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BLUE MIND

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- ISSUE 10, April / May 2024 – ENVIRONMENT
- ISSUE 11, June / July 2024 – LEISURE/HOTELS
- ISSUE 12, August / September 2024 – RETAIL
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WELCOME

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

I love being by the sea, in fact, by any water. I used to live by a river, and I can't begin to tell you the peace and inspiration I would get just sitting on the mooring under a massive willow tree listening to the leaves rustle in the wind, watching the bird life it supported, touching the surface of the water with my fingers and feeling it's cooling liquidity easing any anxiety distracting me with harmony and movement. Sometimes I would sit and work with my laptop and enjoy the movement beside me. I would ease my eyes and take a break, fascinated by the life in and on the water from the fish beneath the surface to the little insects and dragonflies that skated and skimmed. The inspiration and companionship I got from living so close was special and enlightening.

Having water in cities and towns, in new build developments, schools, colleges, healthcare facilities, it brings amazing benefits. From wellbeing to biodiversity gain, to catching and storing water during storms (if managed correctly with planting, etc) to providing somewhere cooler to sit in the freak heatwaves that will increasingly hit us.

There is a thing that we have spoken about before in the Journal called 'Attention Restoration Theory' and being beside, viewing or imagining

water helps us access this benefit. It helps take us away from the usual and gives us respite.

In this issue there are some beautiful design examples which use the "Blue Mind" principles from having views of water to how and where to use water soundscapes. Plus there's discussion on the science behind why "Blue" views are good for us from a neuroscience perspective.

I think I could fill a whole issue just myself singing the praises of Blue Mind. Everyone who has written in this issue, has a profound connection to water. Some submerge themselves in it, some design with it, some explore the benefits of it. If you are a designer or architect, planner or builder who is using water and the Blue Mind theory to uplift a space. Get in touch.

Don't forget, we are organising the Biophilic Design Conference for the first week of November 2024 (see biophilicdesignconference.com). Become a member of the Journal of Biophilic Design to receive each copy of the Journal every time it's published, straight to your inbox or straight to your door! See more information on our website journalofbiophilicdesign.com.

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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.

4 Blue Mind	96 Environment, People, Planet
6 Brain-waves – the effect of oceanscape on the nervous system and multisensory integration	98 The UN 2023 Water Conference: The staggering numbers and urgent action needed
14 Blue Soundscapes – how water sounds can create positive spaces	104 The Sound of a River
18 Ripples from Blue Mind	110 Stephen Turner's Exbury Egg 2013-23
30 Embracing the Blue Minds	116 The Ocean Race
40 The closer you look, the more there is to Sea	130 All that the water is, so am I
46 In conversation with Aterre Studio	136 We are all water people
52 Harnessing the power of nature sounds: Enhancing the human brain	140 Lighting for Life
58 How to bring water into the built environment without breaking the bank or making a mess	144 EU Nature Restoration Law
64 Science Behind Biophilic Design	146 Wellbeing
66 The Neuroscience of Water – Seeing It, Hearing It	148 Wild Blue
74 The Science Behind Wild Swimming	152 From the Emerald Isle to the Blue Pacific Continent
78 Plants	158 The Archetype of Water
80 Water Plants	164 Fordingbridge Avon Bathers
84 Water in our working environments: Biophilic Inclusion at Second Home	170 Into the Blue
86 Benefits of Seaweed	178 Humans in Trees
	188 The Water Holds me / The Water Binds us
	198 Biophilic Cities
	200 Discovering the Blue Mind in Japan's Coastal Paradise: A Journey of Serenity and Reflection
	206 Where the Rivers Flow
	212 Final Word

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 **Education**.

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BLUE MIND



Brain-waves ~ the effect of oceanscape on the nervous system and multisensory integration

“Humans are approximately 60% water. The brain, is 73% water (Mitchel et al., 1945). So, it may come as no surprise that proximity to water sources, such as oceans has almost universal appeal.”

Dr Sophie Schuller

Humans are approximately 60% water; The brain, 73% water (Mitchel et al., 1945). So, it may come as no surprise that proximity to water sources, such as oceans has almost universal appeal. Whilst evolutionary biologists have long cited the link between human's reliance on water for survival as an explanation for our almost universal connection to oceanscapes (White et al., 2010), modern developments in neuroscience and multi-sensory integration are providing further opportunities to understand the potential pathways between our great oceans and human health (Nicholas, 2020).

There is a growing appreciation that our experience of the world is an embodied experience (Wang et al., 2022) dependent on the full range of our sensory experiences which are integrated to influence emotional states (Higuera-Trujillo et al., 2020). It is from this genre of multi-sensory integration and neuroscience that we might start to deepen our understanding of how and why the ocean has such an effect on our health and souls.

Much of the academic literature on biophilia, including Oceanscapes, evaluates the link between how we view and see the ocean through our main mode of vision and sight (White et al., 2010). Yet increasing research is finding the differing effects of viewing oceanscapes compared to other natural landscapes (Nutsford et al., 2016) suggesting something truly unique about facing down the sea. Routed in the 14 principles of biophilic design (Browning et al., 2014) the waves of the ocean provide both conscious and unconscious fascination; both complexity and order. Studies into the relaxing effect of biophilic environments often cite the brain's innate interest in fascination as a pathway between the oceans 'consistently, inconsistent' nature. As the waves move in a predictably, unpredictable way, creativity-related neural networks and brain waves synchronize creating simultaneous coherence with the relaxing waves as well as gamma-wave charged attention and focused interest (Chatterjee et al., 2021).



Historically, this unique effect on our visual experience has often been attributed to color theory; the study of how colours affect our psychological states and emotions (O'Connor, 2021). In a 2015 study by Elliot and colleagues, researchers found a link between the colour blue, subjective alertness, and performance on attention tasks (Elliot et al., 2015), suggesting that washing your field of vision in the blue hues of the sea may provide the neurophysiological support to achieve moments of increased clarity that many experience at the shoreline. This phenomenon was supported by Nutsford and colleagues in a 2016 study which

found that exposure to blue spaces was associated with increased activity in brain regions associated with attention and self-reflection (Nutsford et al., 2016), which suggests an increase in **interoception**.

Interoception is the ability to identify and perceive what is going on within, be that psychologically or physically (Ceunen et al., 2016). As oceanscape are often destinations to escape the hum-drum of modern life and reconnect to yourself via a beach walk, yoga or merely staring into the distance, the ocean seems to provide a pronounced opportunity to support us get closer to what is happening within.

The warmth of the sun on our skin, the subtle beat of our pulse on our wrist and the conscious perception that our body's rhythm is returning to our natural calm state. This interoception is further supported by the lulling sound of the waves which occur in time with our breathing patterns; often at a speed and frequency that matches our breath in relaxed states such as sleep (Natarajan, 2017). As we regulate the breath, our parasympathetic nervous system activates (Zaccaro et al., 2018) and we down-regulate racing thoughts and negative emotions. The positive effects last long after you have left the coast; recent

research highlights that 120 minutes a week in nature is associated with lower probabilities of cardiovascular disease (Kardan et al., 2015), obesity (Halonen et al., 2014), diabetes (Astell-Burt et al., 2014), asthma hospitalization (Alcock et al., 2017), mental distress (Mitchell et al., 2015), and ultimately mortality (Gascon et al., 2016). Perhaps the sound of the waves crashing about the pebbles or sand create the effect of brown noise, further supporting a cross-frequency effect within our brains, synchronizing our delta brain waves which release us to a meditative and flow-like state (Yoon & Baek, 2022).

As we enter flow-like states, we are more open and more in tune with our bodies (Gold & Ciorciari, 2020). We sense the **kinesthetic** effect of our heartbeat; the breeze moving across our skin or even our emotions as they rise and fall within ourselves. This visceral effect of the ocean specifically is reinforced by the distinctive **taste** of salt on our lips and can be recaptured at any moment assuming access to high-quality oysters and other foods from the sea.

In addition, the smell of the sea provides us with immediate recognition as to where we are. The **olfactory** system, our system for smelling, is believed to be one of the most conserved, primitive parts of human anatomy (Sarafoleanu et al., 2009). Many can be transported through time with a whiff of something that encapsulates a moment of nostalgia. Modern neurosciences may be able to attribute the effect of smelling the sea to the negative ions that exist in higher concentrations near the ocean (Shields, 2012). These minuscule molecules have the remarkable ability to traverse not only our skin cells but also our respiratory system, entering our lungs with the air we inhale (Jiang et al., 2018). The effect of negative Ions? Research has revealed that negative ions exhibit not just anti-microbial properties, but also the ability to stabilize our emotions (Jiang et al., 2018). Findings suggest that negative ions can potentially impact serotonin levels in the brain, which elevate mood and reduce feelings of depression and anxiety (Ryushi et al., 1998). It's almost as though the negative charge of the air by the ocean consumes negative thoughts and allows the spectator to refill with positive affect. These skin-permeable benefits are not limited to ions, but

exposure to mineral-rich sea water has been shown to cleanse the skin providing relief for conditions like ulcers, lupus, acne, and psoriasis (Dai et al., 2023), while also strengthening the immune system by reducing fats, blood lipids and increasing red and white blood cell counts (Mohd Nani et al., 2016). These positive effects are both acute, after a short dip, and expansive as exposure to the sea increases (Short et al., 2021)

And as we gaze at the ocean and return to a state of calm, we may suddenly become aware of feeling small and feeling like our problems reduce in size in comparison to the expanse of the ocean. This perspective may represent a change in our **proprioception**; sensing our position, movement, and being in the world. From research within the architectural disciplines, we know that proportionality and wide-open landscapes cultivate a simultaneous expanding and diminishing effect within our brains (Vieira et al., 2020). This really speaks to the idea that the ocean potentially has a unique ability to enable us to both 'zoom out' and 'zoom in'. This effect may be attributed to a reduction of activity within the pre-frontal cortex, where problem-solving takes place. Studies of viewing natural-water scenes highlight how pre-frontal cortex activation is reduced (Igarashi et al., 2014) as we move to the less cognitively intense and **somatic-sensing** aspects of our awareness. These findings further support the link between viewing water and a down-regulation effect of the stress system to entice calm; perhaps even reduce our sense of **nociception**; the feeling of pain. More and more studies link the non-pharmacological effect to treating pain when experiencing water-related landscapes (Krogg et al., 2018), encapsulating the truly medicinal effect of the Ocean.

Oceanscapes are also one of the few natural environments in an increasingly urban world where our brain can see the land meet the sky. The Horizon. Dr Huberman, a neuroscientist at Stanford studied the link between vision and breathing on stress and the body for over 20 years. His research finds that our field of vision narrows so that one thing is in laser-sharp focus and the rest is blurrier (Hubberman, 2022). When our eyes are focused we are alert, attentive, and aroused, sometimes to negative consequences. However, his research highlights that when we observe broad perspective horizons, such as the ocean, we expand our visual field. As we literally broaden our minds, the laser-sharp field of vision, is reduced, we cease to be as active in fixed attention and we let go. This effect of 'zooming out' and observing with 'open awareness' aligns with traditional notions of mediation, which may be why so many feel most open, enlightened, and spiritual when at the beach. As our eyes stop straining and our muscles relax, the tension melts away.

All that is left is to lose ourselves in chronoception, our sensing of the passing of time. The ocean provides a dual effect of allowing ourselves to be lost in time, whilst also a reminder that time is passing. Long after we have left, the ocean will remain.

QUOTE:

*And she gazed at the sky, the sea and the land,
The waves, and the caves and the golden sand,
She gazed and gazed amazed by it all,
And she said to the whale "I feel so small"*

*Julia Donaldson,
The Snail and the Whale*

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Blue Soundscapes

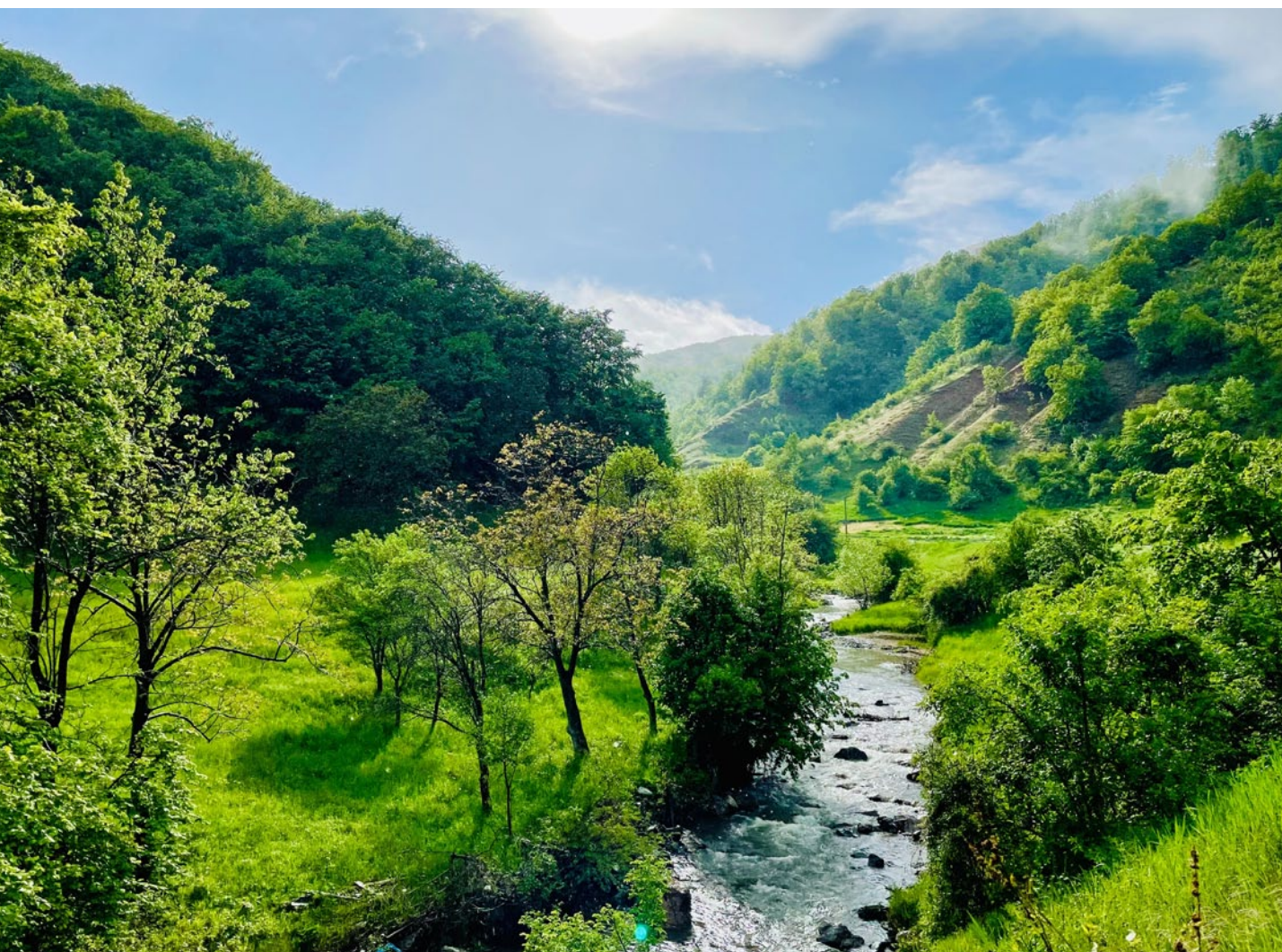
HOW WATER SOUNDS CAN CREATE POSITIVE SPACES

“There’s something inherently enjoyable about the crashing of waves on a beach, the rhythmic patter of raindrops on leaves, the gurgling of a gentle stream or the rush of a cascading waterfall. The sounds of water are some of the most popular and powerful sounds in the world. But why? And how can we use biophilic design to harness that power to improve people’s health indoors?”

Evan Benway, Managing Director, Moodsonic

As human beings, we have an age-old connection with water that’s deeply rooted in our evolution. For our ancestors, water represented cleanliness, refreshment and a source of nutritious food. So, we’re drawn to these blue spaces and – as sound

is arguably the fastest and most powerful way that people take in information about their surroundings – it makes sense that we feel good when we hear these sounds; over time, we’ve learned that they are healthy and reassuring.



Journal of Biophilic Design

BLUE MIND

This evolutionary connection is so powerful that we don’t even need to be outdoors or in the presence of water for it to have a positive effect on us. Listening to carefully designed water soundscapes indoors through speakers or headphones changes our brains and bodies for the better and helps with a variety of activities. The development of soundscaping technology in recent years means that it’s become much easier to bring these sounds into buildings as a natural accompaniment to other design initiatives. Water soundscapes can benefit almost any building, but as we’ll discover they’re particularly useful in spaces where people are trying to work, relax or recover.

Water soundscapes for focus

In modern buildings, maintaining focus and concentration can be challenging.

Disruptive noise is normally the number one complaint about office and healthcare environments. This is where water soundscapes can help. Studies have shown that listening to the sound of a babbling brook can mask distracting noise and create an environment where people can immerse themselves in their tasks.

The benefits don’t stop there either. Researchers also found that people given cognitively demanding tasks in the presence of water soundscapes saw their productivity scores remain higher *over time*. Even compared to silence, the water sounds had a buoying effect, lifting people’s cognitive abilities. In real world environments, we’ve found that water-based soundscapes can improved cognitive performance by a whopping 20-30% in offices.



Water soundscapes for reducing stress

It's not just our minds that benefit from water sounds; our bodies respond positively too.

While it varies from person to person, soundscapes that help with focus tend to be more constant – think flowing streams or rainfall. On the other hand, one sound that's particularly good for relaxation is ocean waves. Studies have shown that ocean wave soundscapes can calm our bodies and reduce symptoms of stress. In one test, people listening to ocean sounds for only ten minutes had less tension in their muscles, a slower pulse and felt better psychologically.

One theory is that the tranquil pace of crashing waves – the way they come and go – is a similar tempo to the breathing

of a sleeping human, so it helps calm our bodies down too. Interestingly, using water soundscapes to combat stress tends to be more beneficial the more stressed you are.

Elevating interior design concepts

To really reap the benefits of blue soundscapes, try harmonising sight and sound.

Biophilic design expert Victoria Jackson recently said that the future of biophilic

design is multisensory, and I absolutely agree. The science backs this up too. When the senses work with one another, they can amplify the positive benefits of biophilic design.

There's huge creative potential in this too. Bringing sight and sound together can create more immersive and unique experiences in the built environment. One project I was involved in recently – a workplace in India – had a client meeting area inspired by Himalayan lakes with a beautiful shimmering ceiling and glacial colour palette. We accompanied it with a Himalayan lake soundscape. Gently lapping waves and soft icy textures elevated the

interior design and immediately brought a sense of calm. Another project was inspired architecturally by the forests of Slovakia. Huge “tree trunks” ran up through the building to support the roof. Down on the ground floor (or, as we envisaged it, the forest floor), we used a water soundscape including forest streams to provide restoration in the busiest areas.

Water-based soundscapes offer many benefits. Bringing these sounds indoors as part of a biophilic design strategy can elevate people's experiences, fostering good health and positive mindset thanks to our deep connection to water and the natural world.

<https://www.moodsonic.com>

Ripples from Blue Mind

“If we really think about it, this planet should have been called Water.”

Patti Beer, Senior Aquarium Biologist, Vancouver Aquarium@YVR

I intuitively found Blue Mind at 5 years old when I discovered the wonders on the tidal flats and oyster beds on Samish Island at church camp. This was back over 50 years ago when kids were free range, and the adults could see me clearly from the windows of the dining hall on the hill above. While the other kids were up on the manmade playground surrounded by cultured lawns, I was turning rocks and observing the life in the small pools of water. Surrounded by water I focused on the small crabs, snails and fish fully immersed in their little world, happy and relaxed.

Looking back at my activities even when at home, I believe I hardwired my brain for connections with nature and have been reinforcing those neural pathways of interconnectedness with the natural world ever since.

In, on, around and under water is my happy place. I had embraced this fully but had never completely understood it until reading the book Blue Mind. It explained everything I had felt and experienced all those years when around water. Dr. Nichol includes a quote from Michael Phelps one of the greatest competitive swimmers

of our time. “I feel most at home in the water. I disappear. That’s where I belong.” After reading it I thought simply – Ditto. This compelling book opened my eyes to the endless possibilities of how this insight and water could help humanity in this complex moment in time.

I had been intuitively effective with connecting people to the wonders of the ocean and water in general, but with the science and intellectual insight from Dr Nichol’s book I become more driven than ever to work on this. At the start of each workday, I stand in front of the Feature Exhibit at the Vancouver International Airport YVR – a satellite exhibit for the Vancouver Aquarium. Transported by the colour, life, complexity in the habitat our team has created, I see this connection in action. Past security in the International Terminal building where the exhibit is located – I observe as families, crews, and individuals gravitate to this beautiful vignette of our oceans, smile and relax. Anyone who travels by plane understands the need for some form of sanctuary when you get past the security checkpoints and head to your gate. This delivers that oasis in spades – partly due to the water, partly due to it being a slice of the ocean – a true dose of blue mind!



I strive to make this exhibit a portal to the local ocean for those that don't have the privilege of the access SCUBA diving allows.

Even for me after 16 years of working here, the colours, interactions, and personalities of the creatures in my care calm, centre, and amuse me daily.

In wiring myself for water and nature from childhood, I feel intuitively the connection and interwoven aspects of our world. As many distanced themselves from nature, I was drawn to it. I spent 6 years living floating on the ocean for work, have had opportunities to dive in numerous locations around the globe and loved working to influence people to connect with nature in my initial role downtown at the main aquarium and more recently at YVR.

My passion has depth. My work has been playful, joyful, and fun, but there is much work to do. The environmentalist that was budding at the start of my career has become the focus for me. I consider myself

a strong advocate for nature and WOW does nature need help! My connections through social media, the aquarium community, the scientific community provide additional information and discovery daily. My mind is blown by the beauty and diversity of oceans and the natural world in many diverse habitats around the world every day! I share that with others hoping to engage and inspire. The book Blue Mind and the blue mind movement online is often referenced in those posts, and I have shared some of the concepts when volunteering to run meditation retreats at Samish Island.

My journey with a strong tie to oceans in my career started with delving into a man's world at a fish hatchery, salmon farms and eventually as an aquarist/field collector with the Vancouver Aquarium. Growing up amidst 4 brothers was the effective trial by fire preparation. But as time progressed it has been the inspiration of a stream of intelligent, capable, and passionate women that have fed my environmental soul.

Just recently I had the absolute pleasure of meeting Dr. Sylvia Earle – an icon for oceans my whole life continuing her incredible work with Mission Blue. The conservation photographer – an artist and leader in saving our oceans Cristina Mittermeier – has been a constant inspiration since first meeting her a few years ago. I encountered Elin Kelsey and Heather Koldewey at a series of talks about Ocean Optimism at a conference in Vancouver in 2015. The influence and scope of their work gave me goosebumps listening to their talks. Dr Helen Scales with her important work studying the deep ocean informed and moved me with her storytelling. Artists like Paula Nishikawara drawing attention to ocean issues through her art installations give me pause to consider what we are doing to these sacred places. I have been blessed with many colleagues and friends also passionate about the ocean and the natural world. All of them working on

important projects in their different roles over the years – sharing knowledge and inspiration through direct action and storytelling. This group mostly acted as my geek squad, those I can talk to ad nauseum about oceans without having eyes glaze over! This is my rabbit hole list for you to delve in ... incredible things to discover about these incredible leaders! Another quote from Dr Nichol's book referring to David Pu'u an internationally renowned photographer. "Ultimately, as David points out, art is not about beauty or cognition but about communication, connection, and impact 'Beauty is just finding and connecting to someone's spirit', he says. 'You try to communicate not what you saw, but what went on inside your soul. You use a visual thing to inform the soul and educate the spirit. And that's what creates community, that's what creates communication, that's how we connect. And that's the goal of anything in art.'"

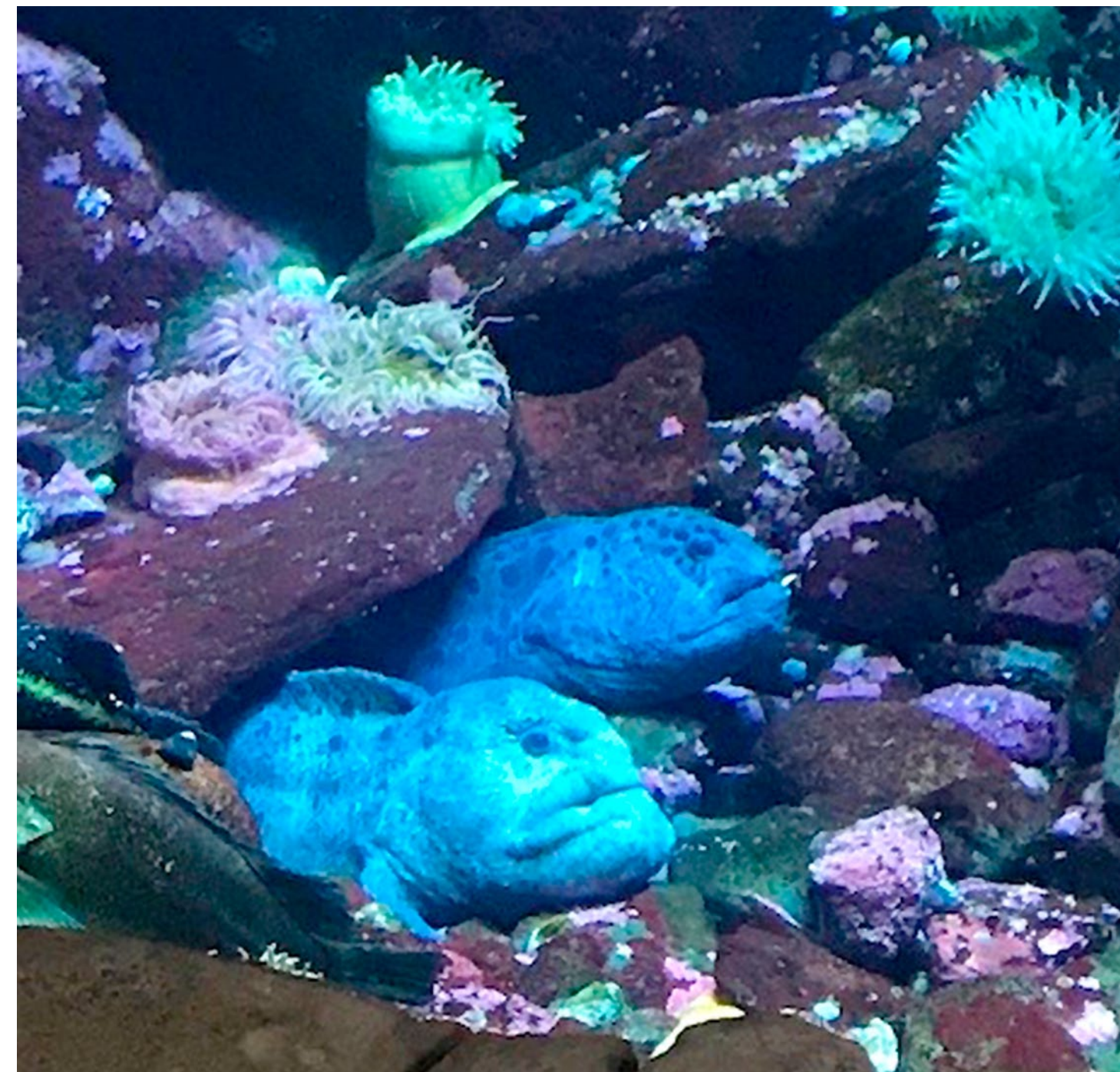




I could get bogged down by how crazy humanity seems right now, by how much destruction is happening due to extraordinary greed. I understand that businesses need to make money, but it seems that lobbyists paying money to politicians have turned the power on its head. Subsidy money seems to be holding up industries like oil and gas and industrial fishing – are we decimating nature for a false payoff? I am not an economist, but it seems the math for all this is ludicrous. I think spending so

much time in and around water at work keeps me from getting really worked up about this.

