

SPRING EQUINOX EDITION

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الواحة

ALWAHA TRIBUNE

A Journal of Musings & Mindful Moments [الواحة] is the Arabic word for oasis, a fertile spot in the desert where water is found, creating a sanctuary of life amidst arid surroundings. Etymologically, the word derives from the Arabic root و-ح-ة, suggesting a place of rest and refuge.

About AlWaha

Reflections from My Personal Oasis

Welcome to the season of emergence, where the world around us seems to burst forth with new possibilities and new life. This year, Spring arrived during Eid where we experienced a rare confluence of Ramadan and the Chinese New Year falling on the same day, marking the Year of the Horse. In Chinese philosophy, a horse year symbolises energy, freedom and forward momentum. One may ask, what direction should I be galloping towards?

Spring has always felt like a kaleidoscope to me – a hop in the step, a splash of colour after the muted tones of winter, a time to reawaken the spaces

we inhabit. As someone who believes deeply in the flow of energy, what the Chinese call feng shui, I've been thinking about how transformation begins not in grand gestures, but in the simple act of moving things around. I recently learned that shifting just 27 items in a space can change its energy entirely.

At this time of renewed growth and exploring new avenues, nature has been teaching me this lesson in unexpected ways. Did you know there are palms that can move up to 20 centimeters to catch more light? They also tend to collaborate so that the crowns of the trees don't compete for light.

In our own ways, we're learning to adapt our environments too. I recently came across Neoplants, a startup that's genetically modifying houseplants to clear indoor air pollution. Now, before we dismiss this as another concerning intervention, let me share why this caught my attention. Here in the UAE, indoor air quality is particularly challenging, fine dust particles, tightly sealed air-conditioned spaces, building material emissions. Our indoor air can remain polluted even when the outdoor Air Quality Index improves. Not all genetic modification is harmful; sometimes emergence requires us to reimagine what is possible. In a way, these bioengineered

plants echo an ancient practice: the sprouting wheat on Nowruz tables, bringing nature's purifying presence indoors.

As the weather warms a little and we head outdoors, to our beaches, our coral reefs, I've been learning about another kind of environmental stewardship. I wasn't aware, until recently, of the impact certain sunscreens have on coral reefs. Ingredients like oxybenzone and octinoxate, found in many conventional sunscreens, can damage coral and cause bleaching, and harm the entire reef ecosystem. When we swim, these chemicals wash off our skin into the water and an estimated 14,000 tonnes of sunscreen enter our oceans each year.

The solution is simpler than I expected: mineral-based sunscreens using zinc oxide or titanium dioxide (in non-nano form) offer effective protection without the harm. Some countries have already banned reef-damaging sunscreens. It's worth checking your labels. There's something quietly powerful about this – the recognition that our daily choices ripple outward, that protecting ourselves and protecting our ecosystems can be the same act.

This brings me back to water. During Ramadan, water takes on sacred meaning in the breaking of the fast. Spring itself is the season of melting snow, of rain that brings new growth. Water connects us, to our traditions, to each other, to the living systems we're part of.

Many cultures celebrate Spring in different ways, but all recognise it as a threshold. Whether we're moving furniture to shift energy or choosing reef-safe sunscreen for our summer swims, Spring asks the same question: Are we paying attention to what wants to emerge?

For this edition of Al Waha Tribune, I invite you to notice the small movements toward light in your own life. What 27 things might you shift?

In this season of the Horse, may we find the energy to move boldly towards what calls us,

the freedom to explore new terrain, the courage to move toward light even when the movement feels impossibly small, and the grace to recognise that emergence is not a single moment but a practice we return to again and again.

As we settle into Spring, aligned with the moment when day and night find balance, my wish is that you discover your own momentum of emergence and possibilities – one that honours both ancient wisdom and modern innovation, both personal transformation and collective care.

May Spring 2026
bring lightness,
clarity,
and create space
for all that is ready to bloom.



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The Language of the Dallah

by Hind Al Ghseen

Before I even knew what coffee was, I knew what it meant.

I was young, sitting at the edge of a majlis, watching the adults greet one another and engage in conversation. The dallah, or coffee pot, moving from hand to hand. The small cups passing between them without a word. No one asked anyone anything. And yet, everyone seemed to understand exactly what to do.

That was my first lesson. A lesson I didn't even know I was learning.

Now, I wake up every morning and make a V60.

I measure the beans. I wait for the water to settle. I pour in slow, careful circles. It takes a few minutes,

but those minutes feel different depending on who is with me.

Because the V60, for me, is rarely prepared alone.

It is almost always with people I love. A family member grinding the beans while I heat the water. A team member at H's preparing the cups. A close friend waiting and wanting to contribute. This is the ritual I love. Not one person making coffee for another, but a few hands creating together. One grinds. One pours. One arranges the cups. And then we sit.

I love teaching it, too. Passing the kettle. Showing someone how the water should fall. Over time, I made a small visual guide for the people I have taught, something they can take with them

and return to at home. There is something tender about bringing another person into a ritual, letting them hold a piece of it with you. Coffee, even the quiet kind, was never meant to be made in silence.

