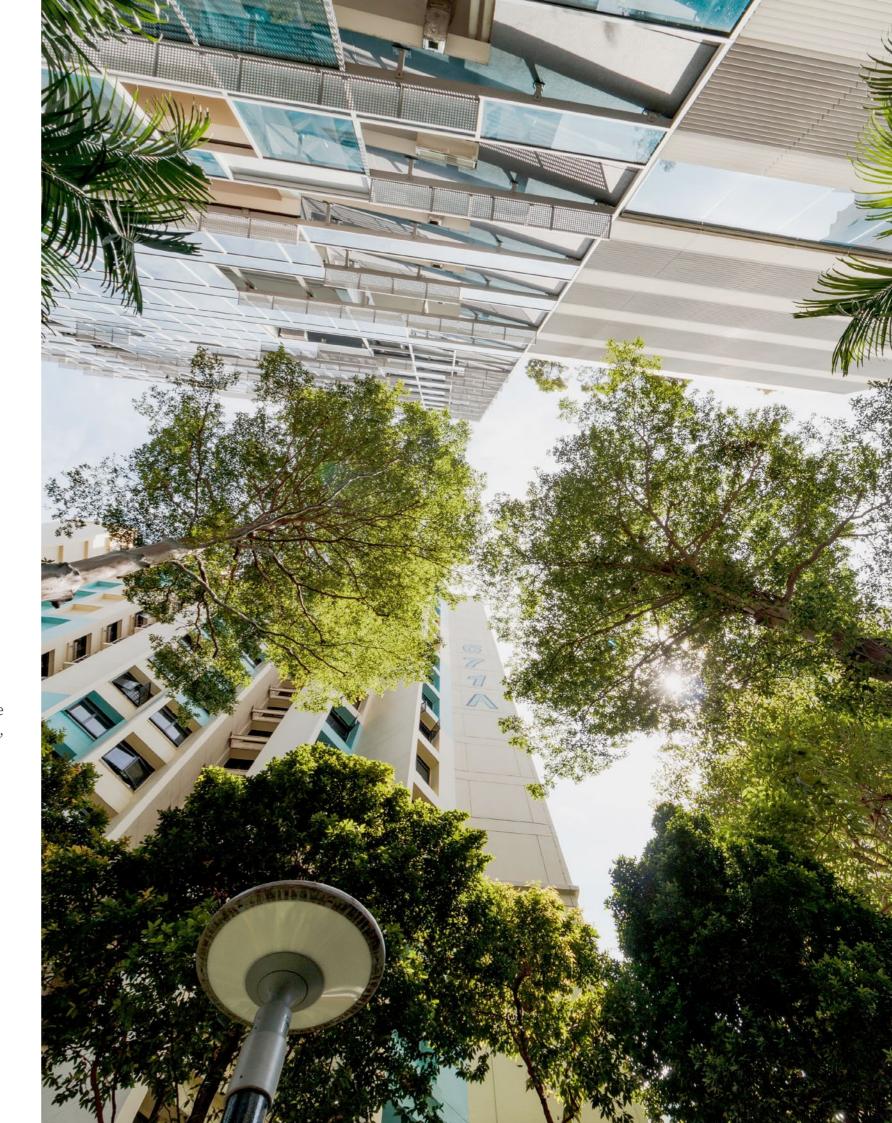
There is an argument that a programme that fully unlocks the value of natural capital need not concern itself with the built environment at all. From the perspective of offsetting greenhouse gas emissions and driving toward net zero that is almost certainly the case. There is just so much land that does not contain buildings, for instance outside cities and towns, where the soils and trees within non-urban areas will always be the biggest tool in the box when it comes to cancelling unavoidable emissions.

However, where natural assets in urban areas really come to the fore is in building climate resilience, as most of the population live in urban areas making those hot spots of habitation

even just a bit cooler is going to be massively important as we push past 1.5 degrees Centigrade above pre-industrial levels.

Trees specifically have a key part to play in holding urban temperatures to bearable levels. In fact when we increase canopy surface area and volume in cities, the benefits are so great that it makes urban trees the super moderators, with some trees, oak, lime, maple the turbo charged varieties.

Clearly increasing canopy extent as a portion of city area can have profound effects, the urban UK has an average of circa 15.8% cover, although some cities and, more importantly, some neighbourhoods, particularly those that are disadvantaged, can have as little as 3.5%.