Change is afoot! I hear it, see it and work to support it! I am close to retirement, and I can see throwing my energy into pushing away from negative tipping points and towards the world we want! Dr Nichol shares this quote from Isaac Asimov “No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be.”

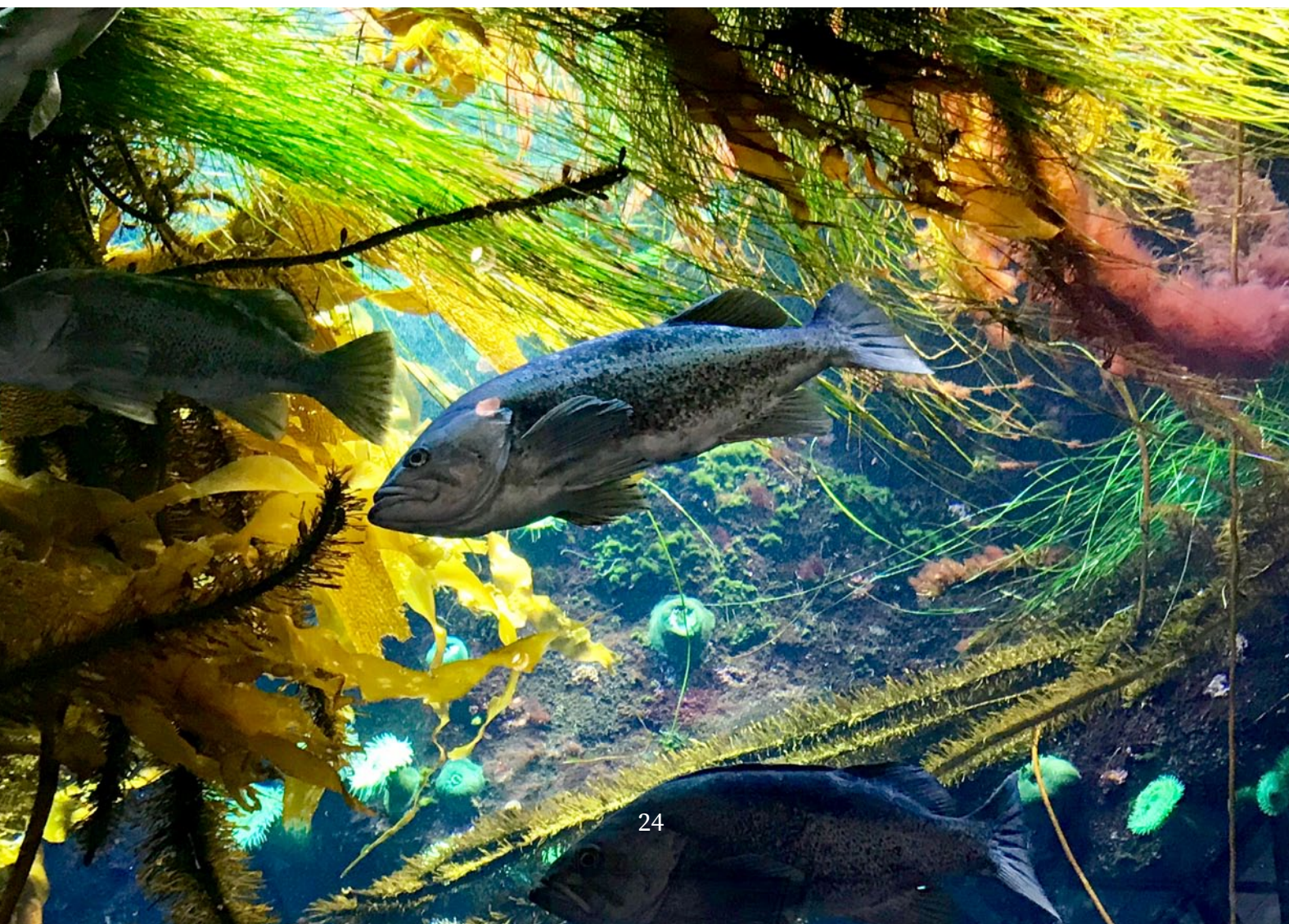


“Creativity” pops up for me all the time. We need to change the way we are doing things for a positive effect. Blue mind helps foster creativity. Some will tell you it is all or nothing. Many will try to distract thinking they have to make more money. Such dinosaur thinking is ludicrous when peace, justice, jobs, a healthier life could all be woven into a new and better economy! We can reverse mass consumption and create jobs where we get paid for serving each other in kind and caring ways. Dr Nichol shares this quote from Albert Einstein “Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”

So much of what has helped earth and humanity withstand climate change to now involve natural processes from water

and its inhabitants. If we really think about it, this planet should have been called Water. Moving forward our oceans, rivers, lakes, streams, and ice will be our saving grace if we make good decisions soon! Sometimes in the middle of having a glass of cool water or stepping into the stream of a shower I ponder the fact that without water nothing would be here. Not us, not the stuff ... nothing.

Nature is wise design, biophilic design can help a lot if many of these ways. Nature keeps things cool without machinery, deals with floodwaters, protects shore-lines. If we save natural places and the wild creatures that live there, then design with the elegance of nature we will be so much better off.





BLUE MIND

For too long humans have attempted to conquer nature, to control, to reign over it. Blue mind heals and inspires us. Living more simply in beautifully designed ways with respect for and in connection with nature is the path out of our current issues. Our mental and physical health are critical as we tackle the concurrent crises of our time.

Let living in blue mind heal us as we heal our planet.



For now, the therapy of my own back yard gives solace and strength through uncertain times. Some incredibly wise decisions my husband and I made during COVID were the catalysts for Bluer Mind in my life. A pair of inflatable paddleboards – inflated and ready at a moment's notice for the fine oiled pit crew we have become. Dropping them down from the roof of the garage and strapping them down on the roof of our vehicle, we can be on the water in White Rock BC in about 15 minutes – being charmed by everchanging ripple or wave patterns, and incredible ocean creatures! A sauna wisely installed at the far perimeter of our yard takes us outside in the elements...pouring rain being one of my favourites! But the most engaging element was an afterthought. Salty from the sea and sweaty from the sauna, we decided an outdoor shower would be more practical than traipsing through the house sandy and dripping.

The first steamy and gorgeous shower under a full moon blew my blue mind!

<https://www.vanaqua.org>





EMBRACING THE BLUE MIND

The Biophilic Design Journey of a workspace project in Portugal by Habitarmónia Studio

Introduction

In the midst of a rapidly evolving corporate landscape, companies are increasingly recognizing the significance of employee well-being and its impact on productivity. Biophilic Design, with its roots in human-nature connection, is the transformative approach taken in this beautiful project.

In the heart of Portugal, the pioneering design company Habitarmónia, had the

privilege of embarking on a remarkable Biophilic Design journey for “Project X,” a confidential fashion brand currently in the design process. The office, which faces the majestic Atlantic Ocean, presents a unique opportunity to integrate the groundbreaking Blue Mind Theory with Biophilic Design principles. By doing so, Habitarmónia is creating an environment that fosters well-being, creativity, and productivity for future employees.



Understanding Biophilic Design: Reconnecting Humans with Nature

At its core, Biophilic Design seeks to bring the essence of nature into the built environment, acknowledging that humans have an innate affinity for the natural world. By incorporating elements such as natural light, greenery, and natural patterns, Biophilic Design strives to create spaces that evoke a sense of harmony and connectedness with nature. The Blue Mind Theory, an integral part of Biophilic Design, delves into the psychological benefits of being near water bodies, particularly the transformative impact of the sea.

The Power of the Blue Mind: Embracing the Therapeutic Benefits of the Atlantic Ocean

With the breathtaking views of the Atlantic Ocean, the power of Blue Mind Theory

came to the forefront as Habitarmónia recognized the potential of the sea to positively influence employee well-being. Facing the vastness of the ocean, the workspace is intended to create a sense of wonder, tranquility, and awe among future employees.

The Blue Mind Theory suggests that exposure to water environments can trigger a meditative state, reducing stress and anxiety while promoting feelings of joy, contentment, and creativity. Habitarmónia incorporated the mesmerizing ocean views into the workspace, strategically placing drawing, sketching, and working tables near the windows. By doing so, the firm encourages employees to immerse themselves in the seascape, facilitating creative and problem-solving activities while finding inspiration in the beauty of the ocean.









**The Fountain: A Restorative Element
to Enhance Well-being**

In addition to the ocean views, Habitarmonia further enriched the restorative spaces within “Project X” by incorporating a fountain. Fountains have been known to have numerous benefits, including stress reduction, improved air quality, and a soothing effect on the mind. The gentle sound of water cascading from the fountain creates a calming ambiance,

fostering an environment of relaxation and rejuvenation for employees.

The fountain, carefully positioned within the restorative space, complements the Blue Mind Theory’s principles by amplifying the therapeutic effects of the ocean views. The combination of water elements is intended to create a sense of harmony and balance, promoting overall well-being and a healthier work environment.



Conclusion

Habitarmonia’s Biophilic Design journey for “Project X” embraces the power of the Blue Mind Theory, drawing a profound connection between humans and nature within the workspace. The fortunate location of the project, facing the majestic Atlantic Ocean, has been a catalyst in creating an environment that nurtures employee well-being, boosts creativity, and enhances productivity.

The incorporation of a fountain in the restorative space further exemplifies Habitarmonia’s commitment to fostering a harmonious and innovative work environment. The transformative effects of the ocean views and the restorative elements will undoubtedly enrich the lives of future employees. This approach

would also benefit so many other workspaces that prioritize the well-being and creativity of their workforce while embracing the therapeutic beauty of nature.

As “Project X” continues to take shape, the influence of the Blue Mind Theory and the remarkable setting of the venue shine as inspiration and guiding principles, creating an extraordinary workspace that exemplifies the profound connection between humans and the awe-inspiring Atlantic Ocean. Habitarmonia’s dedication to Biophilic Design and the transformative power of the Blue Mind Theory sets “Project X” on a path to become a remarkable workspace that fosters harmony, creativity, and well-being.

<https://www.habitarmonia.com>
<https://www.habitarmonia-academy.com>

The closer you look, the more there is to Sea

“The Ocean can feel like a daunting place, such a large, expansive deep, almost incomprehensible power. Yet, it also feels like home.”

Ellie Marsh

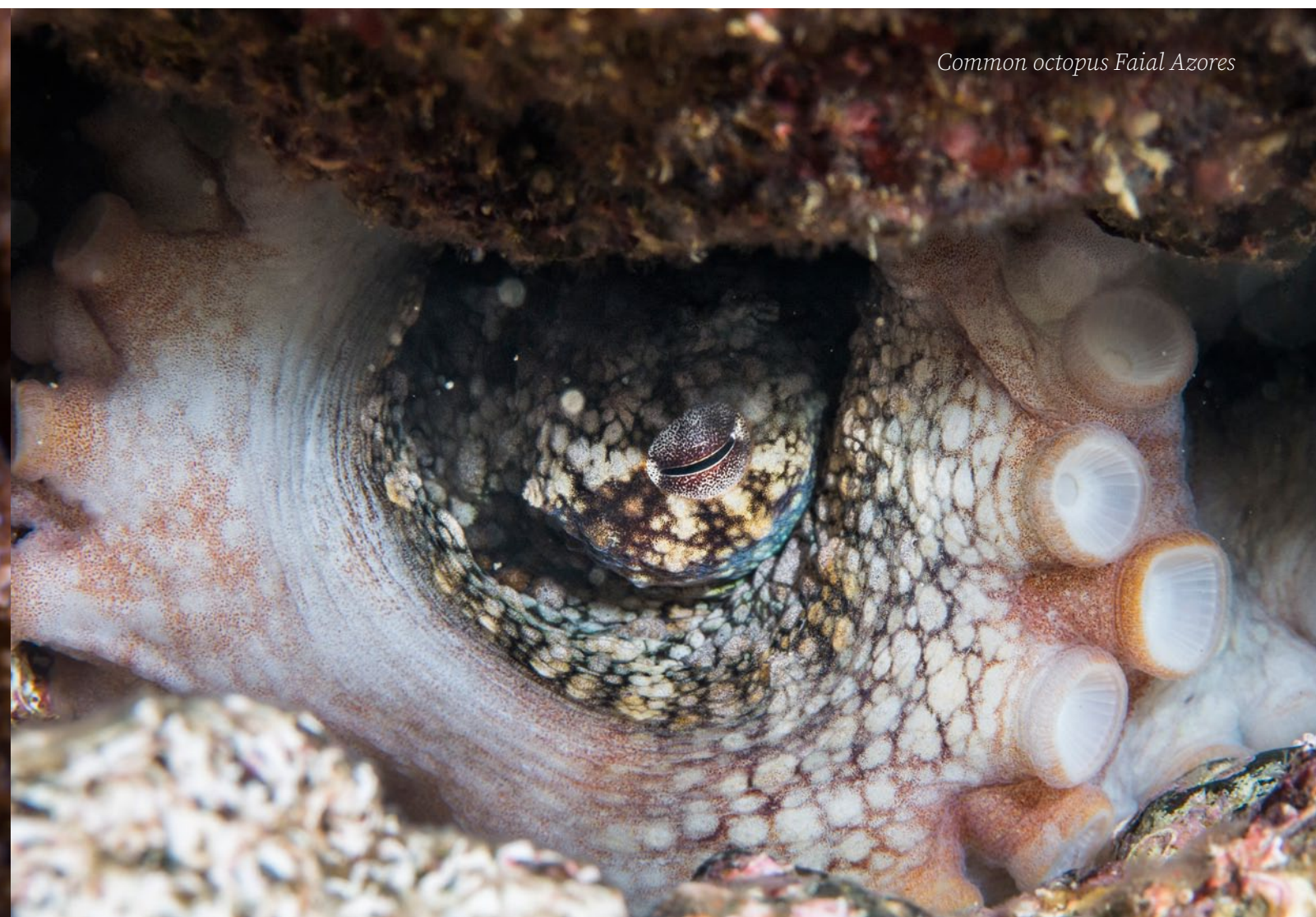
My best friend's bathroom growing up had a beautiful rustic, handmade mirror, surrounded by driftwood speckled with collected shells and pebbles, it was jagged and quirky yet so smooth and familiar. The walls of the room displayed pictures of young children and sandcastles and grandma in a deckchair and it smelt like seabreeze or coconut flavoured shower gel. The room of the house felt like a trip to the beach. Funny how I remember it so vividly, most days I can't remember what I had for breakfast, but it was the feeling of the ocean, being by the seaside that was captured in that everyday room.

I grew up looking at shelves of National Geographic magazines and regularly

bothering my dad to look through photos with me. We had fish encyclopaedias from around the world, I journeyed through these books gawping at tropical marine life and the vast array of marine creatures.

Marine photography is my love and passion. It all began on a trip to visit my brother while he was working in Egypt and where I first went SCUBA diving. The sensation of being able to breathe underwater and drift along the beautiful coral reef captivated me and I've never looked back. There wasn't the slightest feeling of apprehension or nervousness, just sheer joy at the spectacle of the underwater world, I truly felt like a mermaid!





Returning home to the UK, I continued dive training and started to immerse myself in our local shallow waters more than I ever had before. Where previously I would have been anxious, should something brush past my foot, swimming in the not so crystal-clear waters of home, diving provided me with the up-close opportunity to explore the marine ecosystems I never previously knew existed. At University I studied Seagrass, the world's only marine flowering plant, which grows all around the coastal waters of the UK and is found on every continent except Antarctica. Seagrass acts as nursery grounds for an array of marine life, commercial fish species, shark rays

and some rather unusual little creatures like the nudibranchs. These little marine Gastropods are like psychedelic jewels sprinkled in the sea.

This living breathing ecosystem resembles the hay meadows we find on land, yet it carpets our shallow seas where it's able to thrive. Diving has allowed me to learn about seagrass meadows and spending time in them has taught me the importance of these biodiverse rich habitats. Often when imagining beautiful and vibrant marine life we picture the Great Barrier Reef or tropical islands of afar, but our temperate waters are teeming with life and just as important to conserve.

I will never stop wanting to be an explorer of the sea. There is so much beauty in the ocean and there is so much to learn and appreciate. The ocean helps me heal, being immersed in the loud quiet of the water, opening my eyes to new wonders truly finding out the closer you look, the more there is to see. Colours, textures, patterns, nature's creativity knows no bounds.

I sometimes struggle with Hypersensitivity and often get overwhelmed by unpredictable loud noises and anxiety in everyday life. Being underwater I feel at peace and am comforted by a sense of calm. The sensation of being neutrally buoyant, suspended in the water, is as

close to sleeping on a cloud as I think I'll ever get.

Through my photography I hope to capture and share magical moments, highlighting some of the small wonders that live in the unknown world of the blue.

I am never happier than when underwater, immersed in this other world. Whether you connect to the ocean by being near it, on it, or in it, or if you're many miles away, through pictures or souvenirs in your home, the great blue has a way of connecting us all.

<https://www.elliemarshmedia.com>



IN CONVERSATION WITH . . .

Aterre Studio, BIID member



1. Tell us about your practice, what kinds of work do you do?

Why is nature-inspired Biophilic design important to you?

We are a Biophilic Design Studio specialising in nature-based design, living architecture, regenerative urban landscaping and plantscapes. Our work employs the design wisdom of nature and a design methodology with a deeper understanding and alignment to the natural world.

In practice this can be the use of nature's geometry as in biomimicry, the use of biofabricated materials, the creation of symbiotic and sustainable designs, circular processes that work with the natural world, or simply by bringing nature and natural materials into indoor spaces. It is a world envisioned in harmony with the planet that sustains us and which harnesses future technology to do so. Creating symbiotic spaces for cities, communities, individuals and the planet to thrive.

A world where cities will be designed within nature, not the other way around, this is the guiding principle of our work.

We are both based in London and have backgrounds in design and horticulture. We have a shared passion for emotionally intelligent regenerative design, based upon a profound respect for the wisdom of nature - combined with a deep understanding of sensory and experiential design and the positive emotional impact this has on our lives.

Aterre; earthbound, from the earth, represents both our ethos and shared French heritage.

We collaborate across multi-disciplinary fields to innovate and create sustainable design solutions to create a world more aligned, more respectful and more symbiotic with the planet that sustains us. Our hope is to play a meaningful part in an ever growing community of biophilic and regenerative designers creating a more uplifting, nurturing, environmentally conscious way of living and designing the world in which we live.

We see the future thriving at the intersection between regenerative design, technology and the natural world, to create naturally health-infused sustainable spaces and architectural systems. Only through such collaborations can we create the places and spaces that will enable humans to live in sustainable, technologically advanced, natural environments. The time has come to be holistically Planet Conscious.

2. Why is water in particular an important design element in biophilic design?

We both have a long history of connection to water, both growing up on islands, generations of our families have had lives and livelihoods centred around water. Living in London I (Anouska) have always made sure to live by the river. which for me embodies the energetic the flow of planet, the lifeline of the city, connection to nature, the creation of habitats, whilst most importantly for my mental health the river line creates a vista out towards the horizon where I can see an expanse of sky, which is so important for circadian regulation and a sense of place, so often lost in the metropolis.

In our work, we advocate for interventions that create symbiotic habitats and enhance biodiversity, such as natural pond pools, miniature water features that create much needed wildlife microhabitats.

Water is widely understood as a crucial design element in biophilic design due to its ability to create a connection with nature, promote relaxation, enhance visual appeal, improve air quality, and provide a cooling effect. By incorporating water features into our spaces, we can design environments that are not only aesthetically pleasing but also contribute to our physical and mental well-being.

Other examples of just how beneficial water is in design are detailed below:

1. Sensory stimulation: Water engages multiple senses, including sight, sound, and touch. The movement and reflections of water, along with the sound of flowing water, create a dynamic sensory experience.
2. Psychological well-being: Water has a calming and soothing effect on the human mind. The sight and sound of water, such as flowing streams, waterfalls, or even fountains, can induce a sense of relaxation, reduce stress, and improve overall mental well-being. Humans have an innate affinity for water, as it is essential for life and has been an integral part of our evolutionary history.
3. Cooling effect: Water features can help mitigate the urban heat island effect, which is the phenomenon of cities being significantly warmer than surrounding rural areas. By incorporating water bodies like ponds or water fountains, biophilic designs can help cool the surrounding environment through evaporation and reduce ambient temperatures.
4. Biodiversity support: Water features, such as ponds or rain gardens, can attract various forms of wildlife, including birds, butterflies, and beneficial insects. Incorporating water elements in biophilic design can create habitats and contribute to the preservation and enhancement of local biodiversity.

3. How do you implement it?

Our preference is for natural pond pools in residential or public settings, where they can have a significant impact on local biodiversity and uplift in mental and physical health. The Kings Cross 'Of Soil and Water' Pond Pool Club was an excellent example of the positive impact of natural water sources that benefit humans and local wildlife. We would love to see the emergence of more of these in London to slowly replace existing Lidos.

<https://www.kingscross.co.uk/of-soil-and-water-kings-cross-pond-club>

Otherwise, small ponds that attract local insect populations enhance biodiversity by offering a water source and food availability for various organisms. The presence of vegetation and hiding places in the pond provides shelter and breeding grounds. Even a very small pond can create different microhabitats that support a variety of species and a wide array of aquatic invertebrates. A pond is essential for breeding amphibians and reptiles, while also attracting birds and mammals for drinking and hunting and creates a mini ecosystem that contributes to local biodiversity.

Residential design: water also plays an important part in the residential design work that we do, in our integrated indoor garden designs we have the option to add water channels and gullies and water features that further enhance the experience of connection to nature.



Muda Architects – Garden Hotpot Restaurant – Chengdu, Sichuan

4. Do you have project examples you can share with us?

There are 3 projects that spring to mind for us.

Can Marti pond pool: firstly the wonderful natural pond pool at agrotourism hotel Can Marti in Ibiza which we recently experienced first-hand. We purposefully chose Can Marti for a recent honeymoon so that we could try the pond pool. This was a particular highlight as we swam amongst the gold tipped frogs croaking and eyeing us regally from their nearby rocky platform. Floated amongst dragonflies and water boatmen and left the water with silky soft fragrant skin. It was the perfect example of how to strike the balance between living life luxuriously whilst contributing to the environment and local habitats, leaving the smallest footprint possible whilst finding ways to design symbiotically and regeneratively.

The Water Shed: another glorious example of a natural pond pool designed sympathetically with its environment and creating a design scheme that enhances that visual impact alongside biodiversity. We could see this being rolled out into local lidos alongside community gardens and vegetable patches. Wouldn't it be wonderful if pond pools became one of the standard biodiversity net gain interventions for any future housing development.

MUDA Garden Hotpot Restaurant: we particularly appreciate the interplay between various biophilic elements in this design alongside the main feature which is water. Long sinuous and curvaceous structure arching out into the water, just above water level give the seamless feeling of floating or being at one with the waterscape. The lush forest setting and use of landscaping creates a tranquil space to contemplate the connection to nature and human company.

These case studies also emphasise the importance of responsible water management in biophilic design. By incorporating additional water elements such as green roofs to slow down run-off, rainwater harvesting, and efficient irrigation systems, these projects can successfully integrate nature while showcasing responsible water use and sustainable practices. Ultimately, the aim is that these examples inspire the adoption of biophilic design principles that help preserve our precious water resources.



Can Marti - Natural Pool – Ibiza, Spain



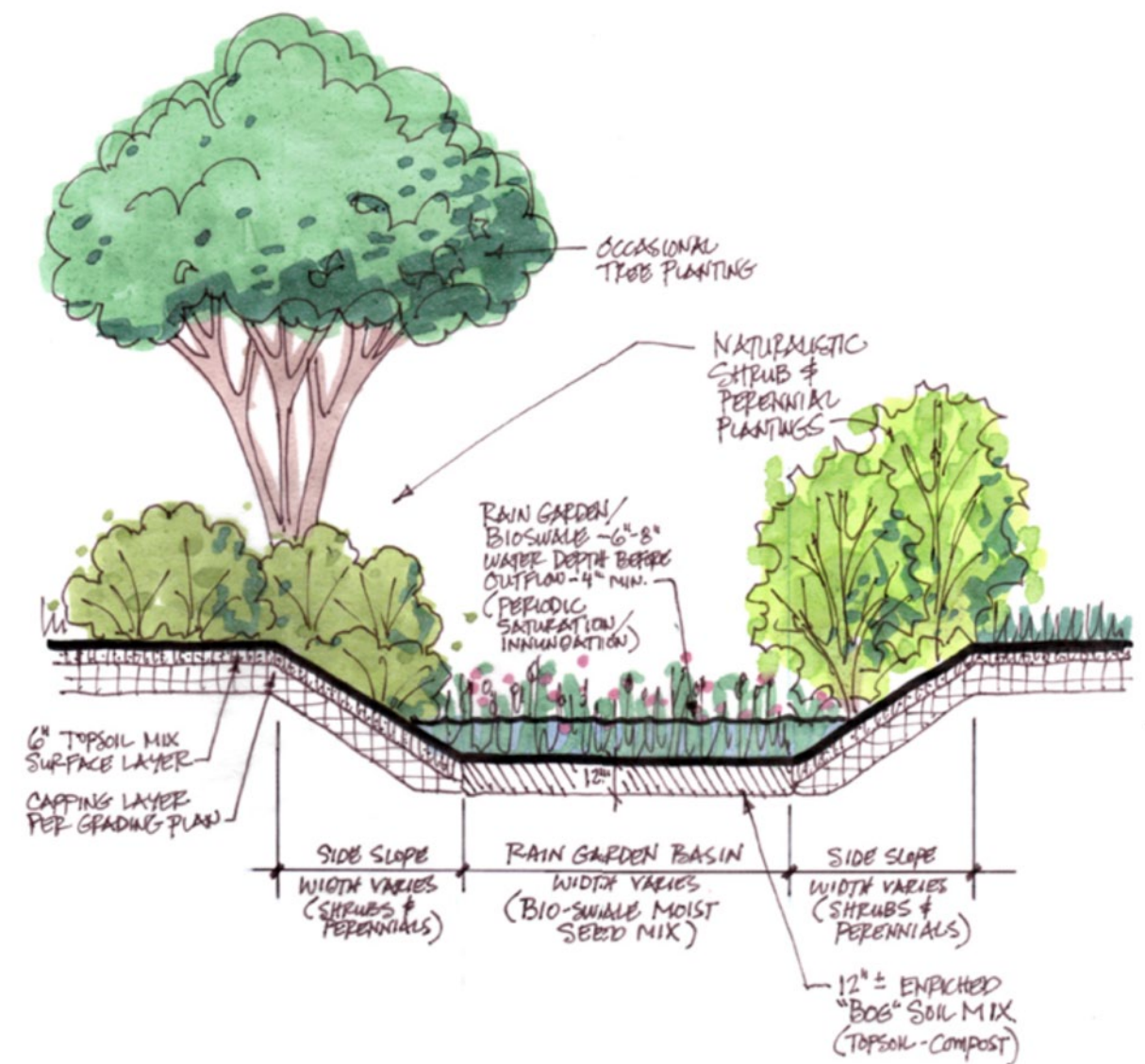
↑ Studio Fuse – The Water Shed – Chichester, England

↓ Sheffield City Council with Robert Bray Associates / Nigel Dunnet and Zac Tudor – Grey to Green – Sheffield, England



Additional use of water in our work:

Another important aspect of the use of water in our work in regenerative urban landscaping, is the emerging implementation and understanding of the importance of rain gardens which we are strong advocates for. As the migration of the world's population moves into urban centres and the paving over of green space with concrete and impermeable materials, water runoff and flooding is increasing. An important way to mitigate this is by using SuDS (Sustainable Drainage Systems) such as rain gardens which have been used for flood prevention and chemical pollution by slowing the flow of water, cleaning water and retaining water in our soils.