Then the day opens. And with it, another kind of coffee.

In our homes, Arabic coffee, or gahwa, moves differently. It never arrives alone. First comes the godoa: dates, chocolates, something sweet laid out before the first pour. Then the dallah is lifted, and the fenyan, the cup, is placed in your hand, small and warm.

And from there, everything is unspoken.

You do not ask a guest if they would like coffee. You serve it. You do not ask if they want more. They return the cup to you, and that is your answer. You watch. You read the room. You know that either the most senior person, or the eldest, is served first, then around the room in the right order. You know that even if you are the most senior, when the cup is handed to you, you pass it

to the one beside you first. A quiet deference. A small gesture that says, I see you. I respect you. You come before me.

No one explains this. You absorb it. You sit long enough, watch closely enough, and one day your hands simply know what to do.

This is what growing up in our homes teaches you. That hospitality is not a performance. It is attention. That respect is not a word. It is a movement. That culture is carried in the small things, the order of a pour, the tilt of a cup, the hand that offers before being asked.

We learn the language of the dallah long before anyone teaches it to us.

Each home has its own taste, a signature. One aunt's qahwa is heavier, featuring more saffron than cardamom. Another may be lighter. A friend's mother pours it strong, the way her own mother did. I can close my eyes and tell you whose house I am in by the first sip.

Sometimes, driving to a majlis I have not visited in months, I already know what is waiting for me. I can taste it before I arrive. My body remembers the cardamom of one home, the saffron of another. I look forward to it the way you look forward to seeing someone you have missed. That is what qahwa does. It carries people, even in their absence.

And there are other messages, too. Quieter ones.

A half-pour is not stinginess. It is an invitation. Stay a little longer. Let me pour again. When I see someone take three or four cups before they shake, I feel something warm in my chest. It means they are not rushing. It means they are with us. I do the same in other homes. I let the pours come. It is my quiet way of saying, I am enjoying my time here. I am not ready to leave.

Sometimes I go further. I ask the one serving to place the dallah down, and I pour for myself. That gesture carries its own meaning. I feel at home here. Let me serve myself the way I would in my own house.

These are not rules. They are inheritances.

Arabic coffee sits on UNESCO's list of intangible cultural heritage. The dallah lives on our coins. Hospitality, in this country, is not a gesture. It is currency.

And still, in a city that moves faster every year, we sit. We pour. We wait for the next cup.

My V60 is shared by hands. The qahwa is shared by meaning. One I learned to make with others. The other, I learned to understand through them.

And sometimes I pray, quietly, to myself, that these small feelings are not lost to the busyness of our lives. That we keep shaking the cup gently. That we keep staying long enough for a second pour. That somewhere in every home, someone still remembers to pass the cup to the one beside them first.

Because these are not small things.

They are how we stay close to each other.

And to ourselves.



Through the Lens of Identity

Interview with Alia Bent Sultan Al Joker

Your photograph of your grandmother with the cardboard box became iconic - what was the story behind that moment?

The image is a message, and through it I aspire to convey messages that express our families, our people, our society, and the limitless achievements of my country.

The idea came to me three days before the Hope Probe reached Mars. It was difficult to find an elderly woman who would agree to be photographed, but luckily my friend's mother agreed. She had all the details I was looking for: the mother wearing the burqa, gold jewellery, and henna, the distinctive features of the Emirati woman that you recognise the moment you see her.

How do you decide which social issues to focus on through your lens?

Being close to people and listening to them has helped me understand the social issues I need to focus on in my photography.

What's the power of photography in documenting social change while honouring culture and heritage?

All the photos I have taken feature esteemed citizens and youth trends. The presence of our mothers in the images, along with their details like the burqa, gold, henna, and traditional attire, highlights our Emirati identity. This sends a message to the world that, no matter how much we evolve, we remain steadfast in our values and proud of our customs and traditions.

How do you approach photographing sensitive or personal subjects?

When photographing sensitive or personal subjects, I focus on portraying them with respect and cultural awareness. My work reflects our identity in a refined and thoughtful way that connects strongly with youth while still honouring senior generations.

What role does storytelling play in your photography practice?

The image is a message, and through it I aspire to convey messages that reflect our people, our society, and the limitless achievements of our beloved country.

We need to engage our elders and multi-generational activities have the power to be so enriching - can you please share a story of when you witnessed a inter-generational interaction that held significant meaning for you?

The photos reflect our country's achievements, from reaching Mars to the Barakah nuclear power plant, each image creates a strong resonance in people's hearts. One of the photos that deeply impacted me because of people's reactions was the "We Reached Mars" image.



Through it, people began to recognise me as a photographer, and it marked the beginning of a series of photographs. One of the comments on that image was, "You truly represent Emiratis."

Another powerful image was when I photographed Mother Ousha Al Suwaidi, and the comment was, "You Emiratis are different." Through these works, international companies began reaching out to me to highlight our seniors in their campaigns.

Additionally, one mother shared with me that her daughter wanted to dress like Mother Ousha, combining our traditional attire with sneakers. To me, this beautifully reflects how deeply we value our heritage while confidently expressing it in a contemporary way.





