



GrowUp Greenwalls

The Biophilic Design Rulebook

The Designer's handbook to nature-centered design.





Designing with Nature: The Foundation of Biophilic Design

Nature has always been our greatest teacher.

From the pattern of leaves to the rhythm of light across a room, nature offers a blueprint for comfort, balance, and creativity. Biophilic design takes these lessons and applies them to the built environment, creating spaces that connect people to the natural world and improve health, performance, and emotional well-being.

What is Biophilic Design?

Biophilic design is the intentional integration of nature into architecture and interiors to enhance the human experience. It's not about decoration, it's about creating spaces that nurture connection, calm, and curiosity through natural materials, organic forms, and living systems.

Edward O. Wilson (1984). *Biophilia*.

Why It Matters:

- People spend over 90% of their lives indoors.
- Studies show biophilic spaces improve focus, mood, and recovery rates.
- For designers, it's an opportunity to blend beauty, performance, and sustainability in every project.

The Three Pillars of Biophilic Design:

- **Nature in the Space:** Direct presence of living systems (plants, water, light, and air).
- **Natural Analogues:** Indirect evocations of nature through patterns, colors, and textures.
- **Nature of the Space:** Spatial arrangements that mirror the way we experience nature (refuge, mystery, and exploration).

Terrapin Bright Green (2014). *14 Patterns of Biophilic Design: Improving Health and Well-Being in the Built Environment*

The 7 Golden Rules of Biophilic Design

Biophilic design thrives when it's thoughtful, not thematic. The best projects create genuine, sensory-rich connections to nature that are integrated from the very start of the design process.

1. Design for Connection, Not Decoration

True biophilia is about relationships. Avoid token greenery; instead, design with living systems that influence light, airflow, and mood.

2. Use Natural Light Intentionally

Light affects our circadian rhythm and mental health. Frame views, filter sunlight through natural textures, and consider how light shifts through the day.

3. Integrate Living Systems

Incorporate greenwalls, interior gardens, or planters that change and grow with time. Living features create dynamic, adaptive environments.

4. Balance Organic and Built

Contrast natural softness with structural form. Use stone, wood, and plant life to soften edges and balance geometry.

5. Engage Multiple Senses

Involve more than sight by inviting touch, sound, and scent. Textural wall finishes, the subtle aroma of greenery, and the rustle of leaves enhance immersion.

6. Create Prospect and Refuge

Spaces that offer both openness and enclosure mimic natural habitats, fostering comfort, curiosity, and a sense of safety.

7. Plan for Maintenance Early

A thriving system starts with foresight. Consider lighting, irrigation, and plant species during early design phases to ensure long-term success.

Quick Check: Are you integrating nature into the structure of the space or just into the styling?

Applying Biophilic Design: Spaces & Strategies

Biophilic design is scalable, from small interior gestures to large architectural interventions. Here's how nature can shape different types of environments.

Light

Natural light is one of the most powerful biophilic tools. It influences mood, circadian rhythms, and spatial rhythm.

- Maximize daylight access through strategic orientation and open floor plans.
- Filter and diffuse light with slatted wood, sheer materials, or dappled patterns that mimic the play of sunlight through leaves.
- Use dynamic lighting systems that change color temperature throughout the day to support human energy cycles.

Air & Movement

Fresh air and subtle movement create a sense of vitality in a space.

- Integrate operable windows, cross-ventilation, and green systems that help clean the air.
- Allow airflow to be felt, not just functional; gently moving curtains, kinetic art, or plant leaves in subtle motion all contribute to a living environment.

Water

Water introduces calm, reflection, and sound.

- Incorporate fountains, reflecting pools, or digital water walls in entryways or courtyards.
- Even a small audible or visual cue of water can reduce stress and enhance focus.

Materiality

The materials we touch and see daily shape our relationship to space.

