Rosalind

Issue 01 — August 24

Rosa

Poetry | Prose | Art | Science

"Science and everyday life cannot and should not be separated."

— Rosalind Franklin

Rosalind Science Press

A Science and Arts Magazine

Instagram: @*rosalindsciencepress*
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SUBSCRIBE at rosalindsciencepress.com

For all inquiries email:
rosalindsciencepress@gmail.com

Managing Editor
Katherine Nicholson
Proofreader
Martha Florence

Founder
Katherine Nicholson

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About

Rosalind is a not-for-profit magazine blending science with all forms of writing and art. It aims to make science accessible, and act as a visual testament to how science is everywhere in the world around us. The magazine publishes fiction and non-fiction, poetry, histology, art, science and educational pieces. Contributions are accepted from all over the world, from all backgrounds and genders. As a magazine celebrating women in science, contributions from women, or those identifying as women, are greatly encouraged.

As a not-for-profit magazine, we rely on your generosity. Please follow our social media, tell your friends about us, and consider making a donation. Your support ensures we can continue publishing your wonderful pieces; all contributions are received with warm gratitude. Find more at rosalindsciencepress.com

We recognise the rich culture and history of the Indigenous Australians and acknowledge the Traditional Owners; the Gadigal people of the Eora Nation, on whose land *Rosalind* is published.

A word from your editors

When I was studying my double BA of literature and neuroscience, the most common reaction I received was, *Oh, that's a weird combination!* Really, it wasn't. Science is everywhere, inextricable from the day-to-day, just as language is, as writing and art are.
I didn't like the divide I saw between the two; why *should* science-and-writing or science-and-art be strange: it's virtually impossible to have one without the other. Science is so ubiquitous it goes unnoticed. Science is there every time you look up at the sky, when you turn on the stove to cook supper, when you put on your glasses.

Rosalind was conceived as my small rejection of this superimposed divide, allowing a blend of science with writing and art that felt natural. Putting together this debut issue was so deeply gratifying for that very reason – I read writing on fairies, time, scientists, the ocean, childhood, the brain, medication and mathematics, saw art depicting anatomy, flora, mythology and birds. They make sense together; they were meant to be viewed side by side.

I feel I should formally introduce the magazine's namesake, Rosalind Franklin, after whom this first issue is also lovingly nicknamed. She's a favourite scientist of mine, who is, thankfully, now receiving some of the recognition she deserves, though she is still absent from many museums, textbooks, data, and history. A chemist and X-ray crystallographer (a type of science determining molecular and anatomic structures of crystals), she is arguably most famous for her discovery of the structure of DNA – the double helix – but she also was crucial to the understanding of other molecular structures, including RNA, viruses, coal and graphite. Watson and Crick – the two male scientists to whom the discovery of DNA's structure if often attributed – built their model using Franklin's notes and a photograph she had taken. Science was her joy and deepest passion; just as she dedicated her life to it, *Rosalind* is dedicated to her.

Before I leave you to read, I'd like to offer my gratitude to this issue's contributors. I had no idea how people would interpret the magazine's concept; I was awed by your creativity. My thanks also to all the readers; I so hope you enjoy!

- Katherine

I was deeply inspired by the pieces in this issue, by how they speak to each other and combine into something truly evocative. The talent of each author and artist is not to be taken for granted. I was fascinated by Alexandra Evans Ordoñez's eloquent and seamless discursive on fractals and Riddhima Das' skilful snapshot of neurophysiology, humbled by Naz Sakici and Indya Pearce's raw expressions of vulnerable femininity. I so enjoyed learning about diseases, history and medications, reading about school memories, inventions of new tomato plants and excursions through time and space.
Happy reading!
I hope you find something special in this issue; I hope you learn something.

- Martha

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Feature columns

Moon Mythos
AUGUST'S BLUE SUPERMOON

In honour of femininity and womanhood, each issue of *Rosalind* will be published on a full moon.

This month's full on the 20th is a particularly special one, known by three names: a blue moon, a supermoon (sometimes combined into a blue supermoon), and a sturgeon moon.

"Sturgeon" is an Indigenous name, originating with the Algonquin peoples. August's moon takes its name from the sturgeon fish, which are plentiful in the native waters around this time of year. To the Native Americans, the moon held significant symbolic and spiritual value; it was a testament to the passage of time and acted as a guardian spirit, keeping a quiet, protecting vigil. Each moon cycle was given a different name; it fell in synch with patterns of hunting, harvesting, planting and festivities.

The "blue moon" and "supermoon" names are rather less sacred, but do combine to make this month's moon a rare one indeed. A *seasonal* blue moon – differing from a *monthly* blue moon – is the third full moon when there are four full moons in an astronomical season, which follow the solstice and equinox. Typically, there are only three full moons within any one season, hence the phrase *once in a blue moon*.

And lastly, a supermoon. The moon, as we know, orbits the earth in the shape of an ellipse, rather than a circle, meaning at certain points it is closer to the earth than at others. I now have some NASA terminology for you: the farthest point in the ellipse is the "apogee," i.e., the time when there's the greatest distance between us and the moon. The closest point is the "perigee." This is what brings about a supermoon; the moon will be at the perigee during the time when it's full, meaning it will appear brighter and bigger than usual. You may have noticed this as it's been waxing over the month; it also glows more orange than usual. Blue moons are rarer than you think: the next won't be until 2027.

And a blue supermoon? Sometimes there are as many as 20 years between each one.

It will be properly full on Monday the 20th here in Australia (the 19th for some of you). However on the 21st/20th it will still be something quite marvellous to look at and almost as big as the previous night, a waning gibbous of 99 per cent – so, full by all appearances, if you're someone like me and need glasses.

The astrologers say we can expect some pretty significant personal growth with this coming full. This time, the blue supermoon will be in Aquarius, the sign of fierce, unconforming free-thinkers, so delve into intuitions as they come, and be ready for some changes, big or small, but definitely unexpected!

Happy super-blue-sturgeon moon, readers.

"They dined on mince, and slices of quince,
Which they ate with a runcible spoon;
And hand in hand, on the edge of the sand,
They danced by the light of the moon,
The moon,
The moon,

They danced by the light of the moon."

The Owl and the Pussy-Cat
– Edward Lear

by Katherine Nicholson

Image: *provided by the author.*

Breaking the Glass Beaker
MARIE CURIE-SKŁODOWSKA

I imagine that anyone visiting Marie Curie-Skłodowska's Paris laboratory wouldn't have a hard time finding her in it — as she often carried bottles in her pockets. Ones that would go *clink! clink!* and *clink!* wherever she went. One bottle full of radium and one full of polonium.

In that laboratory, Marie Curie-Skłodowska worked her scientific magic and earned many great achievements. Born Maria Salomea Skłodowska in 1867, in Warsaw, Poland, Curie shattered glass ceilings (and beakers) by becoming the first woman to grab not one, but two Nobel Prizes: in Physics and in Chemistry. To this day, she is the only person to have won two Nobel Prizes in different scientific fields, and she was the first ever to win more than one in total. In that Paris laboratory she established a family legacy of winning Nobel Prizes — and discovered an entire two new elements that she carried on her person until her death.

Although this is entirely speculatory, I presume Curie's passion for science was sparked when her father brought laboratory equipment home from the high school he worked at. At the time, Poland was under Russian control, and Russian officials banned lab work in Polish schools, forcing her father, Władysław Słodowski, to bring the equipment home — and instruct his children in its use, of course.

Curie's path to getting higher education was difficult. Although she was able to attend the equivalent of high school, she was barred from post-secondary institutions as she was a woman. Marie and her sister Bronisława did everything to obtain higher education and practical

jobs, all the while minimising spending even on necessities. Eventually this led Marie to get through two degrees at the Sorbonne University in Paris, where she met her future husband, Pierre Curie. They shared a common passion for science: she was married in her laboratory outfit and he secured her some laboratory space as a gift.

In this lab she worked on investigating what she would later coin as "radioactivity." This is what earned her the 1903 Physics Prize, alongside Henri Becquerel (who won 50%) and her husband (who shared 25%). She earned her share by developing upon the two men's discoveries: independent radiation waves and the electrometer, respectively. Through meticulous measurement and experimentation on uranium minerals, she discovered the energy was not a result of a reaction of substances but was emanating from the atom itself — a hypothesis that challenged the notion that atoms were indivisible and later led to her theory of radioactivity.

Curie's second Nobel Prize for Chemistry in 1911 was entirely her own. She had come a long way since her last — becoming a professor at the Parisian University and founding the Radium Institute. In this lab, she not only expanded upon her initial research but also isolated pure radium metal, conducting the first-ever studies on the chemical properties of radium and polonium. Her pioneering work in isolating radium led to the development of new techniques for the separation and analysis of radioactive elements.

Despite facing significant personal and professional challenges, including the death of her husband in 1906, Marie Curie continued her groundbreaking work, contributing to advancements in medical treatments and nuclear physics. And that's just the first woman to have won a Nobel Prize.