Navigating Anxiety in Uncertain Times

by Dr. Louise Lambert
Director of
www.HappinessMatters.org

Right now, many people across the Gulf are living with two layers of uncertainty at once.

There is the immediate, visible one: conflict, alerts, disrupted routines, the sense that something larger than us is unfolding in real time.

And then there is the slower, less visible one we are no less concerned about and that is climate change. Rising temperatures, environmental strain, long-term questions about how we will live, work, and adapt.

Both create the same psychological response: uncertainty. And that uncertainty is exactly what fuels anxiety.

So where do we begin when everything feels unsettled?

By understanding our goal, which is not to eliminate anxiety, but to function with it. And that's because a certain level of concern makes sense; the reality is anxiety-provoking. Anxiety is also what keeps us attentive, informed, and prepared to take action.

And when we try to remove the source of anxiety, existing uncertainty, we often make things worse. Our efforts to reduce uncertainty become exhausting. We check updates constantly. We replay scenarios. We wait for confirmation and certainty before acting.

All of that energy spent fixing uncertainty is in fact, better spent focusing on action. And that doesn't mean big dramatic actions, but smaller steps, like sending the message you've been postponing, calling someone instead of just thinking about calling them, or going for a walk instead of refreshing the news again.

Action gives the mind something to organize around and shifts us out of "what if" and into "what now?"

Why does uncertainty affect us so strongly?

The brain is designed to predict, that is its job. When something feels unstable, it is always trying to answer: *What is going to happen? Am I safe? What does this mean?*

The problem is that in situations like the ones we are currently facing, there are no immediate answers, which leaves the brain continually searching. Think of it like your mobile phone trying to connect to Wi-Fi when you're far into the desert and the signal is weak.

That ongoing search consumes battery and, in our case, attention. It's why people

feel distracted, scattered, and mentally tired, even if their workload hasn't changed. It's also why small things feel harder than usual, and why patience wears thin more quickly.

What actually helps, day to day?

Three things.

First, *be selective with information.* There is a difference between being informed and being flooded. Reading one thoughtful and well reported analysis is very different from scrolling through twenty fragmented updates on TikTok. So, choose your sources better.

Second, *keep your life open.* When anxiety rises, and the world is seemingly uncertain, people tend to shrink their world. They stop seeing friends, cancel plans, stay home a lot more. They watch more Netflix and sleep the time away or scroll until the morning. It might feel safe and protective, but it reinforces the anxiety.

This is the moment to do the opposite: go to dinner, show up at the gym, tend to your plants. Anxiety expands into the space you give it. So, a good way to counter it is by giving more space to life.

Third, *support your physical capacity*. Sleep, movement,

and energy are not side issues. They directly affect how you think, respond, and cope. That advice applies all the time, in uncertain times as well.

When should we be more concerned?

A useful distinction is this: Is your anxiety helping you function, or preventing it?

Normal worry sharpens attention and responds to real events. It comes and goes.

But when people start to feel constantly distracted, more reactive, unable to focus, or begin withdrawing from everyday life, that's when it needs more attention. This isn't a personality failure, it's because the system has been overwhelmed.

What mindset actually works in uncertainty?

Remembering our previous relationship with uncertainty. There have been many moments in your life where things were unclear, unstable, or didn't go according to plan. And yet, you found a way through.

You made decisions with limited information and adjusted when things didn't work. You reached out to people and relied on your own judgment. You discovered strengths you didn't know you had. Sometimes you didn't have a plan at all and still, you moved forward. And that's the part we tend to forget.

We often approach uncertainty as though it is something entirely new, something we are not equipped to handle, when in reality, we have already built a pool of evidence that says otherwise.

Yes, the context may be different now, but the process is the same. You'll respond, adjust and figure things out as you go. So instead of asking, "What if I can't handle

this?", a better question is: "When have I handled something like this before and what did I do?" Because that is exactly what you will do again.

What do people often get wrong?

They try to remove uncertainty.

Or they wait for things to "go back to normal."

Or they narrow their lives in an attempt to feel safer.

All of these make sense, it's just that none are especially effective.

Final thought

Uncertainty is something we can live and work within. In fact, all of us have at some point in life. The only difference now is that there is more of it. But, whether shaped by conflict or climate, we can ask ourselves this question: How do we continue to live, contribute, and move forward within it?



Going Bananas with Fashion

by Sraddha Sabu

29Acacia is a startup that makes high-performance, low-impact textile alternatives to cotton and viscose from agricultural banana waste. Photo: 29Acacia

29Acacia aims to be home to fashion's sustainable superhero – banana fabric. The startup transforms agricultural waste from the world's most consumed fruit into a sustainable textile alternative, while helping raise banana farmers in India out of poverty.

On the star-studded red carpet of the Fashion Awards in 2024, Sarah Angold was busy defying convention. The statement piece of her black evening gown was a giant blue bow cinched at her waist, made of banana fabric.

"I've loved fashion since I was like two years old and first told my mum that I was never going to wear the outfit she picked out again," Sarah says with a laugh. The globally renowned designer's work has reimagined the worlds within fashion – whether through her signature geometric, 'sci-fi chic' jewellery, RFID-enabled accessories or movement-response sculptures.