<https://wendelcompanies.com/projects/wilkeson-pointe/dwg-rain-garden-section/>

All images taken from respective owners websites

www.aterre.co.uk

HARNESSING THE POWER OF NATURE SOUNDS: ENHANCING THE HUMAN BRAIN

David O'Coimin

"How can different water sounds be harnessed to enhance various aspects of human life, including work, healthcare, and overall well-being."

The therapeutic benefits of nature sounds have long been recognised, and recent research suggests that these can profoundly influence the human brain. Take water for example: whether it's the rhythmic patter of raindrops, the crashing of ocean waves, the serene flow of a waterfall, or the gentle babbling of a water fountain, these natural auditory stimuli have the potential to guide the neuronal waves in our brains, inducing effects which help us rise to our day-to-day challenges.

According to researchers, exposure to water sounds activates the parasympathetic nervous system, leading to a state of relaxation and tranquillity. A study published in the journal Scientific Reports found that natural sounds, including water, significantly reduced stress levels and increased overall mood in participants. The rhythmic patterns and predictable frequencies in water sounds have a soothing effect on the brain, helping to lower heart rate, reduce blood pressure, and alleviate anxiety.

The cognitive response to nature sounds has been shown to improve productivity and focus. According to Headspace, a popular meditation app, incorporating water sounds into the work environment can help create a more serene atmosphere. Research published in The Journal of the Acoustical Society of America indicates that the ambient sounds of nature, such as rain and waves, can enhance cognitive performance, boost creativity, and increase overall efficiency. Playing gentle rain sounds or waves crashing in the background can provide a natural and non-intrusive way to improve concentration and workflow.



These sounds can have a profound impact on neurodivergent minds, including individuals with conditions such as autism, dyslexia, and ADHD, by reducing sensory overload and creating a soothing environment for individuals who may be hypersensitive to auditory stimuli. Research published in the Journal of Environmental Psychology suggests that exposure to natural sounds, including water sounds, can improve attention, concentration, and cognitive function in individuals with ADHD. Similarly, a study conducted by the University of Helsinki found that listening to nature sounds, such as gentle rain or waves, helped individuals with autism regulate their emotions and decrease anxiety levels. Incorporating nature soundscapes into settings for neurodivergent individuals can provide a

supportive and calming environment that enhances their well-being and cognitive abilities. By harnessing these sounds, we can improve the inclusivity of spaces, improving overall quality of life. Why wouldn't we?

In healthcare, a study conducted at the University of California revealed that patients exposed to the sounds of a waterfall reported decreased levels of pain, anxiety, and stress during their hospital stay. If nature sounds can help distract patients from discomfort, promote relaxation, and enhance the healing process, then let's make them a standard design feature in healthcare facilities, contributing to a more positive patient experience and aid in the overall well-being of individuals.





Nature sounds have long been associated with mindfulness and meditation practices. Again, according to Headspace, the cognitive response to the sounds of nature can increase mindfulness and create a deeper sense of relaxation. The steady flow of water engages the brain's attention system, helping to divert attention away from intrusive thoughts and promoting a state of present-moment awareness. Listening to water sounds, such as the calming trickle of a water fountain, can facilitate stress reduction, improve sleep quality, and contribute to overall wellbeing.

The power of nature sounds to influence the human brain should be a widely used tool in our design of space. Whether it's enhancing productivity in the workplace, promoting healing in healthcare settings, improving inclusivity and unlocking

human potential, or fostering mindfulness and well-being, these sounds offer a versatile and accessible tool for improving various aspects of our lives. As we continue to explore the therapeutic potential of nature, incorporating water sounds into our environments may prove to be a simple yet effective way to harness the healing power of nature and enhance our cognitive well-being. For too long, the design of our built environment has failed to include sound as a key component of the user experience. This includes designing out negative sound, as much as designing IN positive useful sounds. It's time to get serious about sound. Our mental health and accessing our full potential depend upon it.

<https://nookpod.com>
Views of nature in the Nooks by:
VirtualNatureWalls.com

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How to bring water into the built environment without breaking the bank or making a mess

Kenneth Freeman

Human beings have the unique distinction of being the only species to have domesticated itself. Built environments – safe and warm as they may be – are completely unlike the spaces where we have spent more than 99% of our species' history and where our senses evolved. In our quarter-million year history (and much longer when you consider our immediate hominid ancestors), it is only the last few thousands of years that we have created societies where we live and work in settings that alienate us from natural sensory stimuli.

Biophilic design is all about creating spaces that allow our senses to work in a way that is coherent and, as far as is practicable, is as close to natural as possible. By designing environments that allow our senses to be stimulated in a way that tells us all is fine with the world – in other words, ensuring that what we see is *reinforced*, not contradicted, by what we hear, feel and smell – we can help people feel more calm and relaxed. Reducing the mental effort required to make sense of contradictory stimuli means we can focus on what we are trying to achieve, be it work, learning or having fun.

Too many people, especially in my own industry of interior landscaping, equate

biophilic design with just one component – vegetation. However, to be truly biophilic, we must consider ways in which we can bring the full spectrum of sensory stimuli that we experience in our natural environment into the built environment: light, air, texture, smell, taste, the shape of our landscape and, of course, water.

Designers have often struggled to find ways of easily incorporating water into the interior built environment. Whilst it is not uncommon to design bespoke indoor pools, aquariums and waterfalls from the outset – especially in prestige office buildings, luxury hotels or landmark buildings like Changi Airport or Amazon's Spheres, it is much more of a challenge to successfully incorporate water into the interior design of more mundane spaces. There are all sorts of practical hurdles to overcome.

We must ensure that features don't leak or splash, can be easily maintained (ideally on a relatively extended service cycle), are risk assessed for *Legionella*, don't dry too quickly out and, critically, are affordable. Furthermore, if those features include fish, then a myriad other issues arise, ranging from animal welfare concerns to ensuring that any chemicals used in the building (cleaning fluids, pesticides, etc.) are non-toxic.

How can we achieve the sense of being near water without making an expensive mess?

As an interior landscaper, I have worked mainly with plants. However, I have also experimented with other interior design features that can be sold and serviced in ways similar to a plant maintenance contract (and which can be looked after by the same service staff). This has proved a

challenge, and many products were brought to market only to struggle commercially. Portable indoor waterfalls, modular indoor ponds, terrariums with running water and even small desktop water features have all been tried.



Modular indoor pond incorporating lighting and a small fountain installed in the reception area of a conference centre.



As well as being decorative, some of these water features have additional benefits. For example, water walls are very good at humidifying the atmosphere and can also be very effective scrubbers of airborne particulates, and indoor waterfalls and fountains are effective maskers of distracting noise.



Indoor water walls. The wall of water humidifies the air and as it passes rapidly through a narrowing gap creates a venturi that drags fine particulates and other pollutants out of the air.

Sounds and smells

Whilst small, portable water features have a place, there are other, often much easier, ways of creating the sense of being near water. Two simple methods appeal directly to some of our most primitive senses – hearing and smell.

The sound of rain, babbling brooks or waves lapping on the shore are easy to bring indoors. As well as sophisticated soundscaping systems, such as those developed by Moodsonic, there are some lower cost solutions that can be employed. Smart speakers, such as Alexa, can play a wide variety of biophilic sounds, including water, and there are even websites, such

as <https://noises.online/> that allow you to create bespoke soundscapes that can be played through a speaker system, or just enjoyed through a pair of earphones.

It is not even necessary for the sounds to cover an entire space. Pinpoints of watery noise can create a point of interest. If incorporated with other biophilic features, such as plants, they may enhance the natural feel of the feature without having to invest in additional plumbing. In fact, I know of one pre-school nursery that places smart speakers playing nature sounds close to a large green wall in the building to create an immersive biophilic experience.

The other sense that we can directly affect is our sense of smell. Over the last 15 years or so, there has been a growing understanding about how scents can affect mood and behaviour. This has led to the development of ambient scenting systems that use some interesting technology to deliver long-lasting odours into the built environment. Often used in

marketing and branding (several retailers and hotel brands have their own bespoke signature scents), these systems can also deliver very naturalistic scents that evoke situations such as woodland, grassland and, through mimicking ozoney odours, the seaside and even getting close to replicating petrichor, the smell of freshly fallen rain.

Light and colour

Other ways of bringing a sense of being close to water is to use colour and lighting in imaginative ways. Very often, we tend to default to pale shades or beige, cream and even grey to decorate our spaces – domestic or commercial. They are a safe option, of course.

Recently, I visited the offices of a small financial services company that had refurbished some of their spaces. As usual the walls were painted in an incredibly pale, almost white, colour. However, instead of cream, the walls were painted in the most subtle shades of turquoise and green and the lighting was crisp and bright. Even though it wasn't the intention, there was almost the

essence of Brighton seafront. Flooring can also be used to give an impression of being close to a watery environment: [Interface](#) has, with its range of nature-inspired commercial carpet tiles, produced a range of fantastic biophilic designs, including several that relate to the sea or even damp, mossy paths in the forest.

As well as the subtle impressions of being close to water, through colour, texture, sound and smell, there is also the more overt use of imagery, ranging from pictures on the walls to huge murals. On their own, I think they make a building resemble a travel agency, but if used with care, they can be a useful addition.

Don't forget the outdoors

There are buildings that, due to their nature or purpose, have limited scope for biophilic design for all. Factories and warehouses spring to mind. Whilst designing areas such as break rooms and canteens could (and should) support wellbeing, sometimes, the best recipe is to get outside for a few minutes whenever possible. If there is a public open space

near the workplace, the chances are that it will have a pond, fountain or stream nearby. Many towns and cities are criss-crossed with canals and rivers – being close to water is calming and offers a space for reflection and restoration - sometimes, we just have to find them.

www.purposefulplaces.co.uk



THE SCIENCE BEHIND BIOPHILIC DESIGN

THE NEUROSCIENCE OF WATER – SEEING IT, HEARING IT

“Water has been and will remain crucial to our species continued existence – so, it shouldn’t come as a surprise that neuroscientists have studied how seeing and hearing water influences what goes on in our heads, how it leads us to feel and yes, even to behave.”

Dr Sally Augustin

Rigorous studies have determined, for example, that:

- The positive implications of seeing and hearing water result when the water experience aligns with the sort of water our ancient ancestors would have experienced in a lovely meadow on a good-weather day. That means water that’s moving, quietly and gently – as a burbling brook does. Water that brings to mind bad weather degrades our mood and experience. Researchers have shared that we may prefer shiny surfaces today to matte ones because in out prehistory potable water and water sources seen from a distance, for example, were likely to have shiny, reflective surfaces.
- Including water inside buildings and outside them, so that it can be experienced in-house or via views or open-air sojourns, can improve our mood as well as our mental performance, all while revitalizing our brains after they become exhausted by too much focused thinking and helping us feel less stressed. Water that can be seen and/or heard is an important tenet of biophilic design.
- We prefer views, natural or human influenced, with water in them (or at least some evidence that water is nearby) to those without it.
- Research consistently shows that looking at water, even relatively small amounts of it, is mentally refreshing. For example, people looking into a courtyard that’s devoid of nature are just as refreshed as people looking at a green nature scene if there is a small fountain with gently moving water in that courtyard. Seeing water refreshes our mind, whether that water is naturally occurring or in some sort of man-made display.





- Being able to see water from home has been linked to being more physically healthy. Seeing water in a swimming pool can bring down our blood pressure; needless to say, seeing water in nature has the same effects on how hard our heart is working.
- Seeing water may also make us, at least for the moment, better humans, more generous, trusting, and helpful, for example.
- Hearing gently moving water (inside and outdoors) is just as desirable as seeing it. Doing so relaxes us and

refreshes our minds (whether those nature sounds are masking other noises or not), helping us feel less stressed and our brains do their best work, on standard knowledge work type thinking and when creativity is key. Hearing gently moving water can also have as desirable an effect on our physical health as seeing it. Even thinking that a sound is naturally and gently moving water makes us think hearing it is mentally refreshing (even if the sound is actually something entirely different, humans are indeed a suggestible lot).



- Moodsonic (2022) reports that “EEG and Heart Rate data were recorded from 10 participants within an [real-world] office in London. Each participant listened to a Moodsonic Soundscape (lapping lake waves) . . . and typical office sounds while they performed a series of tasks; Stroop Test (cognition), Alternative Uses Test (creativity). . . . Comparative measures were taken from the typical office sounds and Moodsonic soundscape conditions to compare states of relaxation, engagement, creativity and speed of correct completion. The Moodsonic soundscape increased the relaxation response in individuals compared to typical office sounds. . . . Participants were able to focus better, with greater attention, as reflected by the increased speed of correct completion of the cognitive tasks when listening to the Moodsonic soundscape. . . . Participants scored higher in creativity, as measured by the number of answers provided in the Divergent Thinking Task [when listening to the lapping waves].”
- If you have a fish tank, the effort required to keep all your piscine friends alive is worth it. Looking at even empty tanks is calming (it lowers our blood pressure, for instance) and mentally refreshing, and adding swimming fish increases the moving water’s effects.
- And yes, looking at water in art, paintings or photographs, still or moving, real or virtual, has the same effects on what goes on in our heads as being the in presence of actual water or seeing it through a window.
- All water seems good, but not all are equal. Luo, Yu, and Jiang (2023) “conduct[ed] a photograph-based experimental study to examine individual mental responses . . . to three types of bluespace (Falling, Flowing, and Static bluespaces) and one control condition (Streetspaces). The participants were assigned to view four conditions individually in a laboratory. The effect of each condition on mental health was primarily measured using a portable electroencephalogram (EEG) device that continuously recorded brainwaves throughout each contact. We then administered the Restorative Components Scale (RCS) questionnaire as a secondary measure to the participants. . . . contact with all three types of bluespace significantly promoted mental health compared to Streetspace. . . . Falling bluespace was found to be the most beneficial type, as contact with it yielded the highest level of alpha brainwaves, the lowest level of beta brainwaves, and the highest scores on the RCS questionnaire. . . . three-minute contact with bluespaces is sufficient to promote mental health.”

www.thespacedoctors.com
www.designwithscience.com

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See our podcasts with Julian Treasure and Evan Benway, search for their names on our website on the Podcast page <https://journalofbiophilicdesign.com/podcasts-journal-of-biophilic-design> Plus there's a brilliant article in Issue 1 The Workplace of the Journal of Biophilic Design from Evan <https://journalofbiophilicdesign.com/journal-of-biophilic-design-1>

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See also the new report published this August 2023 in the *Journal of Environmental Psychology*, “Swimming in nature: A scoping review of the mental health and wellbeing benefits of open water swimming” by K. Overbury, B.W. Conroy and E. Marks <https://doi.org/10.1016/j.jenvp.2023.102073>



The Science Behind Wild Swimming

Dr Sally Augustin

Wild swimming has been having a moment, for the last few decades, and likely will get even more attention when people swim in the Seine during the 2024 Paris Olympics – although jumping into the Seine and swimming around seems like a pretty atypical wild swimming experience.

What does the science say about wild swimming?

Basically, that it's a very good thing, for your mind and body – and how could it not be with all the positive “biophilics” present simultaneously when you swim in an outdoor waterhole: hearing and seeing water, sunlight (probably, few swim outside in the dark), seeing green growing things nearby (again, probably, although less likely in Paris) . . .

- Multiple recent studies profile the social and physical benefits of wild swimming. For starters, McDougall, Foley, Hanley, Quilliam, and Oliver (2022) found “A growing body of evidence suggests immersion in blue space, e.g., participating in ‘wild’ swimming, can be particularly beneficial for both physical and mental health. . . . The aim of this study was to explore the relationship between loch (lake) swimming and

health and well-being for adults living in Scotland. . . . Semi-structured interviews were conducted. . . . The findings suggest loch swimming has a variety of health and well-being benefits that can be categorised over three domains of health: physical, mental and social. Of these domains, mental health benefits e.g., mindfulness promotion, resilience building and increasing one's ability to listen to their body, were particularly prominent. Our findings also highlight important physical and hydrological characteristics of loch environments, e.g., calm water conditions (relative to the sea), which contribute to positive wild swimming experiences.”

- Gould and colleagues reported in 2021 on the various benefits, social and otherwise, of wild swimming, using data collected from wild swimmers in Australia: “Wild swimming is currently experiencing a surge in popularity as people avowedly attempt to reconnect with the natural world. Previous research has positioned wild swimming as a solitary pursuit whereby individuals retreat from society to connect with or overcome nature and better themselves. . . . while being in nature and personal fulfillment

Journal of Biophilic Design

THE SCIENCE

are key motivations for these wild swimmers, it is the social interactions that facilitate a deep engagement with their local ‘bluespace.’ We argue that rather than swimming away from the world, by ‘wayfaring’ together

these swimmers become connected to their environment, and each other, simultaneously. Such findings indicate potential social, health, and environmental benefits of collective wild swimming.”



- Similarly, a literature review prepared by Overbury in conjunction with her doctoral dissertation in clinical psychology (2022) shares that “Open water swimming (OWS) is a popular blue activity, offering various benefits such as leisure, activity, health, wellbeing, social connectedness, routine, and a sense of belonging. OWS (also referred to as outdoor, cold water or wild swimming) has recently become of particular interest in the mental health sphere, as it has been shown to improve mood, energy, and libido, as well as reduce stress, depressive symptomatology, tension, fatigue, and memory problems. Moreover, it is an accessible and low-cost activity (often freely available), requiring little or no specialist equipment other than access to an appropriate blue space. As such it could be a simple, cheap, and effective option that could support the mental health of populations worldwide.”
- Additional recent research also provides insights into the value of wild swimming (Wood, Vimercati, Ferrini, and Shackleton, 2022): “we provide a balanced assessment of the perceived cultural ecosystem services (CES) and ecosystem disservices (EDS) experienced by open water swimmers in the UK. Factor analysis based on an online questionnaire with 505 respondents revealed three distinct clusters of CES benefits that contribute to human well-being (‘spiritual value and interaction with nature’, ‘mental and physical health’, and ‘social bonds’). . . . There were five distinct

clusters of EDS (‘natural hazards’, ‘security and safety (health)’, ‘security and safety (weather)’, ‘recreation’ and ‘material (biotic and abiotic)’). Key EDS ranked as an issue (by more than 50% of respondents) related to water quality, currents, rubbish and litter in water bodies and boat traffic. Swimming duration, age and swimming frequency in particular affected response patterns surrounding EDS, and to a small extent the site type.”

- Dahl and Backstrom (2023) found that the sensory experiences linked to wild swimming are more powerful than those in pools: “Why are people fascinated by swimming in nature? This article addresses the aesthetic experiences of wild swimming as expressed by five wild swimming authors in their books. Drawing from aesthetic philosophy, we analyze the ways in which the appeal of wild swimming is described on three levels: the allure of water in the environment, the sensory encounter between water and the body, and the experience of moving in water. . . . We can conclude that the special intensity of the sensory experience of moving in water allows a closer connectedness to the surrounding natural world than land-based activities or swimming in artificial outdoor pools. This leads to a stronger ethical awareness, both regarding protection of natural water as well as the necessity of developing ‘water competency’ amongst humans.”

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Want to do some wild swimming?

Follow the link below:

(<https://www.theguardian.com/lifeandstyle/2022/jul/15/how-and-where-to-enjoy-open-water-swimming-safely-heatwave>) and here (<https://www.houseandgarden.co.uk/gallery/best-places-to-wild-swim-uk>) to learn how to be safe and where to give it a try in the United Kingdom.

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PLANTS



Water Plants

“When you’re thinking of creating a water garden or water feature, you should also be looking at including some plants alongside. We asked our friends over at Plants@work to give us some suggestions on what we could include.”

Coll Smith

Water Lillies

I guess water lilies are one of the first plants we think of when wanting to plant up a pond, a bog garden or other watery area. They certainly make a statement with their amazing flat leaves which sit like plates on the surface of the water. And when they flower, they offer even more in the shape of a big powder puff of petals and colour.

The RHS tell us planting water lilies is effectively turning our ‘pond into a picturesque Monet-inspired masterpiece’. They are certainly opulent plants which make an instant talking point. They also range in sizes so whatever the size of your water feature, there is bound to be one to work for you.

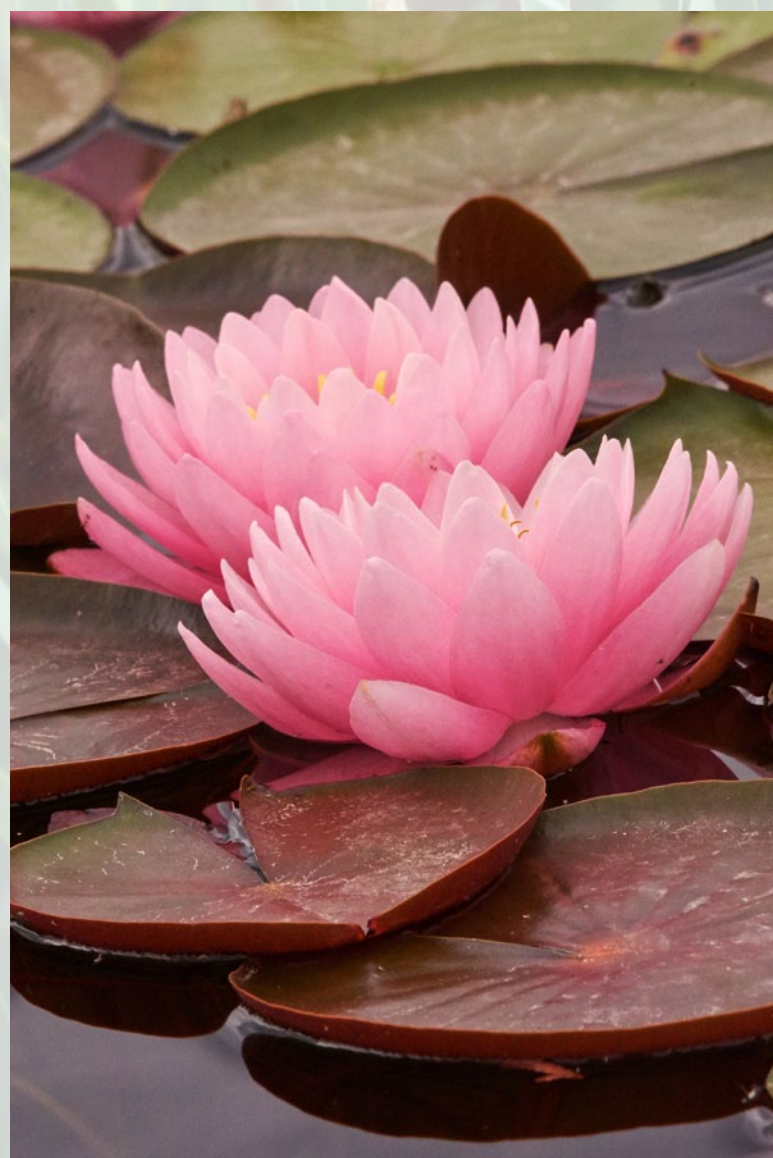
As they are perennials, they keep your pond colourful for many years even though they die down in autumn but resprout in spring promising that abundance of colour again.

Choosing the right water lily

Water lilies aren’t just beautifully decorative, they are beneficial as well providing shelter for pondlife and the shade they offer helps to deter algae. But you do need to check how much they grow every year as they can grow exceptionally large.

There are a number of hardy water lilies which will survive from one year to the next but beware of tropical water lilies which need warm water and frost-free conditions.

You can buy them pre-planted into aquatic baskets so that they can be planted straight into the pond.



Bog Pimpernel

This pretty flowering plant, a relative of the primrose, thrives mainly at the edge of ponds where it can show off its delicate mainly pink/lilac flowers. It's this preference for damp, boggy environments which has earned the bog pimpernel its name.

Its Latin name is **Anagallis Tenella** and it has a perfume like fresh honey. So it isn't surprising that it attracts a number of pollinators including bees, butterflies and moths.

It is low-growing and spreads well making it perfect for pond edges or to drape over rocks. It is also popular with Koi that may be tempted to eat it!

Courtesy of RHS plants



Marsh Marigold

The Marsh Marigold and its larger cousin, the Giant Marsh Marigold (*Caltha Polypetala*) are early flowering (March/April) spring perennials that have beautiful yellow flowers. You won't be surprised to learn that they are related to the Buttercup! Their large flowers and glossy

green leaves make them a popular choice for ponds and bog gardens.

These sun-lovers also provide early nectar for bees and butterflies emerging from hibernation.

They have a tendency to grow in large clumps which can be divided annually providing a harvest of new plants.



Courtesy of Wikipedia

Lesser Bulrush

Typha Angustifolia, also known as the Lesser Bulrush, is a fast-growing bulrush perfect for when you are planting up a new pond area. It forms a generous clump of slender, upright foliage which soon welcomes cylindrical, red-brown spikes wrapped around its stems in summer.

In shallow water it spreads really quickly and soon forms 'a dense colony around the edges of a pond'. When fully established, it will form large drifts and look pretty impressive!

It dies back in the autumn but grows again in spring.

Courtesy of RHS



To learn more about plants or become a designer or business member of Plants@Work visit <https://www.plantsatwork.org.uk>

Water in our working environments: Biophilic Inclusion at Second Home

— CASE STUDY —

Thomas Palfreyman

MD Urban Planters shares one of their projects which includes roof-top ponds

Where

The project was for Second Home in London for whom Urban Planters already worked. Tom explained, “We do a lot of work for Second Home, a working space, who are very much into biophilic inclusion.”

Their Hanbury Street venue which can accommodate about 2,000 people and about 4,000 plants – from trees to trailing plants to built in beds – is a vast space with a veritable jungle inside.

What

When they wanted to extend this to their roof space at the Hanbury Street venue, close to Liverpool Street Station in London, the inclusion of water was a priority. The water adds other benefits, from its movement which has a calming effect on us, to another way to soak up nature via its plants.

Adding ponds to this roof space seemed the perfect way to create a calm space amongst the hustle and bustle of London. People using the building could go and sit outside at any time of the year and enjoy nature with not just the abundance of plants but the therapeutic water as well.

How

Before they did anything, Urban Planters checked whether the roofs would take the weight of the ponds first of all of course. It's no surprise that they wanted to make the ponds appeal to those using the space for as long as possible during the year. They used luscious ‘water friendly’ plants for engagement from early spring right through to winter.

The design ensured that the planting scheme would last as long as possible through the flowering period from early spring through summer to late autumn. Unfortunately flowering plants are mostly found around the edges of the ponds so weren't always as obvious as some of the other ‘water plants’.

They also needed to consider using oxygenating plants to accommodate the fish in the ponds who give out the nitrates as waste (poo). The fish will eat up some of the nitrates in this but not all.

Results

All these things were taken into consideration to create a space where people can eat their lunch; attend yoga session and even seminars. At this level the building has big bifolding doors that can be opened right up so that more people get to enjoy the benefits too.

There's also one particular area – the toilets – where the water is both inside and outside the building. So it goes up to a glass pane that drops down into the pond just to the edge – the ‘top’ of the water – and the water flows into the building and back out again so it is quite unusual for an installation in central London.

Tom commented, “Urban Planters appreciated the opportunity to work with the team at Second Home on such an exciting and interesting project, which brought so many benefits to the people using the space from psychological well being as well as the benefits of taking a break and immersing yourself in nature before going back to the day job.”

<https://www.urbanplanters.co.uk>

Benefits of Seaweed

“The benefits of seaweed are diverse and multifaceted. Whether you’re looking at it from a social (seaweed farming), environmental (beach erosion defence) or ecological (food source for fish and invertebrates) context, there are a multitude of useful relationships going on.”

Freddie and Léna
The Seaweed People

We drifted into the world of seaweed when my girlfriend Léna and I were looking at seaweed through the lens of both a healing ingredient, and natural form full of colour and raw beauty. Léna’s background is in landscape architecture and she is interested in the healing properties of medicinal plants. After suffering some skin issues herself, she found a remedy in the gel that seaweeds

naturally develop for reproduction and protection. My background is in graphic design and I have always been drawn to natural forms and structure. Pressing seaweed and making art was a therapy for my mental health that was wavering during lockdown. It also allowed me to interact with seaweed on a more personal basis by learning about the different species.