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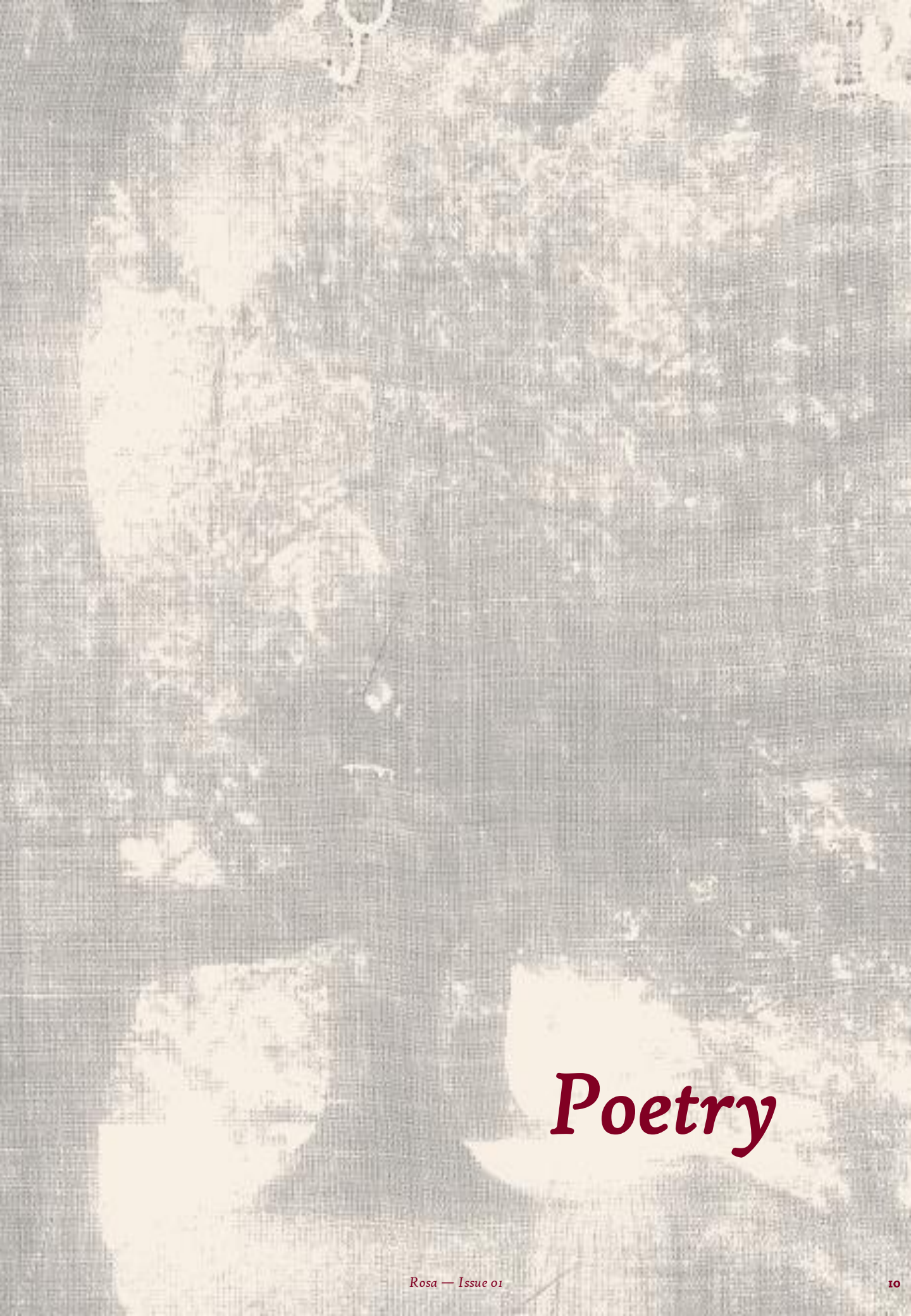
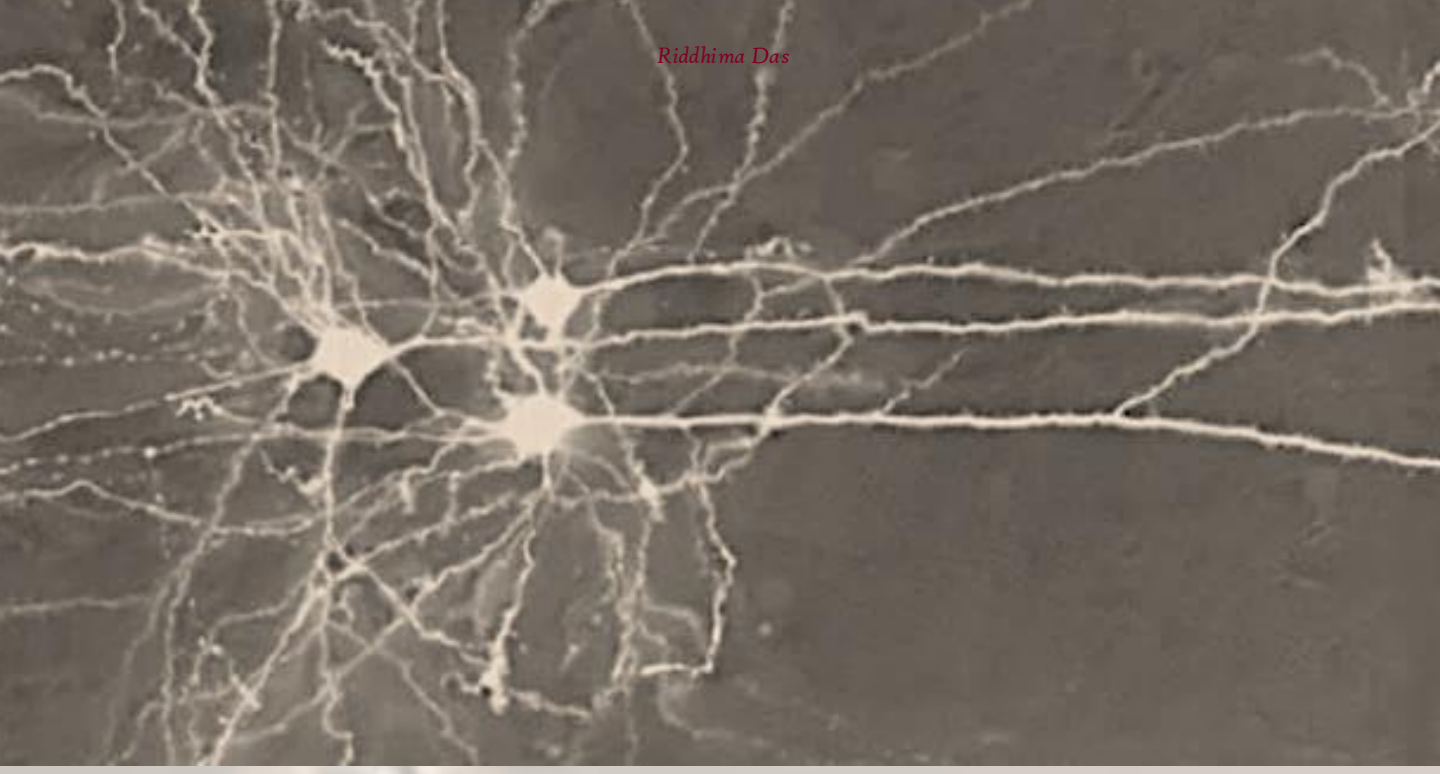
by Zuzanna Klimkowska

Zuzanna is a student in Vancouver, Canada. She is joining the International Baccalaureate Diploma Program as of next year, and aspires to be a doctor, nuclear scientist, or a little bit of both. She'll likely write and publish books as she gets older because right now it feels impossible. She's taking one thing at a time.

December 1898: The Curies Discover Radium. This Month in Physics History. APS125.
Marie and the Science of Radioactivity. 2000 – 2024 American Institute of Physics.
Marie Curie. NobelPrize.org. Women Who Changed Science.
Marie Curie – Facts. NobelPrize.org. Nobel Prize Outreach AB 2024.
Mirion Technologies. *Marie Curie Discovered Radium, but Endangered Herself*. Instadose, 2018.
Image: *Women Who Changed Science* © Association Curie Joliot-Curie



Poetry



In our heads, a marvel resides,
a complex organ where thought abides.
Neurons, the stars of this grand show,
billions strong, in networks they grow.
Synapses spark like fireflies at night,
chemicals dance, a dazzling sight.
Signals race, faster than we know,
controlling all, from head to toe.
The frontal lobe, our judgment's seat,
plans and reasons, makes us complete.
Memory's stored in the temporal zone,
while parietal helps make sense of our own.
The occipital lobe helps us to see,
while the brain stem keeps breathing free.
The cerebellum guides our motion,
coordinating with fluid devotion.
Neurotransmitters, messengers small,
carry orders to one and all.
Dopamine, serotonin, and more,
balance moods and open mental doors.
Plasticity lets our brains adapt,
learning and growing, never trapped.
This miracle of nature's design,
makes each of us uniquely fine.
So next time you ponder or dream or think,
remember the brain, working in sync.
A universe within our skulls,
neuroscience studies its miracles.

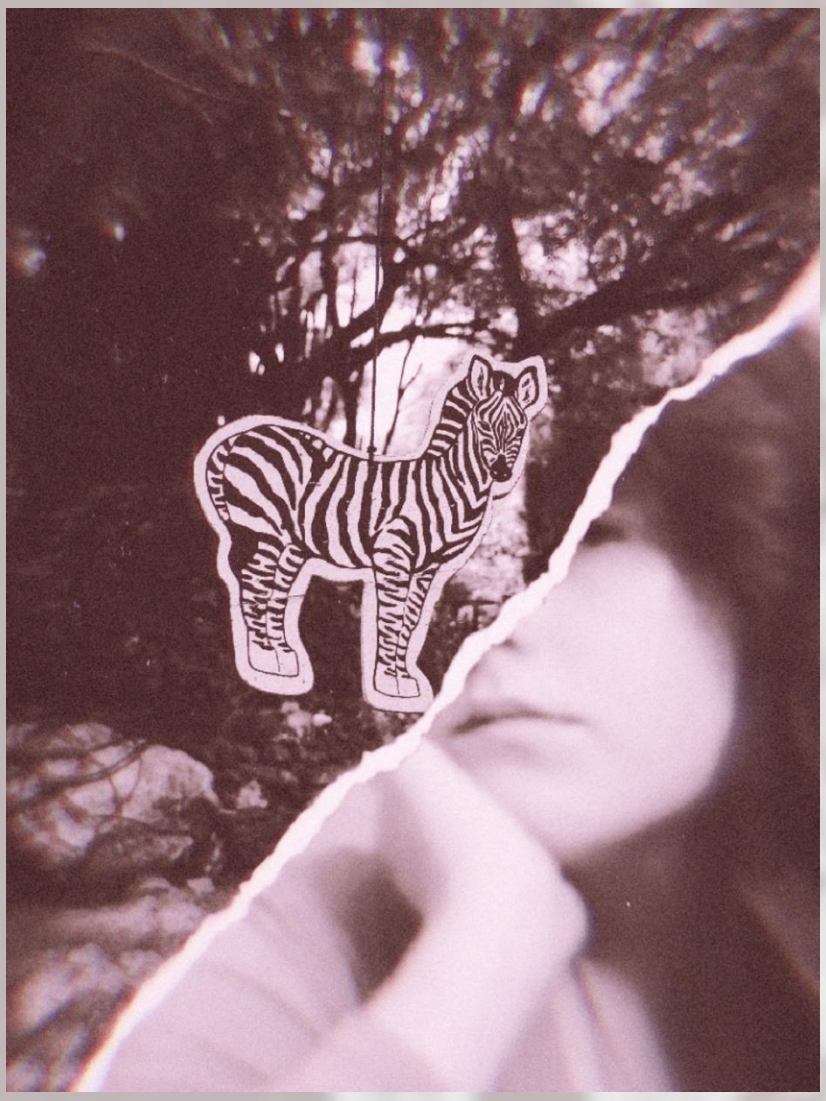
"A universe within our skulls, neuroscience studies its miracles"

Brain 101

by Riddhima Das

Riddhima Das is a poet living in the Seattle area. She enjoys learning about anything and everything - especially languages. She is grateful to everybody who has helped her in her poetry endeavours - especially Tanushi K (thank you!). Riddhima invites you to continue her work in any way you would like (draw! write! sing! anything!), and thanks you for reading.

Image: *Synaptically Coupled L5 PCs* © PNAS 109.42 (2012)



Animalistic

"do not act

for the sake

of cruelty"

I fear human interaction
far more than I would
being face-to-face
with dripping, dyed drool
from jagged teeth.
It is not because I think
of the four-, six-, eight-legged
as having smaller skulls
and me being the Lucifer
to their inferiority –
on the contrary,
I know them to be superior.
(Are they not, after all,
the epitome of metaphor?)
But it is because animals
are not as malicious;
they are bound by nature
and do not act
for the sake of cruelty.
Whereas humanity
is
simply
animalistic.

by Megan Diedericks

Megan Diedericks writes poetry and fiction, everything from meek to macabre can be found in between the lines. Her debut poetry collection: *the darkest of times, the darkest of thoughts* is available on Amazon. Visit her website (bit.ly/megandiedericks) for more information!

