

# Nature Worship

Biophilia, a concept that denotes the innate instinct of humans to connect with nature and other living beings, is readily being incorporated in all aspects of life

By NOOR ANAND CHAWLA

**T**ravel professional Geeta Bhatnagar grew up in the bustling town of Bareilly in Uttar Pradesh, yet throughout her life, she felt a strong connection with nature. In particular, she felt drawn to the bounty of Jim Corbett National Park in Uttarakhand. As her children studied at a boarding school in Nainital, she had plenty of opportunities to visit the area repeatedly. For the first 15 years or so, her visits were ostensibly to search for the big cats known to roam the area, but after a while, the beauty of the land became the real attraction. What began as a holiday spot became a spiritual home, eventually prompting Bhatnagar to buy land in the area. Over a period of seven years and through the pandemic, she designed and built her home 'Ishvan' in village Hansrampur near the national park, using natural materials like mud and wood. It was a labour of love and took longer than she imagined. Now as she lives and works in her abode, having shunned her fast-paced city life, she is happier than ever before.

"It's amazing that while cooking in my kitchen, I see elephants and sometimes even leopards walking by. At night, I love gazing at the stars. I started construction before the pandemic and lived in a small room with a mud coating for about three years to test if I could live amid nature," she says. During this time, Bhatnagar learnt the lay of the land and practical things like which direction the wind blows, and was able to change her building plans accordingly. "The Bible says, 'Unless the Lord builds the house, the builders labour in vain.' This is true in the case of Ishvan. I started with little money but with a lot of faith. God is the cornerstone of this house," she says with pride.

Her god may well be equated with nature, just as she is a faithful 'biophilic'—a term used for humans who are consciously making an effort to connect with nature in a meaningful way. 'Biophilia' has been a recognised term for decades, yet in a post-pandemic world, it has taken on a more significant meaning, touching on different aspects of life, from adopting eco-conscious habits such as exercising outdoors to indulging in *shinrin-yoku* or Japanese 'forest baths' and becoming plant parents.

The popularity of biophilia as a concept, however, is most evident in the increasing number of homes and buildings being built around elements of nature. There are numerous benefits to this practice. A study by the global flooring company Interface Inc., in 2018, called 'The Global Impact of Biophilic Design in the Workplace' showed that workers in offices with natural elements, such as greenery and

sunlight are 6 percent more productive, report a 15 percent higher level of well-being and are 15 percent more creative. Similarly, a study by the UK-based design firm Oliver Heath in 2018 concluded that biophilic homes are more calming and restorative, along with reporting significantly lower crime rates (reduced by 7.8 percent) and higher property prices (up by 4.5 percent).

#### What is Biophilia?

The term biophilia was first coined as a scientific hypothesis by German-born American psychoanalyst Erich Fromm in his work *The Anatomy of Human Destructiveness* (1973). He concluded that humans possess an innate tendency to seek connections with nature and other forms of life. Later, American biologist Edward O Wilson expanded the scope of the term in his book *Biophilia* (1984) by proposing that humans were genetically predisposed to do so.

Hence, when the first humans moved into caves and over centuries to modern homes, they ruptured this connection. Meena Murthy Kakkar, design head and partner at Gurugram-based design firm Envisage, credited with creating biophilic buildings like the Mann School Delhi, says, "I believe a love for everything that is naturally indoors is the underlying principle of biophilic design. Elements like air, light, water and greenery can uplift a room's quality and atmosphere. Biophilia creates a bridge between nature and interiors by employing a human-centric approach to design."

On a similar vein, Sarita Handa, founder of the

eponymous design label, refers to biophilia as a holistic approach that can positively impact everyday life. She highlights that global health emergencies like Covid-19 reinforced the need for access to nature and open spaces in cities to alleviate social, physical and mental health. In the context of lived spaces, she adds that biophilic design is not limited to adding a fern or a blossom to the interiors; it is a subject that has been proven to elevate mood and act as

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"In high-rises, large windows and balconies can bring in light and ventilation. Landscaped terraces and rooftop gardens can also help connect with nature."  
Rahul Kadri, partner, IMK Architects



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Sarita Handa, founder, design label Sarita Handa



#### BRING THE OUTDOORS IN

##### Lived Space

- Include nature in the form of plants, water, breeze, scents, light, shadows
- Use natural materials, objects, colours and shapes, as facade ornamentation, décor pieces and furniture
- Incorporate spatial elements such as expansive views, places of sensory refuge like dark, quiet rooms which simulate caves, and those that induce a mild sense of risk, as with stepping stones over a shallow pond