BIOPHILIC CITIES



The other issue to consider related to canopy is that to achieve optimum efficiency, trees have to achieve maturity. Trees planted now will deliver an impact when William and Kate come to the throne and will only be truly effective when George is crowned. The trees we benefit from now were planted in the early days of our late Queen's reign; some will actually have been installed when Elizabeth 1st was on the throne. So clearly retention and protection of historic assets is vital.

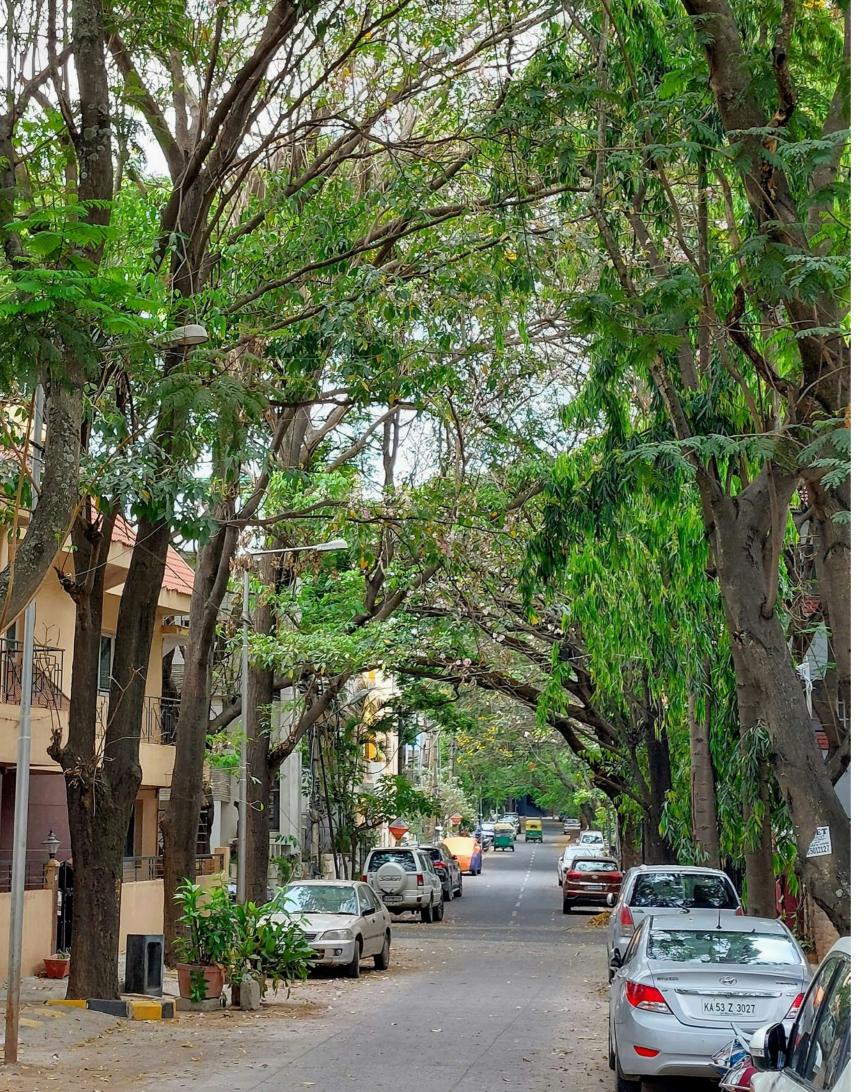
Some will claim other green assets, open spaces, green roofs and living walls add value, and you cannot argue with that argument, but not in the same meaningful way that trees do, and so trees do have to be our best friends.

So given the importance of our urban tree cover you would expect there to be a national strategy. Does one exist? Well sort of. But to really bring radical change you need robust policies.

Forest Research have done some sound baseline work, which far too few designers and planners bother to look at. There is no doubt that those forward-looking authorities like High Wycombe, Bristol City Council and the GLA are grasping the nettle and their 20% is a step in the right direction. These authorities are certainly assisted in their work by I-Trees whose suite of products enables individuals and authorities to understand the value of their tree populations in terms of ecosystem benefits. However, to really make a sizeable difference, and to realise the latent potential of this fantastic asset a national minimum should definitely be enshrined in all guidance.