Image: *provided by the author.*

Time Travel

Time travel is far easier
Then they would have you believe

No need to worry about complex
calculations
Or potential paradoxes
No need for machines or lords

If you want to travel through time
Just look up

Everything in that sky is so old
Everything you see up there
Has already happened
Moments and minutes and months ago

And isn't that wonderful
That at any given moment
We can look up
And see what was?

And isn't it stunning
That something straight out of science fiction
Is sitting up there

In our night sky?

You are here and now
And they are there and then
And tell me
What is better than that?

"everything in that sky
is
so
old"

by Heather Meatherall

Heather (she/her) is a poet and writer from Canada. Her work has been published in magazines such as *The Icarus Writing Collective* and *Mythos Magazine*, and she was a featured writer in the *Dreams in Hiding* anthology. She finds a lot of inspiration from music, myth and nature. When she isn't writing she can be found coding, crocheting, or throwing her dnd characters into new and exciting situations

Image: © The Half Hour Library of Travel, Nature and Science for young readers

For my next life, I'd be anything but human

For my next life,
I'd be anything but human.
A cat, a fly or poison ivy.
A bee in yellow with black stripes
and write a poem addressed to a tulip.
Perhaps a hermit crab, embracing forsaken houses to call home.
I'd rather be an obsolete tree at the edge of a field
bald and veiny,
churned up soil beneath my roots.
My neck would grow thinner in a wake of vultures,
singing swansong on "murder".
Ancient sea terror, living up to my apex fame
or the rose that just grew from concrete.
For my next life,
I'd be everything that doesn't spell human.
Keep your fire. Keep your tongue.
Keep your spite. Keep your lair.
Prey or predator, but you.
In this life —
I am sunlight and sin
I am death and ruin.
I am hideous than the beast under my skin.
For next time's sake, I'll be anything
smaller... dumber... insignificant... but....

"keep your fire keep your tongue..."

by Arani Acharjee

Arani Acharjee is an emerging writer from Kolkata, India. She has been passionate about writing since her pre-teen days. She has co-authored 10 anthologies to date, and published her own poetry collection *Thirty times I felt like a human* in 2021.

Image: *Only a Cloud* © James Perolls

The Mind of a Child

"I shall live a lifetime in a day"

I shall be a child.
I shall rush through things.
I shall be foolish about things.
—Until I do not know myself.
Until my story ends in death,
I shall live a lifetime in a day.
I shall not love much.
—But I will love with all my heart.
I shall not search for certainty.
—For nobody does.
I shall not speak much.
—But I will speak with all my might.
I shall find no purpose in the end.
—One thing I shall know—
Asleep in my bed, I know that,
I'll be gone by 7:45.

by Claudia Wysocky

Claudia Wysocky, a Polish writer and poet based in New York, is known for her diverse literary creations, including fiction and poetry. With over five years of writing experience, Claudia's work has been featured in local newspapers, magazines, and even literary journals like *WordCityLit* and *Lothlorien Poetry Journal*. Her writing is powered by her belief in art's potential to inspire positive change. Claudia also shares her personal journey and love for writing on her own blog, and she expresses her literary talent as an immigrant raised in post-communism Poland.

Image: *Little Women* © Greta Gerwig

Fairytale Seasons

"autumn,

draped in

russet

dreams"

In a miraculous glen where fairies tread their cerulean tapestry,
Beneath the sun's golden arcade, embracing the canopy of stars
There, in secluded corners blooms a tale from whispered lore,
The nature's sublime décor dancing in pure delight and endless love.

Early spring reached the shore on dew-kissed toes,
With rivers of blossomed trees taking flight on the wings of a dove.
Each dainty flower, corrupted by the scorching stamp of time,
Bursts in a regal anthem painted in lively nuances reflected by the sea of dreams,
A canvas flooded with the muse's morning tears – a restless cascade, a marching sea.

Summer follows by your side, engulfing in a warm, noble embrace
The field of fireflies that sprinkles melted flames atop the fruitful soil,
As myriad creatures rise from the puzzling green blades adorning Mother Earth.
The ancient forest, the home of the immortal oak trees and melodious nightingales
Hum a symphony of revival metamorphosed in a thrilling duet throughout the forbidden refrain,
Echoing the final footsteps of an angel reaching for Eden.

The legendary autumn, draped in russet dreams, nostalgic visions of the soul,
Weaves threads of colossal carpets uniting with the martyr's blushing hues.
Floating leaves comb through the valleys of a blinded soul,
Tracing in charcoal pieces a visceral presumption of a phantasmagorical death – the end.

Winter's icy breath then cloaks the land in a foggy trance
With diamond wands wielded by every sorceress, reigning queen of blistering-cold thorns.
The fragile snowflakes twirl around my index finger
In a ballet of ice and fire – reimaging Pas de Deux
Twinkling in the moonlit shadows, glowing in an ethereal farewell,
Preparing to hibernate in vicious demure, without aid.

Each season's noble kiss assigns an irresistible temptation,
A love potion or a casted spell in nature's heart where charming wonders dwell.
A timeless cycle sprinting by, attaining the principles of our fated enemy, time...
And discovering an eternal paradise, born in the darkest corners of one's striking mind.

by Bianca

Bianca loves spending time creating poetry, practicing horse riding, and playing tennis during summer vacation. Besides that, she adores listening to rock music, specifically Nirvana. This year she is more than proud of her achievements, one of them being the extraordinary number of submissions, specifically poems, to numerous literary magazines worldwide.

Image: *Midsummer Night's Dream — 1935* © Max Reinhardt and William Dieterle

PLEASURE AND PAIN CIPA –
Congenital insensitivity to pain and anhidrosis

Pleasure and Pain are dice in this game of Life.
That allow us pawns to wallow,
In Smiles and Strife.
What is one without the other?
It is a twisted path too, the one without pain,
Certainly perilous, certainly not a gain.

Child of Vehemence, born "tragically maim,"
Tell me, shouldn't you feel all things the same?
Do you wonder why the universe robbed you of hurt?
Isn't it a burden, rather than pert?
Yet, you are the one in the 125 million,
Like a star handpicked, to fall and shrivel.

Isn't there always some Demon waiting to defile you?
For you can never sense it coming or know there's danger.
You will bleed and swell, or cut and tear,
But in your web of numbness, you always fear,
That you shall never catch, before it's too late,
That some injury or disease, just tampered your fate.

You do know, albeit through foreign words,
What is too hot and what is too cold.
But curling through your fingers, that feeling never folds,
A feeling that builds, and yet, never holds.
It's like a dandelion feather, futile to chase,
When the winds carry it away, to keep you in a haze.

For in this strange absence of Pain,
Your Pleasure lies limp too, its chivalry is in vain.
Your soul is like one untainted by a very crucial colour,
An ocean that doesn't churn, it only ever flutters.
The nerves inside of you should ignite, but oh, why do they not?
You feel like, if there is no cure, there must also be no light.

"an

ocean

that

doesn't

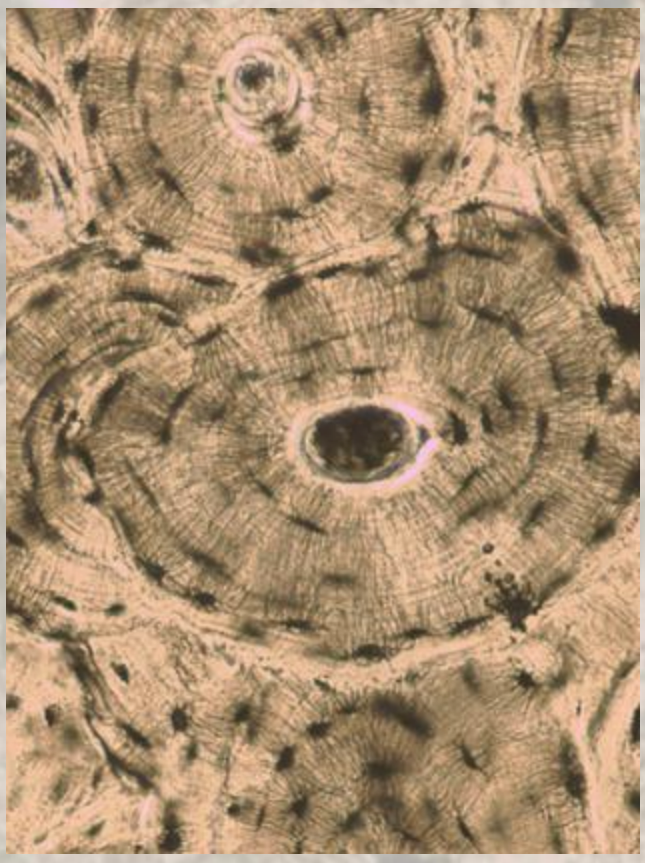
churn,

it only ever

flutters"

But look up, my child, turn your eyes that way,
The gilded sun shines for you as much as it shines for me.
There is still so much to love, don't you see?
So, find your Smiles, and throw away your Strife,
One can never be too careful in any Life.
So what, if you must care a little more?

You are not defined by what your skin feels,
You are human- to Illness you cannot kneel.
As long as there are sweet dreams by your pillows,
Love in your heart, and your laughter that billows.
Till then your Life is just as Gilden, perhaps even more,
Than the stars that hang in the sky and snore.



And indeed, you are a handpicked star,
Destined to fall, away and far.
One that disappears like a retreating tide,
But you must always remember, my child.
That only a star that fell from its warm hearth,
Had the heavenly luck, to see the wonders of this earth.

by Gurasis Kaur

Author's note: *CIPA (congenital insensitivity to pain and anhidrosis) is a rare and dangerous condition wherein one cannot feel pain. It is a condition most of us know little about. But for those who live with this boon and bane, life becomes a perilous game. My poem is written from the perspective of those who go through CIPA.*

Gurasis Kaur has always been a keen observer of her surroundings, finding inner meanings and metaphors to every aspect of life. She is a published author – having contributed to an anthropology of stories, *Blissful Quills* & poetry for *Ink and Stardust*, a collection of poems by scholastic India. Her poem, 'The Young Sapling' has been highly commended by The Shepton Snowdrops Poetry Competition 2024, United Kingdom. Another poem 'Creative Vision' has been published in the 12th issue of the *SeaGlass Literary* magazine.

Image: *Osteons* © Peter Takizawa

My mind storage isn't locked.
It works like a sun setting sky.
When our hearts are open
and the flickering lights passing by.

In the distance, I slowly remember.

My breath deepens,
and I start to feel it.
Your sun-coloured hair
in the glowing evening.

My memories are dissolving,
forever lost to the sea.
A wave softly crashing,
I just let it be.

Nothing I will be ever able to move,
everything around me is alive.
Always moving, the sky, the sand,
always eager to survive.

These memories will turn to salt.
Returning to the air,
it turns into a rock,
a nature prayer.

A demonstration of our love,
is written on the earth.
It is in the way it moves,
death and rebirth.

