

A lioness is the central focus of the image, standing in a natural savanna environment. She is positioned in the lower half of the frame, facing left in profile. Her fur is a light tan color with some darker spots. The background is filled with dense green foliage and dry, yellowish-brown grass. The lighting is bright, suggesting a sunny day. The overall composition is a full-page spread for a journal cover.

JOURNAL *of* BIOPHILIC DESIGN

ISSN 2976-9078
ISSUE 13 / JANUARY 2025

CHILDHOOD

First published by The Journal of Biophilic Design 2024, London.
No commercial reproduction of all or any part of this publication may be made without prior written permission of the magazine and the relevant contributors. All text is copyright the authors. The Journal of Biophilic Design’s concept and design is copyright Vanessa Champion, all rights reserved. Artworking and additional design by Mike Payne. Opinions expressed are those of the authors, not necessarily those of the editor.
Thank you to the photographers from the Unsplash platform, our writers, those credited and Virtual Nature Walls for imagery.

To subscribe to the free newsletter that accompanies this journal please visit www.journalofbiophilicdesign.com OR request a branded wrapped version for your business.

Previous Issues: Issue 1 – The Workplace, Issue 2 – Home, Issue 3 – Healthcare, Issue 4 – Cities, Issue 5 – Creativity, Issue 6 – Blue Mind, Issue 7 – Education, Issue 8 – Wellbeing, Issue 9 – Neurodiversity, Issue 10 – Environment and Issue 11 – Hotels/Leisure, Issue 12 – Retail are available on our website, Kindle and Amazon. Subscriptions and Memberships available.

Coming up ...

ISSUE 14, March / April 2025 – THIRD AGE

ISSUE 15, May / June 2025 – LIGHT

ISSUE 16, July / August 2025 – SOUND

ISSUE 17, September / October 2025 – ARCHITECTURE

ISSUE 18, November / December 2025 – INTERIOR DESIGN

Journal of biophilic design (Print)	ISSN 2754-2815
Journal of biophilic design (Online)	ISSN 2976-9078

Suggestions for contributions welcome, please contact editor@journalofbiophilicdesign.com for submission guidelines.

For advertising and sponsorship opportunities please contact promotions@journalofbiophilicdesign.com

To support the Journal we would love to see you over on our “Buymeacoffee” page, or listen to our podcast search for Journal of Biophilic Design on Spotify, Audible, iTunes and all the RSS feeds. Thank you for your love.

REDISCOVERING WONDER: HOW BIOPHILIC DESIGN SHAPES THE GROWING MIND

Chintamani Bird

“From the memories of childhood adventures in nature to the science behind brain development, this article explores how biophilic design can nurture curiosity, emotional growth, and mental health in children. Imagine a world where the smell of frangipanis, the feel of grass underfoot, and the joy of exploration are integral to daily life – what if we could design environments that unlock these experiences and shape healthier, more connected minds for future generations?”

These are some of my memories of the summer school holidays.

My older sister and brother were bigger than me, and I often felt sad because I had to sit in the middle seat of Mum’s pink Balette. It was hot and sticky, and I never got to sit next to the window. We’d slather baby oil on our skin as we sunbathed under the Australian sun, trying to achieve that golden glow. During the summer, the only things on television were cricket and tennis or other shows that seemed downright boring to a little girl who loved horses, camping and playing. The warm summer nights, with sweltering heatwaves reaching 34 degrees during the day (it was the 1970s, after all), turned our backyard pool into a playground filled with splashing and playful imagination for a little girl seeking cool relief.





Christmas and the traditional pilgrimage to my Auntie's house in Lane Cove would arrive. We enjoyed scorched almonds and the lively chatter that filled the room, reverberating across three generations. I would occasionally go through the backyard fence into the park, where I would feel the harsh spikes of Bindii jabbing into my little feet. I would follow my older cousins down to the water's edge, looking for crabs or climbing the trees in the park.

Dad would pick up my sister, brother, and me to take us to Nan's house in Kingsford, in the Eastern Suburbs of Sydney. We would sit in the formal dining room, surrounded by the Queen Anne furniture, which had a distinctive smell. The imposing dark timber and the sideboard filled with fine China and silverware created a warm atmosphere. The turkey was the centrepiece of the table, and the traditional cracking of the bonbons was the first thing we did. We would put on the paper hats and share the toys and little jokes that were always funny when we were that little.

