



The Blossoming

A student seeking his purpose in life makes a discovery that could revive a friend's vital research.

By Guglielmo Miccolupi and Laura C Zanetti-Domingues

Illustrations by Stefan Grosse Halbuer

A young man, about 18 years old, give or take, curly brown hair in disarray, weathered brown skin streaked with dirt, chlorophyll, and scratches, barrels down a steep slope on an electric mountain bike.

Cork oak branches beat him mercilessly as he careens through the trees, bobbing over roots and rocks like a rubber duck in a bathtub.

The young man's eyes are wide and he turns every now and again, cursing under his breath and pedaling even harder, as if all hell had broken loose and all devils were on his trail.

Well, maybe not all devils, but Satanas for sure.

Satanas, the aptly named, bad-tempered stud bull of Seu Nestor, the steward of the neighboring communal montado, had been steadily gaining ground with a young cow named Matilda when the human and his vehicle crashed through their secluded grove.

The scare had put Matilda off her mood and she had left the grove with a haughty swish of her tail, leaving Satanas to nurse his wounded pride.

Not one to spend much time on self-reflection, nor to forgive and much less to forget, the bull had swiftly decided that the best course of action would be to run after the wheeled human and give them a lesson they would not easily forget.

"Go away, you overgrown cow! Go away!" Nuno yells at the top of his voice.

He puts in another burst of speed and dodges between two trees to try and shake his bovine pursuer off.

Centuries of selection for athleticism, fearlessness, and not taking crap from any living being have gifted Satanas with strength, speed, and stamina, but fortunately not with wisdom, or the capability to make complex decisions under pressure.

Heedless of anything that is not gaining on his quarry, Satanas charges forward, muscles bunching under his glossy black coat.

He looks like the cover model of a bovine equivalent of Men's Health: vigorous, athletic, a bull who doesn't have to ask ...

And then he ends up stuck between two trees, like an idiot.

Satanas moos and bucks, but he's not great at reversing, among other things. All he can do is watch Nuno slip away between the oaks and the olive trees and simmer in frustration.

The young man lets out a sigh of relief, but it is short-lived.

In his haste to get away from Satanas, Nuno had not noticed exactly where he was going.

A convenient and suspicious pile of wood acts as an almost perfect ramp and before he knows it, Nuno is flying, arcing high over the fence of a montado, and then down a slope covered in loose scree.

The young man screams at the top of his lungs.

By some kind of miracle he manages to keep control of the bike, and keep himself on it, bumping and rolling downhill until he finally hits the bottom of the slope and a patch of grass between the trees of another montado, lower down the hill.

He pulls hard on the brakes and puts a foot down for good measure, dragging the bike in a wide arc around that pivot point and opening wide furrows in the grass with the wheels.

Dripping in sweat, he takes a deep breath and pushes his curls away from his eyes with the back of a hand, and lightly pats his jacket.

The flower that can save Neusa's project is still there, in his inner pocket, none worse for the wear.

Satisfied, he takes a deep breath and a moment to examine his surroundings.

The first thing he notices is the sheep.

A lot of sheep, fluffy white or brown, who eye him with interest but without fear, munching their clumps of grass and going "Baa!" between themselves as if holding a conversation he is not privy to.

Nuno feels self-conscious for a moment, worried that perhaps the sheep are making uncharitable comments about the state of his clothes and his hair, or about his cycling moves, as if they had seen better, and then he notices something else.

The shepherdess, mainly.

Hard not to notice her, really.

She looks as tall as a tree, and just as wide, the kind of person who could wrestle Satanas into a pretzel, or fight a bear for fun.

"You?! Again?!" she roars.

Nuno points at his chest in confusion.

He is sure he's never met this shepherdess before, he would definitely have remembered her if he had, but she doesn't seem to care.

"This is the last time you lot pull this kind of stunt! I will take that f---ing ramp and those s----ng bikes and make you eat them!" she yells and takes a threatening step forward.

The ground shakes faintly under her feet.

Nuno makes another swift decision and starts pedaling again at full speed.

A quiet, inquisitive "Baa?" resonates throughout the clearing.

A few more "Baa!" answer the first call, and then, in a clanging of bells, the whole herd of sheep starts moving like a single organism that trots and clangs and goes "Baa!" united in single-minded pursuit of Nuno's retreating form.

"My sheep! You ----!" the shepherdess yells in the distance.

"I haven't done anything!!!! Stop following meeeee!!!!" he yells back, without daring to turn.

The lead sheep produce a slightly louder chorus of "BAA!" but do not alter their course, pouring down the trail after him like the foam of a carelessly tipped cup of cappuccino.