Memories turned into salt

"a demonstration of our love,

is

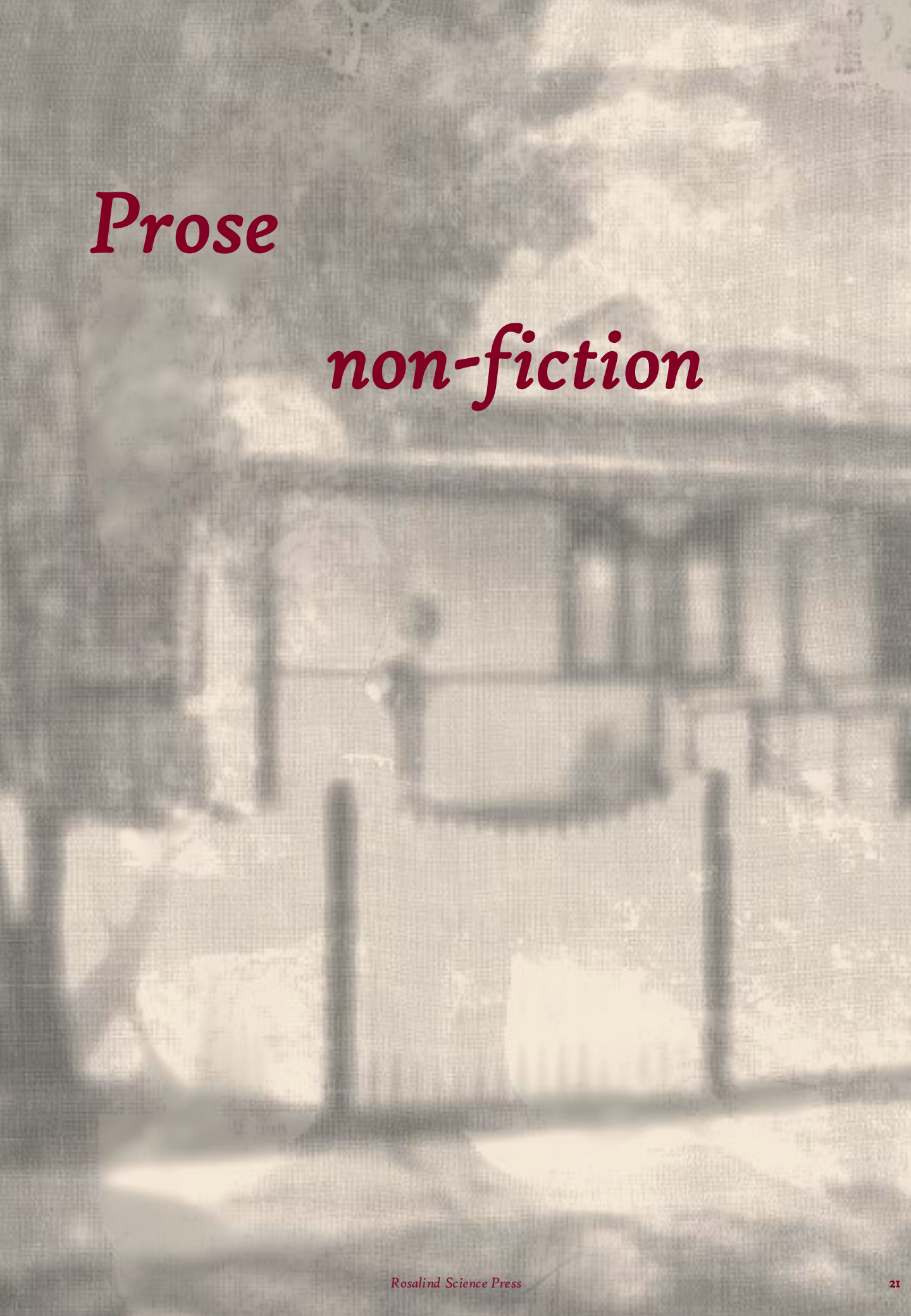
written

on the earth"

by Luiba

Liuba created her art project, titled House of Sumire this year, as a means of exploration of her artistry. She writes poetry and prose, fiction and nonfiction, in addition to painting and drawing. She likes to create a dreamy atmosphere to address personal and universal themes of spirituality and her relationship with the universe, suffering, nature, joy and love.

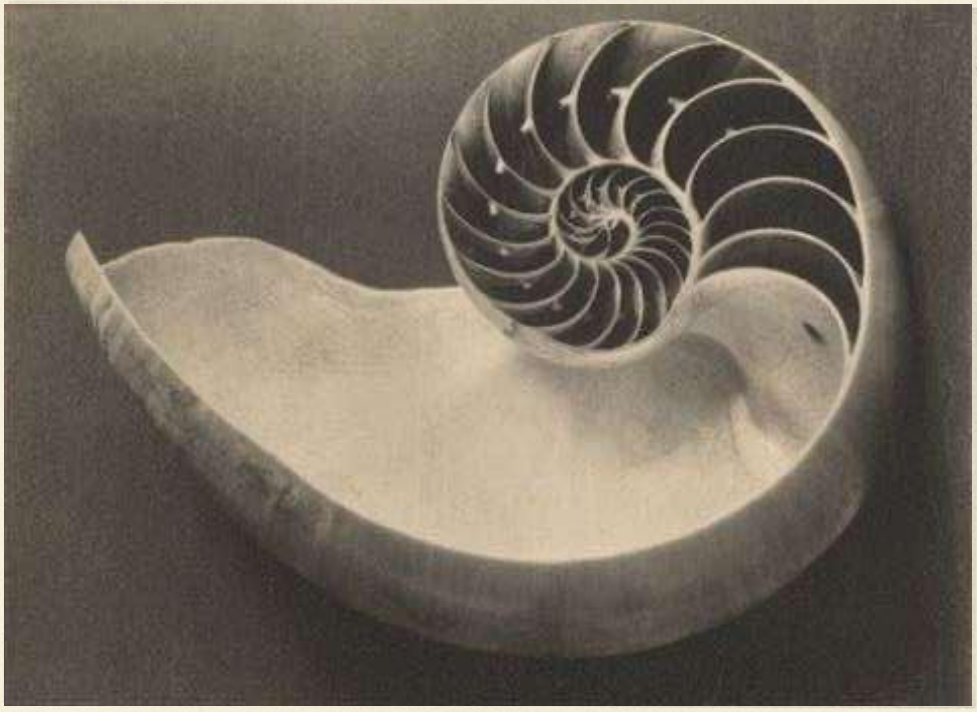
Image: *provided by the author.*



Prose

non-fiction

Alexandra Evans Ordoñez



The Nature of Fractals and Fractals of Nature

The fractal – a revolutionary mathematical discovery in the 1970s, and one of nature's miracles that has graced us since the dawn of time. Officially, a fractal is "a rough or fractured geometric form that may be split into sections, each of which is an approximate reduced-sized replica of a whole". It's basically any shape with a pattern that can be infinitely repeated and looks the same at any scale. The most famous, and probably most likely fractal that comes to mind is the Mandelbrot set, a computer-generated fractal designed and discovered by Benoit Mandelbrot, the father of fractal geometry and the man who changed mathematics forever. The infinitely complex Mandelbrot Set is created from the simple equation $z_{n+1} = z_n^2 + C$, much like other fractals that are also produced from simple equations.

Fractals have only been digitally created through mathematical equations and signal processing in the past few decades. However, they have been the backbone of our universe, an evolutionary tool to ensure efficiency to keep us going, and a source of beauty since the beginning of time.

Fractals are everywhere, especially in nature. Think of trees, with their branches diverging into smaller branches, which diverge again in the same way, again and again until they reach the leaves. Then think of the veins of these leaves that branch out, with these veins having their own branches of smaller veins in a continuing pattern; an intentional evolutionary design to ensure optimum photosynthesis. Does this branching pattern found in the veins of leaves remind you of the branching of nerves in your nervous system? What about the fractal geometry of tree branches? Does it remind you of the branching of the bronchioles in your lungs? The same design has been beautifully

evolved for the same purpose: to allow for maximum efficiency, often by increasing surface area for more absorption and compactness. The fractal pattern found in snowflakes is described as a Koch curve, which is also used to map the lengths of coastlines, and the fractal pattern found in mountain peaks mirrors the rhythm of a human heartbeat. Another form of fractal geometry is the spiral – a never-ending, repetitive pattern that is ubiquitous in nature. From the spiral shape of our very own galaxy to hurricanes, seashells, snails, to our very own fingerprints, fractals are all around us.

The very thought of sharing the same geometry, structures and patterns found in our bodies with the skies, land and sea is quite an indication that our lives and bodies are more precious than we give them credit for. Your heart beats with the mountains, you breathe with the trees, you hold galaxies in your fingertips. It begs us to question what part we play in the universe. Is a galaxy any more important than a snowflake, given that they both originate from and can be reduced to fractal geometry? If everything is infinite, where is the beginning and where is the end?

The second law of thermodynamics states that when anything in the universe changes state, entropy (disorder) increases. Essentially, everything in the universe is constantly moving from a state of order into a state of disorder. It makes sense when you think about it – an ice cube that melts won't be able to refreeze itself without an external force, and its thermal energy will be lost to the atmosphere. This theorem is present in fractals: they branch out infinitely into smaller and smaller segments until the shapes are so dispersed you can't even see the boundaries anymore. And amongst all this chaos and disorder, order can be found through the repetitive nature of fractals and their equations. It's a comforting thought, to know that this never-ending chaos and disorder, the very nature of the universe that is so unpredictable and at times scary, can be boiled down to just a few numbers – the building blocks of life.

Long before fractal geometry was discovered in mathematics, it was prevalent in art all over the world. From elaborate gothic architecture like Notre Dame to iconic works of art like the Japanese Great Wave off Kanagawa, humans have always taken inspiration from nature to make art. They didn't need any equations, they just needed to turn outwards to nature and turn into themselves. There is a fine line between art and mathematics, one we have tightroped upon for aeons without even noticing it.

Next time you're in nature, look for the fractals around you and think of the fractals you carry inside yourself. Feel your heart beat with the mountains, feel your lungs expand with the trees, and feel the galaxies in your fingertips. Think of how the universe herself is the finest mathematician, the finest artist, the finest maker, and the finest muse; and that you are inherently, innately, and wholeheartedly part of it.

So, who do I dedicate these thoughts to, if the universe is you, me, us, everything that ever was and everything that will be? I guess this is a love letter to it all, to the interconnectedness of everything – an acknowledgement that from the smallest snowflake to the grandest galaxy we are just fractals within fractals.

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by Alexandra Evans Ordoñez

Author's note: *'The Nature of Fractals and Fractals of Nature' is a piece reflecting on how the mathematical phenomenon that is the fractal is found everywhere in nature. It discusses how these self-repeating patterns are present on all scales of the universe, such as the branching of trees compared to the branching of human lungs. It reflects on the harmony and unity that comes with fractal geometry, and provides a sense of unity by acknowledging our interconnectedness with the universe.*

Image: © Frederick H. Evans

A Language Without Words

As a famous Chinese saying goes, a man's gestures are a picture of his thoughts. Whether it's by the twitch of a lip, scrunching up of brows, or bunching up of shoulders, 55 percent of communication is done outside of speech.