We developed our business *The Seaweed People* with the aim of creating a brand around seaweed, uncovering the benefits, forms and functions of a variety of British seaweeds. Seaweeds, also referred to as Macroalgae, have enormous nutritional value. They help to promote a healthy bodily system when we ingest or apply seaweed in the form of cosmetics. The modern food system involves a lot of extra salt, more than our bodies need, that we ingest on a daily basis. Seaweed however contains

approximately 10 times less sodium than table salt. Not only that, but it includes a variety of beneficial minerals and vitamins, dietary fibre, proteins, important oils and fats.

The nutrition in seaweed is highly perishable though, meaning that these healthy bioactive substances can break down fast if not consumed or preserved somehow. This also means that they can benefit our bodies quickly by breaking down quickly.

From a skincare perspective, seaweed is a major player in the industry for a variety of reasons including gelling properties, emulsifying agents and ultraviolet protection. Our particular interest is how we can transfer the inherently soothing and moisturizing qualities of seaweed into skincare products. We follow a similar process of herbal infusions, allowing a slower transfer of properties from seaweed to product.

The environmental benefits of seaweed are far reaching and crucial, since around 70% of oxygen on earth is created by seaweeds. The ancestors of seaweeds were the first organisms to photosynthesize, so we owe them a lot in creating a habitable land where so many other organisms can live amongst each other.





Then there are the ecological benefits that happen amongst all the other living organisms that inhabit diverse seaweed-based ecosystems. Both large and smaller organisms including whale sharks and bivalves filter feed on floating seaweed, whilst other fish and invertebrates eat seaweed directly. Then there are carnivores that eat those smaller fish (including us) who also benefit from eating seaweed which has passed through others. It is a fascinating and intricate web of relationships.

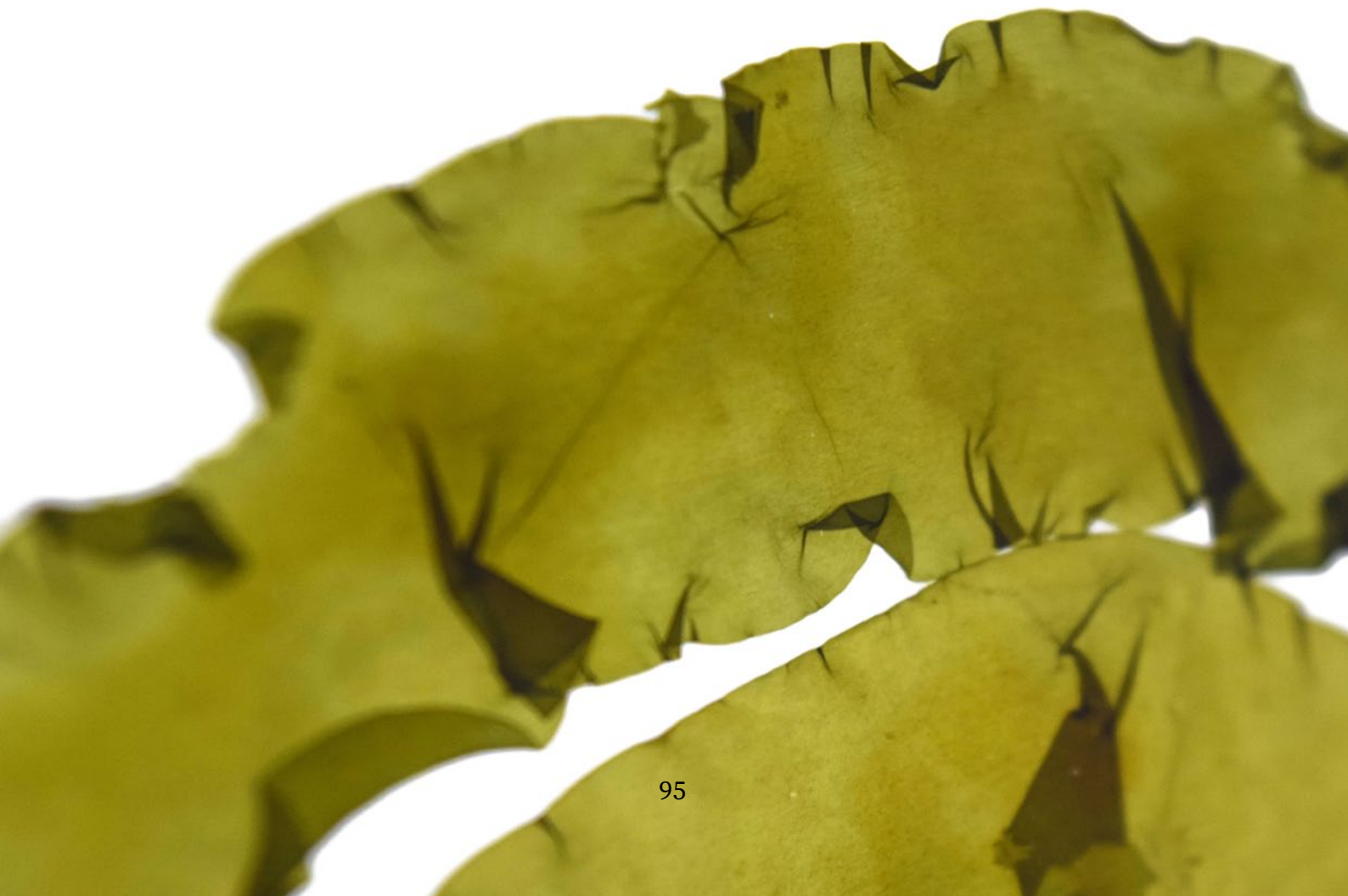
Our objective going forward is to connect more people to the benefits of seaweed

and try to find ways to give back to the ecosystem that we harvest from.

<https://www.theseaweedpeople.co.uk>

Note from the Editor: I bought a body oil with Neroli from these beautiful Seaweed People at Planted Country in Wiltshire in the Summer (checkout planted-community.co.uk and the amazing events they run). They had the stall behind our Journal at the Botanic Market there and I was lucky enough to ask them questions about how they source the seaweed, how they free dive to gather only just what they need, and how much they respect and love the sea. The oil I bought has such a gorgeous texture and scent, they have woven happiness and love into a product which is so sensorially healing. I recommend!

Responsibly sourced ingredients	Hand made in small batches	Locally Sourced Seaweed	Low impact harvesting principles
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ENVIRONMENT PEOPLE PLANET

The UN 2023 Water Conference: The staggering numbers and urgent action needed

“Did you know that the UN 2023 Water Conference took place on March 22-24 2023 in New York City? It was a midterm review of the Water Action Decade, which aims to raise awareness of the importance of water and mobilize action to address global water-related challenges.”

Alexander Verbeek

Take a moment to think about the following numbers:

About 300,000 children under five die every year from diarrhoeal diseases due to poor sanitation, poor hygiene, or unsafe drinking water. These deaths could have been avoided by access to the daily clean water situation that most readers of this newsletter are used to.

2.2 billion people lack access to safely managed drinking water services.

Over half the global population, 4.2 billion people, lack safely managed sanitation services.

What do you feel when you read these numbers? Are you shocked? I have seen the numbers too often to feel shocked, but I can't see them without feeling a deep disappointment about our slow progress towards the goals of Agenda 2030.

Inequality

I feel embarrassed and angry about our world's extreme inequality. Billionaires fly in space for fun while babies die because of poor sanitation and unsafe drinking water. We don't need rocket science to solve these problems; we know how to clean water and build a toilet. We need the political will.

And let's not forget that we talk about human rights in case anyone needs more convincing; in 2010, the UN General Assembly recognized the human right to water and sanitation. So, for instance, everyone has the right to enough water for personal and domestic uses, which is between 50 and 100 litres of water per person per day. And the water must be safe, acceptable, and affordable.

Water plays a fundamental role in sustainable development and is indispensable for social and economic progress, energy and food production, healthy ecosystems,



and human survival. Moreover, water is crucial in adapting to climate change, as it is the essential link between society and the environment.

As the world's population grows, it becomes increasingly essential to balance the competing demands on water resources to ensure that communities have enough to meet their needs. In particular, women and girls must have access to safe and clean sanitation facilities to manage menstruation and maternity with dignity and safety.

At the individual level, it is crucial to recognize that water cannot be viewed in isolation from sanitation. Both are essential to reducing the global disease burden and improving populations' health, education, and economic productivity.

A conference to deliver on promises made

Despite its significance, water scarcity and poor quality remain significant global challenges. In response, the United Nations held the 2023 Water Conference, a high-level event that brought together water experts, policymakers, and stakeholders to discuss the importance of water and find solutions to the water-related issues facing

our world. The aim of the conference is not to negotiate new commitments, but to make sure that countries deliver on promises already made.

The conference had five interactive dialogues, each focusing on water management and governance:

1. **Water for Health: Access to WASH, including the Human Rights to Safe Drinking Water and Sanitation**
2. **Water for Sustainable Development: Valuing Water, Water-Energy-Food Nexus and Sustainable Economic and Urban Development**
3. **Water for Climate, Resilience, and Environment: Source to Sea, Biodiversity, Climate, Resilience, and DRR**
4. **Water for Cooperation: Transboundary and International Water Cooperation, Cross-Sectoral Cooperation, including Scientific Cooperation, and Water Across the 2030 Agenda**
5. **Water Action Decade: Accelerating the implementation of the objectives of the Decade, including through the Action Plan of the UN Secretary-General.**



The Water Action Agenda

The 2023 Water Conference was a milestone event in the global effort to address water-related challenges, providing an opportunity to share best practices and lessons learned, foster partnerships and collaboration, and mobilize resources and political will to achieve SDG6. But that doesn't make the conference the endpoint of a process. The co-hosts of the meeting, the Netherlands and Tadjikistan, have launched a Water Action Agenda to further amplify the conference's impact. It aims to provide a platform for ground-breaking initiatives to accelerate water action.

This Water Action Agenda is crucial because the world is currently lagging behind in achieving the water-related goals of the 2030 Agenda for Sustainable Development. So, to effectively make a difference, the new commitments to achieve the earlier agreed goals of 2015 must be practical and action oriented. We will need a fourfold increase in ambition. And it's important to note that addressing the water crisis is not the sole

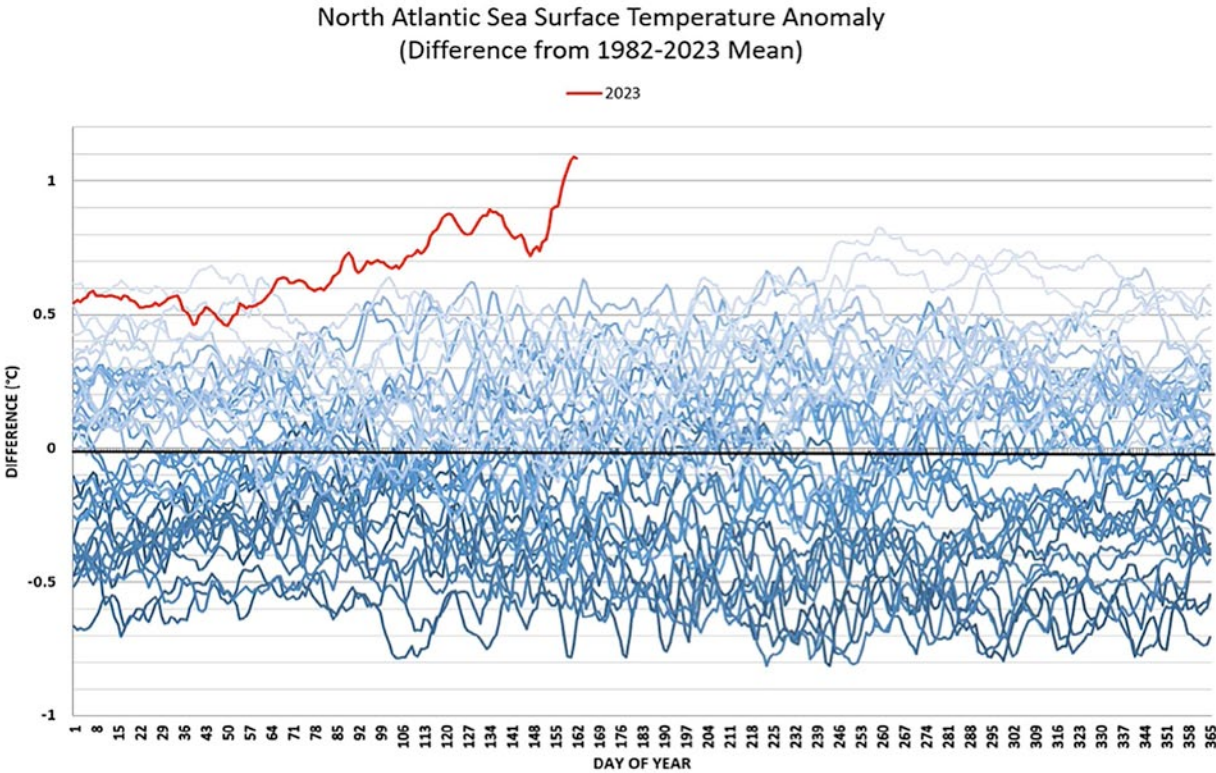
responsibility of governments; all sectors of society must be involved. Contributions from cities, regions, NGOs, and businesses will be vital in driving the success of the Water Action Agenda.

North Atlantic Ocean Hits Highest-ever Recorded Temperatures.

TRT World interviewed me recently about the wildfires in Canada, the climate crisis, the arrival of El Nino, reaching the threshold of 1,5 degrees Celsius, and the politics of climate denial. You can click on the YouTube link below to watch it.

One issue we didn't discuss in the six minutes available was the shocking graph circulated around climate circles on social media. It shows the anomaly in sea surface temperatures in the North Atlantic as compiled by NOAA.

Here it is. As you can see, the data for 2023 show an extreme temperature spike as never seen before in the past 40 years (the blue and grey lines in the graph).



The North Atlantic Ocean has reached its highest-ever recorded sea surface temperature, raising concerns about the consequences for marine ecosystems, weather patterns, and global climate.

There will be a lot of debate amongst the experts about the causes of this profoundly worrying trend, but it is likely a combination of man-made and natural causes. Greenhouse gas emissions have warmed the oceans' temperatures because about 90 percent of the energy that global warming mechanisms trap in the atmosphere is absorbed by the oceans. But other factors also play a role, like El Niño, which is a natural phenomenon.

This warming trend will have enormous consequences worldwide. It will disrupt weather patterns, add to further sea level rise, impact marine biology, and worsen extreme weather events. Although we didn't discuss it in the TRT interview, it

would have fitted right in.

And what I said at the end of the short interview also applies to this event: we know how to tackle the climate crisis, and we have the technology and the financial means, but we lack the political will, international solidarity, and the sense of urgency.

As a last thought before you watch the video, let me formulate it differently. Suppose you go to the hospital for some research. Then the doctor shows you this graph, with data for the past forty years of your life, and then the red line is the medical data about your body now. Independent of what the disease is, wouldn't you be alarmed? And wouldn't you take action?

To view the video:

<https://youtu.be/eLqXJmW-UZw>



To support Alexander's vital campaigning work, visit him on <https://substack.com/profile/25506656-alexander-verbeek>

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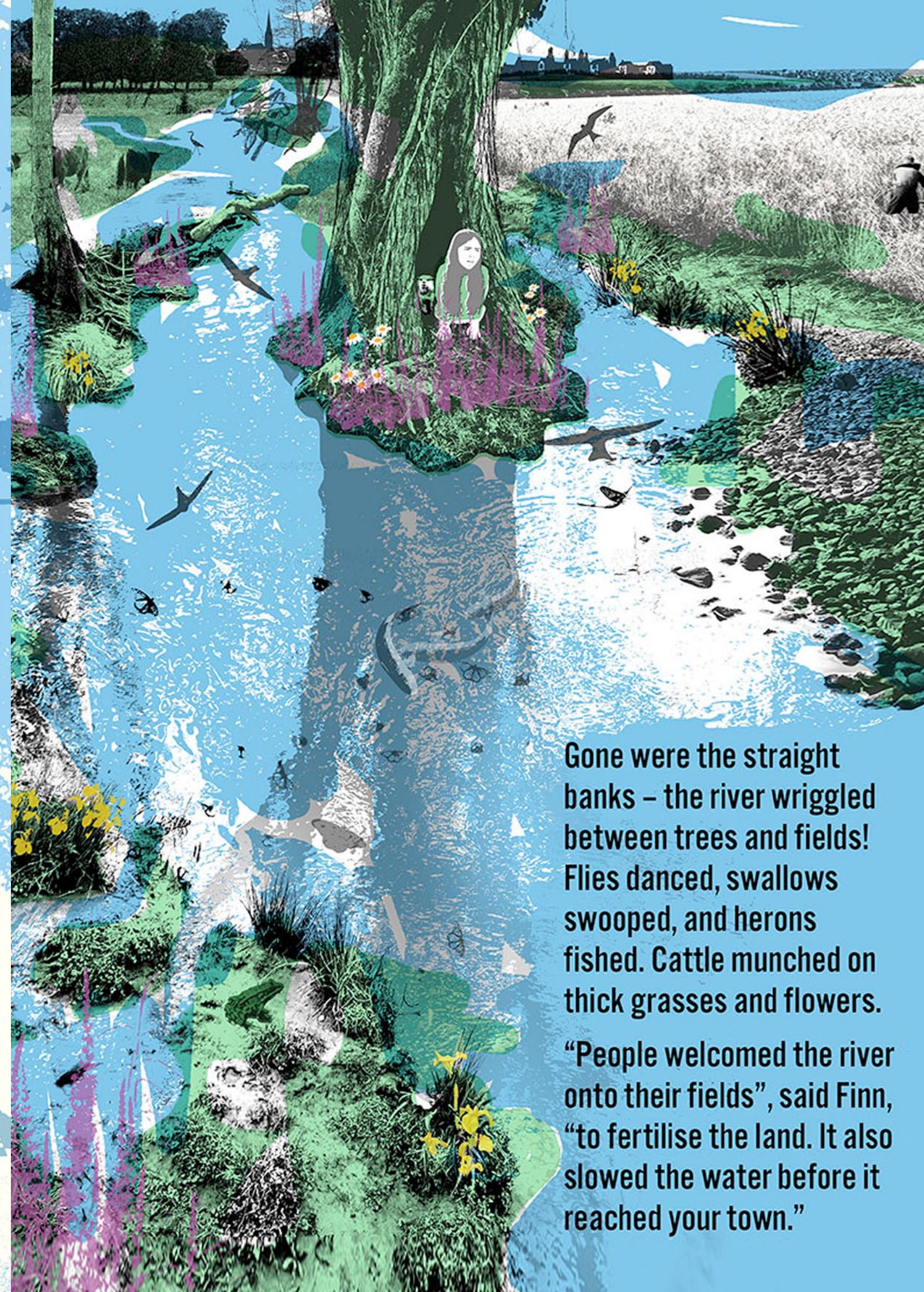
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THE SOUND OF A RIVER



BY

Joe Magee and Chris Uttley



Gone were the straight banks – the river wriggled between trees and fields! Flies danced, swallows swooped, and herons fished. Cattle munched on thick grasses and flowers.

“People welcomed the river onto their fields”, said Finn, “to fertilise the land. It also slowed the water before it reached your town.”

THE SOUND OF A RIVER ...AND OTHER STORIES

“Visual storytelling is one of the most powerful assets we could have in our library of persuasion. Here, the founder of The Nature of Cities, shares with us how we need an additional way to encourage understanding and the sharing of research.”

David Maddox

A lot of people read comics around the world. This presents a great opportunity for scientists, practitioners, and activists to share, in collaboration with comic artists, important stories to more people. We have to make sure to tell strong and entertaining stories, though.

Around the world, we continue to struggle with pervasive and insidious challenges with racism, inequity, and environmental degradation. We need to talk and communicate more, certainly. And we need to do so in new ways that reach new people and in modes that reach them where they are, in forms

that are attractive to them. As scientists and activists, we need to learn how to become better storytellers. Or at least collaborate more with better storytellers.

Can we tell better and more engaging stories about our environmental and social challenges? Can we widen the circle of people who read such stories and take action? Can we use them for education and engagement?

Can we create good and entertaining and useful stories?

Yes, we can.

A FAR-SIGHTED FOX



THE PLOT



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PLANTING MISSION



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Although the comics landscape is dominated by superheroes doing classic superhero things, there is a growing movement of comics that have environmental and social justice aims. The Nature of Cities has launched a comic series called [NBS Comics—Nature to Save the World](#)¹, a collaboration funded by NetworkNature and the European Commission on nature-based solutions for environmental challenges. [Rewriting Extinction](#)² (with almost 2M readers on [webtoon](#)³) is a remarkable series of comics with a community of over 300 artists, scientists, and storytellers. [Le Monde Sans Fin](#)⁴ (World Without End), by artist Christophe Blain and scientist Jean-Marc Jancovici, is a best-selling graphic novel exploring energy and climate change. Even Superman, in [Superman for Earth](#)⁵, struggled against ecological degradation. There are an increasing number of examples (Maddox et al 2023).

In social justice, likewise, there is an important history of comics that address racism, sexism, poverty, and environmental justice in ways that are frank, compelling, informative, and even entertaining. Remarkable examples include [Candorville](#) by Darrin Bell (the first black cartoonist to win a Pulitzer Prize) and the [EJ \(Environmental Justice\) Chronicles](#)⁶, by Rebecca Bratspies and Charlie LaGreca.

But we need more.

Comics offer a unique and effective platform for addressing social and environmental challenges through storytelling. The combination of visuals and narratives

in comics provides a dynamic and engaging medium to convey complex issues in a compelling manner. The visual nature of comics allows for the vivid representation of social and environmental challenges. Artists can depict the consequences of pollution, deforestation, or social inequality, bringing these issues to life and creating a lasting impact on readers. Their pacing allows people to contemplate and think between panels (unlike movies, which drive relentlessly forward).

And they can do so at a human-scale and in entertaining ways, engaging not just the heads of readers, but their hearts. They can capture the emotions and experiences of individuals affected by these challenges, fostering empathy and understanding.

Comics have the power to reach diverse audiences, including those who may not typically engage — or want to engage — with other forms of communication. The comics need to be entertaining, though, with better storytelling technique than just a beautifully drawn infographic. The comics shown in this issue — *The Sound of a River*, from the NBS Comics series — is an example. It is a story of rewilding a river in which the technical phrase “rewilding” never appears. It is the story of a young girl talking to an otter about why a channelized river has flooded her town. If we want to reach more people with our science stories, we need to tell our science stories in more entertaining ways. At NBS Comics we offer links to additional reader for readers who want to dive deeper.

Comics are stories, typically including text with pictures. It has always struck me that description — text + pictures = story — suggests ways for scientists, practitioners, and artists to collaborate. Scientists tend to be text-driven, too. What is a scientific journal article if not a story (text) with pictures (graphs)? Comics artists use tools with which scientists are at least vaguely familiar. That’s a start for collaboration. Indeed, research suggests that people are less and less connected to scientific knowledge (Spiegel et al 2013). We need an additional path to science communication.

In other words, comics are big and full of potential to engage a lot of people with important stories of our shared challenges in social justice and the environment. Let’s do more of it.

www.thenatureofcities.com



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¹ <https://nbscomics.com>

² <https://www.rewritingextinction.com>

³ https://www.webtoons.com/en/comedy/rewriting-extinction/list?title_no=3648

⁴ <https://www.goodreads.com/en/book/show/59478153-le-monde-sans-fin>

⁵ https://dc.fandom.com/wiki/Superman_For_Earth_Vol_1_1

⁶ <https://www.rebeccabratspies.com/environmental-justice-chronicles/book-three-sng7y-377yg>



Network
Nature



STEPHEN TURNER'S EXBURY EGG 2013-23

"Shall I not have intelligence with the Earth? Am I not partly leaves and vegetable mould myself" Henry David Thoreau. Walden, 1854."

Stephen Turner

I remember the first morning I awoke, in my new floating home on the bank of the Beaulieu River on 15 July 2013. In a nearby spiky tangle of hawthorn a loud robin announced himself to the world as a pair of cooing wood pigeons clumsily clattered about snapping twigs in a more distant oak. From the darker and watery southwest the call of a curlew was carried toward the shore on gently rippling waves, creating intriguing stereo effects inside the soundbox of the Exbury Egg on the cusp of land and sea. First light creeping in through the circular overhead window revealed a new spider's web around its rim. I was clearly just one creature amongst many in neighbouring nests, setts, tunnels, water channels and in the Egg itself. It was St. Swithin's Day. Long associated with the catastrophic flood that prompted Noah to build the Ark, it was a coincidental connection in an eroding salt marsh landscape, where previously tenacious spartina grass was losing its grip to rising sea levels along the Solent coastline. After nearly three years of planning, I was where I needed to be.

My story had begun with a brief from

SPUD (Space, Place-making & Urban Design) to create a temporary live-work space for an artist in the New Forest National Park, in collaboration with the architects PAD studio, boat builder Paul Baker and civil engineers EDP, with important contributions from marine engineers Robert Weguelin and Stephen Payne (Queen Mary 2) and oceanographer Simon Boxall. It was to be 'lean and green' and leave little trace of its presence after removal; but location, form and functionality were mine to decide.

I have long been drawn to permeable watery edges of places, so the coastal and estuarine fringes of the National Park were always going to be a great attraction and when an early research trip carried us to the Beaulieu River I fell in love. However, I inadvertently threatened what I thought I'd be there to protect when I almost crushed the egg of a herring gull as I stepped ashore - and realised soon after that I simply had to live in an Egg. For whilst architecturally robust, they also stand for the fragility of nature, so easily despoiled as we bestride the planet in our great 'size nines'.



It was my eureka moment. When humans share 65% of their DNA with a herring gull, it's also clear that all life co-exists a part of a greater whole. I wanted a structure that would symbolise such connection, an abode to address the need of the spirit as much as that of the body; where waking up every morning 'in embryo' would be as vital as physical shelter. The architectural

blueprint of the Exbury Egg could parallel its symbolism as a blueprint for life and justify using valuable resources on something more substantial than the tent that might have otherwise sufficed. Its iconic form captured the imagination in a whole new way and floating on the pulsing tide, consistently brought me closer to nature's heart.



The six metre long, western red cedar Exbury Egg, arriving on the bank of the Beaulieu River, July 2013. Photo: ©Nigel Riddan



Swimming with the Egg (selfie)
Photo: ©Stephen Turner



Egg Sacs of the Common Whelk & the Exbury Egg,
Beaulieu River, 2013 Photo: ©Stephen Turner

I often swam and floated around the Egg, buoyed up on warm currents that carried me here and there, but never very far. Shoals of small fry fresh from their own eggs zigzagged around. Mature grey mullet, nervy silvery ghosts that flee at the sight of shadows on the water, seemed happy to pass within inches. It was a calming reminder that all life is equally evolved and interdependent and helped to foster a holistic understanding of our place in the world's complexity.

However, in our largely urban age we have staked much on the idea of the *scala naturae*, of the Great Chain of Being which sanctions human precedence over 'lessevolved' animals, plants and the rocks of the earth, in a culture where anything exists entirely for our use and abuse. It's a philosophy that's led to the extinction of species, the rape of the world's resources and the contamination of land and sea. Alchemy and magic is being subjugated by reductive reason and materialism that's left us with blood on our hands as we race toward a cul-de-sac of self-inflicted damage to the very ecosystems we need to survive.

It's sad to now read, for example that the herring gull's luck has run out, as the irresponsible dumping of plastic waste insidiously threatens its eggs. Professor John Blount of the Centre for Ecology and Conservation at the University of Exeter's Penryn Campus in Cornwall has reported finding phthalates inside the eggs of herring gulls at different locations on the south coast. Phthalates are plasticisers found in most plastic products, that readily leach out and build up in living organisms. They have been discovered in the guts, stomachs and livers of over one hundred and fourteen other aquatic species. From plankton to lugworm, mussels, oysters, squid, clam, shrimp, turtles, salamanders, newts, crustaceans, fish and all

kinds of waterfowl, with little knowledge of the consequences.