And how did we get to this, dear readers?

Well, if you have the patience to follow me into this flashback, we will swiftly find out.



Generally speaking, everything started about 13.78 billion years ago, give or take some 20 million years, with a sudden explosion, but, while correct, this fact doesn't add much information to our narrative.

In a more narrow sense, everything starts on a Tuesday, the 13th of March to be precise, at exactly 7:01 a.m. Lisbon time.

The Dawnriders are in the water, just off the beach of Carcavelos.

Even though the rising sea levels of the Late Stage have "drowned" many surfing spots, Carcavelos has been partially spared, so Nuno and his friends are sitting astride their boards, waiting for the next set of waves that is soon to arrive.

In the meantime, they chat, joke, and laugh. Or, rather, they would do so normally.

Today the conversation is a bit more subdued, a bit more serious.

Ana, the oldest in their friend group at almost 19, has completed all the learning milestones required for a basic education curriculum and is leaving the Instituto Popular de Saúde Ambiental e Biorremediação, or IPSAB, training programs, where they had all grown up and learned since they were toddlers, to join the Hospital Egas Moniz down in Belém to start her training as a medical professional.

They've all been to the hospital's community learning center for learning activities about the human body and the mandatory first-aid courses, but she is going there to stay.

She will even live around there, in a multigenerational housing collective next to the hospital, so she can be fully absorbed in the doctor lifestyle.

This is her last session of weekday surfing for a while, perhaps a long while, but she doesn't seem so sad about it.

She will miss this, and them, sure, but everyone can tell that her sadness is offset by the fact that she can finally, finally reach the shining horizon that she has been chasing her whole life and pursue her vocation full time.

She is almost vibrating with excitement at the idea, and her enthusiasm is infectious.

She is the one with the most solid idea of her future, but most of the others have plans.

João wants to join the Guild of Engineers and learn how to fix people's houses and appliances.

Janice instead is dead set on being a data modeler at the IPSAB and turning piles of environmental data into condensed dashboards that communes, concelhos, and ayuntamientos across the Iberian Bioregional Federation can use to make informed decisions on the management of the commons.

Fernão and Luciana want to be cooks, or perhaps bakers, and help their grandmother at the local Food Sovereignty and Abundance Guild, and Messias knows he has a berth on his mother's schooner ready for him, and has already

sailed the trade route to the Caribbean several times as part of his training at the Guild of Navigators of the Grande Lisboa commune.

And finally, Neusa wants to stay at the IPSAB and study the relationship between rare orchids and trees in the montado.

Nuno is the only one who doesn't have a vocation, a plan, or even any real ambition.

He likes the life he's living now, likes to learn and help the IPSAB community wherever and however he can, from kelp-forest restoration projects and field measurements to simply cleaning floors and hauling stuff around.

He doesn't mind lurking on the Mutual Aid boards for the commune and helping out, wherever there is need, but the IPSAB is where his heart is.

The variety of tasks makes him feel like every day could bring new surprises and experiences, the present unfolding before him like a gift, and the knowledge that he is helping understand and restore the rest of nature gives him a sort of satisfaction that he cannot even express.

He knows he doesn't have to change if he doesn't want to.

It's not like in the Late Stage when you had to find a workable, valuable niche and stick to it like a clam on a rock to make a living. There is no obligation to specialize and find one's niche to maximize productivity.

The Universal Basics, things like guaranteed housing, health care, education, and food, ensure that everyone has a good, dignified life no matter whether they can work at all.

People work because they like to, as much as they want to, and a lot of people don't have an old-fashioned career.

Nuno likes what he does, and has always imagined he would keep on doing it until he was too frail or sick to continue, but faced with the shining certainty of his friends, for the first time he feels that he might be missing out on something.

He is so immersed in these worries that he completely misses the timing on his next wave and gets thrown off the board, arse over teakettle, and churned up like a rag in a washing machine.

Rookie mistake to try and catch a wave while thinking of something else.

The Sea is a jealous mistress, she wants her people's thoughts to be only of her, and she quickly withdraws her favor from those who break the covenant.

Nuno spits out what feels like a liter of water and climbs clumsily back onto his board, head still spinning.

"You OK, mate?" João asks.

Nuno coughs up more water and nods.

"All good," he lies.

João nods back at him and paddles away, lining up for the next wave.

Nuno follows, a bit slower, waiting for the cold water to soothe the bumps he just acquired.

Perhaps he should try out a purpose, just to see how it feels, he reflects. He could just pick one that could work for him and run with it for a while and see if it does something for him.

Role-play it for a bit.

If he is missing something, he will know and will be able to make changes to his life.