Afterwards, we played in the backyard, where my Nan's azaleas were a key feature. I remember the prickly buffalo grass under my feet and the intense aroma of her frangipani tree, which made my nose cringe. I enjoyed spending time with my cousins, aunt, and uncle. These memories will stay with me for a lifetime.

Boxing Day would come, and the car would be packed for the long drive to Sussex Inlet on the south coast of New South Wales. Dad had fresh batteries for his cassette player, and this is where my love for John Denver's music began. His songs played on repeat during the trip. And yes, I was

still sitting in that terrible middle seat, squeezed between my sister and brother!

We arrived to the familiar sights and sounds that we experienced almost every Christmas holiday, that we spent with Dad. The community consisted of around ten families, all staying in the same place. We had picked our rooms and unpacked our bags, so now it was time to explore. Meanwhile, the adults were doing what they typically do on holidays: having a yarn, a laugh, and a beer.

I remember walking down a small dirt track leading to a long stretch of parkland alongside the water's edge. There was a jetty where I would sit and watch swarms of tiny fish gather around its pylons. Occasionally, I spotted an eel hiding in the seaweed. Sometimes, I did some fishing while daydreaming and watched the clouds roll by. The sea breeze flowed through my hair, gently brushing my face; it felt so refreshing, feeling the wind blow in and around me. It gave me the sought-after peace I needed and made me feel a little dreamy and inspired. The current was so strong as the tide flowed in and out. I could see the stinging Jelly Blubber drifting in the water and saw its mushroom-shaped top propel it left or right. Opposite the jetty, there was an island, and I often wondered what it would be like to explore it.

I've always had a curious mind, filled with questions and an adventurous spirit that urged me to seek out the wonders of the world. This curiosity filled me with joy and love, inspiring me to pursue more adventures. I found awe in the beauty of the natural world, feeling a mix of amazement and fear, yet always comforted, loved, intrigued, and inspired.

Life has been a labyrinth of experiences. I can still recall the spikey sensation of my Nan's grass on my little feet from almost fifty years ago. I often remember Sussex Inlet with a mix of nostalgia and lighter and darker memories. But nonetheless, these memories are the experiences that have moulded me, and I will carry them with me until that last exhale.

But why? Why do I still remember the feeling of the grass's prickle or the painful spikes of Bindii's on my little feet? Why would a summer breeze that flowed over the waves at the beach send me into a deep sigh of relief, where my shoulders would drop a little bit lower, and my cheeks and jaw would become a little more like jelly than cold butter.

We were bodies that could feel before walking, crawling, or communicating. We could feel pain, anger, nervousness, fear, hunger, cold, hot, and unadulterated joy. Our brains are designed to help us understand the world around us. While our lower brain, often called the reptilian brain, is fully developed at birth, the higher regions that control executive functioning don't fully mature until our mid-to-late twenties.

This is where our journey begins.

From the moment we are born, our brains and bodies are continuously filled with information about our surroundings, interpreted through body sensations and sent back to the brain. We are constantly engaged in a feedback loop, translating, understanding, and learning from our experiences.

I remember the sensation of the grass prickling my feet, the smell of my Nan's frangipani, the sound of John Denver's

songs, the scent of salt in the air, barbequed sausage sandwiches topped with caramelised onions and tomato sauce, and my mum's voice when I needed to hide.

Our brains constantly learn and evolve to help us navigate our environment and survive. This manifests in countless variations of fight, flight, freeze, fawn, or a reassuring sense of safety for each individual.

Brain development is also influenced by a child's experiences, relationships, and care. I have experienced positive moments, like the smell of my Nan's Frangipani's, and I have experienced darkness beyond compare. But I always saw the light when I gazed up into the stars in the night sky. With this, I believed that nature was my comfort, my solace, and my home. No matter where I was, I knew all I had to do was connect to nature because that's when I knew I belonged and that I mattered. Positive experiences in early childhood can help children develop the skills they need for success in school and life. Connecting to nature at a very young age creates a form of stewardship in later life for the environment and connection to other living forms and beings. What an amazing outcome! Consider the possibilities we can achieve if we just went outside and sat underneath a tree or played and connected to the world through the lens of nature.

No matter what age, engaging the mind and understanding the brain are two distinctive elements that are entwined. When considering our children and our own childhood, we see a consistent theme of learning, growth, exploration, and curiosity.





Our minds and brains develop and we become that little girl that pretended that she had three horses prancing in her backyard.

Biophilic design allows and has the potential for the mind and brain to develop and transform a little girl's perception of the world.

Consider this.