For the past ten years I have gently examined such questions whilst engaging with different communities across the country, encouraging people to explore their understanding of and to increase their engagement with the natural world.

<https://exburyegg.me>

¹ Recent figures from DEFRA estimate that the sea level is expected to increase by 114cm from today's levels within a hundred years and this coast is to be left undefended. Over 760 hectares of the surrounding saltmarsh (equal to 700 football fields) are expected to be lost.

² Simon F. Allen, Francesca Ellis, Christopher Mitchel, Xianyu Wang, Neeltje J. Boogert, Chun-Yin Lin, Joseph Clokey, Kevin V. Thomas, Jonathan D. Blount. 'Phthalate diversity in eggs and associations with oxidative stress in the European Herring Gull *larus argentatus*', Marine Pollution Bulletin, Volume 169, 2021, 112564, ISSN 0025-326X

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The Ocean Race

“Racing with Purpose towards the Universal Declaration of Ocean’s Rights.”

Odile Smith

As I stepped off the train in Genoa, a wave of nostalgia washed over me. The familiar sights and sounds of this beautiful coastal city greeted me once again. I strolled down to the waterfront and marvelled at the changes taking place thanks to the transformative Renzo Piano Project. Amidst it all, my attention was captured by magnificent sailing boats eagerly awaiting the arrival of the racing vessels.

However, these boats are not mere vessels for sport; they are sailing for a greater purpose beyond sport. They embark on a mission to gather vital information about our oceans on a round the world race touching several countries Alicante – Spain, Cabo Verde, Cape Town – South Africa, Itajai – Brazil, Newport – RI:USA, Aarhus – Denmark, Kiel Fly-by – Germany, The Hague the Netherlands, Genova – Italy. Covering 32,000 nautical miles (around 60,000km), This is the ocean race, a race we all must win!

Here in Genova, we are at the grand final, the conclusive 7th leg of the Ocean

Race. The Ocean Race is not simply an exhilarating competition; it symbolizes the protection of our precious oceans. Richard Brisius, the chairman of The Ocean Race, passionately stated, “We live by the first rule of the sea, to save anyone in danger ... now it is the ocean that is in danger, and it is our duty to save it.”

Brisius further emphasized the significance of the Genova Process, reaching its culmination in Genova. “Just as Genova marks the end of a gruelling and exhilarating race for our sailing teams, it also marks the final stage of another feat of teamwork: the Genova Process,” he said. “Armed with the expertise and support gathered across four continents, we will have a strong proposition for members of the UN General Assembly that could help secure a healthy ocean in our future.”

The Ocean Race has embraced the challenge of the Genova Process, a global initiative which started in 2018 in Genova and whose aim is that of securing a healthy future for our oceans.



Supported by a multitude of experts, academics, scientists, governments, indigenous communities, and individuals from diverse backgrounds, the Genova Process has refined its ultimate goal through workshops and summits during the Ocean Race’s legs. Conversations that together produce an outcome that will be historical. The document that is A proposition of the Universal declaration of rights for the ocean.

The concept of the Declaration of Ocean Rights mirrors that of human rights and the rights of nature. It grants the ocean legal status and the fundamental right to be protected. The notion of rights is crucial because without them, something becomes an object, a resource, or property that can be exploited. By shifting this

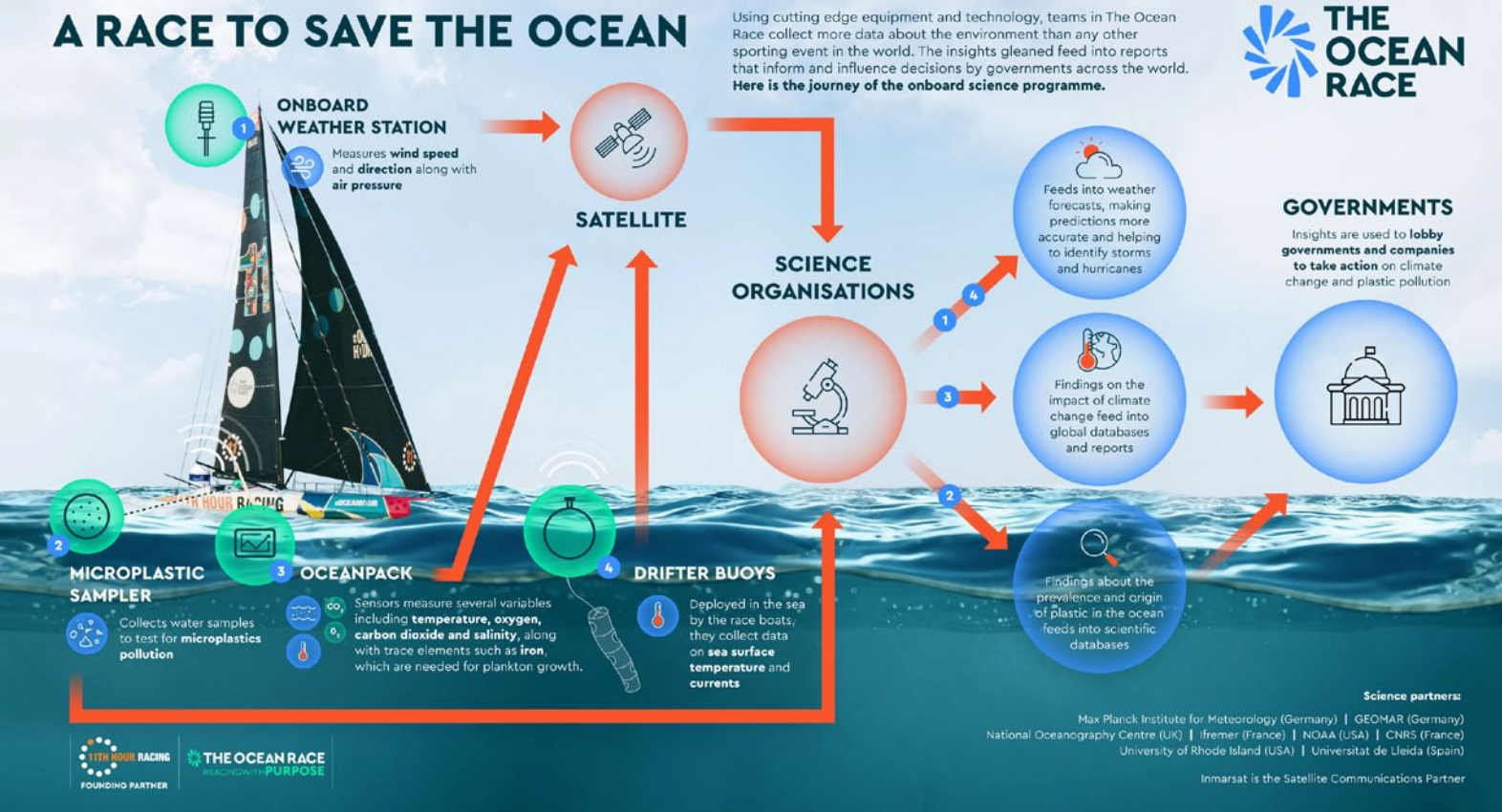
paradigm and granting the ocean the same rights as humans, it can be recognized as a subject with equal rights and can defend itself against environmental degradation.

Presently, a mere 7% of the world’s oceans are protected, leaving vast expanses of the marine environment unregulated and vulnerable to exploitation.

This reality poses a significant threat to our planet’s well-being as a whole.

The Ocean Race envisions a world where the rights of the ocean are acknowledged, protected, and restored. Through the creation of a Universal Declaration of Ocean Rights, they hope to establish a comprehensive framework guiding us toward a sustainable future.

A RACE TO SAVE THE OCEAN



Journal of Biophilic Design THE ENVIRONMENT

We can draw from the example of the rights of nature, which have already been recognized in some countries. The rights of nature framework acknowledges that ecosystems have the right to exist, flourish, regenerate their vital cycles, and naturally evolve without human-caused disruption. When an ecosystem is declared a “subject of rights,” it is granted personhood, it is entitled to legal representation by a guardian who acts on its behalf and in its best interest.

For example, Spain has recognized personhood status for Mar Menor, Europe’s largest saltwater lagoon, codifying its right to exist as an ecosystem and evolve naturally and it is supported by a community of 600,000 individuals.

New Zealand has granted personhood to the Whanganui River, which holds immense cultural significance for the Māori people who consider it an ancestor and enhance the spirit of place.

The concept of granting personhood to natural ecosystems has already been successfully implemented in certain regions.

Ecuador, too, included the rights of nature in its constitution over a decade ago, setting a precedent for what is possible and illustrating the challenges faced during implementation.

Antonio di Natale, a distinguished marine biologist and key player in the Genova Process, stresses the crucial importance of giving the ocean a voice and recognizing its intrinsic value as the primary life-support system of our planet. This recognition is long overdue. Reflecting on the preparation of the declaration, Di Natale explained, “This framework comprises a series of principles that safeguard the ocean’s function internationally, including currents, biodiversity, seabeds, and the communities that depend on the ocean.”

The survival of the ocean directly impacts the survival of coastal and indigenous communities reliant on it. By acknowledging the ocean’s rights, we can foster a world where it is not merely seen as a resource to be exploited but as a complex system that sustains all life on Earth.

Also highly supportive of ocean rights was **Kestutis Sadauskas**, Deputy Director-General, DGMARE, European Commission, who acknowledged that the European Union shares the Race’s ambition to protect

and restore the ocean by 2030: “*We are all in the race against time. If we do it together, if we do it with a sense of urgency and responsibility, we will definitely succeed.*”

The Ocean Race Summits are a key part of The Ocean Race’s multi-award winning ‘Racing with Purpose’ sustainability programme developed in collaboration with 11th Hour Racing, a Premier Partner of The Ocean Race.

Alongside the high-level support for a Universal Declaration of Ocean Rights, the public are being asked to show their support for giving the ocean a voice by signing the **One Blue Voice** petition, which has gathered almost 30,000 signatures. The petition will be presented to global leaders in New York, alongside the principles on ocean rights, to show that citizens around the world demand accelerated ocean action.

Talking about giving universal rights to nature and to the ocean may seem a bit far-fetched to some but let me provide a glimpse of what this could entail.









While sustaining the rights of nature requires a guardian, often any citizen can fulfil this role. However, as seen in Ecuador, where exploitation of the soil persists, it can be challenging for individual citizens to fight against multinational corporations in court due to financial and logistical constraints.

However, this kind of problem was overcome in New Zealand, by the Te Awa Tupua Act which appointed two guardians for the river: one representing the Maori indigenous people and one representing the government.

By granting the ocean a voice and equal rights to humans and appointing guardians to advocate on its behalf, the ocean becomes an equal stakeholder in discussions. These examples demonstrate that recognizing the spirit and value of a place can lead to improved conservation and protection efforts.

Although the ocean is not entirely unprotected, as the United Nations Convention on the Law of the Sea (UNCLOS) exists, its jurisdiction is limited to coastal states.

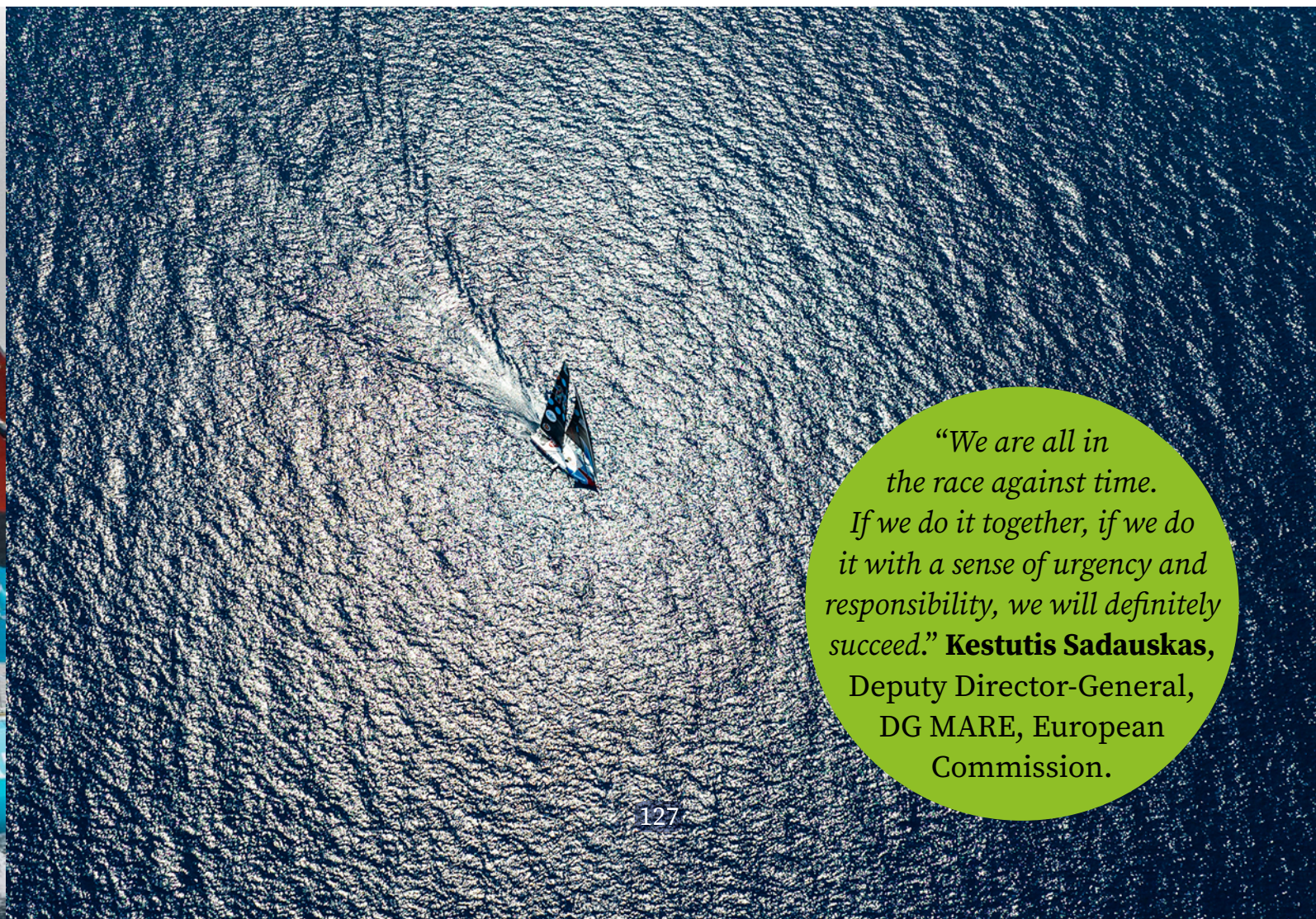
Furthermore, recently, in March 2023, the text of the high seas treaty was agreed upon and approved, pending ratification.

This treaty is an international legally binding agreement for the conservation and sustainable use of marine areas beyond national jurisdiction. Its primary aim is to protect biodiversity by establishing large-scale marine protected areas and regulating marine research for scientific and commercial development. UNCLOS governs and protects the high seas treaty. According to Johan Strid, Director of Ocean Race Summits “UNCLOS takes a more human-centric approach to the ocean, while the declaration of ocean rights adopts a more ocean-centric approach.”

Michelle Bender of Ocean Vision Legal and cofounder of ocean rights framework, describes the declaration as an overarching framework that provides a code of conduct for other agreements to fall under.

One can only dream what it would be like if 70% of the Earth had its own personhood and universal right to exist and grow naturally.





“We are all in the race against time. If we do it together, if we do it with a sense of urgency and responsibility, we will definitely succeed.” **Kestutis Sadauskas**, Deputy Director-General, DG MARE, European Commission.

The summit highlighted the importance of every participant in this conversation, from European and local governments to research centres collecting and analysing data, and private sector foundations like MSC. It is crucial to recognize the integral roles of sailors and explorers.

We now stand on the cusp of a new era where what once seemed impossible becomes achievable. The Genova Process lays the groundwork for the Universal Declaration of Ocean Rights, empowering us to safeguard the ocean's well-being and ensure its longevity. It is a call to action for governments.

Turning to the remarkable race and the teams, incredible sporting moments unfolded as the boats arrived in port. These teams have been at sea for over six months, covering four continents and over 32,000 nautical miles. Their commitment as guardians of the oceans is unwavering, delivering valuable information along the way.

The Ocean Race is one of the toughest races in the sailing circuit, calling on some of the top professional sailors who cannot resist the tough mental and physical challenges that this race requires, crossing some of the toughest seas, such as the Southern Ocean.

The teams endured moments of calm, but also moments danger and not only due to the meteorological and sea conditions, but one boat was attacked by a group of orcas!

11th Hour Racing Team are the first US-flagged team to win the Race, and sailor Francesca Clapcich is the first Italian sailor.

“I’m absolutely ecstatic,” commented Skipper, Charlie Enright (USA). “This race takes everything out of you – emotionally, mentally, and physically. I’m incredibly proud of our whole team who have worked tirelessly for three years to get to this point. There have been highs, some incredible highs, but also lows that have knocked us all, but they were all worth it to hear this news today.”

As we came to the end of the week and after observing the stunning boats and outstanding teams, I couldn’t help but reflect on the magnitude of the journey we are undertaking. The Ocean Race is not merely a thrilling competition; it is a symbol of our commitment to protect and preserve the ocean for future generations.

Our blue planet depends on it.

<https://thehappyhealthyhomeshow.com>

<https://www.onebluevoice.net>

<https://www.theoceanrace.com/en/racing-with-purpose>

Today we celebrate the seas and its guardians, the sailors.

The 60-foot Imoca teams involved were:

TEAMS	TOTAL POINTS
11th Hour Racing Team	29 points
Team Malizia	25 points
Biotherm	19 points
Team Holcim PRB	17 points
Guyot Enviromental Europe	10 points

The final leaderboard sees 11th Hour Racing Team 3 points clear of Team Holcim-PRB in second place, with Team Malizia in third, Biotherm is fourth place and GUYOT environment – Team Europe is fifth.

All that the water is, so am I

“Wild swimming in the oceans, lakes and rivers is a pleasure, health and wellbeing experience but should we also not be thinking about the impact our presence has on the living entities we are swimming with. This is a beautifully written and passionate piece that makes you think.”

Rebecca Olive

Over recent years, and especially through the pandemic lockdowns, outdoor swimming has become an activity that is deeply meaningful in thousands of people's lives. As we float amongst the water, animals and plants with our swimming friends, outdoor swimming offers a way of connecting to places, communities, and multispecies ecologies, and of finding a sense of perspective that can make our problems seem more manageable. This has led to a lot of promotion of the benefits of spending time near or immersed in 'blue spaces', which act as a form of 'blue health'. The ideal is sparkling clean oceans, rivers and lakes, but in cities it also includes canals, ponds and pools. The research is very clear that being around these spaces is good for our physical and mental health, but the reasons why are diverse. Some reasons are multisensory or about cooler temperatures, some are related to physical activity and movement, some are related to forms of meditation, while some are about social encounters and relationships with people, animals, plants, and weather.

My own work frames this in terms of human-environmental health and wellbeing, which is an attempt to get at the interconnections between human health and planetary health. When we swim outdoors, we are choosing to put ourselves in encounters with animals, plants, weather, and more, in ways that we cannot control. That might mean hearing the warble of songbirds, of feeling the brush of seaweed, of watching sunlight sparkle on the surface or feeling the effervescent fizz of a wave after it has crashed. But encounters can also be with eels, pike, sharks, jellyfish, blue-green algae, pollution, plastic, or storms. We might get injured, get sick, get stung, get frightened. To explore such encounters is to take a different approach to thinking about outdoor swimming, by considering less romantic aspects of it: the risks, the dangers, the pollution, the sharks, the jellyfish, the politics of place. In particular, I'm interested in the ways outdoor swimming often makes us vulnerable.

Risk and vulnerability are not topics swimmers usually want to consider, but allowing for complexity in how we talk about outdoor swimming recognises that health and wellbeing relationships are not straightforward.

As I mentioned above, the benefits to us of spending time in nature are immense, but what is less clear are the benefits to nature in return.

Certainly, we can be at risk individually, but we should recognise the risks that others face too. There are many barriers to outdoor swimming for many people, including fear of waves, a lack of water skills, issues with accessible swimming spots for people with mobility issues or those who use public transport, various forms of discrimination, ongoing issues of colonisation, and more. Of course, these issues are not unique to swimming. All activities have multiple barriers and being honest about these helps us identify and address them, such as in the work

done by *Mental Health Swims*. From my experience, outdoor swimming groups genuinely aspire to be welcoming and inclusive and I've always found this part of outdoor swimming culture to be really lovely.

But there are other reasons that people might not be keen to swim, because to swim in nature comes with all kinds of risks. Some easy examples are the need to navigate pollution, animals and ice. While we mostly experience these as pleasures, outdoor swimming requires accepting that these things will have potentially negative health impacts on us. Pollution can be absorbed into our bodies and cause illness (and it can excrete from our bodies into environments in return), animals can injure us (and we can injure them such as the installation of shark nets), and despite how popular ice swimming is right now, water that cold can have health implications (and I'm curious as to the impacts of people breaking ice on the associated ecologies).



When we swim, it's not just us who are in an encounter with animals and plants. They're in an encounter with us too. If we're not thoughtful, and if we only see the effects of these on us then we fail to take care of the critters in return. What do we trample as we enter the water, what do we scare as we chase them for a look, what do we pollute with the microplastics shed from our swimwear? I'm not suggesting

we shouldn't swim, nor that we should feel guilty about having any effects. I'm just highlighting how we're in relationships.

This means that we affect things just as we are affected by them, and we should include considerations of that as we choose where and when to swim, and how to take better care of the places that we love.

And there are lots of examples of this. The UK has an established and growing culture of activism against sewage releases, with *Surfers Against Sewage* leading that charge. Like surfers, outdoor swimmers are often navigating issues of pollution when we immerse ourselves and so have developed ways of knowing about pollution levels and where to swim safely after rain. But that's not the only thing that can harm us. In Australia, there is a lot of campaigning against non-enclosed 'shark nets', which were introduced to create a sense of safety for swimmers and surfers, but which have resulted in the deaths of many thousands of animals, including sharks, whales, dolphins, turtles, rays, and birds, and including animals that are endangered. In many places, there are signs and programs to alert beach users to the fragile nests of shorebirds in nesting season. They usually nest in summer, which is the prime time for humans to use beaches too. Their nests are shallow and vulnerable, and birds will often abandon their eggs when humans are on the sand. If we know we're sharing a beach with nesting shorebirds, we can take steps to ensure their safety, such as keeping our dogs on a leash and avoiding using dunes and other common nesting areas.

When we swim, we are vulnerable, and that is part of what makes it so wonderful. That is part of the perspective that we gain from our immersions. Our vulnerability reflects the choice to participate in the world as it is, and to swim out into it. It reflects the reality that nothing we do can ever be in total isolation from risk or from the unknown. Our vulnerability should not represent the end of an activity. Instead, it should be part of

how we come to talk about the value of it. Swimming makes us think about how we live in multispecies ecologies filled with animals whose lives have meaning and value beyond those we impose on them. It makes us more aware of the injustice of how sewage and pollution is discarded into oceans with little long-term planning or consideration of who and what it might impact. It highlights that free, public access to rivers and creeks can be at the whim of wealthy landowners, and that our use of the land and water without their permission can be an act of trespass. Our vulnerability as outdoor swimmers is personal, but it's political and ecological too.

Certainly, as people who love being in water, there is more that swimmers can do to take care of environments and the animals and plants who live there. We can be active in the campaigns for better management of pollution and sewage. We can learn about and respond to behaviours and migration and breeding seasons of the animals we share the water with to better decide when to swim. Informing ourselves means we can take measures to keep safe. For example, people swimming in northern Australia in warmer months are advised to swim at netted beaches, and wear wetsuits or stinger suits to avoid the dangers of jellyfish. Entering the water slowly also gives some marine stingers time to move away. We can also think about what we leave behind in the water when we swim in remote places – moisturisers and sunscreens from our skin, microplastics from our swimmers and robes, analgesics, and antibiotics from our urine. We're vulnerable when we swim because we're part of the ecology we're immersed in.

Swimming is a pleasure, a joy, and a health and wellbeing practice for so many people, but we're reaching a critical mass where we need to ensure that these health and wellbeing benefits extend beyond the people who participate and into the places we swim in return. Nature is not just a resource for us to use for our own health. Many First Nations cultures talk about caring for place as an act of caring for community and, thus, for our self. In this notion, First Nations people include much deeper spiritual and cultural connections to ancestors but event in terms of health, wellbeing, and community there is a lesson for swimmers to learn from this notion. That ultimately, taking care of swimming places is part of a complex health practice. Human-environmental

health and wellbeing is intertwined, after all.

Rebecca is Vice-Chancellor's Senior Research Fellow, RMIT. She is a qualitative researcher whose work is focused on the role of recreational lifestyle sport and leisure in human-environmental health and wellbeing. She is interested in the cultural politics of these sports, as well as the effects they have on individuals, communities and ecologies. Building on her feminist work about sex/gender politics and experiences of surfing, her current focus is on how swimming, surfing and sailing shape our relationships to coastal and ocean ecologies, and how we come to care for them.

<https://movingoceans.com/>



We are all water people

“Few can resist turning to look at the shores of a vast ocean or the peace of a lake, to want to read the surface of water like a book and wonder at what lies beneath, at the lifeforms that can live where we cannot.”

Mary Colwell

We are all water people, an ancestral echo still resounds, giving humanity clarity and depth. It manifests in our moods as storms or deep calm, we are attracted to how it looks and behaves, intrigued how it transforms from liquid to solid to the lightness of clouds. We all mirror its many states. Few can resist turning to look at the

shores of a vast ocean or the peace of a lake, to want to read the surface of water like a book and wonder at what lies beneath, at the lifeforms that can live where we cannot. Some retain more of this attachment than others, the memory is clearer and more present. When you meet someone deeply connected, you know it.

“Wetlands like this swamp, they hold our stories, they are places of memory and of ancestors, they were where the old people buried their dead and where spirits move. When we think of the people of the swamp and their epic poetry, one saga tells of a fight between two great spirit men, and they are trying to sing the other to the swamp.” As Tero Mustonen talked, brown water seeped over his boots as his feet sank into the Kesonsuo Peatland in eastern Finland, near the border with Russia. Tero looked as part of the Finnish wetland as the lone pines dotted around, the grey boulders, the Whooper swan beating its wings and the Curlews calling from somewhere far away. Water, wood, birds and wind interplay here, merging and weaving, stay too long and they might draw you in, too, transforming clothing, skin and bone into wildness.

“These peatlands are liminal spaces, where the other and the spiritual come closest to us.” Tero doesn’t talk like any

other ecologist I have ever met. Our small group listened to him from a wooden walkway, safely removed from what makes this landscape what it is, the water. He is a re-wilding expert and biologist, his organisation, Snowchange, works with local communities to restore damaged lands in the Arctic and boreal regions of the world, nurturing them back to health. He has won awards, most recently the Goldman Environmental Prize. He is fluent in the language of chemistry and biology, but he is also a bard and a singer of ancient songs that hold near-forgotten wisdom. Growing up in the forests he retains a strong connection to their cultural history, a living thread to the ghosts of long-gone peoples who drew what they needed from a land that is part wood, part water, part mist. He continued, “The old societies thought of the many lakes here as the eyes of the swamp, and they came here to communicate with their ancestors, with the unseen.”

My spirit bird is the Curlew, an elegant wading bird that weaves a thread of connection between its wintering grounds on mudflats and coasts to its breeding sites on meadows and moors; it is declining badly. To lose it would be an unspeakable tragedy, not only because its haunting call would be lost from the land, but also because it brings wildness into our lives, and there is precious little of that left. As we drain, convert, 'improve' and flatten the wetlands of the world, we seep life from our souls, too. And we lose the cultural memory and the wisdom of those shaped by water, the knowledge of the generations who have lived in and through watery worlds. Tero's appeal to

connection with nature is as important as the practical work. We have always been a part of the complicated web that is life on earth, detach ourselves and a great unravelling begins. Without an emotional, cultural, spiritual relationship with the natural world, all other efforts will fade away.