If you were to put on a set of headphones and have a conversation, you might not be able to find out the topic of discussion quite so easily, but it would provide you with great insight on how someone is feeling when all you have to go off of is their expressions and body language. It would make you read further into their movements and analyse them more than you would typically.

Those who are deaf go through a similar experience each day, and one could argue that it makes them naturally better at detecting intentions and emotions. When one sense is lost, others tend to heighten.

The community of differently abled individuals who cannot listen or use their voice often speak without words. Whether it be Helen Keller or Evelyn Glennie, many have to use a variety of tools to do what most of us can do easily. You might be surprised to find out that the famous music composer Beethoven himself became deaf later on in his life. However, he continued to compose music with the help of his senses and written communication. Writing, hearing aids, lip reading, and body language are the main means of expression of such people.

On the other hand, there are those that can express themselves *only* with words. Someone who is blind faces other difficulties, in reading, walking and writing. They need to use walking sticks, braille and visual aids.

When it comes to being able to read people, who do you think is better at spotting lies and unspoken sentiments?

Disabled people need to put more effort than the average person to achieve something, constantly prove themselves to those who unfairly doubt them, and face discouraging beliefs of their own friends and family. The best thing you can do is not treat a differently abled person any more different than necessary. Don't doubt them unnecessarily, but don't give them liberties that you wouldn't give anyone else, either. For someone who has been treated oddly by others – even unconsciously – everyday, the least you could do for them is to behave regularly, just like you would with anybody else. Do this, and they will always appreciate you.

by Aadhya

Aadhya is a freshman high schooler from India. She has submitted to *Rosalind* for their theme of merging all things logical with all things creative to prove that they can co-exist.

The Pill at a Glance

"No woman can call herself free who does not own and control her own body. No woman can call herself free until she can choose consciously whether or not she can be a mother"
- M. Sanger

Long before the swinging '60s with its early beginnings of female sexual freedom, women from way back when had already tried to take control of their reproductive rights. Some versions of Greek mythology have it that Persephone ate pomegranate seeds to protect her from getting pregnant by her kidnapper and rapist Hades – Olympian god and keeper of the underworld. Generations of women from Africa, Asian and the Americas used various fruits and plants to prevent pregnancy. Women in Indian and Sri Lanka ate papaya daily as a contraception and Chinese women drank lead and mercury for the same reason: female wisdom passed down through time, containing more than an ounce of science. Generations of Mexican women knew that eating a certain wild yam prevented pregnancy. And so it was that in the '30s an American scientist, Russell Marker, achieved the first practical synthesis of the pregnancy hormone progesterone, using the starting material in these yams. By 1951, using Marker's starting material, researchers synthesised the first oral contraceptive.

And let's not forget Margaret Sanger's crucial role in the research and development of the Pill. She was an American writer, nurse and birth control activist, who in 1916 opened the 1st Birth Control Clinic in the US. In her 70s she was an Honorary President of Planned Parenthood Federation, which in 1950 underwrote the initial search for a superlative oral contraception. Much of the funding for this research was donated by Sanger's long-time friend and wealthy heiress, Katharine Dexter McCormick. Dexter McCormick was a leader in the suffrage movement, helping to set up the League of Women Voters. These women had a dream of a contraceptive that was safe, dependable, affordable and most importantly, in the hands of women. June 23, 1960: the Pill was approved for sale as an oral contraceptive. However, as with any new drug, it was not perfect. The first brand, Envoid, had many more hormones than necessary and it took a while to understand lower doses could be just as effective. As the Pill has been successfully modified over its nearly 65 years, the risks of weight gain, thrombosis, nausea, heart attack and stroke, gall stones, jaundice, increased blood pressure and liver tumours have all been reduced dramatically, though many are still concerns.

Unfortunately, many women have been unable to access the Pill because of cultural barriers, religion, social unrest and/or poverty. In a country like Australia, most women are fortunate. It took a forward-thinking Prime Minister, Gough Whitlam, to remove the '*luxury tax*' on all contraception and place it on the National Health Scheme for a $1 a month.

The benefits of oral contraception are substantial: many women are able to balance their fertility with careers and take control of their reproductive rights. Oral contraception allows them opportunities and empowerment that 65 years ago would be unimaginable. Ovarian, colon and endometrial cancer risks are reduced, even years after stopping the Pill. Used correctly it can be 99% effective. And there's the reduction in numbers of unwanted babies and abortions.

No, it isn't perfect. The Pill still has a substantial list of side effects, and to some is inaccessible, but it does offer many women empowerment in their lives; a choice over their fertility and that can only be a good thing.

by Alice Hampton

Image: © Vogue Australia

Science, as I remember, is...

I still have a strong memory of my first real formal science encounter, considering it was over half a century ago.

In my youth, science meant a mixture of the historic and futuristic, a secret endeavour that happened somewhere else that we never saw but somehow got to know about. I believed it involved some especially skilled people – not ordinary at all but out of this world – making amazing things in mystical rooms called labs. These jaw-dropping achievements at times seemed unbelievable, then at other times very real to life, advancements to life's tasks we carried out every day.

I grew up in the space age, when every scientific revelation seemed unique and breathtakingly ground-breaking. For example, outer space exploration was a new frontier and totally science-led, presented as exhilaratingly real through new discoveries and innovations. It was also a bit wild and out of bounds to us, executed by people wearing white lab coats who didn't look like anyone you knew. Scientists looked weird and talked a funny incomprehensible language, with wild, staring eyes and lots of unkept hair, mostly older, wearing glasses, some dressed in suits but always wearing lab coats. And they had silent, ghostly assistants, also with lab coats. We were in awe of all this.

Scientists depicted in labs in films, in books or in comics were surrounded by a lot of 'scientific' equipment, glassware of multi-shapes and sizes brewing bubbling, colourful liquids, pipes and tubes emitting gases, strange gadgets that sparked lights and created electric currents. There were tall computers with knobs and dials and printouts. Futuristic scientists experimented with fuels (called 'propulsion,' which we were enthusiastic about), to fly aircraft faster, create speeding vehicles to break records, and make rockets lift for space travel. The Space Race and nuclear arms race was on, and seemed one and the same science. Other scientists studied human illness, developing medicines. Some recreated living beings from the dead. Some developed plastics, making everyday objects for use in our home. Sometimes things blew up, even rockets being used for space flight. Science was always talked about with technology and innovation, with discovery and the future. NASA with its ongoi-

ongoing achievements and projects seemed fantastical and was a huge impact in our lives. This is what I remember; all successes were called breakthroughs.

For us, notable science figures and events made popular choices for costumes we made at school during book week celebrations, a festival in the school year. There were plenty of lab coats and wild hair styles. Our own science experiments took the form of field tests. We dug and collected rocks not knowing what to do with them, we shamefully messed with ants and grasshoppers, flooded cicada holes to draw them out, tested ourselves jumping off heights (gravity and soft landing), skimmed stones off the water's surface, held our breathe underwater for far too long, executed perfect bombs at the pool for the biggest splash, used a magnifying glass under sunlight to burn a leaf, some wood, our skin – stupidly.

I recall a birthday gift in my primary years was a treasured microscope set, the pieces fitting neatly into foam cut-outs in the box packaging. The best specimens: a strip of mica, some paper, ants and beetles, hair and fabric fibres and finger nail, were kept in miniscule jars, all part of the set. When I dropped some diluted acid, I think, or it may have been an acidic glue, the foam bubbled and was eaten away in one spot, which yellowed and spoilt the sophisticated look of this 'scientific' equipment and I felt annoyed at its now-tarnished look. I felt embarrassed to show it to anyone because of that. I remember visiting museums and being fascinated at all the collections, dinosaurs and volcanoes, but also smaller objects like butterflies or beetles or bones of animals. I wandered through these collections, pinned to a board and displayed in rows, wondering how long it would have taken scientists to collect these things, study and categorise and memorise them, and why? Darwin's name was popping up in school subjects and it seemed a lifetime's work, and I was intrigued.

However, back to this particular science-for-real day. We were lined up in two rows against the wall, along the corridor outside the classroom, all vaguely facing forward. Chatter hadn't stopped and this was our first science lesson: year seven, the first school week in an all-boys school in Sydney. It was not a large school and we knew where the science labs were, yet these rooms located in a dark under croft seemed a bit out-of-bounds. We became aware the science master came out from the lab, stood at the head of the line and we slowly settled, studying him. He was not the head of science: all the department heads had been presented to us on the first day at the start of our secondary school years. They looked like leaders: authoritative, with clear, loud voices.

But this teacher was short, shorter even than most of us, and, as I remember, slightly caricature, wearing a dark suit a little too large for him. He seemed a bit unkept; with a dark (!?) lab coat presenting a dishevelled appearance in stark contrast to all other staff in those early days. It was dark in this science area and he seemed suitably part of it. Thinking back on this visual memory, my mind was confused whether he resembled the scientists we'd been fed growing up. In that immediate introduction at that early stage, he did not seem the type capable to manage this class and the misfits it contained.

A day or so into the start of the term it was obvious even to the most dreamy or naive that many in our year were only there to bide time until able to leave and take on apprenticeships at age 16. So, as his first words, "Steady on there, chaps, in you go," were spoken, maybe his strange appearance grabbed all our attentions. Voices quietened and we turned through the door, entering the lab in a surprising orderly manner.

I was barely inside and heard his next words, "What is science chaps?"

I'm guessing all were as confused as me; we were still filing in and hadn't started the lesson. No one answered, no one talked; some stopped in their tracks and glanced at others, a few giggled, and he duly responded to his question:

"Science is knowledge."

Silence. We continued in and stood behind rows of benches, then sat on stools facing forward.

Science is knowledge, said Mr Israil.

I remember thinking of those words as I surveyed the room, like you do if you settle early into your airplane seat. Everywhere was crammed with objects. Benches were coloured like the walls, a faded green that reminded me of hospital walls. The fluorescent lights made it all a bit dim and sickly. Along one side were windows looking out to the playground, protected by steel bars and not much light was coming in. Benches had sinks with long-stemmed taps, and curious chrome dual tap outlets like two knuckles. There were cupboards below the sink, more cupboards and cabinets lining the walls with clear doors storing glass jars, jugs, vases and other unfamiliar black-and-silver-framed objects. There were posters on the walls, charts with capitals and lower-case letters. More glass jars containing things floating in liquid, drawings of bone structures and what looked like organs and animal body parts. There was a full human skeleton upright on a pole frame near the front. This room with its objects and gadgets and instruments looked old and faded and a bit worn, but also fascinating, and perfect. The front bench, the teacher's, had piles of textbooks, and equipment that looked electronic, with dials and knobs and switches.

What were we to do in this room experimenting with science? What was science, what was this "knowledge" he mentioned earlier? We didn't know, but we at least had our mad scientist.

I was lost in my thoughts, there was the sound of hissing and something said about not to play with the gas. Gazing around the room, I realised the teacher was talking, explaining the course work we would be doing, experiments we would conduct and topics we would explore. And it all sounded brilliant.