- Choose natural, renewable materials like wood, stone, clay, cork, and wool.
- Embrace organic imperfections; grain, texture, and patina connect us to authenticity.
- Biomorphic patterns and natural geometries in tiles, textiles, or screens subtly reference the rhythms of nature.

Applying Biophilic Design: Spaces & Strategies

Color & Texture

- Favor earth tones and nature-inspired palettes to create grounding environments.
- Use contrasting natural textures; smooth stone beside rough bark, soft moss beside structured metal, to engage the senses.

Spatial Experience

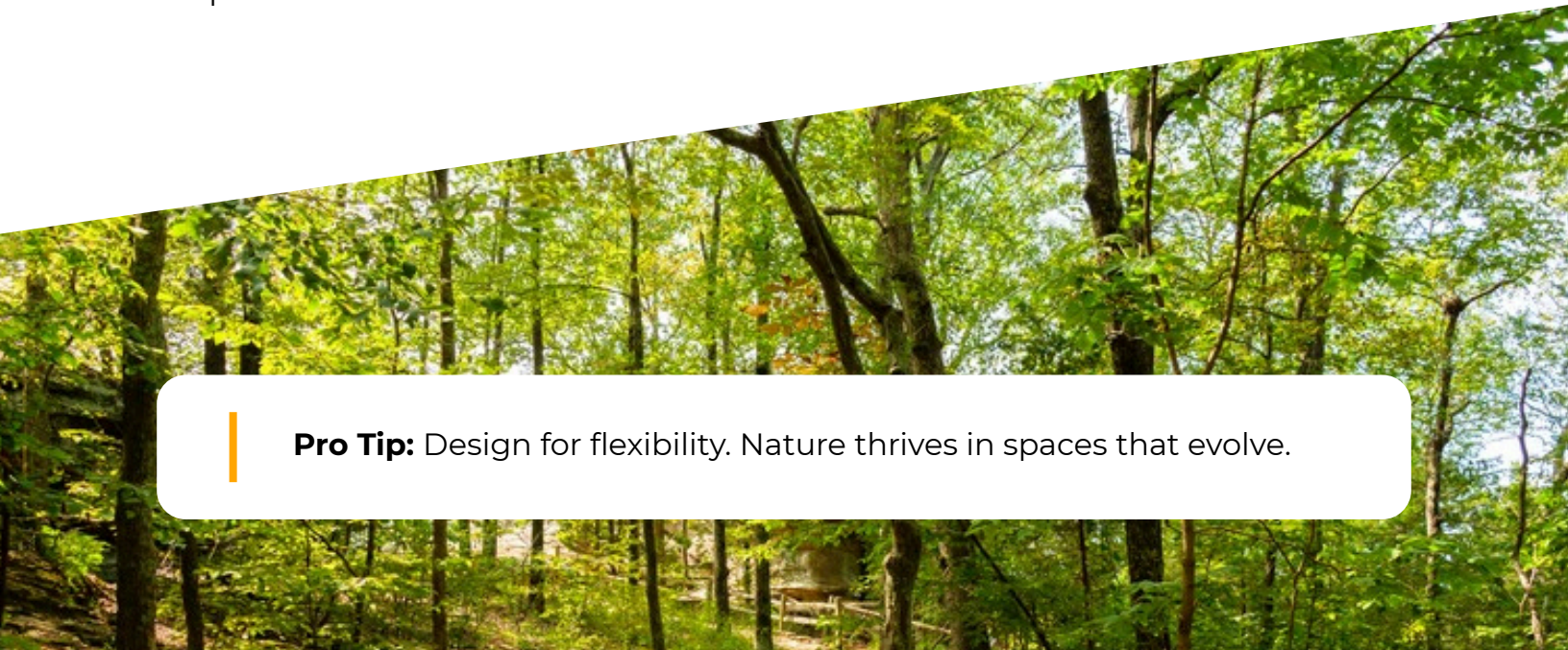
Nature is never static. Good biophilic spaces balance openness and enclosure, light and shadow, order and surprise.