We left with a better understanding of the practical challenges of conserving species and habitats in eastern Finland, but we also glimpsed something moving underneath, a different reality. It made us all quietly thoughtful, as though we had touched something vanishingly rare and fragile.

Mary Colwell www.curlewaction.org

Chair – Curlew Recovery Partnership England www.curlewrecovery.org

Books:

John Muir – The Scotsman who saved America's wild places (Lion Hudson)

Curlew Moon (Harper Collins)

Beak, Tooth and Claw – Why we must live with predators (Harper Collins)

The Gathering Place – A winter pilgrimage through changing times (Bloomsbury, out April 2023)

Snowchange: <http://www.snowchange.org/>

Goldman Environmental Award:
<https://www.goldmanprize.org/current-winners/>

Lighting for Life

“Our use of artificial light at night (ALAN) has enabled us to safely work and socialise during the hours of darkness, to the extent that much of 21st Century humanity no longer feels shackled by the 24-hour cycle of light and dark. We have, undoubtedly, enjoyed numerous benefits from exercising our control over this cycle, but not all the effects have been benign.”

Steve Tonkin FRAS, Dark Skies Advisor to the International Dark Sky Reserve

In the 1980s we noticed that there was a correlation between exposure to ALAN and the incidence of breast cancer. There was no known causal relationship between the two, so the correlation was initially dismissed as a statistical coincidence, but within a decade (Hahn 1991) it was clear that women with profound bilateral blindness experienced a lower tendency to this cancer; mere coincidence was unlikely.

We now know that ALAN is not only implicated in the exacerbation of a variety of cancers, but also in a number of other human ailments, ranging in severity from reduced cognition and creativity, through various psychiatric disorders, to what we consider to be the “diseases of modern living” (obesity, hypertension, type 2 diabetes). We now also know the cause: the dysregulation of the hormones melatonin and leptin. In 2016 the American Medical Association declared exposure to ALAN to be a human health hazard.

The biotic harms of ALAN are not limited to humans; they extend to natural environment. It seems that everywhere we look at the natural world, from migrating birds to mating frogs, from foraging mammals to freshwater plankton, from fish to already-endangered bats, it is adversely affected. ALAN is recognised as one of the major drivers of biodiversity collapse (the others being climate change, habitat loss, and pesticide use). It is also the one that is most easily rectified.

The natural response of living things to the light-dark cycle is the product of millions of years of evolution. It is not merely the quantity of light that varies during this cycle, but also its quality: the bright white sunlight and blue sky of daylight differ markedly from the golden glow of sunset or firelight. In modern lighting parlance these qualities of light are Colour Rendering Index (CRI) and Correlated Colour Temperature (CCT).

The CRI is what it says on the tin: it is a measure, on a scale of 0 to 100, of the colour fidelity that a light can provide. Anything above 80 is generally considered to be good, and most people cannot distinguish 90 from 100 unless they are doing a direct side-by-side comparison. Under a low CRI, colours appear washed out and lifeless.

CCT relates the colour of a source like a fluorescent lamp or LED to that of

a glowing filament. It is measured in kelvin (K), the scientific temperature scale; 0°C = 273K. As the filament gets hotter, its light changes from a dull red glow to a bright white. Paradoxically, we perceive the light from the cooler filament (hence lower CCT) to have a warmer quality than that from a hotter one. Midday sunlight has a CCT of about 5500K and at sunrise or sunset it is 3000K or lower.



Moffatt before and after the implementation of Jim Paterson's masterplan – Photo credit: James Paterson



The Milky Way over Rainbow Canyon (Chile)
Photo credit: Louise McKenna

The Milky Way over Volcán Miñiques (Chile)
Photo credit: Louise McKenna

The trick with energy-efficient LED lighting is to try to mimic the quality of natural light. Use “cool white”, say 4000K or 5000K, during the day, or at night when alertness is necessary. Recent research that this is healthier than “warm white” light for cognitive tasks.

However, whenever possible at night, use warm white light, 2700K or lower. Although Moonlight has a CCT of around 4000K, its spectrum is very different to an LED spectrum, which typically has a sharp spike of output in the blue part. It is light of this colour that is potentially the most damaging to human health. Our circadian rhythm, the natural cycle of bodily activity and mental alertness, is modulated by the intensity and colour of light. If there is a strong blue component, it activates intrinsically photoreceptive

ganglion cells in our retina with a number of effects. Firstly, it interferes with our circadian rhythm and makes us feel more wakeful. The long-term result is akin to working unhealthy shift patterns. Secondly, it causes the dysregulation of melatonin, which has an oncostatic action, hence the increased susceptibility to cancers.

It is also this blue that is most dangerous to many insect species: they are more strongly attracted to light from the blue/violet end of the spectrum. It's estimated that around a third of the insects attracted to an outside light will die that night, mostly from predation. Those that survive will not have been pollinating, foraging, or reproducing. Fruit flies (*drosophila*) put under blue light for 24 hours will simply die!

Responsible outdoor lighting at night follows the Five Principles enunciated by DarkSky International, which is that the lights should be:

1. Useful; it should have a clear purpose
2. Targeted and constrained so that it shines only *where* the light is needed
3. No brighter than necessary for the lighting task
4. As warm a colour as possible
5. Controlled by timers or motion detectors, so they shine only *when* the light is needed

These principles are applied in designated Dark Sky Places, which include urban communities such as Moffatt in Scotland, where lighting designer Jim Paterson has inspired the implementation of a community-wide lighting strategy. Jim calls it “the mustard seed which grew into

an observatory” ... and it is still growing.

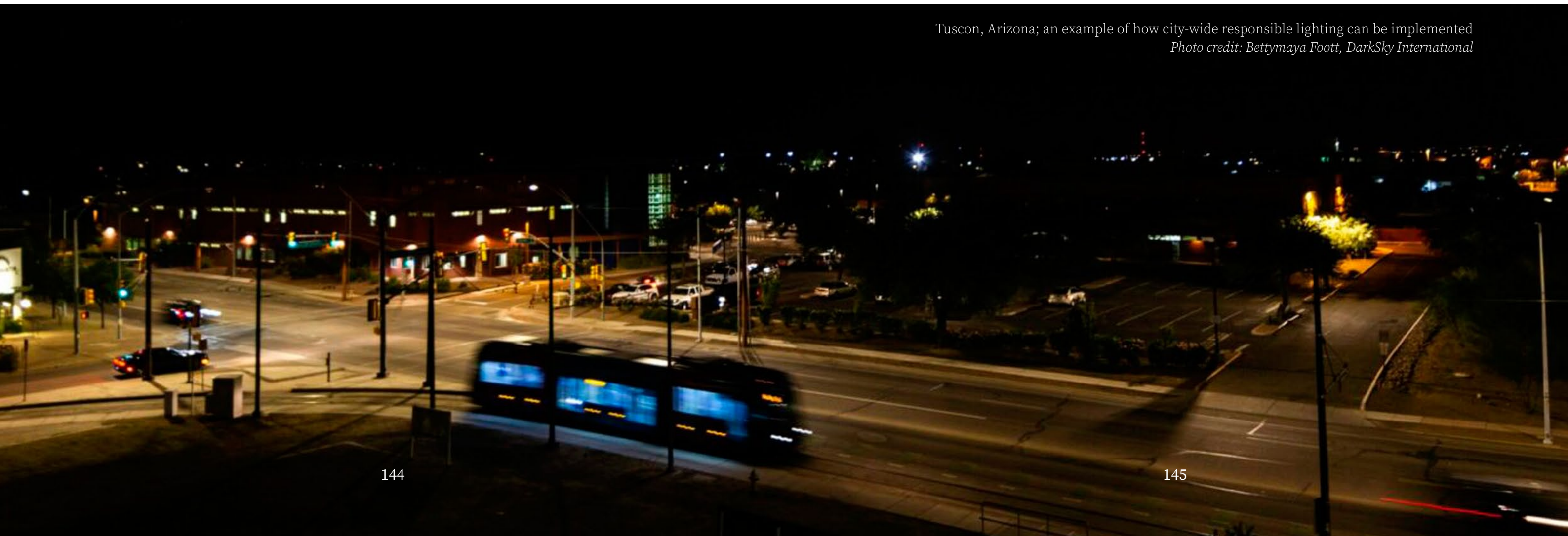
Although no large UK cities have risen to the challenge, the case of Tuscon, Arizona (population 542,000) demonstrates that even cities can restore what careless lighting has increasingly deprived us of. In the words of the late dark sky advocate, Bob Mizon:

For millennia, on every clear night, humans have wondered at the awe-inspiring spectacle of the starry heavens...The light from distant stars and galaxies takes hundreds, thousands, even millions of years to reach us – what a tragedy to lose it in the last millisecond of its journey.

<http://www.chasingstars.org.uk>

Cranborne Chase – Home of Outstanding Dark Night Skies as well as Natural Beauty

Tuscon, Arizona; an example of how city-wide responsible lighting can be implemented
Photo credit: Bettymaya Foott, DarkSky International



WELLBEING

Wild Blue

“What does it feel like to be in the presence of ancient primeval woodlands, fast-flowing streams, waterfalls and slip quietly into wild water?”

Amanda Bond

Bathing in a mountain rockpool in the oldest Rainforest in the world – the Daintree Rainforest is approximately 130 million years old – is a memory I treasure. The Daintree is a remnant of an ancient forest that used to cover Australia.

Its tropical rainforest system is one of the most complex on earth. The landscape is incredibly diverse – we visited just a small portion of its magnificent scenery, mountain ranges, fast flowing streams and waterfalls, deep gorges and dense rainforest.

Assured that crocodiles did not live at the altitude of the waters we sank into gratefully, after wandering slowly through the humid forest, the feeling of that silky water will never leave me.

It's almost impossible to describe the feeling of being in an ancient forest – amongst the living presence of the highest number of plant and animal species in the world that are rare or threatened with

extinction. That was back in 1987, the year before the Daintree was designated a World Heritage site.

In the Southwest of England, closer to home, on Dartmoor and Exmoor are surviving patches of temperate rainforest. Ancient Oak forests, not as old as the Daintree, but nevertheless a reminder of a different world. Temperate rainforests used to cover the land up the western reaches of Britain's Atlantic coast.

Rivers run through the valleys where the remaining 3 forests stand on wild hillsides on Dartmoor, on Exmoor you stand on a thick mycelial carpet in the rainforest looking down into the gorge below. I dipped into the river below Wistman's Wood, delighting in the cooling sensations of bathing in crystal clear waters fed by moorland springs.

What is the thread connecting these living memories of our ancient past? They are rainforests – water, the substance that gives our home its name – the Blue Planet.





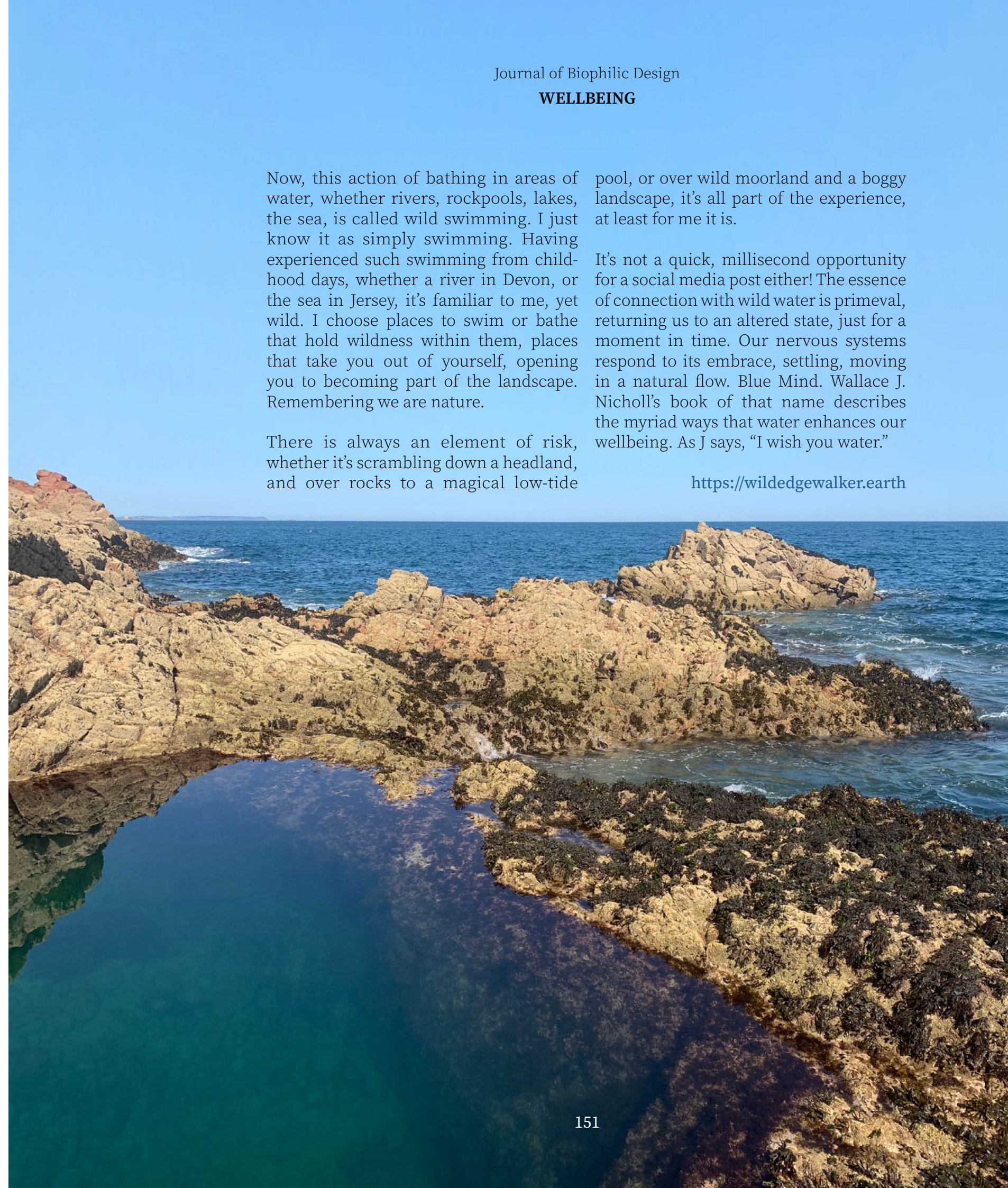
Now, this action of bathing in areas of water, whether rivers, rockpools, lakes, the sea, is called wild swimming. I just know it as simply swimming. Having experienced such swimming from childhood days, whether a river in Devon, or the sea in Jersey, it's familiar to me, yet wild. I choose places to swim or bathe that hold wildness within them, places that take you out of yourself, opening you to becoming part of the landscape. Remembering we are nature.

There is always an element of risk, whether it's scrambling down a headland, and over rocks to a magical low-tide

pool, or over wild moorland and a boggy landscape, it's all part of the experience, at least for me it is.

It's not a quick, millisecond opportunity for a social media post either! The essence of connection with wild water is primeval, returning us to an altered state, just for a moment in time. Our nervous systems respond to its embrace, settling, moving in a natural flow. Blue Mind. Wallace J. Nicholl's book of that name describes the myriad ways that water enhances our wellbeing. As J says, "I wish you water."

<https://wildedgewalker.earth>



FROM THE EMERALD ISLE TO THE BLUE PACIFIC CONTINENT

Deborah Early, PhD

152

“Creativity has been inspired by our connection to water. Across the seasons, but especially during summer, many of us seek out the water’s edge. Throughout history, from the Emerald Isle to Aotearoa and surrounds, there are stories of water spirits. Poets and artists have been inspired by blue water, whether it be the ocean or river. But there is more to our water connection than just the visual.”

Beyond just the summer pleasures and salty scent of the ocean that we enjoy, all life on earth depends on clean water. Our bodies are made of water and it is used for hydration and hygiene and is important in agriculture and many types of commerce. Water is also important for transportation; I myself live boat access only! Civilizations have been established and flourished around water such as the famous Nile River and Egyptians. The Incas who built Tambomachay (the Temples to water in Cusco) and the Nasrid rulers in Granada incorporated aspects of nature-inspired design and relied on sustainable water resources. This helped their communities flourish.



Generalife Gardens at the Alhambra Palace, Granada (Spain)
by Debbie Early

In a 2020 [interview](#), Mathew White of the University of Exeter discusses the beneficial impact of incorporating water into urban scenes with e.g. fountains and canals. There is [growing evidence](#) to suggest that regular time outside in the natural world improves both physical and mental health. In 2017 researchers from Deakin University explored the benefits of green spaces on mental health in a [paper](#) titled “Feeling Blue, touch green: examples of green spaces promoting mental health”. “Feeling blue” is usually understood to mean feeling gloomy or down the dumps for short durations and might be an indicator for change. A 2015 [study](#) by YouGov.com found that blue was the world’s favourite colour.

What then, is “Blue Mind”?

Dr. Wallace J. Nichols, an author and ocean

conservationist coined the term “[Blue Mind](#)” and described it as a mildly meditative state characterised by calm, peace, unity and a sense of general happiness and satisfaction with life in the moment. As one might expect, it is inspired by water elements and associated sensations. Nichols hopes that children, especially, learn that water can be a source of peace and connection. In addition, he hopes that by valuing water we’ll protect it.

In Aotearoa New Zealand [water is a taonga](#) (treasure) and of significant importance to Māori. In 2017 Parliament passed an innovative, complex and controversial bill [making the Whanganui river](#) the first river in the world to be seen as a person in the eyes of the law. This recognises the local iwi and river relationship and aims to also protect the river. In addition, Māori have a [rich history](#) with the sea.

Endeavour Inlet, Queen Charlotte Sound Tōtaranui from Bluewater Lodge, by Debbie Early



153

However, as many across the world also recognise, the cycles and conditions of nature are always changing, and it would be easy to allow a romantic lens to tinge our vision. Flooding and fire in many areas across the globe have recently displaced people from their homes, resulted in re-evaluations of building codes and insurance and caused sky-rocketing increases in agricultural produce. Just as our inner world can become tumultuous during periods of feeling blue, sea travellers recognise the potential danger of venturing out during rough seas and hikers are wary of river crossings after severe rains, so too urban designers face challenges.

According to the World Bank, in the last twenty years watershed degradation has cost global cities \$5.4 billion in treatment and drought is a major problem too. “Grey infrastructural solutions” using steel and concrete have been employed to date to reduce and manage impact from natural disasters and to manage water. Future urban designs observing e.g., natural patterns and landscape, reducing urban heat island effect, and integrating storage and sanitation at effective scale and affordable cost are some of these challenges.

In a 2019 paper Julia Africa and colleagues describe [biophilic design and climate change](#), specifically focused on performance parameters for health. According to these researchers, the application of Biophilic Design (BD) solutions (e.g. low energy buildings and provision of wind and shade as needed) can enhance resilience. While the work of [Chro Radha](#) in Iran, published in 2021, suggests that biophilic planning and designing components indicate the sustainability impacts of an urban environment. This is important as research carried out in 2020 by [Seddon et al](#), suggests there are concerns around not including local communities in solutions as well as the reliability and cost-effectiveness of nature-based solutions. Their research suggests additional work is needed to establish multilateral consortia of close partnerships across willing intradisciplinary organisations. Their research suggests that nature-based solutions can play a role in enabling development within existing planetary boundaries, but those are probably best implemented within a

systems-thinking framework that calls for interdisciplinary collaboration. While [Ferreira and Potočki \(2021\)](#), describe a combination of nature-based solutions and grey measures that might be the best solution for stormwater management and urban flood mitigation, thus supporting “Blue Mind” of the associated and impacted local communities.

While there is a plethora of global research about e.g. water in the human body, aquatic ecology and urban nature-based solutions, Nichols reminds us of [the emotional value of water and “Blue Mind”](#). Moving forward, innovative and creative projects that benefit the future of people and planet call designers to be brave, to take risks, to think outside the square and to ask all-important questions, “What is my own relationship with water? And Why?”

<https://www.thebluewaterlodge.co.nz>

<http://www.deborahearlyphd.com>



Debbie meditating on North Island – photo by Patrick O'Rourke

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Deborah Early, PhD has a background in bio-medical science and is certified in permaculture design and as a yoga and meditation teacher. Over the last 10 years, she has been a bridge-builder, involved with a number of different global organisations to increase opportunities for diverse populations to connect with the natural world in ways that benefit people and planet. She is dedicated to the area of nature connection and wellbeing and has learned, in-person, from Indigenous and non-Indigenous communities in Australia, Europe, Peru, Africa, USA, Aotearoa/ New Zealand and India. She currently lives off-grid, with boat access only on the Queen Charlotte Track, at Bluewater Lodge; a Fraemohs home which considers natural light and passive heating and has stunning views over the bluewater of Endeavour Inlet, Aotearoa New Zealand. She enjoys hiking, photography, drumming and reading.

The Archetype of Water

This is the first article in a series on the five elements

Maureen Calamia

In feng shui, there are five elements of nature (wood, fire, earth, metal, and water) and according to Eastern philosophy, each of these elements make up all of creation. Not only as these elements the material of physical matter, unlike the Western elements, they are connected with all of unseen energy, or chi.

These elements are sometimes called the five phases, or transformation of chi. That is because they represent how energy shifts, changes, and impacts each of the other elements. There is a process of creation and control (sometimes referred to as destruction). Each element has an element that creates it, another that controls it, and yet another that drains its energy.

This elegant process is so simple, yet profound, in that it describes how the natural world, basically everything in creation, maintains equilibrium and harmony.

Each element has many characteristics and layers that form a depth of knowledge of how the natural world works, including us humans. These elements are expressed as character and personality traits within us.

Below is an excerpt from my book, Creating Luminous Spaces: Use the Five Elements for Balance and Harmony in Your Home and in Your Life¹ goes into detail about how these elements show up in our lives, representing archetypes of energy and personality traits.

The Water Archetype: The Philosopher

The Water Element loves stillness and contemplation. In a culture that glorifies the activity and competitiveness of the Wood Element, Water provides inner reflection, taking time to replenish her energy, and makes it a priority for ample sleep and dreams. Proper Water gives us a feeling of security and the ability to process fear from the past, present or future. Balancing the Water Element is crucial in our lives, to help us restore our energy and feel nourished and supported. Water is independent and prefers to work alone on her own time. Water also provides the space for idea generation and planning, where ideas plant their seed (as in the womb), waiting to emerge from the ground when the timing is right.

Water is Deep & Introspective

An introvert, Water requires and craves time alone for deep reflection and contemplation. Water ponders the mysteries of life and the big existential questions. She is the Philosopher! Always a student, she craves knowledge and seeks the perfect teacher. She easily transitions from one dimension to another – the spiritual plane is but a finger-length away. She flows, seeking the deepest level and lowest places.

Water also knows the importance of sleep and restoration. She nurtures herself; understanding the need to balance the yang with the yin.

I was born a Leo, so I truly identified with the Fire Element. When I learned that my Element was Water according to 9 Star Ki Astrology (a Japanese system of astrology and numerology), I didn't readily identify with it. But I soon came to realize Water as the Philosopher, and then I "got it" and its role in my life.

Looking back, I can see how the Water Element truly influenced my young life, and still to this day. My father died when I was 11 and soon after I became very contemplative and philosophical. Now, of course, I recognize the significance of my father's death, a treasured gift in my spiritual awakening. I dived into astrology soon after, on a path of understanding self and my purpose in life. I craved my alone time yet balanced it with my need to socialize and be on stage (Fire).

Water can always be Searching

Water can be so obsessed with the big

questions, always searching and never feeling satisfied. She knows that the bottom is fathomless, yet she doesn't hesitate to attempt to reach it. She can be obsessed with death and the afterlife, and not able to live in the present moment. She is unable to relate to people that don't have her passions.

I often find it hard to relate to people that live on the surface and don't have any interest in a deeper understanding of themselves and their lives. It is a real challenge for me. Fortunately, as I've evolved and grown, I am surrounded by more like-minded people, giving me a wonderful network and community that are in-sync with my passion for depth.

Water is Independent & Self-Sufficient

She is independent and prefers to work alone in non-conventional careers. A non-conformist, she abhors tradition for tradition's sake. She prefers working on her own in a freelance, consulting capacity. Water "beats to her own drum." She does things her way regardless of what others think. She rarely shares her opinions with others and therefore, feels no obligation to listen to the opinions of others.

This, too, rings so true for me. After college, I went the "traditional" route of getting a full-time job in marketing. I worked the 9-to-5 routine for a while, but when I had children, I strove to work part-time. In fact, when I look back, I worked "part-time" as a marketing freelancer/consultant for 70 percent of my marketing career. Now I'm a feng shui consultant, teacher and author and make my own hours. Perfect for my Water nature!



Water can be Inaccessible & Isolated

She may spend too much time alone that she is isolated from society, a sort of hermit. She then becomes unable to relate to others and may be lonely. She may be highly critical and sceptical of others motives and behaviour. She is very private and feels vulnerable; can be easily overwhelmed.

One thing that I was concerned about, after leaving the corporate world, was feeling isolated in my solo entrepreneur gig. I immediately realized that I needed community (Fire) and joined two organizations on the board of directors – a local nature group and a feng shui organization. These experiences have prevented me from feeling isolated and lonely.

Water is Imaginative & Playful

Her deep internal access and contemplation gives her great imagination and creativity. Often the artist – the painter, musician, poet – even if this isn't her occupation. Typically shy, she has the capacity to inspire when sharing her work with others. Her brilliance shines through.

In a non-traditional sense, Water is creative by coming up with alternative solutions to problems. She is like the stream encountering a boulder. She builds up her energy and finds her way around it. When in balance, she possesses a capacity for

playfulness, like a small babbling brook. She is not afraid of letting her artistry flow without judgment.

I always felt that I lacked creativity. My childhood friend, Lisa, had all the artistic talent. We did many arts and crafts together and my thingy-ma-bob always looked sad compared to hers. She was very artistic (Water) seemed to have the gift of perfection (Metal). But it took many years for me to feel creative. And once I started to view myself as creative, I really enjoyed expressing it. My writing has been a great outlet to explore and experience imagination and artistry. I believe that we are all creative. We just need to find where our creativity lies, then tap into it and enjoy where it takes us!

Water can be Eccentric

Water has great creativity, but without a balance in her life and interaction with others she can become that weird, eccentric “cat lady.” She may feel sorrow and loneliness, feeling ostracized, if she doesn't reach out to others.

Water is Calm & Flowing

A great asset to Water is that she brings a sense of calmness to any situation. Others rely on her ability to see the big picture and not get caught up with the details. Her energy is flowing and often people say she “goes with the flow.”

¹ *Creating Luminous Spaces: Use the Five Elements for Balance and Harmony in Your Home and in Your Life* (Conari Press, 2018)

Water can be Suspicious & Cynical

When her Water is imbalanced, she retreats in fear from others. She is over-protective and suspicious of others' motives and behaviour. She is cynical and feels unsafe in her surroundings. In the extreme, she can become reclusive and develop phobias. With imbalanced Water, she can be always home (too little Water) or never home (too much Water).

The archetype of Water (The Philosopher) is seen in our poets and philosophers from time immemorial. They are the thinkers, sages, and wise teachers; the witches and shamans that were ostracized, living on the edges of society or claimed as heretics. They are the ones that thought outside-the-box, recognizing that the earth was not flat, and in fact, our bodies are made up of microscopic cells.

People who have a Water True Nature tend to be freelancers or consultants. They prefer to make their own schedules. They are often in imaginative-type work, in the arts or esoteric fields, or quantum physics. Unlike Fire which is on the stage, Water types tend to be in the background, writing screenplays, in the laboratories or designing websites. They are drawn to teaching positions, giving

them the opportunity to constantly go deeper into themselves.