"The idea of newness, variety and expression through fashion is historical. It comes from

thousands of years ago," says Sarah.

However, this time, she was showing that the next generation of fashion – ethical, eco-friendly textiles that empower our self-expression without leaving a dent on the planet – belongs everywhere. "We've got to find a way to create new narratives that make a difference."

She explains, "Organic cotton's the current industry go-to for supposedly sustainable fabrics, but we have one-tenth of the carbon footprint of that in our fibre and one-hundredth of the water usage." 29Acacia's fabric is three times more durable than cotton, while also being biodegradable – enabling this remarkable textile to sit in a sweet spot for designers. It's long-wearing and sturdy, but doesn't fill up a landfill at the end of its lifecycle.

Sarah is the CEO and co-founder of 29Acacia, a startup that makes high-performance, low-impact textile alternatives to cotton and viscose from agricultural banana waste.

Named after the address of Bananaman, a British cartoon about a schoolboy who turns into the eponymous adult superhero when he eats a banana, 29Acacia aims to help save the fashion world with the power of the world's most consumed fruit.

Back in the 1980s, when Bananaman was a household name, Sarah already had an inkling that something was very wrong. At just six years old, she had made an artwork titled 'Our World is Dying'. "It was a drawing of the world, and it looked like a weird crystal ball, but it was covered in rubbish."

"Then, it was about litter," recalls Sarah. "If I put my litter in the bin, then everything's okay because then it magically goes to 'litter place'. Of course, we know now that 'litter place' is a massive pile of litter somewhere we can't see it."

It was decades later that she saw it – landfills of discarded fashion that are so large, *they can sometimes be spotted from space.*

Fashion is currently one of the most polluting industries on the planet, responsible for *over 8% of global emissions, 14% of global plastic pollution and 20% of global clean water pollution.* During a career break for maternity, she had to confront it. "It's a cliché, but once we have children, I'm thinking to myself, 'Will they be proud of what I'm doing?'"

As a designer, she put her problem-solving skills to the task. Banana farms generate over 114 million metric tons of agricultural waste every year, as the trees only bear fruit once in their lifetime. "You grow a banana tree, you chop off the fruit, you chop down the tree, and you burn it."

Founded in 2023, 29Acacia buys the waste from banana farmers, extracts the fibre from the centre of the tree trunk and processes it to make a soft fibre that can replace cotton in the supply chain. "This softening is very important because where

the volume exists in the fashion industry, where materials need to be replaced from a sustainability perspective, it's in the ready-to-wear space."

Over 70% of the fashion industry's emissions come from upstream activities such as materials production and processing. This is where 29Acacia aims to make an impact by transforming waste that would otherwise be burnt into eco-friendly fabric.

"We need to encourage as much behaviour change as possible with new inspiring narratives that aren't about guilt," says Sarah. "We can still have new clothes and beautiful things and amazing, exciting innovations and exciting technology. None of those things has to go away."

29Acacia's co-founder, Varun Raheja, is an agricultural entrepreneur working to prevent crop loss and waste. In 2023, they had together witnessed the darkest side of her beloved fashion industry – a fast fashion factory. She recalls the heartrending situation of the workers, "They look sick. They're wading through toxic dyes. I don't have a weak disposition, but the noise was so deafening, and the smell was so overpowering that I just knew I was going to vomit."

As they breathe in toxic dust and handle hazardous industrial chemicals to feed fashion's next glittering season, textile workers pay the price with their health. They suffer from higher rates of *cancers, lung diseases, musculoskeletal disorders* and face lasting physical and psychological harm.

"We might have to pivot a billion times," says Sarah. "I don't think that he [Varun] and I will ever quit until we achieve what we've set out to achieve."

By paying low-income farmers for agricultural waste that's usually discarded, 29Acacia aims to raise 100,000 farmers out of poverty over five years. They also aim to reduce freshwater use by 5 billion litres and save a minimum of 0.3 billion kg of carbon equivalent for the fashion industry by the end of the decade.

Nevertheless, sustainable fabrics face market barriers. "We're trying to introduce these new ideas into a system that doesn't incentivise them. We're playing baseball in the swimming pool – we're on the wrong court." She explains that as economies are price-driven, regulation to level the playing field on price is necessary.

Governments are stepping up regulation, a major step in the right direction, Sarah explains, but still, consumers need to choose sustainable companies when shopping for clothes. "The answer is you've got to hit people with the bank balance because in order for those companies to become more sustainable, it's got to be worse for them not to be."

She emphasises the need for new narratives, innovative materials and processes for mitigation to tackle the ecological crises. "All of these have got to come together simultaneously, and hopefully they come together at a point where the human race isn't extinguished yet."

"And I have great hope that that can happen."

Not all heroes wear capes; some wear bows made of banana fabric.