Let's begin, I thought, *now*.

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by George

A Myth in Prose

Willingly I-impart my-things, not not-willingly I-accept better-ones. *Utopia*, Thomas Moore

☆

The surrounding hills draw close a mantle of mist: this world darkens almost imperceptibly into another. Our bus continues without stopping down the one-way road hedged by an eternity of ferns bent into rainbows by their weighted tips. We miss our stop and take the last bus back in the direction we came from to a place we were beginning to believe never existed.

☆

Reading history backwards they described the fern's fronds as flower-, as feather-like. On the shortest night of the year they waited patiently for it to illuminate the forest with its blue flower and disseminate its seeds at midnight onto the last of a stack of twelve pewter plates, passing invisible and perhaps immaterial through the first eleven. On four consecutive midsummer nights, medieval botanist and Lutheran minister Hieronymus Bock spread white linens under the forest fern-beds to catch what had never been touched or seen but promised to make any toucher all-seeing, yet unseen. Each morning he awoke very visible, still, to the naked eye and disappointed to see nothing that wasn't there, just some brown specks neither invisible nor immaterial sullying his clean sheets. Amateur botanist and freemason Friedrich Hofmeister, more keenly attuned to the invisible, dedicated early mornings to the science his father had taught him to love and saw spores flying overhead nestled under the wings of birds on their way to the South Pole. Across continents they travel on the wind in search of a moist, temperate home, reproducing independently of bird or bee pollination. Any link to the sporophyte generation, which in the Devonian unfurled fifteen-foot fan-like fronds hungry for dim glimpses of sunlight on the forest floor, is severed upon spore germination. The gametophyte generation—"little heart-shaped mats"[1]—live lives independent of their parents which they then give up for the next generation to emerge tall and strong out of their withered remains. Alternatively, a Yorkshire hobby-gardener says, you can propagate ferns by hacking them in half with a spade (which you

can find in any hardware store).

☆

The madness began with Dr. Nathanial Bagshaw Ward's attempt at creating temporary homes for home- and sea-sick plants uprooted from their ecosystems and carted onto ships headed for Europe. At the Great Exhibition held in a "palace of very crystal", Victorian day-trippers marvelled at the ferns in Ward's "Closely Glazed Cases", slightly smaller versions of the green house preserving their own ephemeral existence. There is but a thin layer separating this world from others: its apparent translucence mirrors ours back at us, slightly distorted. What did Dickens' long-suffering daughter see gazing at the glass-trapped ferns her father kept displayed in their living room to cure her "apathy"? Some wild thing surviving from a world God drowned, desperate for life but sensitive to levels of precipitation and air quality, the indicator of a quick-changing world. The air trapped inside the plant's enclosure is as substance-less, as unchanging as aether, the air the Gods breath. A passion for ferns first collectively led Victorian women out of their living-rooms and ever-further away as the railways expanded. Travelling back in time to find some lost thing, the remnant of a much older natural order, they found themselves very much alive in the world they had unearthed—if not created. Fern-hunting led to picnics and later to midnight feasts where shy couples would trapse off into the undergrowth to show each other rare specimen: Maidenhair and Alpine Lady, Least and Small Adder's Tongue fern. Whole moors were left barren in the wake of their passion. Where else would a pair of invalids, "Partners in Botany", sickly "John Gill Lemmon & wife" honeymoon than the Pacific Slope, home of undiscovered ferns and the Apache? "... gathering the rare and perhaps new species of flora will be sufficient delight to more balance the fatigues consequent upon such a trip", Sara wrote home before braving rattlesnakes, chasms, rockslides, fields of cacti and diminishing supplies ("corned beef, crackers, cheese and three or four jars of nice currant jelly, brought in by good, thoughtful friends") and discovering three percent of Arizona's native plants. Plummer's cliff fern, a species both new and old, clings stubbornly to desert rocks in its namesake's absence, exhibiting "several pairs of leaflets..." which can be "subdivided into (...) small, toothed segments". Absent now, too, the passion men termed a "craze" when their daughters' apathy lifted all too suddenly to reveal a long-lost lust for life, dead and gone with the "last of Victoriana"[2].

☆

A man moved here recently to grow a new kind of tomato, our host in Devon tells us, and the National Trust plans on planting 10'000 trees to create a temperate rainforest. Re-create, rather: there was a Devon below the equator once, same but different, with a giant reef home to placoderms the size of double-decker buses and carnivorous sea scorpions. The "Age of the Fishes" ended with their mass extinction as the first forests transformed the environment into one ever-more closely resembling ours. Vascular plants had been the first to move inland and conquer what little land there was to conquer at the time. Their tissue, an internal "plumbing system" or xylem, transported water and nutrients through newly formed roots which broke down rocks into nearby bodies of water.

In these nutrient-dense waters, algae flourished, feeding on oxygen and eventually smothering a whole underworld of armoured fish in an anoxic ocean. Extinctions leave gaps in nature where possibilities fester: evolution depends on extinctions, on what could have been. Classified at first as a fern, Archaeopteris or "ancient fern" produced fern-like fronds but extended a-hundred feet tall, conifer-like stems into the sky. The development of secondary xylem, or woody tissue, supported its growth and secured its water storage against evaporation. Archaeopteris' strong, wood-clad roots transformed the soil around it and its two-sexed spores spread as far as Antarctica. Its forestation of the world ushered in another: the mass of carbon dioxide its fronds drew from the atmosphere made an "icehouse" of the climate sea-life had evolved to live in, pulling them to muddy death. Hundreds of years passed before scientists were able to imagine the unimaginable, to put together two images linked not by memory, two fossils linked not by history, but by the story of earth's first forests and their strange trees.

☆

Redeeming the past does not mean remembering it as it was, Benjamin reminds us, but remembering it as it should have been.[3]

Knowledge of the order of things which should have been liberates us from the chain of natural causes which leaves no alternatives, Kant adds, but determines both the future and the past[4]. The recognition of alternatives in the past severs the causal chain and makes it necessary to think different histories, histories which transcend the realm of the merely possible, the utopian and answer to the absolute demand of practical reason. Poetry, Aristotle contends, is "more philosophical and more serious than history," because "(...) the function of the poet is not to say what *has* happened, but to say the kind of thing that *would* happen – what is possible according to the law of probability or necessity."[5] It is not difficult to think of a better story, of what should have been: the world is unfinished business, a sock waiting to be darned. There is room enough in this world for others: I touch one gently with my fingertips and brush off a pearl of rain.

☆

Unsure which side of the road we should wait for the bus home on, we walk back and forth between the hedges of overhanging ferns. Their silent, verdant arches rise up behind our backs like wings: I run into the road suddenly to make the bus stop.

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[1] Halliday, p. 211.
[2] Plath, p. 41.
[3] Benjamin, p. 18 (V).
[4] Kant, A 547-8.
[5] p. 15.

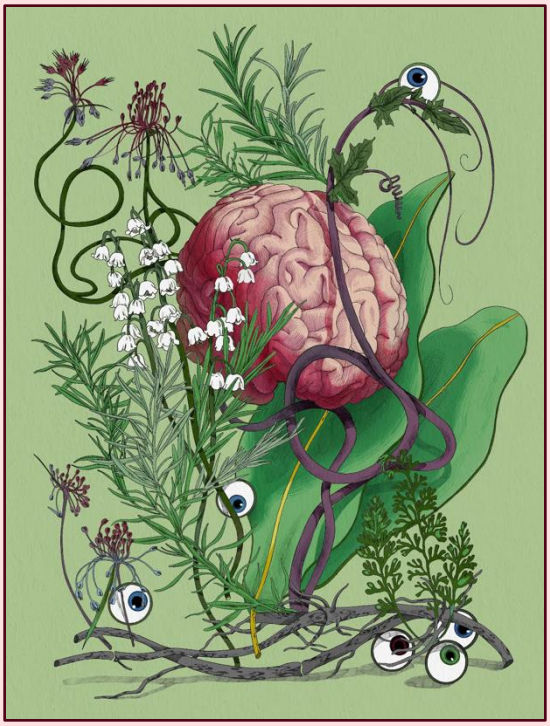
by E. M. Forester

Benjamin, Walter. *Uber den Begriff der Geschichte*. Suhrkamp, 2010.
Halliday, Thomas. *Otherworlds: A World in the Making*. Penguin, 2022
Kant, Immanuel. *Kritik der reinen Vernunft*. Suhrkamp, 2020.
Plath, Sylvia. *"Nick and the Candlestick"*. Ariel, Penguin, 1965.
Image: *Zennor* © M Florence

Art

Garden

digital drawing



by Hanzhi Zhong

Hanzhi Zhong is a Chinese artist based in London, with an MA in Illustration from Kingston University. Her work explores life, death, and human emotions, inspired by life's impermanence and its connection to nature. Through painting, printmaking, animation, and sculpture, Hanzhi delves into the soul. Featuring human forms and skeletons, she seeks to "strip away the flesh, touching upon the shape of the soul," capturing the beauty and complexity of life.

I am sitting in a church, but I'm not thinking about god

by Indya Pearce

Artist's statement: *This work looks at the importance of making art and the history of women's self portraiture. It's a love letter written in blood red, to all of the women artists who have come before me. To Frida, Marina, Sofonisba, Carrie, Louise, Sylvia, Ana, Artemisia, Nora, Francesca and many more. It is an honour to follow in your footsteps. This is both a self portrait, and a symbol for art and its deep importance. Artists mentioned: Frida Kahlo, Marina Abramović, Sofonisba Anguissola, Carrie Mae Weems, Louise Bourgeois, Sylvia Plath, Ana Mendieta, Artemisia Gentileschi, Nora Heysen, Francesca Woodman.*

Indya Pearce is a visual artist practicing in Meanjin, Australia working across multiple disciplines such as painting, photography, drawing and textiles. Majority of her subject matter features oil painted faces and bodies, often layered or using surrealistic colour palettes. Influenced by the artist's conflicting relationship with the body, motherhood and bodily autonomy in a modern world, these works address concepts regarding pressing topics such as identity, relationships and self-worth.

She becomes a dragon

We were all once fish

Not people, but masks

by Irina Tall

Irina Tall (Novikova) is an artist, graphic artist, illustrator. She graduated from the State Academy of Slavic Cultures with a degree in art, and also has a bachelor's degree in design. Her first personal exhibition "My soul is like a wild hawk" (2002) was held in the museum of Maxim Bagdanovich.