##### Office

- Bring natural light through skylights or windows
- Use plants and water features, but don't go overboard as the space may look cluttered
- Avoid synthetic materials like plastics; opt for wood or stone instead



"The building is designed around three principles: minimal impact on the site, workspaces overlooking the green, and courtyards embracing the existing tree cover within the site."  
Sanjay Nayak, director, Edifice Consultants, on Amara Raja office in Tirupati

#### Benefits of BIOPHILIC DESIGN

Positive impact on mental health

Nature inspires creativity

Higher levels of productivity

Better air quality

Reduced noise levels through use of elements like water

#### CHALLENGES

- Natural materials are expensive and harder to source
- It requires rigorous research and some trial and error
- Can take longer to complete
- Needs a higher degree of maintenance



OFFICES

Productivity increases by 8%, well-being shoots up by 13%, absenteeism falls and staff are more engaged

EDUCATION

Learning rates rise by 20-25%, test results improve, and ADHD effects are reduced

RETAIL

Customers are willing to pay 8-12% more when in a space with natural elements

HEALTHCARE

Post-operative recovery time reduced by 8.5%, and the need for pain-reduction medication lowered by 22%

HOTELS

Customers are willing to pay 23% more for rooms with a view of biophilic elements



From Oliver Heath study conducted in 2018

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a stress-buster. "This indirect experience of the natural world through features that evoke it is not a trend but a philosophy, and is here to stay," asserts Handa.

The very premise of environmental psychology (the study of the effect of natural and man-made spaces on physical and mental health, as well as their social interactions), is that buildings are most supportive to humans when they mimic the natural world in look and feel. For Bengaluru-based architectural firm Earthitects, incorporating biophilia is second nature to their practice. George E Ramapuram, its managing director and principal architect, has focused on 'reverse urbanisation' by creating dwellings that facilitate natural life, like they did with the Evolve Back Kamalapur Palace in Hampi and Estate Plavu in Wayanad, Kerala. Ramapuram says about the latter: "It is one of the 15 Stone Lodges, a set of luxury private residences spread across a 13-acre forested hillside. It offers panoramic views of the forest and its design is inspired by mountain lodges."

Biophilia at Home

When the pandemic struck, Adishree Singh found herself pondering the nature of lived spaces. With a degree from the Parsons School of Design, New York, a thriving branding and marketing practice and an interest in the effective running of her family-owned heritage hotel Hari Niwas in Jammu, she was appalled to read articles highlighting the toxicity within building materials. "We read food labels, but why do we not examine what goes into the buildings we spend most of our lives in?" she asks. To find a solution, she returned to Parsons to attend a consultancy programme on materials.

Singh continues, "Indian homes were traditionally built on the principles of Vedic architecture. It's a part of our roots which was lost due to colonisation. It's important to understand how we can go back to a simpler way of living. We can do this by examining why certain buildings were built in a particular way depending on their environment, such as the distinctive homes in Jammu and Kashmir or in Goa. We talk about air pollution, but never about the ill health of our homes." To counter this, she co-founded reformary in 2021 with Akshat



"We hope to encourage decision-makers to provide easy, gender-sensitive walking, cycling and public transport infrastructure."  
Mallika Arya, senior campaigner, Help Delhi Breathe



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"Estate Plavu is one of the 15 Stone Lodges, a set of luxury private residences in Wayanad, Kerala. It offers panoramic views of the forest and its design is inspired by mountain lodges."  
George E Ramapuram, managing director, Earthitects



Dhawan. The research and design lab aims to create a sustainable material world by reimagining the construction and packaging industry.

Singh was not alone in re-evaluating her surroundings. Tired of the terrifying AQ readings, the awful city traffic and suffocatingly enclosed living spaces, cities such as Delhi and Mumbai saw an exodus of people to literal greener pastures. Places with temperate climates and natural bounty, like Goa and Aihang, were seen as attractive options for city folk. In Goa especially, verdant villas became high on the priority list—whether as short-term rentals for tourists or permanent holiday homes for the affluent.

The Cove in North Goa, designed by Gurugram-based architectural and interior design firm Studio IAAD, for three friends as a vacation abode, is a prime example. "As a second home, this residence had to offer a stark contrast to their busy lifestyles in Delhi. The sea-facing plot is limited in its square footage, even though it offers spectacular views of the horizon. A humble fisherman's hut, the untamed plantation and



the infinite extent of the ocean are the elements that weave in the original landscape. Here, we sought to pay homage to the nature-based legacy that Goa celebrates," shares Rachna Agarwal, ideator-founder of Studio IAAD.