He nods to himself again, feeling his inner turmoil evaporate with this decision.

The sea rewards his newfound inner peace with a perfect overhead wave.

It rises unhurried, with stately grace and power, deep green at the base and nearly transparent at the summit, sending rainbows flying in the air from its spray.

Nuno paddles, a frantic burst of movement to intercept the wave, and he can feel the moment when the movement of his board and that of the wave match exactly, and the wave takes over, alive under the wood.

Another burst of motion and he's on his feet, hips twisting, feet shifting, his whole body moving in concert to turn all that energy into motion, a dance back and forth on the edge of the wave, until it breaks on the shore.

The Dawnriders are still complimenting him for his radical ride when they haul their boards back on the comboio suburbano toward Cruz Quebrada, hair still wet and salty from the sea and sand on their shoes.



Nuno drops his board in the board rack just outside the department of agroecology like every morning and climbs up the stairs to the office he shares with the remaining Dawnriders and a bunch of other learners of various ages, grouped by educational milestones.

He checks his messages on the ConivialNet terminal on his desk. Thankfully, there isn't anything either urgent or important in the inbox, and his next group learning session on bioremediation isn't until the afternoon.

His groupmate Sunita is holding the weekly presentation on the importance of pill bugs for heavy metal capture.

He was kind of looking forward to that, but now his mind is completely absorbed by his new quest.

He loads up the federated search engine and pulls up a selection of articles from magazines, newspapers, and personal blogs about how it feels to have a calling, a vocation.

He reads fast and takes notes, illegible scrawl spreading all over several virtual sheets of his e-ink pad.

He reads and reads, but none of the feelings these people have for any particular discipline resonate with him.

Undaunted, he pulls up new information, researching the professions most likely to become a calling.

He immediately excludes the religious officer path and the medical professional one. He feels no particular spiritual inclination, and while he likes to help people, he doesn't feel like he would have the stomach for poking in people's innards to do so.

Firefighter is similarly discarded, as Nuno is terrified of both fire and heights.

One by one, Nuno examines and sets aside most of the vocations discussed in his first set of research materials, and by the time Sunita's presentation is due to start, all he's left with are baker and teacher, and the timetables of the baker's calling would require him to drop his dawn surfing sessions.

Teaching it is then!

Buoyed by the finding, Nuno almost floats into the auditorium, and understands maybe half of what his friend is saying, mind abuzz with excitement.

He is going to be a teacher!

Well, at least he is going to try out.

But that's already a start, a direction, and it is more than he had in the morning.



After the peer-learning session, Nuno skips toward the academic advisory and mentorship office.

If the people in there, all permanent or community researchers at the IPSAB, find anything strange in his request to be put in one of the accelerated teacher training programs, they don't say anything, and within a week, Nuno finds himself invited to advanced pedagogy classes at the IPSAB and in other venues across the Greater Lisboa.

He zips to and fro on public transport, his surfskate, and his e-bike, taking part in peer-learning activities about non-hierarchical pedagogy, unschooling, and the facilitation of peer- and group-learning activities for people of different age groups.

There is even a course about how to provide effective mentorship in research, and one on how to set up memorable nature-based learning "camps," for example, about permaculture or agropastoralism.

Nuno absorbs everything like a sponge.

He finds everything interesting and enjoyable, but so far there is no spark, no light on the road to anywhere, no epiphany.

Days and then weeks and months pass.

The Dawnriders surf at dawn, but sometimes he has to miss it because the lessons are across town. Likewise, he misses the olive harvest drive because he is busy putting together an educational exhibition on the structure of a food forest together with a group of peers to have it judged by children in the 8- to 10-year-old cohort for clarity, quality, and interactivity.

It's frustrating, but he tells himself that it will be worth it in the end.

Eventually, almost a year into the course, the mentors decree that he is ready enough to tackle some actual educational activities, shadowing more experienced educators.

He arranges things to make sure it's field education and meets his teammates, Luiza and Marina, a pair of sunbrowned twin ladies in their 40s who will take children on educational foraging trips up the hills over the general holiday between the 25th of April and the 1st of May.

Buoyant with excitement, he shows up at the now-weekly meeting with the Dawnriders at Carcavelos beach, ready to share the good news with his friends, but as soon as he arrives he understands that the mood is not quite the right one for a celebration.

Neusa has been crying. She is not quite crying now, but she must have been until not long before. Her eyes are red and puffy, her cheeks are blotched with red, and she is still making little sniffling noises every now and again, and blotting her nose with her flower-printed handkerchief when she thinks nobody is looking.

She tries to pretend that everything is alright and nothing has happened at all, ever, but her attitude doesn't last long when faced with the determined concern of her friends.