What would happen to that little girl who couldn't smell the salt, feel the soft breeze on her skin, or appreciate the warmth of the summer sun and the refreshing coolness of jumping into the water? Would my curious and adventurous spirit have ever emerged? Would my brain have developed an understanding of the variations in the world around me? Would I know the excitement of exploration and the boredom of cricket and tennis? Would I have been able to daydream in the clouds and imagine funny shapes? Would I ever have experienced the lasting memories of frangipanis, azaleas, and warm hugs? Would I be able to believe, imagine, and pretend that I owned three horses, galloping, cantering, and trotting in my own world, enjoying playing alone? What would it be like without trees to climb and cicadas to listen to?

What if I got upset and the adults around me were unable or unwilling to support my emotional needs?

Instead, I may be offered something that provides a quick dopamine fix to quieten me, leading me to dissociate from the beautiful world around me. My brain would check out, numbed by flashing lights, extreme highs and lows, and

various sounds. Dissociation occurs when we become disconnected from ourselves, our emotions, and our surroundings. Dissociation is a complex issue that can have several effects on the brain, including neuroanatomical changes. Dissociative disorders can involve problems with memory, identity, emotion, perception, behaviour, and sense of self.

And I wonder why we are in a mental health epidemic!

While navigating the complexities of our emotions, the upstairs and downstairs parts of the brain function at different stages. The left and right sides of our brain attempt to communicate with caregivers while a little girl tries to understand and learn about the world. We continuously translate our experiences into intrinsic and extrinsic memories. However, we often turn to screens as a way to cope, which is not helpful for brain development.

The brain goes through several stages of development, with the sensorimotor stage occurring up to the age of two. This is a critical period when we learn through our senses. During this time, the brain functions like a sponge, absorbing and learning everything around it through sight, hearing, touching, smelling, tasting Broccoli and Brussels sprouts, balance, and body awareness. Our bodies are made to move, feel and experience the world without being coerced into a seated position. We should not be teaching our brains to numb out and dissociate with television, video games or an iPhone or try to get a dopamine fix when bored or anxious. The developing brain is open to influential experiences across various developmental stages.



So, what happens to that little girl. What happens if I am in a room that lacks colour, a variety of sounds, temperature variations and tactile experiences that would develop my ability to connect with the environment. The opportunity for me is lost. My sense of self would be dulled because I wasn't allowed the opportunity to learn through my senses and experience the world in the present moment. My brain loses the opportunity to embrace its potential because it needs to move to the next stage of development with what it has been given.

Sadly, we are missing out on these valuable opportunities because we are not engaged and have checked out of the present moment of potential wonder.

Welcome to today's world of screens and disconnection.

Engaging the mind and understanding the brain are two distinctive elements that are entwined, regardless of age. When considering our children and our own childhood, there is a consistent theme of learning, growth, exploration, and curiosity.

Our minds and brains develop, and we become that little girl pretending to have three horses prancing in her backyard. Biophilic design allows and has the potential for the mind and brain to develop and transform a little girl's perception of the world.

So, which life would you like for our future generation? One that is connected or disconnected, living in the moment of smells, sights, and sound that evoke wonder and curiosity, or screens and massive mental health outages? How could we design a place that helps us tune in to curiosity and helps us understand and translate the feedback that the body is giving us through body sensations?

Biophilic design can change little people's lives. Just asked that little girl who looked up at the stars and dreamt in the clouds. Make it tactile and colourful and ensure that she is never constantly in a temperature-controlled environment for extended periods. Have temperature variations, which helps the brain understand seasons. Use motives and shadows that can move with the wind, which will help with circadian rhythms. Support curiosity with open and closed spaces and way finding that sparks hide and seek. Ensure they can get their hands dirty and be able to splash in puddles of mud in the rain. Wear woollen jumpers, take them to see the cows get milked, and smell the hay and manure. Take them bushwalking or hiking, listening to the birds chirp and seeing how the world grows and moves. Childhood can be a wonderful time, but it is up to us to provide them the opportunity and allow them to grow and develop to be future stewards of the world and make it a better place.

www.studiochintamani.com



Showcasing the finest interior design projects completed across the UK

Winning or even being shortlisted for a BIID award:

- Serves as a testament to your design excellence and expertise
- Increases the visibility of your practice
- Can help attract clients who appreciate and value design excellence

NEW for 2025:
International Category for UK based practices



Scan for more information about the awards and how to enter.



T: +44 (0)20 7628 0255
E: info@biid.org.uk
biid.org.uk

CONNECT WITH US