Those who continue to live and work in metros have also found ways of incorporating nature into their homes. This is evident in the popularity of OKAS Residency, a housing project developed by PARDOS Lucknow Developers in Sushant Golf City area, which quickly sold out on the basis of being the city's first 'nature homes' with balconies in every room and access to expansive green areas. Incorporating biophilic

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elements into urban homes is not an impossible task according to Rahul Kadri, partner and principal architect at Mumbai-based IMK Architects, a firm known for nature-heavy projects like the Balador Athena apartments in Talegaon, Pune; the Oberoi

hotel in Bengaluru; and ALRHC Hall administration building in Aurangabad. He says, "In high-rise buildings, large windows and balconies can bring in light and ventilation. Landscaped terraces, rooftop gardens and courtyards can also help establish a connection with nature."

Biophilia in Workspace

When Andhra Pradesh-based conglomerate Amara Raja was building its office on 140 acres of the Red Sanders forest in the holy city of Tirupati, they were keen to infuse the workspace with the tranquillity synonymous with that area, without destroying its beauty. They enlisted Mumbai-based architecture firm Edifice Consultants for this. Its director Sanjay Nayak recalls, "Employing biophilia in design strategy of the facade resulted in a transparent building that connects its occupants with the surrounding greens. The building is designed around three principles: minimal impact on the existing site, creating workspaces overlooking green spaces, and courtyards embracing the existing tree cover within the site. The neutral exposed-concrete facade blends into the verdant background, while the surrounding trees reduce heat ingress into the building." This strategy was to preserve the landscape while creating a workplace to boost productivity and comfort for the employees.

The effects of the strategy is further substantiated by the 2018 Oliver Heath study, which noted that in workspaces with access to nature, productivity increased by 8 percent, overall well-being by 13 percent, and the staff felt more engaged. In educational spaces, it contributed to an increase in rates of learning by 20-25 percent as test results improved, concentration levels increased, and the effects of ADHD were reduced. Customers in retail spaces admitted that they were willing to pay 8-12 percent more for goods and services

mostly by fenestrations—windows and doors are the largest sources of enabling biophilia. Humans are inherently drawn to nature; it helps calm us down. Incorporating sustainable and biodegradable products in our spaces helps the cause."

Challenges and Way Forward

Mallika Arya from Gurugram is passionate about many things: caring for animals, discouraging consumerism by encouraging thrifting, and spreading awareness of an eco-conscious lifestyle. Among her many projects, she anchors the Sustainable Mobility Network and is senior campaigner for an initiative called Help Delhi Breathe, which engages residents on the subject of air pollution. "For this, we have organised a series of awareness initiatives through methods like engaging with arts, such as our recent exhibition 'Two Wheels', which was on at the Museo Camera and then at India Habitat Centre. We hope to encourage decision-makers to provide easy, gender-sensitive walking, cycling and public transport infrastructure so that people can make the switch from cars to more sustainable methods of transport," she says.

The layouts of urban cities that have swelled in ranks over the past few decades with dismal supporting infrastructure are a major challenge to the adoption of biophilia.

Hence, people seek to incorporate such elements to their lived environments through private means, which is often an expensive and difficult proposition. According to Ramapuram, the process of biophilia requires rigorous research into case studies and some trial and error; Nayak highlights that the user needs to learn to live in spaces that often require a higher degree of maintenance. Kadri shares the challenges of increased costs for biophilic projects which can be a deterrent for clients; and Agarwal points to the longer time periods such projects need to come to fruition. Each of these practitioners,



"With nature disappearing from urban spaces, it becomes difficult to create a connection with the outdoors. This inside-outside connect is defined by fenestrations."  
Natasha Kochhar, associate partner and principal architect, LTDF

when shopping in spaces with greenery. In hospitals and clinics, post-operative recovery times were reduced by 8.5 percent, with the need for pain-reduction medication lowered by 22 percent. Even in hotels, customers were willing to pay 23 percent more for rooms with a view of biophilic elements.

In this context, Natasha N Kochhar, Associate Partner and Principal Architect, LTDF, a boutique architecture and interior design firm based in Delhi, highlights, "With nature disappearing from urban spaces, it becomes all the more difficult to create a connection with the outdoors. This inside-outside connect is defined

however, also points to the long-term rewards of being closer to nature in one's most used spaces.

Handa reinforces the belief that biophilia is not a difficult proposition to employ in one's life, as she speaks of her own practice, "Since the inception of the brand, I have drawn inspiration from flora, fauna, and organic shapes. Emulating patterns from various forms of life fosters a visual and emotional attachment to settings and places. There is an inherent desire in all humans to interact with Mother Nature, so mimicking those patterns add to warmth and familiarity in a space." Let's hope more people listen to this sage advice.



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