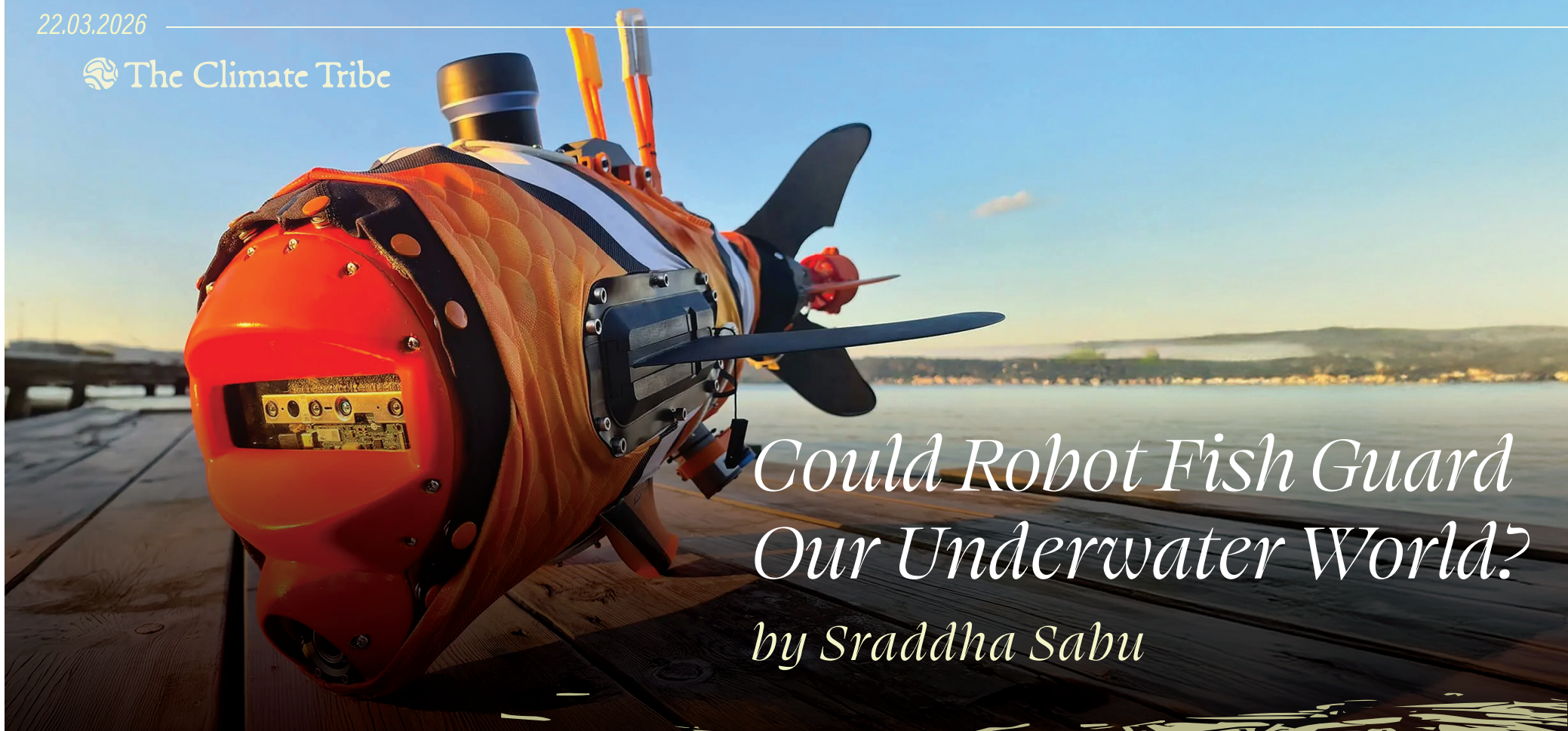
29Acacia aims to help save the fashion world with the power of the world's most consumed fruit. Photo: 29Acacia

We need to encourage as much behaviour change as possible with new inspiring narratives that aren't about guilt. We can still have new clothes and beautiful things and amazing, exciting innovations and exciting technology. None of those things has to go away.

- Sarah Angold



29Acacia buys waste from banana farmers, extracts the fibre from the centre of the tree trunk and processes it to make a soft fibre that can replace cotton in the supply chain. Photo: 29Acacia



Could Robot Fish Guard Our Underwater World?

by Sraddha Sabu

Aquaai is a marine robotics company that produces 3D-printed robotic fish that collect visual and environmental data in real-time to protect global water bodies. Photo: Aquaai

What if a fish could tell us what was wrong underwater? Aquaai's fleets of bio-inspired fish-like drones are protecting ecosystems and detecting issues in real time without intruding on existing underwater life.

On a chilly winter evening in 2017, the salmon of a sustainable aquaculture farm off the remote island of Kvarøy, Norway, were visited by a mysterious guest. An unusually large fish had suddenly appeared in their crisp Arctic waters and was swimming alongside them.

"Salmon are prone to heart attacks if they are frightened. To our amazement, in 15-20 minutes, they were swimming next to our robot," recounts Liane Thompson, co-founder and CEO of Aquaai. This marine robotics company produces 3D-printed robotic fish that collect visual and environmental data in real-time to protect global water bodies.

Typically, it would take days or weeks before the salmon interacted with any new addition to the cage, whether a buoy, camera or sensor.