***Materials**: ink, gel pen, collage, cardboard, paper*

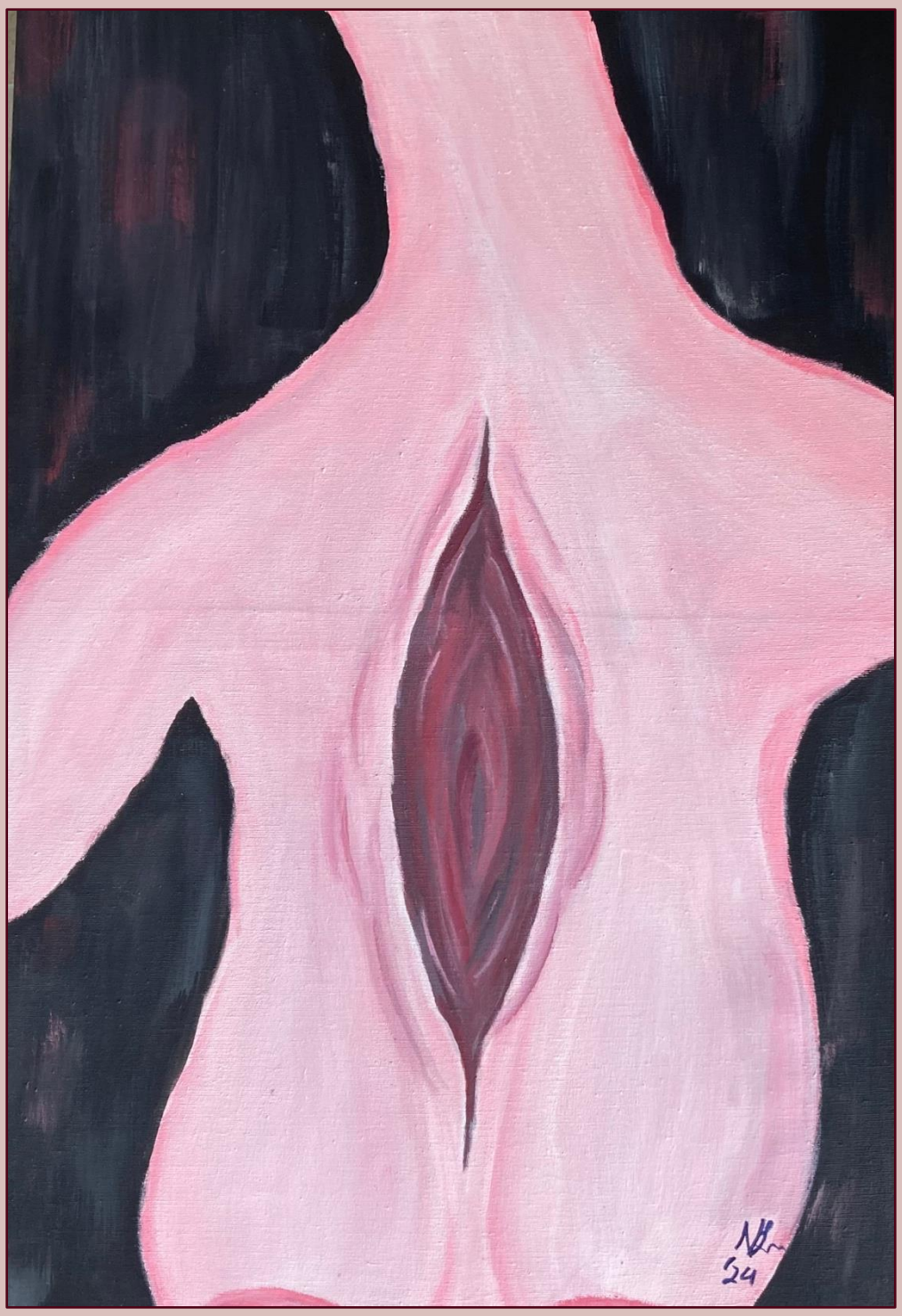
A Beautiful Mind

by Claudia Tong

Artist's statement: *I painted this back at university, right after a few hours of work in the fMRI lab. Understanding the names and functions of each part of our brain is a common challenge in neuroscience/psychology, at least for me. However, turning this complexity into art not only alleviated the difficulty, but also provided me with a new perspective on the intricacies of our brain. While neuroscience may appear daunting with all those terminologies and concepts, art serves as a universal language, inviting everyone to explore and appreciate this fascinating field.*

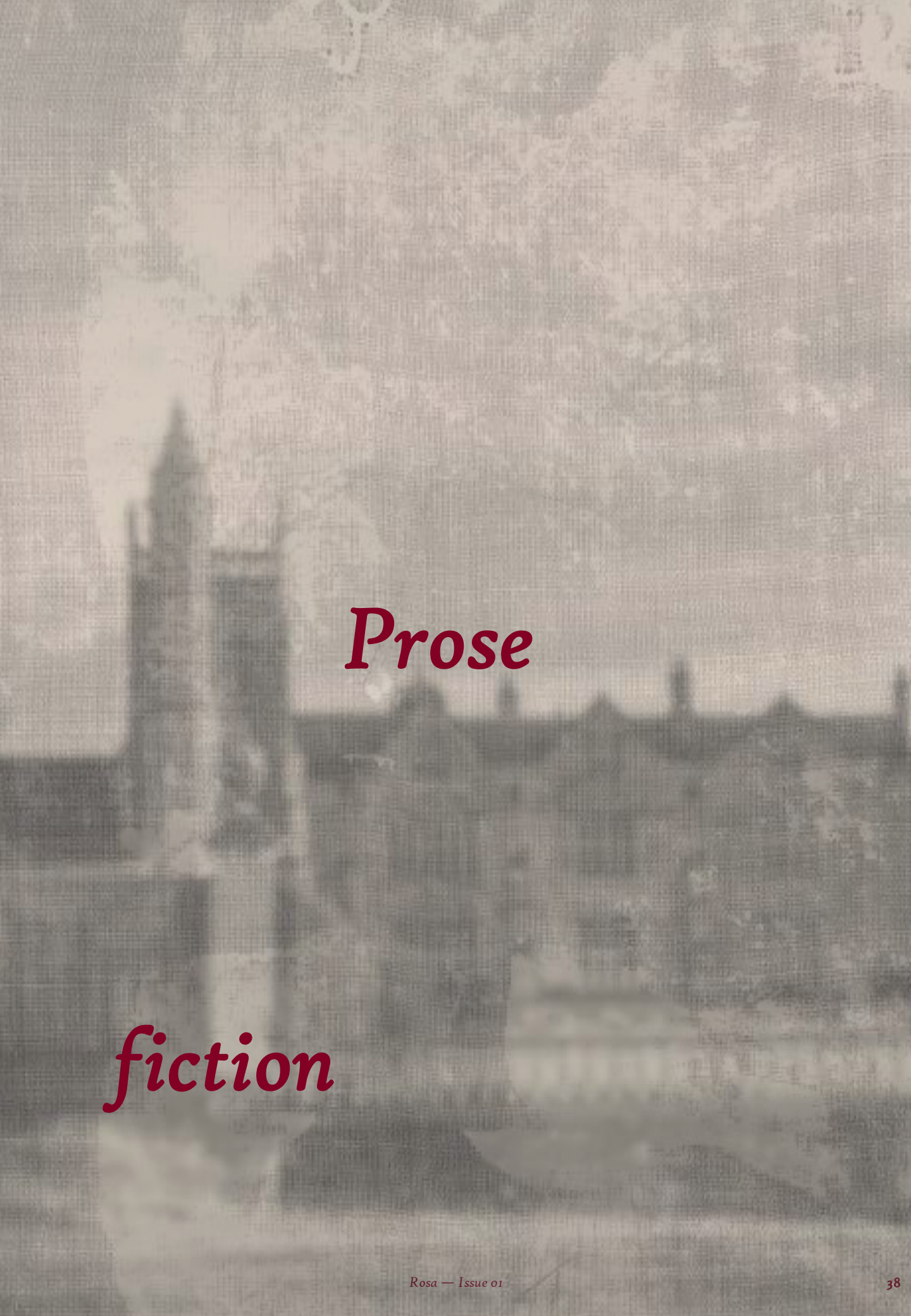
Claudia Tong is an artist and quantitative researcher based in London, dedicated to the intersection of art, science and humanity. Her practice spans from painting and illustrations to mixed media, visual computing, photography and music. With a background in computer science and cognitive neuroscience, she values both intellectual rigour and creative freedom. Claudia has lived, studied, worked and exhibited internationally.

The Heart of a Woman



by Naz Sakici

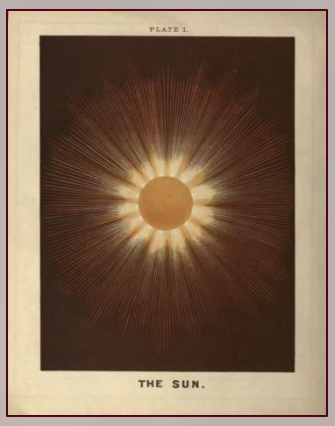
Naz Sakici is a writer and visual artist born and raised in Turkey.



Prose

fiction

The Unloved Plant



Each day I watch the plant I was given for my birthday die a little more. Its once purple leaves are now brown with shrivelled tips; as if the sun punished it and sentenced it to a slow death. If it were a person, I would imagine a frail, elderly lady: skin dry and sagging, body moving slower each day, but with a heart and mind still as active as they were in their youth.

> Looking in the mirror, I see weary eyes staring back—once bright and full of hope, now empty and dull. They reflect everything I've let slip away, haunting me to my core. My skin is dry, the colour long drained away. I wear lines that etch deep, like roots in the soil, a testament to depression's grip.

I realise I am a closer representation of the unloved plant at thirty years of age. I have let myself dry out, offering no nurture. Creepy crawlies thrive on the decay, wriggling under my skin, making me want to rip myself to shreds. Let me bleed out and watch my petals fall to the earth. Let the rain fall upon me so I can regrow stronger. The mirror shows what words can never say: a mind and bloom, both left neglected, just waiting to decay.