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NEW BOOKS

Island Homes

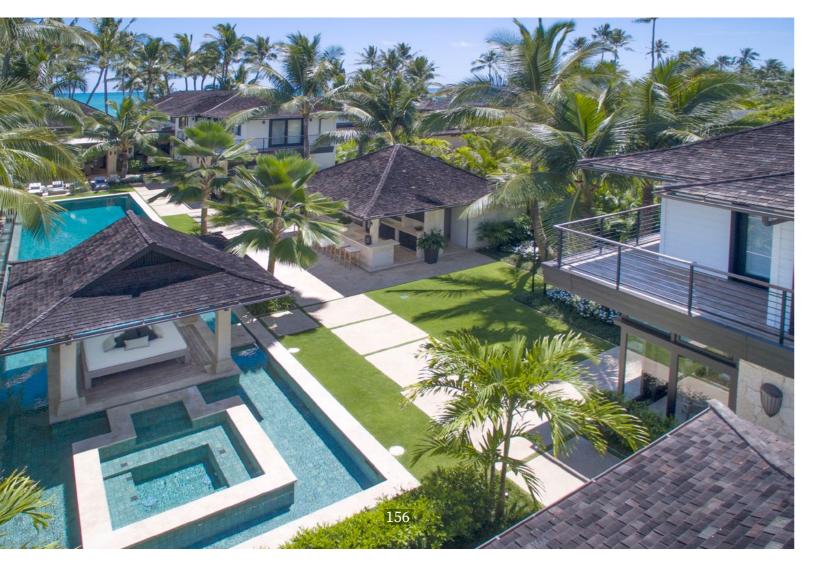
Casual Elegance in Design

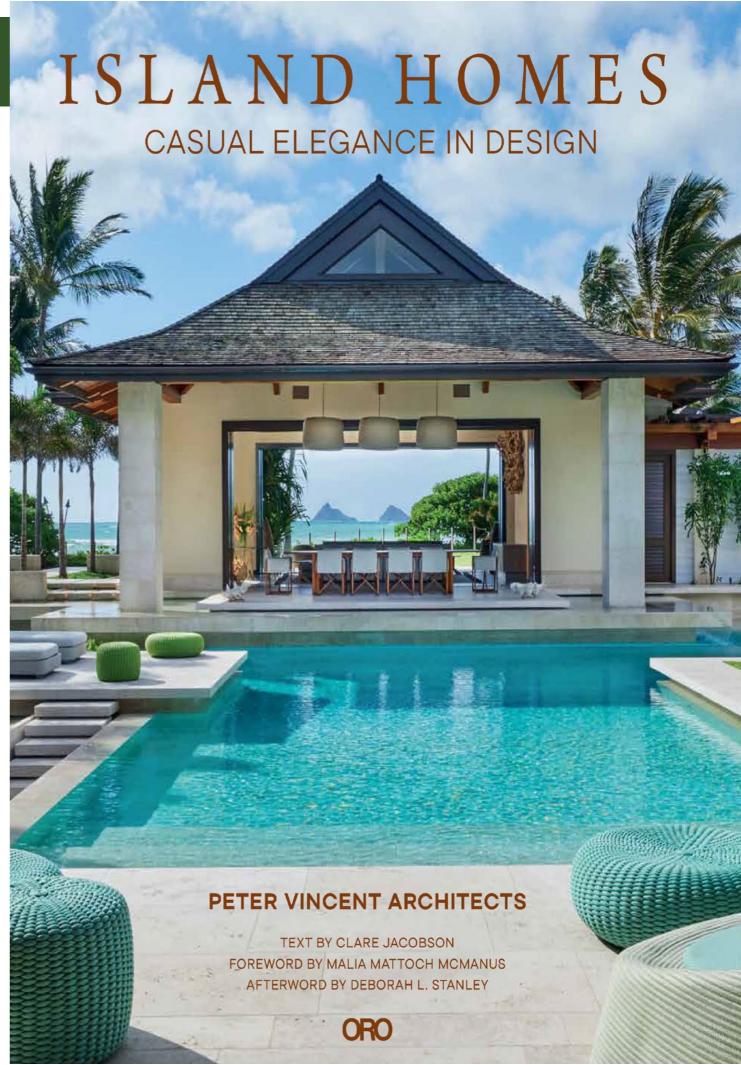
Island Homes presents the beautiful yet unpretentious new homes, residential renovations, and commercial buildings designed by Honolulu-based Peter Vincent Architects. A boutique firm founded in 1992, PVA specializes in custom-built architecture in a broad spectrum of styles and genres. Each project responds to the unique needs and vision of its client as well as the physical, social, and environmental opportunities and requirements offered by its site.