Water types often have some of these facial/body features: a prominent chin, high forehead, puffiness and/or shadows around eyes, large ears/lobes. Her body type tends to be plump with strong bones, wavy/thick hair, with black undertones to skin (regardless of race).

Physical symptoms of weak Water are dulled vision and hearing, feeling cold, osteoporosis, lacking appetite, headaches. Like Water, she can be dried up or frozen. Too much Water can lead to headaches, lack of perspiration or rigidity of muscles and joints.

Water has lots of books and her own handwritten journals. Her home is filled with original art and creative projects abound. Her meditation space is of primary importance, but don't expect her to give you a tour. She keeps her spaces private.

Curious what True Nature Element you are? Visit my website and take the True Nature Quiz:

<https://www.luminous-spaces.com/>

Fordingbridge Avon Bathers

“Wild swimming is increasingly popular, which is fine if the water is clear. But what if it’s not? Like an increasing number of community spaces that either face eradication or neglect, there is another corner in England where the residents are coming together with the aim of improving their ‘place’. After all the good things we’ve learnt about the connection to water, here we hear about a group applying for Bathing water status for the River Avon at Fordingbridge.”

Louise Tonkin

We are a group of concerned residents in Fordingbridge who decided in May 2023 to apply for Bathing water status for the River Avon with the primary aim of protecting the river for wildlife, bathers and other users.

The area we want designated is owned by the Town Council and is the town recreation ground with a small beach onto the river. There are toilets, a kiosk, play equipment and a Council maintained paddling pool all within 2 minutes walking distance of the town high street. The recreation ground is frequently busy, with whole families sometimes spending the day there. The river is an integral part of the character of the space both visually and being a place to paddle and swim. From 1899 for 26 years, there was the famous Fordingbridge Regatta, which even brought train loads of participants from London.

All year round the river is used by bathers and anglers, and particularly in the summer the river is well used recreationally by children, paddle boarders, canoeists and many others. Visitors include local residents, holiday makers and families coming from Southampton, Bournemouth and Salisbury.

At the moment there is no monitoring of water quality, so the level of pollution is not known. There have been anecdotal reports of people getting sick after swimming. The water company, Wessex Water has a storm sewage outflow just upriver of the town which discharged 19 times into the Avon during 2022. This storm overflow, however, is not on their list for improvement, which means it will not be upgraded until at least 2035.







The reasons for getting designation are:

- The Environment Agency will have a statutory duty to test and monitor the water quality and publicise the results. Defra will be required to publish the annual findings and classifications.
- Wessex Water will have a duty to prioritise reducing discharges from the outflow. The Government is publicly backing bathing status designations to put pressure on water companies to increase and focus investment.
- The River Avon is an internationally designated and protected chalk stream. Protecting the health of the river will have huge benefits for the environment generally and animal, bird, fish and insect life.
- With statutory monitoring bathers and users will have information to be able to risk assess whether they swim or not.
- Over the next few years, the local planning authority – New Forest District Council – is intending that over 1500

new houses will be built in and around Fordingbridge, increasing the size of the town by 50%. All these new houses will put increasing pressure on the health of the river and we want to protect it.

If we do not achieve this designation, this beautiful river will be in danger of dying completely. The DEFRA criteria are difficult to meet and most applications get rejected. Only 4 were approved in 2023. However, this site meets the minimum criteria so we believe we have a good chance of success. We will find out in May 2024.

Fordingbridge Avon Bathing

<https://www.fordingbridgeavon.org>
<facebook.com/fordingbridgeavon>

Photos of the river by Adam Ellis

*Archive photos from
The Fordingbridge Museum*

5/83/6/42

A PROGRAMME OF MUSIC

Will be rendered for DANCING (Waltzing Competition).

BATTLE OF CONFETTI

Immediately after the Distribution of Prizes.

Procession of Illuminated Boats

Leaving Boathouse at 9 o'clock, for the W. S. Neave Silver Cup.

Entrants are advised to assemble at Boathouse at 8-45, and all Boats then on the River are asked to kindly place a light, bow and stern, as a precaution of safety.

Spectacular Lighting Effects

AND

Illumination of Riverside Gardens

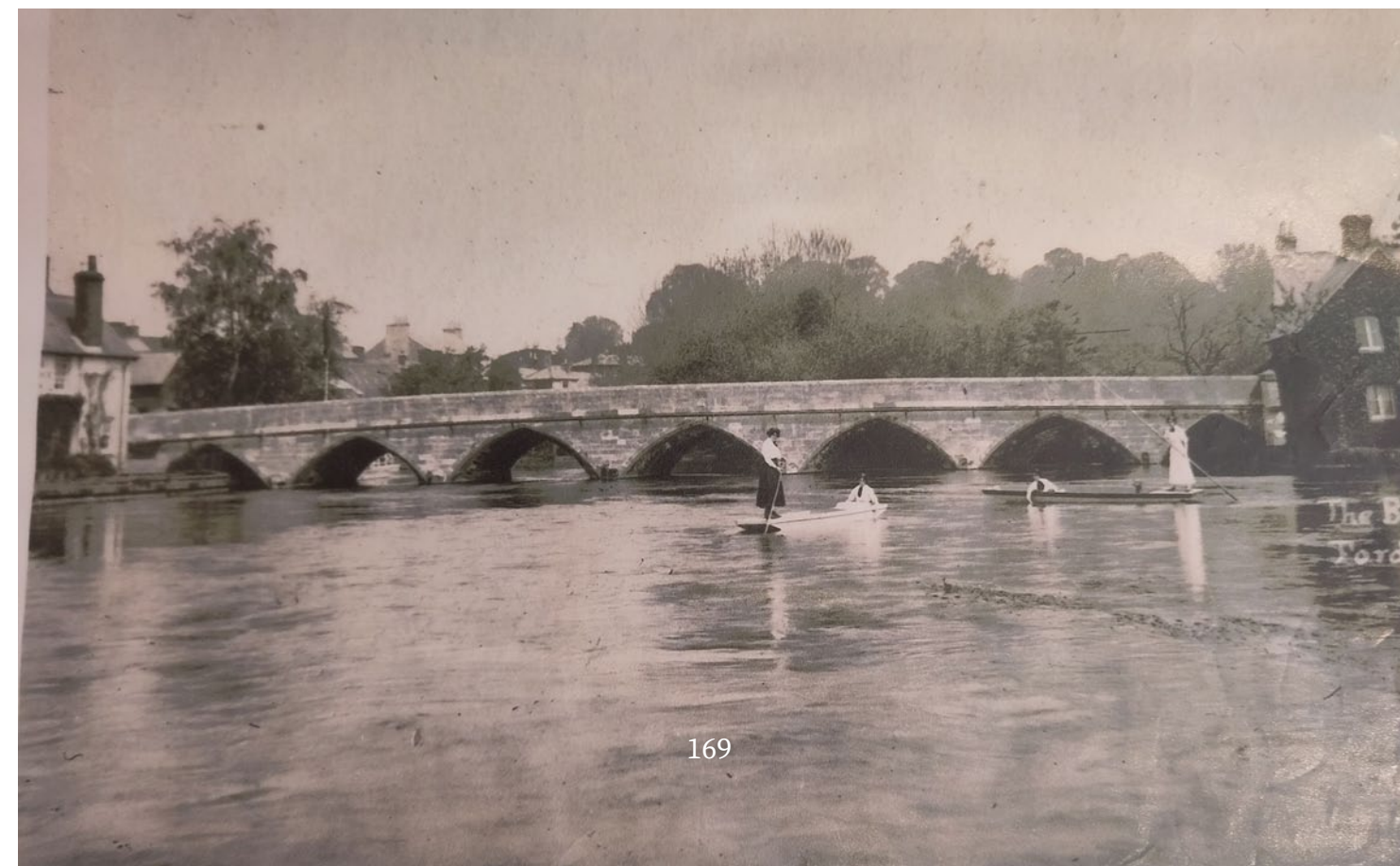
At 9-30.

DISPLAY OF FIREWORKS

IN AQUATIC VARIETY, by Wells, of Sydenham.

Attractive Competitions

In the RECREATION GROUND, for valuable Prizes.



Into the Blue

“We experience what it is like to scuba-dive, from those first early moments where we tell ourselves we can’t breathe underwater, through to the freedom that the external “aqua-lung” gives us, so we are free to explore and feel the ocean.”

John A. Higgins

From an early age I have always felt at home by the sea, I love the scent of the salt sea air, exploring rock pools fascinated by the things I could find in them. My captivation for the sea was invigorated when I was about 12 years old after watching a TV underwater documentary with Jacques Cousteau and from that moment on, I knew I wanted to be a scuba diver.

Fast forward some years later, I took the plunge and attended a British Sub-Aqua Club (BSAC) course where I learnt how to use the equipment and scuba dive in a safe, and controlled environment of a swimming pool.

I remember feeling claustrophobic and anxious. I was doing something that my brain could not comprehend, I was breathing underwater. My focus was on everything that could go wrong, also breathing underwater seems so loud. I found myself breathing heavier and faster because I was feeling anxious. As I exhaled, I was surrounded by all these bubbles which increased in size as they shot towards the surface. But it felt amazing. I embraced the challenges as they promised the reward of exploring

the wonders of sea. So my focus shifted to mastering my buoyancy and breathing so that I could remain suspended at any depth I chose while underwater. As my confidence grew, it was a mesmerising experience to have total control and move freely underwater.

Open Water Scuba Diving

My next course was the BSAC sports diver course. This time I was in the sea where my open water training took me to another level. Applying what I’d learnt and developing my confidence with other more qualified divers from around the world, I began diving from a rib (Rigid Inflatable Boat). With rib diving, you sit on the edge of the rib facing inwards in full kit, when the boat arrives at its destination, you dive in pairs (Buddy system) in a group, you all roll backwards into the sea resurfacing a short distance from the boat to give the OK signal that everything is alright. Then you descend as a group. When you are diving you always have a “buddy”, and you keep an eye on each other. If anything is amiss, you abort the dive. I have to say, after every dive I feel a tremendous sense of exhilaration.

The Beauty

I have always been completely taken in by the beauty you find under the sea. From the gentle movement of the kelp swaying with the movement of the sea, to the fish swimming in front of my mask and the sense of freedom, and feeling relaxed and mesmerised by the experience.

The deeper you dive, the less light there is so you lose colours. When I was first diving and turned my torch on at depth, I was overwhelmed by all the different coloured brittle starfish: brown, purple, orange, red and green forming a blanket on the sea bed. The rock formations are fascinating,

they create silhouettes against the fading light, crustations in abundance moving across the sea bed and around the rocks, sea anemones and a richness of colour. I always feel overwhelmed by this gift we have been given. My first encounter with a cuttlefish let me know I was being too inquisitive! It released a plume of ink letting me know I was too close. I noticed the cuttlefish changing colour independently and simultaneously enabling them to hide in plain sight, acting as a camouflage, or as a means of communicating. A lesson for me was to observe from a distance respecting them in their habitat. It was fascinating and such a joy to see them in their natural environment.





Red Sea Wonder

I have experienced different types of scuba diving in the Red Sea, Egypt and it is one of my favourite places. On my first trip to the Red Sea, I saw flying fish as we were leaving the harbour, the sea was calm like a millpond, dolphins were spotted a short distance from the boat, everyone was excited and could not wait to arrive at our first dive destination. Each dive site provided something new and exhilarating, the water was warm and clear. In no time we were diving with hawksbill and green sea turtles gracefully swimming over the corals. On another dive, we dived through

caves with rays of sunlight beaming through the openings in the ceiling lighting up our way revealing an array of colour, I felt blessed to experience such a wonder.

One of the joys of diving is the camaraderie. I have met some marvellous people from all walks of life. After each dive, we share our experiences. This is especially true on a “liveaboard” boat. This is a larger diving boat with sleeping and eating accommodation. All equipment is on board so you can go further out into the open sea.

As you sail from site to site, there is something about watching the bow waves form as you move through the water, the wake appears to be a pure blue white against the striking blue sea. Whether you are on a liveaboard boat or on a rib, the experience is astonishing.

When we go drift diving, you have a powerful feeling of control and a feeling of weightlessness. This is when you enter the sea and go with the current, this can feel quite daunting as you can move quickly with the current covering a great distance. This can also be experienced when wall diving, for this type of diving, you require good buoyancy skills to maintain the

right levels of depth as you can become disorientated, especially when you move further into the blue and lose sight of the reef wall, always keep sight of the wall.

Night diving is a wonderful experience too, armed with a torch you get to see different nocturnal sea species not always seen during the day. When diving from the liveaboard, a strobe light is submersed at depth at the stern of the boat to enable you to return safely. This is an amazing experience, and you get to see life that you would not see when diving in the daytime, small dots of light which are shrimp's eyes that capture the light from your torch and coral cuttlefish hiding in the corals.



Up Close and Personal

One afternoon, I was diving at the back of the group and we could hear a pod of dolphins in the distance. The coral reef was to my left when suddenly a dolphin appeared next to me. I could have reached out and touched it, but chose to enjoy this feeling of joy. I was instantly filled with exhilaration and felt overwhelmed, to dive with a dolphin was nothing more than a dream, but now a reality. It was strange, there was an inquisitive acceptance between us as we stared at each other, and after observing each other for a few

minutes, it returned into the blue, back to the pod.

On another occasion I noticed a fish struggling beneath some seaweed, it had a fishhook stuck in its mouth. I approached and gently held it in my hands removing the hook from its mouth, and I gently released it back into its natural environment. I was astonished when it immediately turned around and swam back to me, it stared at me through my mask for a few seconds, an acknowledgement for releasing it from its distress, then gracefully turned and disappeared into the distance.



Journal of Biophilic Design WELLBEING

My memories and experiences built up over the years are rich treasures that lift my spirits when I reminisce. These memories of the life beneath the waves are great for my soul, mental health, and wellbeing. I find myself lost to another world. The ocean has always had a profound effect on me, a restorative that calms and connects us. We live on this blue planet, with oceans and seas covering more than 70 per cent of the Earth's surface teeming with captivatingly diverse plants and animals, and there is so much to explore. The Oceans feed us, regulate our climate, and generate most of the oxygen we breathe. We must do

what we can to protect and preserve the conservation of fauna and flora within the oceans as well as the oceans and seas themselves not only for ourselves, but for the future of our children to enjoy.

If you want to take up scuba diving, you can go to a local BSAC club and experience a try dive in a safe environment. Do give yourself time to adjust and become familiar with your new environment, I am so glad I did.

<https://www.linkedin.com/in/john-higgins-3b3492250>



Humans in Trees

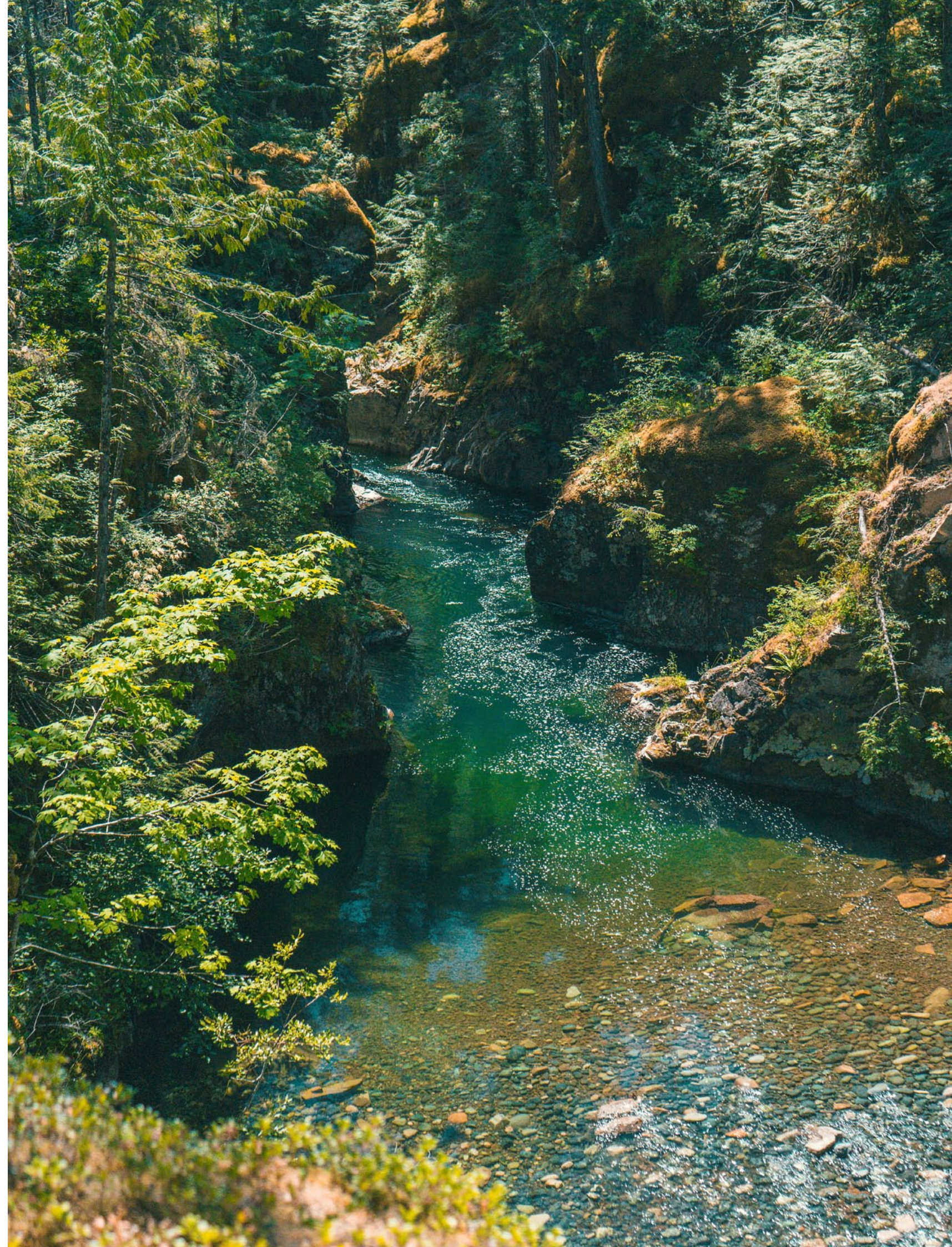
#6 Things that awaken us

What does Blue Mind mean to you?

Anicee Carolyn Bauer

I must admit, I had never heard of Blue Mind before. And when I dug into it, starting with Dr. Wallace Nichols' book *Blue Mind: The Surprising Science That Shows How Being Near, In, On, Or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do* (which should get a price for longest book title ever), the findings didn't very much surprise me. Water is good for us.

Yes. Not only in a survival kind of way, but also in a finding peace kind of way. What surprised me instead, was that learning about Blue Mind triggered my curiosity about my personal relationship with water. What does water mean to me? A question I had never asked myself. So, let me take a closer look at some of my experiences with water, especially in natural environments.



Well, for starters, I'm a sucker for swimming in natural waters. Whenever I get the chance, I take it. Natural water has a magical appeal to me. It draws me to it. Over the years I have swam in the ocean, in rivers, in lakes, in caves, in canals... And one aspect that seems to be part of this appeal is the cold. Often natural waters are cold. Very cold. The coldest I remember was the ocean in November in Helsinki, where I was supposed to dip in after a sauna session. I couldn't do it. The cold took my breath away. I thought everyone around me had gone mad, or was drawing upon their Viking ancestry. So, I went back into the sauna. And worked hard on my mental state (now that I knew, what I was facing). And after the second sauna session I succeeded. It hurt like hell. My body was stinging like crazy and red like a hot pepper. But the feeling of having stretched my boundaries and having overcome this agony was exhilarating!

Being in natural waters gives me a feeling of freedom. Of being one with nature. Especially when I combine it with 'unusual swimming-times' like at sunrise, sunset or at night. This is the absolute best! And the most adventurous! Because you are mostly alone at these times and are able to take in the scenery and hence the experience more consciously. You see and hear things that you normally wouldn't. And this also applies to diving. The silence, serenity, slow motion and floating sensation are just marvellous. Recently, I watched a documentary about freediving, which added a whole new level to my perspective on water and what human

beings are capable of. Seeing people dive with only one breath to depths of 120 meters or more, just left me breathless. Not only are these people exceptionally capable of holding their breath, they also have the courage to face the deep, silent, deceptive, almost unreal blackness of the ocean. I still wonder if they experience the 'famous' everlasting calmness of the deep, that is often used in meditations as a metaphor for our (heart)centre, that cannot be touched by whatever is going on on the rough and wavy surface. Or don't they give a damn and are just trying to survive down there? And what does it say about me, asking this question?

Well, I'll tell you: I have deep respect for water. And at times I'm also scared of it. Water can wear us out and rob us of the air we desperately need. This happened one time to my father, when he went swimming in the ocean in France, where we were on vacation. He was able to shout out for help, eventually got rescued by the lifeguards and was transported to a hospital. My mother and sister went with him, while I stayed back at the campsite. And when he returned, something strange happened. There was my father. Same man. But he no longer was the hero I had believed him to be. I was maybe 13 at the time and the incident had in fact scratched my worldview. It had caused me to look at my father differently. He turned out not to be invincible. He got into trouble with water. How was that possible? It made me very insecure, and I remember that I struggled with this new insight for quite some time afterwards.



So, water to me means more than ensuring my survival or my happiness. It goes deeper. It can touch our core. It can awaken us. And therefore, it's no coincidence, that water is also a beautiful and powerful metaphor for the non-dual truth we have forgotten: that all is one, and everything is no-thing (which is different than nothing). Imagine the ocean. At the surface we can see the waves. Some are big, some are small. Some are blue,

some are grey. Some appear just for a few seconds and others rise slowly and take their time before crashing down again. But it doesn't matter what the waves do or how they look like: the ocean doesn't care! Everything is perfect as it is. There are no exceptions. The ocean doesn't change because of the shape of the waves. It just enjoys the spectacle. Because it knows that all waves are made out of the same substance as itself.



What I make of this is, that we are all like the waves of the ocean. In fact, everything is. Because everything is energy, only more or less condensed. But in essence, everything originates from the same source and is only a different expression of the same. When two drops of water meet, they become one again. And as human beings, our purpose is to remember this truth.

You see, I believe, that everything happens for us. And naturally, we don't always see it that way. Or barely ever. And so, we resist and cling to the things we don't like and we make huge ice rocks out of them, that are dense, slow, heavy and rigid. But if we let them be and shine our light on them, they melt and become one with the ocean again. So, why not flowing with life instead of swimming against the current? Caressing everything we encounter, without judgement? And being patient like dripping water wearing out a stone? Because when we

surrender to the natural flow of things, we eventually will always end up in calmer waters.

So, the next time you are near, in, on or under water, I encourage you to think about your relationship with water. How does it reflect you as a human being? What kind of wave are you? Have you encountered the blackness? What spectacle do you make out of your life? And what does it matter?

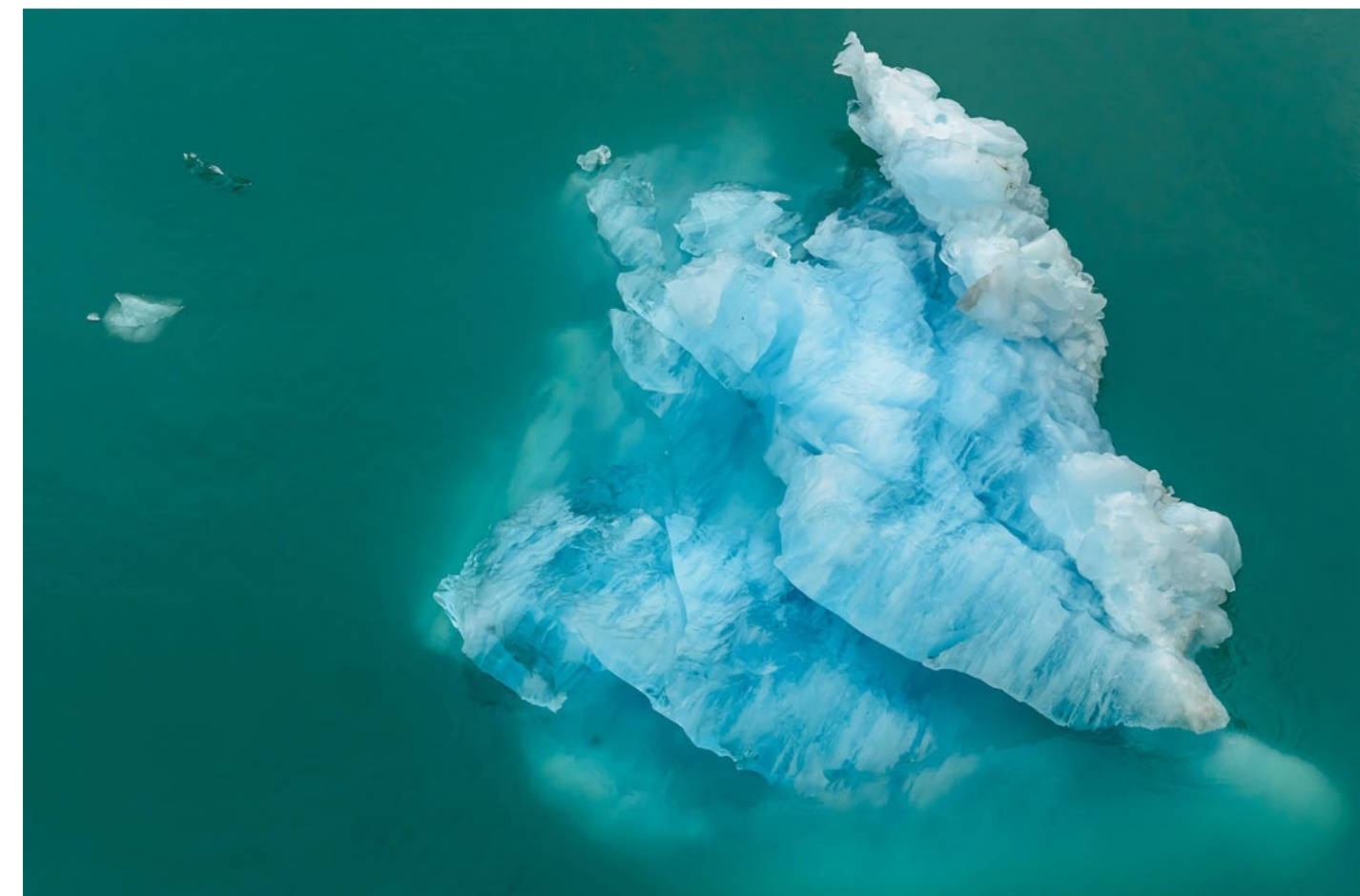
*"Nothing is softer or more flexible than water,
Yet nothing can resist it."*

Lao Tzu

<https://humansintrees.com>

Further Reading & Inspiration

Nichols, W.J. (2014). Blue Mind. The surprising science that show how being near, in, on or under water can make you happier, healthier, more connected and better at what you do. New York, Little Brown and Company.



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The Water Holds me / The Water Binds us

“Drawn from research with the wild swimming community across the UK, artist Lily Mae Kroese created a beautiful animated film based on the stories of women who dip, dive and swim in rivers, lakes and seas. We celebrate the beauty of it here, and catch up with her to find out more about it.”

Lily Mae Kroese

1. What inspires you personally about the sea?

I’ve been a wild swimmer for a few years. As with many of the women in this project, the sea has been a place of healing and connection for me, both within my own body and with the people I swim alongside. For a short time, I lived in Lapland and found a love of winter swimming there. I found the cold water soothed my chronic pain and allowed me the stillness and tranquillity I needed. Now, my local swim in the North Sea gives me this same peace, as well as laughter, creative inspiration, and very pink limbs.

I’m also a trustee for a wonderful charity, Blue Spirit, which helps young people with mental health problems spend time on the sea during sailing trips. Seeing the impact this has on the new sailors reminds me time and time again that the sea has some kind of magic.

2. Can you maybe describe what your film aims to portray (it is beautiful!)?

The Water Holds Me / The Water Binds Us was made in collaboration with two sociologists, Kate Moles and Charlotte Bates, as part of their work researching the experiences of women who swim in rivers, lakes and seas across the UK.