"The undulation of the tail and the movement, fluidity through the water really calmed

the salmon, so they were not all afraid of our technology," says Liane. "We were all so excited at how embraced we were by the salmon."

These Autonomous Underwater Vehicles (AUV) were the work of Simeon Pieterkosky, a South African inventor with decades of experience in robotics, special effects and animatronics. Simeon co-founded Aquaai with his wife, Liane, a former New York Times executive. Their fish-like drone, designed to resemble a clownfish with orange, white and black stripes, carries a payload of sensors that offer a multifaceted glimpse into the underwater world.

Traditional sensors are static, relying on fish to swim nearby, which can be challenging in cages as large as 190 meters. Aquaai's mobile fishlike platform carries the static sensors and is equipped with avoidance sensors, 360-degree cameras, GPS, and a complex navigation system to swim close to the live fish for optimised monitoring to detect anomalies in real-time. Customers can even change the combination of sensors to suit their needs.

"It does really look and swim like a fish, so we're able to get in tight places - around corals, around the infrastructure, in canals that your typical systems couldn't do." Machines with propellers could stir up sediment and destroy kelp, for example.

Part of the credit for Aquaai goes to Simeon's daughter, Emily, who grew up watching her dad make cutting-edge technology, such as humanoid robots. Emily had a serious request for her father at only eight years old. "She came home one day and she said, 'Dad, can you make me a promise to use your skill set to come up with a solution to save life in and out of the waterways?'" Simeon recalls.

Aquaai's end-to-end system provides its customers visuals and metrics such as salinity, dissolved oxygen, temperature, depth and pH on a web dashboard, viewable from the comfort of their office. If there is an oxygen drop that can lead to mass fish fatalities, the farmer is notified and can quickly react. The Norwegian farmers were amazed. They were on board, and Aquaai, until then a Silicon

Valley-based company, opened a subsidiary in Norway in 2019.

Liane says, "We're addressing critical issues in water bodies, be it pollution, subsurface infrastructure or biodiversity issues, and we're doing that by applying AI, data and biomimicry robotics."

The need was clear - global waterways are increasingly polluted, and the water cycle is changing due to the climate crisis. According to a 2024 report, water-related disasters such as flash floods, landslides and tropical cyclones caused over 8700 deaths, displaced 40 million people and inflicted more than \$550 billion in damages in 2024 alone.

Simeon is no stranger to climate awareness, thanks to a life-changing encounter at the age of 12 when he stumbled into the Climate Future 2030 convention instead of a comic book convention. As his childhood fascination with dissecting and building machines spurred a career in animatronics and robotics, he also worked in conservation. "I always felt myself taking whatever money I earned

and bringing it back into the climate issue."

"Of eight billion people on the planet, around four billion live closer than three kilometres away from a water source," says Simeon. "What's happening with the climate is the Whiplash Effect, the things that you see now, which are the floods, the storms, the heavy pollution that's coming from runoff, and sewage plants."

"It always seemed to me there was never a tool that could prevent a disaster before it even happened."

When Simeon came across robot fish used for military purposes, he envisioned the sophisticated technology being a game-changer in protecting water bodies.

Simeon and Liane's vision is to see their robotic fish deployed as a ubiquitous tool for all subsurface monitoring. "Whether you're building a house or making a street or farming fields, everyone reaches for a tractor," says Liane. "We see Aquaai to be that tractor that everyone reaches for when they're working in the waterways."

She also emphasises their passion for community outreach and education in schools and colleges, and dreams of being part of disaster relief operations, where their fishlike robots detect toxicity in post-flood waters.

They've already won several awards - receiving a European EIC Seal of Excellence for their technology, an Innovation Norway grant and selection in the Hub71 accelerator as well.

Simeon shares a full circle moment - a statement by his daughter, now a young adult. "She said, 'You make me proud, because I see the dedication that you put into something, and it's not just for wealth. It's actually to save people's lives.' So still today, that promise holds strength; it's one of our guiding forces in the company," he said.

And beneath the waves, a robotic fish keeps swimming.



Co-founder Simeon Pieterkosky holds one of Aquaai's fish-like drones.
Photo: Aquaai



Simeon and Liane's vision is to see their robotic fish deployed as a ubiquitous tool for all subsurface monitoring. Photo: Aquaai

PP

WE'RE ADDRESSING CRITICAL ISSUES IN WATER BODIES, BE IT POLLUTION, SUBSURFACE INFRASTRUCTURE OR BIODIVERSITY ISSUES, AND WE'RE DOING THAT BY APPLYING AI, DATA AND BIOMIMICRY ROBOTICS. PP

- Liane Thompson

Preserving Nature, One Mycelial Network at a Time

by Georgina Pereira

A native mushroom grows out of the arid landscape of the UAE sands. Photo: Terra Expo Dubai

Georgina Pereira, the region's first and only species survival manager assessing macrofungi at Terra Expo City Dubai's IUCN Fungi Centre for Species Survival, spends her time studying the UAE's biodiversity. With the recent announcement of the world's first IUCN Centre in Dubai, Georgie can't wait to help connect people to some of the world's most fascinating organisms: fungi.