The book features twenty-one built works by PVA. Each shows the creative design, quality materials, and exacting proportions that set PVA apart. The text, crafted from interviews with managing partner Peter Vincent, tells an intimate story of each project and discusses the various personal experiences that have influenced his architectural philosophy. A foreword by Malia Mattoch McManus, author of The Hawaiian House Now, discusses how PVA projects respect their surroundings and the culture.

Founded in 1992, Peter Vincent Architects is a boutique architecture and interior design firm located in Honolulu. PVA's work encompasses a broad spectrum of styles and genres and responds to the unique needs and vision of each client and each site.

ISBN 978-1-954081-61-1

























Hotel Design

Fillat + Architecture

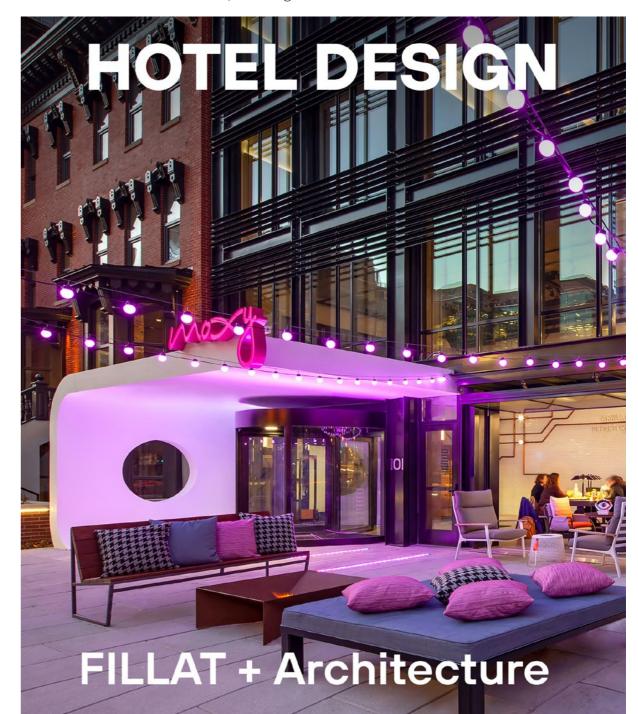
Hotel Design presents the defining hotels and resorts designed by FILLAT+Architecture. With four studios and over 27 years of experience in hospitality design, the firm was founded in 1992 by Peter Fillat to explore a personal view of how people interact with the environment and to create an Architecture of Permanence, which delights and inspires the human spirit. FILLAT+ specializes in creating places and spaces for people to enjoy life. In the careful planning and sequencing of the interior and exterior spatial experience, the work creates comfortable, inviting

spaces that are accommodating, respectful, and memorable.

The book features 12 built works and 15 projects on the boards. Hotel Design features a foreword by Stacy Shoemaker, editor in chief of Hospitality Design magazine, and contributions by David Ashen and Michael Dennis.

Peter Fillat is the principal of FILLAT+ Architecture, founded in 1992. Fillat and his innovative designs have received numerous awards and citations from organizations across the globe and they are committed to creating lasting works of architecture and designing in harmony with the environment.

ISBN 978-1-957183-56-5



BOOK REVIEW

Wild Places, Wild Encounters

Exploring Edinburgh's Living Landscape

New Book by Dr Glen Cousquer

Review by Dr Vanessa Champion

Biophilic Design encourages a deeper connection with nature. We know and it is proven, when we introduce Biophilia into a space, city or workplace, we experience this "re"-connection with nature. It is this sublime experience of reconnection with nature, the wonder, the awe, the rumination and self-exploration that Glen's book celebrates.

The book is full of some great examples for designers to take inspiration from. If we are designing a space and can influence the "outside" of the building or street, or if we are lucky enough to influence the position in the city, after reading this book we might be more inclined to really "re-see" the city and think of ways to reconnect the users of the building and space with the natural world that is already there (while also, we hope, regenerating the land and biodiversity while we are at it!).