I joined the project as an animator to help them explore ways of creatively sharing this research. We wanted to convey the many stories and experiences shared with us by participants – the cold, the colours, the stillness, the splashing, the murkiness, the friendship, the care, the healing - and create a film that could try to encapsulate that. A lot of swimmers have told us it really captures their own experiences, feelings and memories of the water, and I’m really proud of that.

I also hoped it would make people want to go for a swim.



3. I love stop motion, can you describe the style of this film? In terms of watercolour, how did you create it? What was going through your mind as you painted each frame? Did you feel connection to the water? Was there an imagining going on, how did that feel?

The film was entirely hand painted, frame by frame. I have stacks of about 2,000 A5 paintings that I painted to make the film. It was at times meditative, and at times infuriating. Traditional hand drawn animation is a wonderful craft to

me because you have to devote so much time and energy to telling the story, in this way you honour the story and those who share it.

Some of the film was rotoscoped (*traced over from film footage*) from videos recorded by the project's participants on GoPros we gave them. This allowed me to be completely immersed in their swims, listening to the water around them. Using watercolours allowed me to recreate the feel of the water on the page, flowing and splashing as the women did.



4. How did you go about researching information for the content?

We had huge amounts of data that Charlotte and Kate had collected from the participants. The swimmers had contributed video diaries, voice recordings, photographs, drawings, and even songs, all exploring their own stories and swims. I made paintings and sketches

from these, as well as from my own regular swims, to start exploring how to represent these experiences visually. We sent images, ideas and writing back and forth throughout the process, and the participants were also able to see and respond to my work throughout. You can read more about the process of collaborating in our article 'Animating Sociology' (see note at the end).

5. Did it change or enhance your perception of water connection in some way?

The title for the film came from a sketch I made exploring my experience of chronic pain and swimming in which I wrote, 'The Water Holds Me'. Later, we added 'The Water Binds Us.' The process of creating the film made visible the care and connection the water allows between swimmers.

Now, I notice the way women on the

beach hold up each other's towels while they change, laugh as their bodies turn pink, share tea and cake to warm up. I notice that we encourage each other, cold hands clasped together on slimy rocks making the way to the water. I notice that my aunty looks over to me while we're bobbing in the sea and smiles knowingly.

There are many ways to connect with the water, and the wonderful thing that this film taught me is that it connects us together too.



6. What are you working on now?

We had huge amounts of data that Charlotte and Kate had collected from the participants. The swimmers had contributed video diaries, voice recordings, photographs, drawings, and even songs, all exploring their own stories and swims. I made paintings and sketches from these,

as well as from my own regular swims, to start exploring how to represent these experiences visually. We sent images, ideas and writing back and forth throughout the process, and the participants were also able to see and respond to my work throughout. You can read more about the process of collaborating in our article 'Animating Sociology' (see note at the end).





7. Where can people see more of your work?

You can follow my work on Instagram at @lilymaekroese.

To view the animation, simply search online “Lily Mae Kroese The Water Holds me” or type in this link <https://vimeo.com/596662522>

Bates, C., Moles, K., and Kroese, L.M. (2023) Animating sociology. The Sociological Review.



BIOPHILIC CITIES



Discovering the Blue Mind in Japan's Coastal Paradise: A Journey of Serenity and Reflection

"For years, people have held Japan's coastal regions in high regard, recognizing their serene beauty and the nature of their tranquil waters. Countless artists, poets, and dreamers have drawn inspiration from the indigo-coloured waters that grace this picturesque land. The rhythmic crashing of waves, the salty scent of the ocean breeze, and the vast expanse of the horizon all evoke a sense of tranquillity and wonder."

IDr. Marivic T. Sambo, PIID

When I moved to Japan 3 years ago, I was fortunate enough to go on countless journeys exploring its coastal communities. These charming pockets of paradise offer an experience that goes well beyond aesthetics. It wasn't just the captivating waters that mesmerized me, it was also the palpable sense of calm and strong community that made me curious. As I started my journey to explore these enchanting locales, little did I know that I would encounter the captivating phenomenon known as the Blue Mind.

Niigata: Unveiling the Tranquil Charms of the Coast

Known for its production of rice, sake, and being the source of the freshest seafood, it's no wonder that Niigata enjoys the well-deserved reputation of a culinary paradise.

Surrounded by the coast, countless rivers, streams, and lakes, a sense of serene tranquility is always within plain sight.

My husband's maternal grandmother still resides in her cherished ancestral home in Niigata, where we lovingly gather to assist her in preparing for the seasonal transitions. As we step into her home, the air is filled with nostalgia and warmth. Outside, her backyard is a hidden oasis, adorned with a meticulously manicured garden, a central pond that mirrors the sky, and a flourishing vegetable patch nestled to the side. Despite the passage of time, she remains connected to her community, actively engaging in vibrant meetings with her cherished circle of friends. At the remarkable age of 95, she serves as a testament to resilience, embodying the timeless spirit of Niigata.



Atami: A Coastal Haven for Soul Rejuvenation

Revered as the go-to place for luxurious hot spring retreats back in the 90's, Atami has been long regarded as the epitome of relaxation and indulgence. 20 to 30 years later, the allure of its soothing hot springs remains undeniable, but Atami has evolved into a multifaceted destination that offers much more than just rejuvenating baths. Today, while still attracting local travelers for its therapeutic waters, Atami entices visitors with its vibrant arts scene, captivating coastal landscapes, and rich cultural heritage that intertwines seamlessly with modern amenities.

Immersing oneself in the coastal ambiance of Atami unveils an experience where one chooses self-reflection amidst the contrasting backdrop of gentle sea breezes that move through the dynamic lifestyle on the coast. The family's estate, nestled between the temple and the coastal views is a stark example of this contrasting energies. It is within this contrasting harmony of nature's tranquility and the coastal energy that one discovers a sanctuary for self-reflection, where the mind can wander, thoughts can take shape, and inner peace can be found.

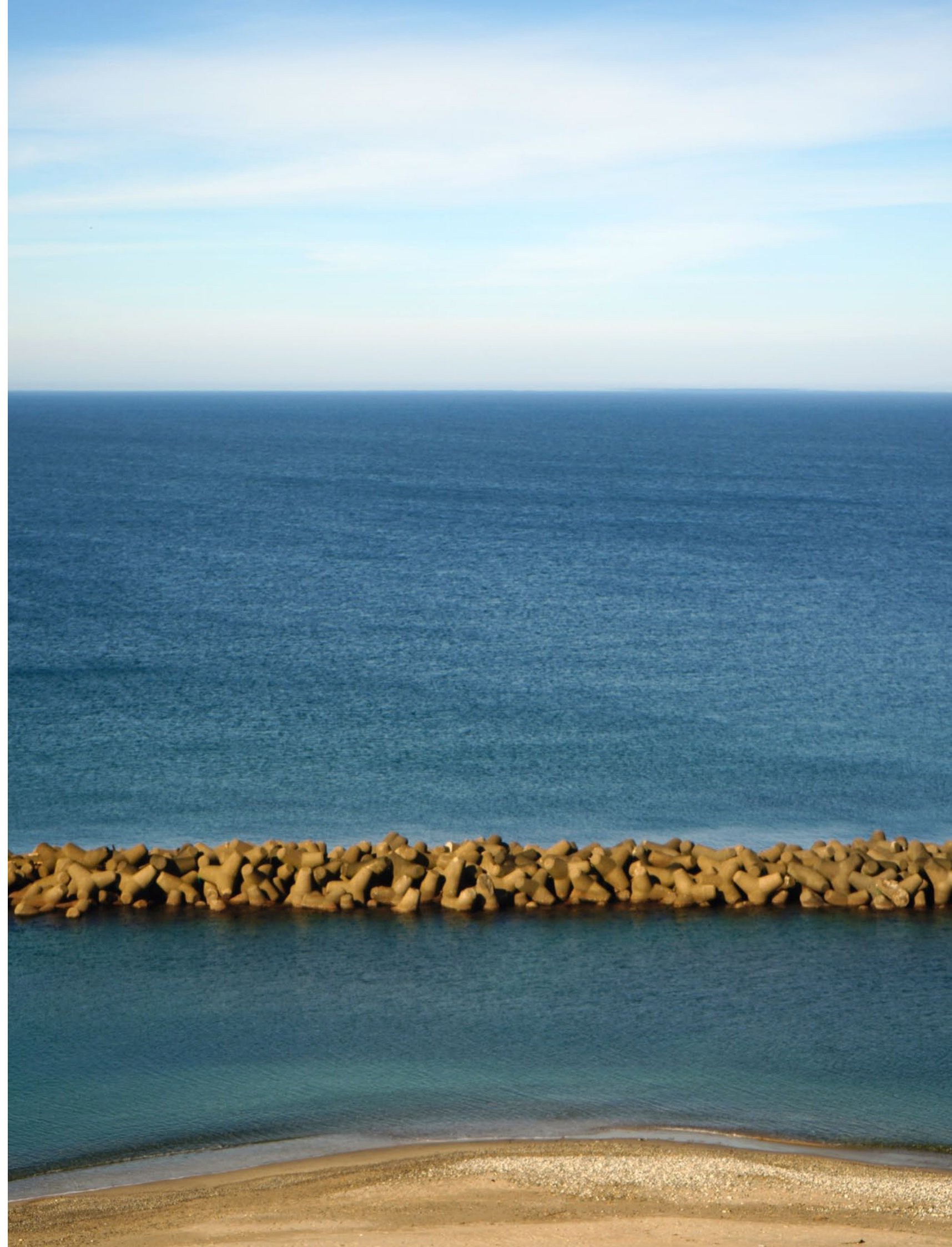


Singing Sand at Anego no Hama Beach: Nature's Melody Unveiled

When travel finally picked up again in 2022, my husband and I headed to Fukuoka to check on a family estate. Driving along the relaxed landscape, we stopped over at Anego no Hama Beach. With its pristine, light-colored sands that stretched as far as the eye could see, we were captivated by the harmonious beauty of nature's symphony unfolding before us.

During this stopover, we were enchanted by the sound produced as we walked along the sand. At first, we wondered if our longing for nature had heightened our senses, but we soon discovered that it was the sand making its own melody. It is known that this phenomenon of "singing sand" occurs in clean beaches, characterized by angular quartz sand grains, and Anego no Hama Beach was no exception.

The rhythmic squeaking sound of the sand becomes more than just a natural phenomenon; it symbolized the inner workings of our minds. Just as the sand grains vibrate and create harmonious vibrations, we too experience our own internal fluctuations and vibrations of thoughts and emotions. The ebb and flow of the waves mirrored the concept of giving and receiving. We later learned that the singing sand phenomenon is increasingly rare, with only a fraction of the once abundant singing sand beaches remaining due to environmental changes. The preservation of these pristine beaches through strict maintenance allows us to witness and appreciate the remarkable sounds they produce today.



Karatsu Castle: A Majestic Vantage Point Overlooking the Genkai Sea

With its imposing structure and strategic location, the Karatsu castle has witnessed centuries of events and transformations. From its origins in the late 16th century to its reconstruction in the 1960s, Karatsu Castle served as a symbol of power and resilience, captivating visitors with its architectural grandeur and historical allure.

It was spring when we visited, lucky to witness the cherry blossom trees in full bloom. Our trek to the castle offered a breath-taking coastal vista that provided a serene and panoramic view of the Genkai Sea. The expansive horizon stretching before the castle creates a sense of perspective, inviting visitors to reflect and contemplate amidst the tranquil beauty of the coastal environment. I spot a lone figure walking along the shore. The vastness of the sea, the size of the castle, and how far we are up made me realize any worries that we have are nothing compared to our size in our world. I watch him walk farther more, thinking the man has already found solace in his tranquil environment. I am on a vantage point observing from a captivating view, and seeing a small figure walking on the shore provided me with a profound experience of inner reflection and a deeper appreciation for the harmony between nature and man.

Chiba Katsuura Undersea Park: A Dive Into Serenity

Chiba Katsuura Undersea Park holds a rich history, established in the late 1970s as a place for people to explore the wonders of the marine ecosystem. As we descended the spiral staircase into this captivating underwater world, the stresses of everyday life melted away, replaced by a profound sense of peace and connection. Engaging with the vibrant marine life and witnessing the delicate balance of the coastal environment had an immediate therapeutic effect, leaving us with a renewed appreciation for nature's beauty. Leaving the park, we carried a commitment to cherish and protect our coastal treasures, eagerly anticipating future adventures where we could explore more of Japan's coastal paradises.

The experience here revealed the profound connection between water and well-being. It served as a reminder of the inherent harmony and tranquillity found in nature's embrace. This immersive journey left us inspired and rejuvenated, ready to continue exploring the coastal wonders of Japan and creating lasting memories intertwined with the soothing power of the sea. The park's history and commitment to preserving the delicate balance of the marine ecosystem added to its allure, making it a destination cherished by both locals and tourists seeking a deep connection with nature.

Discovery and Beyond:

My never-ending journey of discovering the “Blue Mind” in Japan's coastal paradise is a continuous transformative experience. The serene beauty, tranquillity, and sense of wonder that these coastal experiences provide have left an indelible mark on my soul, fostering personal growth and a deeper connection with myself and nature. I look forward to future adventures along Japan's coastal regions and the lasting mementos they offer.

<https://en.ishikawasambo.com>

IDr. Marivic T. Sambo, PIID, is a Filipino interior designer who holds the position of co-founder and interior designer at ISHIKAWASAMBO, an architecture and interior design studio based in Japan and in the Philippines. In addition to her contributions at ISHIKAWASAMBO, she also co-founded Makers' Day!, a social entrepreneurship initiative aimed at fostering deep community connections in Yokohama. This visionary project demonstrates her dedication to using design as a catalyst for positive change, enriching the lives of individuals within the community and beyond.

Where the Rivers Flow

“The importance of Rivers in cities can be overlooked and priorities shifted to roadways and inward-looking design. However, rivers have the potential to enliven and rejuvenate a city as many examples attest.”

Dr Vanessa Champion, Editor

I like nothing more than wandering by the River Thames in London. It seems to change its personality every day. When I worked in London I would often gravitate to its banks, walking along the South Bank, or taking a water taxi to my next meeting. Pimlico to Southwark, west on the north side along the Thames to the east on the south bank. Historically it is why the city grew where it did, the natural “kink” and loop of the river’s course helped slow the water flow enabling docks to be built, boats to moor with goods, therefore an increase in mercantile activity and trade.

Cities often grew up around rivers. If we reflect (excuse the water pun) on this, we might think why have we literally in some instances, turned our backs on them? We see them as polluted brown thoroughfares rather than the powerful flow of energy and life that they hold and inspire.

Over the past twenty years there has been a shift in focus. With more and more people raising awareness, alongside artists, entrepreneurs, foresighted politicians and planners who realise that if we

activate our rivers through good design, keep them clean, and create beautiful spaces which also include spaces for nature to live and thrive, we can increase the capital value (both pecuniary and in terms of wellbeing, for us and nature).

Having a clean river flowing through the city can help protect sources of clean drinking water, provide food sources and it can positively support cultures and traditions. Rivers also serve as one of nature’s primary transportation systems. Rivers carry to the ocean minerals, nutrients, and fine sediments which often come from alpine environments many many miles away. Rivers also help in the transfer of other nutrients back upstream, through migrating species. Rivers can restore biodiversity. In fact, according to the research published in the Ecological Society of America (see reference at the end), the land which borders rivers can be some of the richest and most diverse habitats on our planet. Rivers might only account for a small percentage of our freshwater, but they support an unbelievable amount of biodiversity, including 10% of all animal species and 33% of all invertebrates.

Reawakening our Rivers in cities can increase tourism, and community togetherness, it can provide healthy activities for families and provide an endless source of fascination for children. Imagine creating places for various outdoor activities to enliven a space, and further draw attention to this remarkable asset a city or town might have. It’s like free marketing!

2020 data from the U.S. Bureau of Economic Analysis revealed that outdoor recreation activities in the U.S. generated

\$688 billion in economic output and supported 4.3 million jobs. River-based activities like boating or fishing accounted for more than \$30 billion in U.S. annual gross output. Spending like this strengthens the economy of rural and urban regions and benefits communities.

Obviously maintaining the cleanliness of the river, reducing pollution and maybe encouraging an education programme to raise awareness of the wildlife and biodiversity the river supports.

There is still much to do, and activists, like the amazing and inspirational **Lewis Pugh who is swimming the Hudson River**, are raising awareness of the importance of rivers and their connectedness to the wider ecosystem. On August 13 2023, Lewis Pugh began his 315-mile (507-km) swim down the Hudson River, from its source to its end at New York City. He is doing this to highlight the critical role rivers play in a habitable planet. Lewis will explore **the interconnectedness of rivers and oceans**, and stress the urgent need to restore, protect and respect them. “If we want healthy oceans we also need healthy rivers — it’s that simple.” The end of the swim will coincide with the **UN General Assembly Week, Climate Week NYC 2023**, and the **UN Secretary General’s Climate Ambition Summit**.

As I mentioned in the opening editorial, there are many benefits of bringing in water into a city. Including helping to mitigate climate crisis. Bodies of water help reduce temperatures of places, they also can help collect excess rain water. River channels, canyons, and flood plains form over hundreds of thousands of years to balance variation in water levels.

There are lots of design ideas, from building a terrace above a body of water, like a jetty or sitting platform. That way, you can feel like you are floating on the surface and enjoy that direct connection, feeling the cooler temperature and watching the movement of the water directly around you. Helps limit and control flooding.

Some of my favourite cities have rivers flowing through them, London, Paris, Rome, Dublin, Amsterdam, Prague, Madrid, Lisbon, Edinburgh, Venice. Where is your favourite? What about smaller towns and villages? We can make so much more of our rivers, and support our planet's ecosystem and our wellbeing too.

Further reading

<https://www.lewispughfoundation.org/ HUDSON-SWIM-2023>

World Rivers Day
<https://worldriversday.com>
Fourth Sunday of September

Grill, G., Lehner, B., Thieme, M. et al. Mapping the world's free-flowing rivers. *Nature* 569, 215–221 (2019). <https://doi.org/10.1038/s41586-019-1111-9>. According to this study, just 37% of rivers that are longer than 1,000 kilometres (621 miles) continue to flow freely for their whole course, and only 23% do so uninterrupted to the ocean. Dams have blocked off historic spawning paths causing dramatic population losses in some salmon species, and of course has a negative knock on effect on the ecosystems that depend on them. The same in Africa, Asia, South America where migrations of animals are adversely affected by diversions of major waterways. Reversing these trends is still possible.

Robert J. N., Robert J., Decamps, H., and Pollock, M. The Role of Riparian Corridors in Maintaining Regional Biodiversity Ecological Applications Vol. 3, No. 2 (May, 1993), 209-212
<https://doi.org/10.2307/1941822>

Other reading:

Oceans are turning greener due to climate change
<https://www.nature.com/articles/d41586-023-02262-9>

Extreme water stress faced by countries home to quarter of world population
Twenty-five countries are using 80% of their water supplies each year, research shows
<https://www.theguardian.com/environment/2023/aug/16/extreme-water-stress-faced-by-countries-home-to-quarter-of-world-population>



For more information on the 38th UN Water meeting <https://enb.iisd.org/38th-un-water-meeting>. It brought together representatives from UN-Water Members and Partners to discuss and advance progress on Sustainable Development Goal 6 (clean water and sanitation). UN-Water plays a coordinating role within the UN, to ensure the UN family “delivers as one” in response to water-related challenges. The overarching focus of UN-Water’s Members and Partners is to support UN Member States to sustainably manage water and sanitation.

Agenda items included:

- Progress under the SDG 6 Global Acceleration Framework, including country level engagement and regional coordination, and the roadmap on human rights to water and sanitation;

- Follow-up to the UN 2023 Water Conference;
- Progress updates on the United Nations World Water Development Report 2024, a joint publication with UN Women, and UN-Water and Climate Change Activities; and
- Proposals for new expert groups on global campaigns and groundwater.

For more inspiration see:

Ocean facing cities

<https://www.cntraveler.com/galleries/2016-06-24/the-25-best-coastal-cities-in-the-world>

Coastal towns

<https://www.travelandleisure.com/trip-ideas/most-beautiful-coastal-towns>



FINAL WORD

Dr Vanessa Champion
Editor

Blue Mind and The Blue Marble...

Something positive to end on....

Patti Beer, who wrote for us in the earlier pages of this issue, also shares with us a little bit of blue marble magic inspiration that is sparking appreciation of positive action for our oceans.

*Joy giving the
blue marble
to Patti*



*Joy when she
received the
blue marble*



My niece Joy decided to do a solo bike trip to Mexico from Vancouver and back. It was the trip of a lifetime and somewhere in California she got talking to a man and his family about her trip. He was impressed with her deciding to ride her bike rather than drive and he gave her a blue marble. He said something like “Riding your bike instead of driving is an amazing choice for nature. You are doing something important to protect our oceans! I want to give you this blue marble to thank you for that. But you can’t keep this, you need to pass it on to someone who is doing good things for the ocean too!” Joy said immediately “I know exactly who I want to give it to, my Aunt Patti does a lot to raise awareness for oceans and marine creatures. She helps people think about their connection with the oceans and what they can do to help.”

When Joy arrived home from her trip, she said “I have something for you”. The next time we met up at Samish Island she handed me the blue marble and told me how much she appreciated all I do for oceans. She mentioned I needed to pass it on to someone and I told her immediately I knew exactly who I would give it to. Jeff Marliave,¹ the lead researcher when I first started at the Vancouver Aquarium back in the early 90’s who blew me away with all his knowledge, his larval fish research, his Howe Sound research, his love for the oceans and what a great mentor he was to everyone that cared about the ocean. I had never told Jeff how I felt about all of that, and I knew passing the marble to him was the best way to do that.

I asked Jeff to join my husband and I for dinner at a restaurant near his home a

short time later and presented the Blue Marble to him. I shared how inspirational he had been to me all those years! He was very touched, we had a great discussion about the ocean, his research, life and more – a great moment of connection and shared passion. He mentioned he had someone he wanted to thank! Jeff in fact gave the marble to Dr. Richard Beamish, C.M, O.B.C, Ph.D., D.Sc., F.R.S.C. Emeritus Scientist at the Pacific Biological Station in Nanaimo BC Canada.

I don’t know where that marble went from there, but I can attest that that little piece of glass that looks like our blue planet had a big impact on being the onus for thanking each other for all we have done to care about oceans.

Imagine my surprise when I reached the 9th chapter of Wallace J. Nichol’s book and realized that marble had started with him!

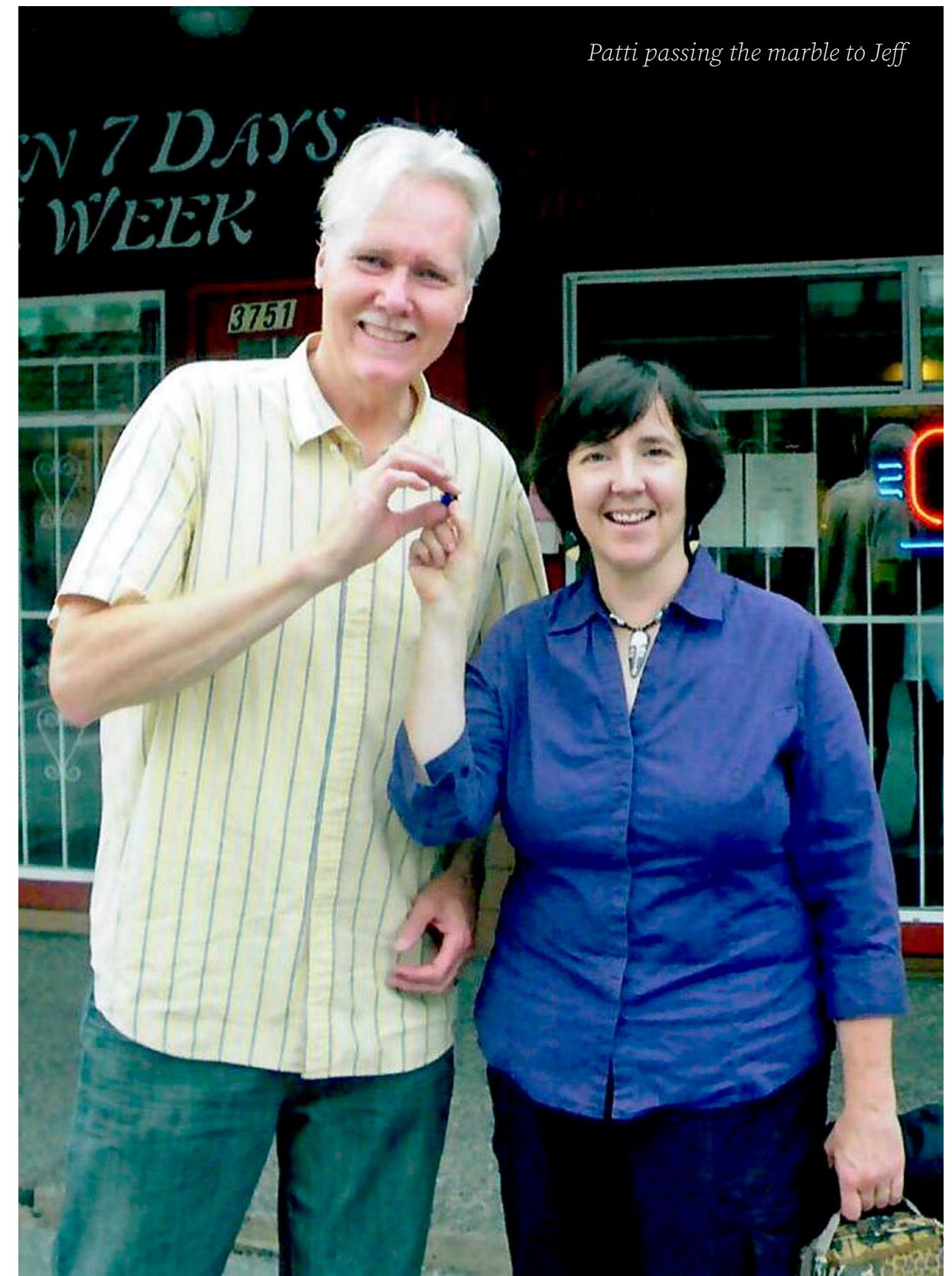
One day over a year ago on LinkedIn I noticed a Blue Mind presentation online was happening that week. I signed up to watch. That day there had been a problem at the YVR Aquarium, an electrical issue that affected the main chiller. Of course, I needed to address that and had to miss the online talk. When I got on to LinkedIn the following day I asked in the comments if the talk had been recorded. It hadn’t, but Wallace J Nichols reached out and asked me to connect and I have been following his posts on LinkedIn since!

I had an opportunity when Joy was over one day to show her the book Blue Mind and a photo of Wallace J. Nichols. She said excitedly “That’s him!! That’s the guy that gave me the marble!!”

¹ Dr. Jeff Marliave PhD – Sr. Research Scientist Emeritus, Vancouver Aquarium, Vancouver BC Canada

<https://www.linkedin.com/in/patti-beer-a4b7b710>

If you have an inspirational story about Biophilic Design, or how a connection to nature changed your life, or what you do for a living touches the lives of other in a biophilic way, let us know, write to me at editor@journalofbiophilicdesign.com





Every September
on the
Fourth Sunday



a celebration of the world's waterways

Every year, river enthusiasts come together from across the globe to participate in World Rivers Day. The event takes place on the fourth Sunday of September,

highlighting the many values of our waterways. It increases public awareness and encourages better stewardship of rivers around the world.

*"Please join us in celebrating
the natural and cultural values
of our global waterways"*

— Mark Angelo

renowned Canadian river advocate,
Chair, World Rivers Day Initiative

**Come to a World Rivers Day
event—or start your own!**

- Paddle trips • Nature walks
- School projects • Art exhibits
- Habitat restoration • Clean-ups

For More Information:

www.worldriversday.com
www.orcbc.ca/bc-river-day/

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