The IUCN Centre for Species Survival – Fungi is the first global conservation centre dedicated to fungal biodiversity, and the first of its kind hosted in the Middle East. Located at Terra in Expo City Dubai, the Centre addresses one of the most significant gaps in conservation by focusing on the fungal kingdom, organisms critical to plant life, climate regulation, medicine, and ecosystem resilience. The Centre leads IUCN Red List assessments, public education, scientific collaboration, and sustainability-focused programming to reposition fungi as a key player in global biodiversity and climate solutions.

How incredible are fungi?

Neither plants nor animals, fungi are a kingdom of their own, slowly 'breathing' in oxygen to live, just like the rest of us. Consider this: fungi around the world are creating healthy soil, producing life-saving medicines, nourishing happy plants, and even sitting on someone's plate of food. They are also digesting nasty human-made pollutants and feasting on dead organic matter.

I fell in love with this mycelial world over a decade ago, and today, I work with fungi at Terra, Expo City Dubai, the home of the newly launched IUCN Fungi Centre for Species Survival. Our current understanding of fungi has people thinking of moss-covered logs and dark forested corners, but our deserts also give birth to these amazing mycelial networks. In fact, it's possible that the Middle East could be home to around 10,000 fungal species. The news about the IUCN's new centre in Dubai not only brings visibility and protection to the region's unique

species, but will also make fungi a conservation priority.

Terra's mission is to create a world where humans and nature thrive in harmony, and for me, that mission started a long, long time ago.

I was always the weird kid in school – loud, curious, unfiltered, and properly obsessed with the natural world. Having grown up in South India, I would collect tadpoles in my water bottle at school, convinced I was saving them from the storm that was about to come. My ways of calming myself down included rolling in the mud and lying face down on a patch of wet grass.

I moved to Dubai not long after, and my ways of both learning and living changed over time. I found my home in the desert sands, and I loved visiting the toads in the freshwater mountain wadis. I graduated with a major in science from high school, but chose to pursue a legal career and moved to India to study law in 2015.

Then COVID-19 happened, and it changed my life.

When I was forced to slow down for the first time in years, I found myself longing for what I found soothing as a child: rolling in the mud, sneakily smuggling tadpoles, and chasing petrichor. I wanted to examine every tiny detail and finally, follow the fungi that fruited after every downpour. I had forgotten what a blessing it was to be an absolute oddball.

Mushrooms spend most of their lives underground, quiet and invisible, and will occasionally pop up to say hello. They can be bright, vivid, and incredibly funky-looking. They build vast networks of underground mycelia that help trees talk to each other. These mycelial networks also act as carbon storage systems, locking carbon into the soil. In extreme environments, fungi will team up with algae to form lichen that capture carbon dioxide from the air. Some fungi can even reduce methane emissions by working with microbes.

And our planet's surface is completely covered with the miraculous things. Mycologists estimate that there could be anywhere between two to three million fungal species globally, and yet, we've only officially catalogued 160,000. There's a whole world of fungi out there to discover.

Fungi are not just tackling food security. They are climate mitigators and plastic alternatives. They're medicine and health professionals, and ecosystem restorers. They are sustainable architecture, innovation, and biotechnology. They are social equity and Indigenous knowledge. Fungi are even tied to mental health and well-being.

The more I learned about them, the more I realised they weren't represented fairly in the conservation world. Over the last two decades, less than 0.2% of all conservation funding was channelled towards fungi.

It's time for this to change, and the IUCN Fungi Centre for Species Survival will now sit at the forefront of global fungal conservation. Dozens of new species, including many in the MENA region, will be added to the Red List. Dryland fungi in the UAE, such as desert truffles, play crucial roles in maintaining soil health and supporting plant resilience. They also hold a unique place in Emirati history, representing an ethically harvested food source and an unsung part of the region's culinary heritage.

Protecting these fungi from land degradation, climate change, and urbanisation will help preserve the ethnomycology of the UAE. The IUCN Centre will work on adding desert truffles, amongst other global species, to the IUCN Red List for further conservation planning.

I spent years watching mushrooms grow and being fascinated by them, years being in awe of our incredible planet Earth.

I now carry this sense of awe and wonder on this journey to inspire, educate and conserve the world's fungi through Terra. If you are even the slightest bit curious, join us!

There is magic when we build a community of people who nurture nature.

FUNGI ARE NOT JUST TACKLING FOOD SECURITY. THEY ARE CLIMATE MITIGATORS AND PLASTIC ALTERNATIVES. THEY'RE MEDICINE AND HEALTH PROFESSIONALS, AND ECOSYSTEM RESTORERS. THEY ARE SUSTAINABLE ARCHITECTURE, INNOVATION, AND BIOTECHNOLOGY. THEY ARE SOCIAL EQUITY AND INDIGENOUS KNOWLEDGE. FUNGI ARE EVEN TIED TO MENTAL HEALTH AND WELL-BEING. ☺☺

- Georgina Pereira



The mobile solar trees at Terra Expo City Dubai shift to follow the sun throughout the day.
Photo: Terra Expo Dubai

BOOK OF THE SEASON

The Light Eaters

by Zoë Schlanger

There is a particular kind of wonder and awe that arrives in the slow recognition that what has always surrounded us and has adapted to the current world is both fascinating and magnificent. Zoë Schlanger's *The Light Eaters: How the Unseen World of Plant Intelligence Offers a New Understanding of Life on Earth* gave me.