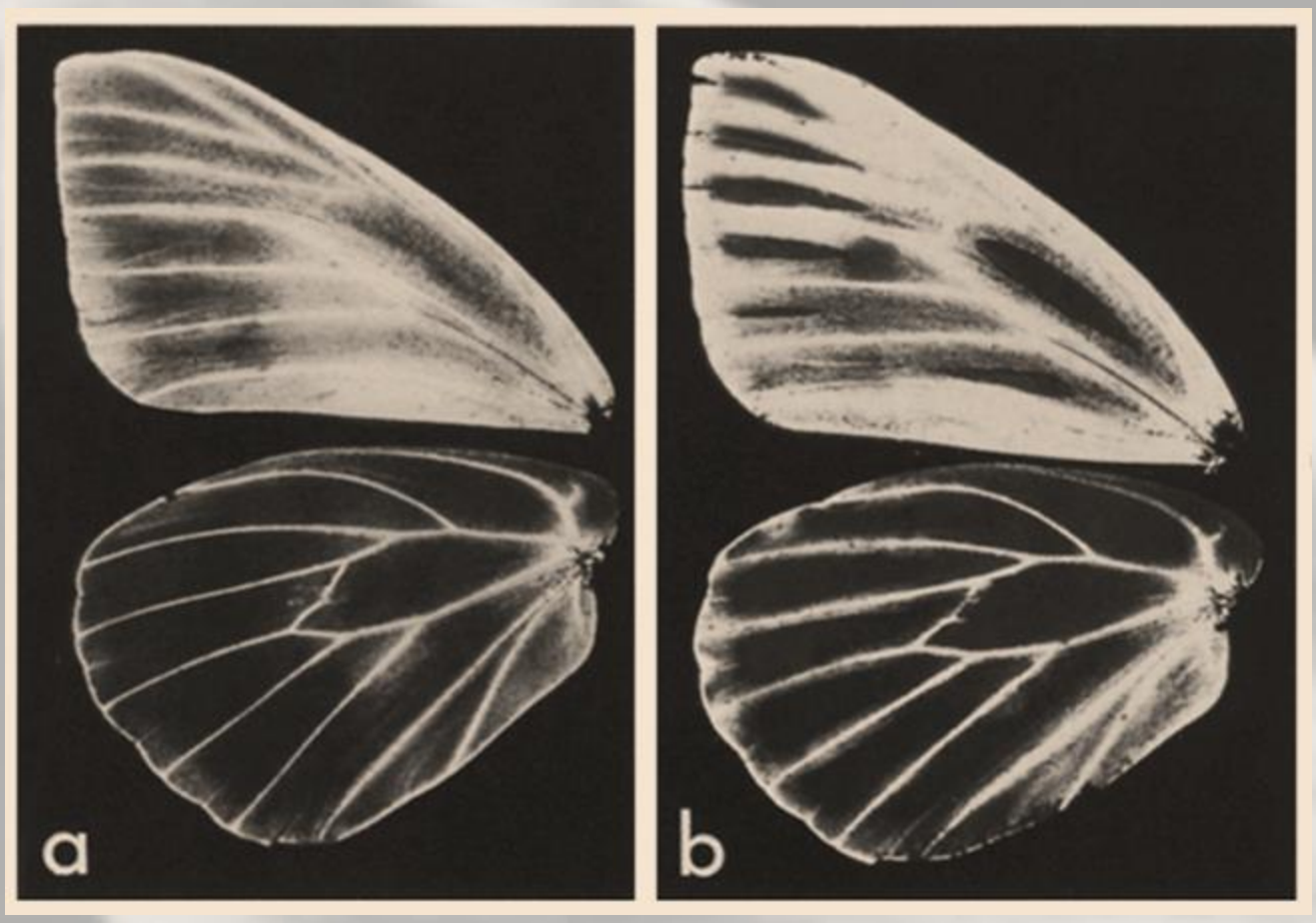
The

sun

punished

by Lauren Green

Lauren Green is a copywriter by day who enjoys writing poetry, fiction and relatable content in her spare time. Her debut mini poetry collection 'Heartstrings and Hellish Things' was published in 2024.



Irregular

There was a strange thing, a giant thing, lingering just outside the duchesses glade. I hadn't seen anything of its like before. Draped in black clothes of cloth and wearing glass spectacles upon its nose. It had a notebook and a pen. Scribbling as it studied the flowers marking the border to faedom. I ventured closer, my wings buzzing with as I did.

"Irregular," it said when it noticed me hovering over the briarwood. My wings shining lilac and emerald as the buzzed in the warm midday sun. *Irregular*? I felt my whimsy and curiosity melt away, replaced by malice, a feeling quite new to me.

Irregular? As if I and not it was barging in where I ought not be. This frail giant had the gall of calling me strange. Pale skinned, leaking saltwater from its hairy scalp. *Irregular*! As if it wasn't the one using its feeding hole for speaking. As if its sickening lack of eyes wasn't Sickening to behold.

"Don't be afraid," it said, laying down notebook and pen. Needless to say I wasn't afraid. "I'm not going to hurt you, little guy." It produced a bag made of hemp. I looked on in disbelief as it moved slowly towards me. Bag at the ready. Was it mad? Hadn't it heard of the wrath of fairies? "There, there. Just stay precisely where you are. I'm no threat to you."

That last part at least was true. It meant to capture me, and I it.

"They'll give me a noble prize for th.."

I made my eyes flash with an array of colours. Twelve beads of piercing light flashing rapidly. Its jaw went slack. Meaty tongue hanging out of that disgusting mouth. The rest of the body stiff and rigid like a birch. I flew in

"Don't be afraid," it said, laying down notebook and pen.

Needless to say

I wasn't afraid.

close and pressed my claw against its moist forehead.

I had to feel what that skin felt like. Spongy. I pressed harder and red blood started trickling down the face. I wiped of my hand against my robe. Lowered myself to its eye level. Ugly bloodshot eyes. Unshielded except for the sheets of glass. I considered clawing them out, but decided that was beneath a fairy, even a lowborn guard as myself. So settled on harming its soul.

The sound originated from the gland behind my second heart. Made my exoskeleton rustle. Escape my body in waves that made the air sparkle and twist.

The change was visible long before I made the lights in my eyes snuff out and released it from my grip. True, mind rotting, panic in the frozen face. Tears fogging up the lenses. Foam gathering at the corners of his its mouth, dripping down its jaws.

It fled on all fours through branches and brambles. A beast forevermore. Broken. Beaming with glee I watched it disappear. Then I noticed the notebook abandoned on the ground. A sketch of a nasty looking thing. Wings a blur. Many eyes, horrid little bulbs, on a vicious face. Crooked and bent. Disgusting. Then I realized that it was me. And I sat down on the page. Tracing the lines of my face with my claws. Malice melting away, an empty void taking its place.

"Irregular," I croaked, using my feeding hole to speak. And I wept.

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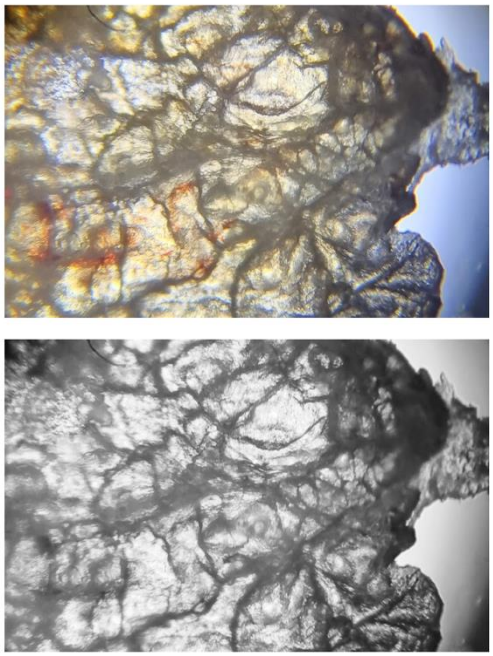
by David Hermansson

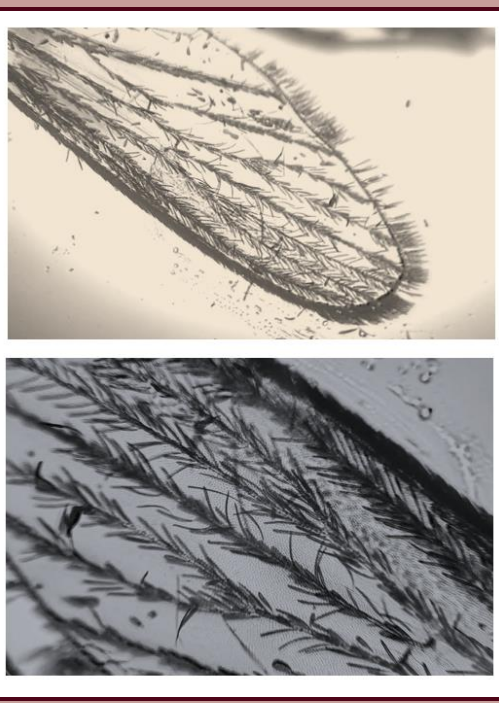
David Hermansson is a fantasy writer by night and youth minister by day living in a small town on the west coast of Sweden. He grew up at his parents' art school, studied theology at the University of Gothenburg and all the while he fantasised about writing stories with bloody endings. He often writes dark fantasy where the small individual stands in conflict with the great machinery of society.

Image: *Zoomorphology* 103.3 (1983): 177-192. © Lutz Thilo Wasserthal

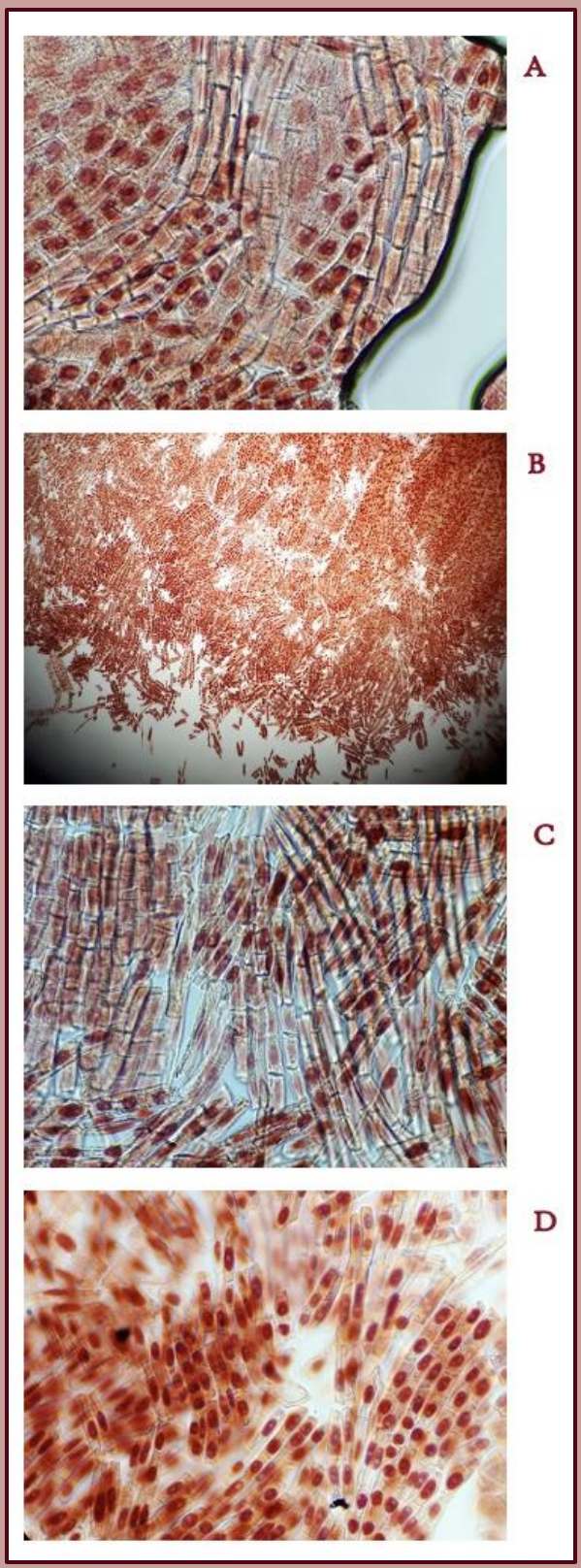
Histology



Derma; skin
10x
M Florence



Mosquito wing
10x
Vera Corbel



Mitosis
A 40x; **B** 10x; **C** 40x; **D** 40x
K Nicholson

"August rain: the best of the summer gone,
and the new fall not yet born. The odd
uneven time."

— Sylvia Plath

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