- Incorporate prospect (views, openness) and refuge (niches, alcoves) for psychological comfort.
- Design pathways that unfold, revealing spaces gradually, evoking exploration and curiosity.

Plants & Living Systems

Plants remain one of the most direct and effective ways to bring nature indoors.

- Use greenwalls, planters, or vertical gardens to introduce living texture and improve air quality.
- Combine living, preserved, and replica greenery to match light and maintenance levels.
- Frame views toward outdoor greenery or natural landscapes wherever possible.



Pro Tip: Design for flexibility. Nature thrives in spaces that evolve.

Applying Biophilic Design: Spaces & Strategies

Corporate

Combine daylight, acoustic moss panels, natural materials, and air-purifying greenery to enhance focus and energy.

Healthcare

Healing environments thrive on calm and connection. Incorporate soft light, preserved greenery, and tactile natural materials to reduce stress and enhance recovery.

Hospitality

Create immersive, multi-sensory experiences through warm lighting, natural materials, and lush plant accents.

Luxury Homes

Layer materials like wood and linen, maximize daylight, and design for connection to outdoor landscapes.

Retail & Public Spaces

Combine dynamic lighting, greenery, and natural materials to draw visitors in and encourage longer dwell time. Biophilic spaces enhance brand storytelling and emotional connection.

Education

Design classrooms and campuses that spark curiosity and calm focus. Use daylight, views to nature, natural textures, and breathable materials to support cognitive performance and well-being.

Wellness & Beauty

Create soothing, rejuvenating environments through natural color palettes, balanced lighting, and living or preserved plant features. Soft materials, organic scents, and biophilic acoustics deepen the sense of retreat and care.

Events & Exhibitions

Use nature as a design framework for sensory immersion. Combine natural materials, modular green features, and dynamic lighting to create memorable, adaptable event spaces that inspire connection.

Designing for WELL, LEED, and Beyond

Biophilic design isn't just beautiful, it's measurable. Many certification frameworks now recognize the human and environmental value of nature-integrated design.

Biophilia in the WELL Building Standard

Biophilic design contributes to WELL features related to air, light, comfort, and mind. Greenwalls can fulfill multiple WELL points, from visual connection to nature to indoor air quality enhancement.

www.wellcertified.com

Supporting LEED Certification

GrowUp systems use sustainable materials, efficient irrigation, and modular construction that contribute to LEED credits for innovation, materials, and environmental quality.

www.usgbc.org

Fitwel and Beyond

As wellness-focused design becomes standard practice, biophilic features serve as visible proof of a commitment to occupant health and sustainability.

www.fitwel.org

GrowUp's Contribution

Every GrowUp system is engineered for environmental performance—using recycled materials, low-energy irrigation, and modular flexibility that adapts to any space or standard.

The Biophilic Design Toolkit

You don't have to be a botanist to design with nature, you just need the right tools.

Quick Reference Checklist

Ask these 10 questions on your next project:

- 1 Does the space create a visual or physical connection to nature?
- 2 Are natural materials and patterns present in finishes?
- 3 Is lighting designed to mimic natural rhythms?
- 4 Are views or plant life visible from key areas?
- 5 Is the sensory experience (sound, texture, scent) considered?
- 6 Does the space provide both openness and refuge?
- 7 Are living systems designed for easy maintenance?
- 8 Have sustainability and water use been addressed?
- 9 Does the design enhance well-being and productivity?
- 10 Have you partnered with a biophilic expert?

Further Learning

GrowUp offers CEU-accredited courses, design workshops, and an extensive blog library dedicated to nature-integrated design. Take a look at www.GrowUp.Green.

Let's Design Better Together

Our team collaborates with architects and designers nationwide to bring living architecture to life, from concept to installation.

Ready to start your next biophilic project?
Visit www.GrowUp.Green or scan the QR code to
sign up for our next **Biophilic Design Workshop**.





Contact Us

www.GrowUp.Green

1.800.833.4890

Info@GrowUp.Green