I picked up this book already fascinated by the plant world. I remember standing in Muir Woods among the massive coastal redwoods, feeling that particular reverence those great tall trees invoke. It is that feeling of being so small amongst those trees and that of expansion. Peter Wohlleben's *The Hidden Life of Trees* had already opened a door for me with knowing the networks of fungi knows mycorrhizal networks. But Schlanger flung that door wide open. What she reveals is not simply that plants are more complex than we assumed, it is that the entire framework through which we have understood "life" may need to be rethought.

I found myself pausing on the most ordinary of plants. The pothos for example, a familiar trailing green plant hanging from my grand mothers staircase is, Schlanger tells us, constantly tracking all its modular parts and making decisions about where to grow next. It stopped me entirely. How many times had I passed a pothos without a second thought, without recognising their quiet intelligence at work?

This book arrived after a meaningful moment for me. At the Cambridge Alumni Festival, I attended a session

with the executive producer of *Our Planet*, a conversation about building human connection with the natural world, and the particular challenge of doing so through plants. It is always the charismatic fauna that captures our hearts first the mighty mammals that capture our senses. Plants, rooted and silent, are easy to overlook. Schlanger's great gift is making you feel the injustice of that oversight.

Of everything in this book, what has stayed with me most is the science of plant communication. Schlanger takes us into the work of researchers like Prof. Jarmo Holopainen, whose studies on volatile organic compounds are reshaping our understanding of how plants interact across space. What sounds like the plot of a quiet science-fiction novel is, in fact, documented field science: plants "speak" to one another through the air, releasing chemical signals that their neighbours can detect and respond to.

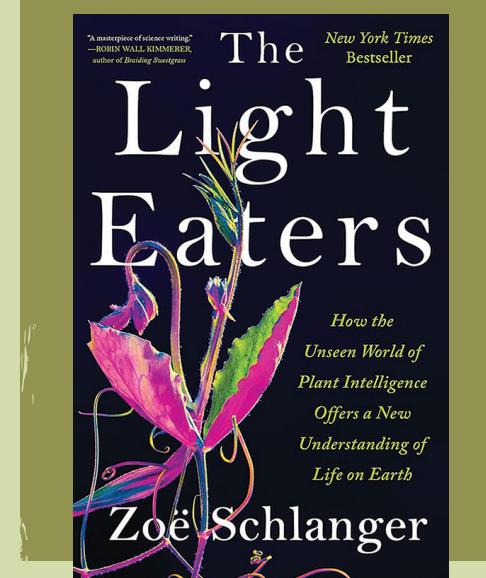
One example that captured my imagination and made me think is that of the the Silver Birch and Labrador Tea (*Rhododendron tomentosum*), which when growing in its proximity, can help each other ward off weevils. Two entirely different species, collaborating in a chemical language older than any we have ever spoken. I sat with that for a long time.

It immediately called to mind something much closer to home. The red palm weevil

(*Rhynchophorus ferrugineus*) is one of the most devastating agricultural threats facing palm farms across the UAE. If plants can signal each other to mount natural defences, what might this mean for how we approach protection of our palm groves? Could the wisdom of a Scandinavian forest offer a clue to the preservation of a landscape that is woven into our very identity here? These are the questions that Schlanger's book sets loose in you.

Reading this book brought back a vivid memory: my mother once brought home an Oxalis, and I was entirely mesmerised by it. Its leaves would fold and unfold like the wings of a butterfly, open to the light, closed as the sun set. I had loved it without ever really understanding it. Schlanger gave me the language to understand what I had always felt: that plants are not passive recipients of the world, but active, sensing, responding presences within it.

For me, the deepest response this book stirred was one of faith. The more science reveals about the complexity of the natural world, the more I feel the weight of something intentional in its design. To learn that a plant that does not have a brain, without a nervous system as we understand it, is making decisions, responding to its neighbours,



remembering, and adapting, is to encounter creation in a way that is genuinely humbling. It is the kind of knowledge that invites not only curiosity, but gratitude.

For this spring edition of *Al Waha Tribune*, an issue centred on emergence and new possibilities, at a time when war ravages our region, I have turned to nature and I can think of no more fitting companion read in order to stay grounded but also in awe of creation. Emergence, after all, is exactly what *The Light Eaters* is about: what arises when we stop assuming we already know what a living thing is capable of. The plants have been here far longer than we have, quietly doing extraordinary things, constantly adapting. Schlanger simply helped us look. I hope my humble review and this book, should you choose to read it, helps you emerge and adapt during these uncertain times.



Al Waha Radio

EACH SEASON BRINGS ITS OWN RHYTHM AND CARRIES ITS OWN SOUND.

I've curated this carefully chosen playlist as a soundtrack for my Spring months. I hope it allows you to explore some genres of music that you wouldn't normally gravitate towards.