What I love about the book, is the surprise aspect. Edinburgh which I know relatively well already (or so I thought!) is at first glance might not be a city we think of as being biophilic. But Glen shows us it is a city that is filled with nature. It is rich and wondrous.

The book is full of mapped walks and guided directions, and because Glen is also a photographer (as well as a naturalist, ecologist, veterinarian, advocate of biophilic design and actively supports neurodiversity and wellbeing) the book is full of beautiful full colour images.

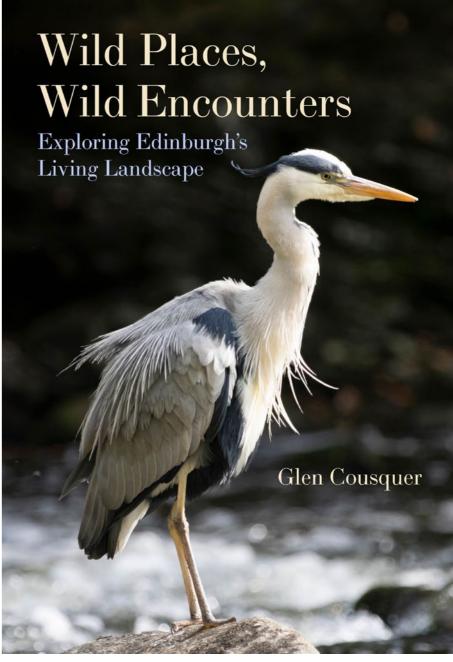
Through Glen's photography we encounter harebells, nuthatches, curlews, woodland butterflies, leek and wild garlic, herons, mistle thrushes, robins, tree creepers and a whole host of other species (avian, plant and tree and everything in between). All of this within one city.

As designers we can also be mindful of those over-looked spaces which have the potential to enhance our "views" from office buildings, hospitals, schools. After reading the book and taking a virtual tour of Edinburgh with Glen (obviously better if you can make a weekend of it or longer!) and walk beside and in cemeteries, quarries, lakes, orchards, harbours, rivers, local nature reserves you will rethink where you are designing next. What natural area can you embrace as part of your design? How can the landscape or building aspect influence where you position windows, doors, pathways?

We have an opportunity to rethink our city planning, and developers can make the most of nature that already exists, as well as creating new habitats, creating new

pathways and spaces for communities to enjoy, walkways that take clients, workers, families beside and through nature. Helping them have additional biophilic encounters on their way to and from work.

Mark Cocker sums up the whole in the book's Foreword:



"This book is as much a guide on to how we should live within nature and acknowledge our deep obligations as a guide to a city's wildlife riches. In this regard it is groundbreaking."

https://www.whittlespublishing.com/ Wild_Places_Wild_Encounters

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FINAL WORD

Dr Vanessa Champion Editor

It is September here in the UK where we publish this, summer is coming to a close. On the other side of the globe in Australia and New Zealand, summer is beginning. If you are in between us, then you will be having your own fair share of weather.

One thing we all will be witnessing at different times and places is a change in temperature, the increased lack of insects, the increased rain fall, the storms, the lowering of water in reservoirs, forest fires and general unpredictability of weather. I was working in Uganda for an NGO in the summer, and they have seen a record period of drought. One of the NGOs (Afrinspire and the Development Studies Centre in Mbarara) was looking at drought tolerant crops and helping educate people on a different way of farming. In this issue also, our environment correspondent Alexander Verbeek moved to Oslo where there is a record heatwave. There was an earthquake in Cyprus off the Paphos coast. The list goes on. As Alexander says in his article, all of us are experiencing something, we are ALL affected by climate change.

It is easy to feel helpless and overwhelmed. As designers we can do something positive to help. We can design BETTER. We can specify the materials, products, solutions that do not cost the earth, but actually help HEAL the earth and this planet that sustains all life.

Steve Edge in his article (which I also quoted in the opening editorial) reminded us that, as the late Dr Stephen Kellert said, 'Biophilia is the missing link in Sustainable Design'.

Our Biophilic Design Conference in November will be bringing so many threads together. Designing for wellbeing, for better physical and mental health, designing for better education outcomes, there will be case studies, discussion, research and networking. But underpinning every conversation will be the message, whenever we specify let's consider the impact on the planet.

We also have the opportunity to help bring about legislation change. If we bring all our voices together.

Biophilic Designing for health and wellbeing of people and planet.

Biophilic Design does not cost the earth

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