"They have destroyed my work ..." she confesses eventually, sobbing her heart out.

The whole gang has abandoned the idea of a surfing session and sits in a circle around her on the still-cold sand as the tide goes inexorably out, as it is wont to.

The research proposal on orchid symbiosis that she has been working on for the last few years with the help of her mentoring group has just been submitted to the wider scientific community via the federated reviewing portal that links all of the Institutos Populares across the world.

"Some folks from the Chiapas and the Cascadia institutes said the project is weak because I didn't have any specimens anymore, and I couldn't be sure I would find others," Neusa half-explains, half-wails.

Oh, that explains it, Nuno thinks.

When Neusa had started working on that particular kind of orchid-tree relationship, she had a perfect patch of little pink flowers growing around the base of a very old cork oak tree, seemingly forgotten in the middle of a montado up the hills behind Cruz Quebrada.

The little pink orchids sprouting all around her for exactly a fortnight in mid-April were completely unassuming, except for the fact that somehow they were one of the very few species of local flowers that formed a mycorrhizal connection with fungi and trees, through the wood wide web, throughout adulthood.

Neusa had been studying that particular tree and its mycorrhizal community for close to three years, and she thought she was close to figuring out why the fungi let the orchid stay connected, and then Grandma Oak was fried by lightning in a winter storm, and the orchids followed her into the great big primary forest in the sky.

And now all Neusa has are half-finished results and no other leads. She is sure that she can find another ancient oak with her little troop of orchids somewhere, given time, but until she does, her rite of passage from student to scholar is in limbo.

By the time Neusa has finished unburdening herself, the sun is already quite high in the sky and the tide is well out.

The Dawnriders pick up their boards, fold their wetsuits back in their backpacks, and disband, but not before promising that they will keep an eye out for ancient trees and for her orchids during any trip to the countryside.

Nuno takes that promise particularly to heart. He'll be traipsing through the montado for a week; he'll have the best chance of finding something among his friends, if there is anything to be found at all.

If he didn't have a few days of lessons left before the end of the course, he would just grab his bike and scour the hills top to bottom for them, but he bides his time.

No matter how viscerally he wants to help Neusa, he also needs to focus on his plan. He cannot waste a year and change of trying to figure out whether teaching could be his purpose.

The holiday couldn't come soon enough, though, and finally Nuno finds himself at the bus stop in a little farming village above Queluz, waiting alongside his two mentors for his first batch of students.

He's read the risk assessment, reviewed the plan for their teaching activities, and had a final read-through of his non-hierarchical pedagogy cheat sheet.

He's as prepared as he can be, and yet he cannot help the feeling, not quite fear but also not quite excitement, that tingles down his spine.

It takes a good quarter of an hour of last-minute kit checks and uneasy shifting in place before the school bus arrives, and with it the students.

The kids are about 8 to 10 years old, very energetic, and mostly interested in what he and the other two educators have to show them.

They ask a lot of questions, examine everything, and make the appropriate oohs and aahs at the right time when shown something cute or cool.

They are alright little humans, and he feels proud of having contributed to kindling or fostering their love of nature.

He doesn't hate the experience. It is quite fun, in fact, and he can see himself doing more of it, every now and again, but once again there is no revelation.

The world doesn't shift on its axis, and he doesn't feel like any extra bit has slotted itself into him, making him see things in a new light, like the materials he had used for research suggested he would.

The montado is a nice place and the kids and his mentors are cool people, but that's it.

The weight of this lack of realization is so heavy on him that at the end of the workshop he finds himself sitting on the grass in the middle of the cork oaks, head in his hands.

He is so immersed in his miserable reflections that he doesn't notice that Luiza and Marina have taken a seat on the grass next to him until one of the two (he can't quite keep them straight yet) puts an arm around his shoulders.

"Are you alright, kid?" she asks.

Nuno is determined to bluff his way out of it and pretend everything is alright, but somehow the words get stuck in the huge lump that has formed in his throat and, before he knows it, he's started bawling his eyes out like a baby.

Luiza (or Marina, who knows) puts her arms around him and lets him bury his face against her shoulder, while the other twin pats his back reassuringly, murmuring reassuring platitudes.

It takes a good 15 awkward minutes before he calms down enough to stop sobbing, and when he does, all the things he's held inside for more than a year, all the things that he's never said to his family, his friends, or his mentors at the IPSAB, they all come tumbling out of his lips, all at once, a litany of worries, frustration, and feelings of inadequacy.

He hardly knows these two women, and they hardly know him, and yet here he is, letting his heart spill out of him like water from a burst dam.

"Is there something wrong with me?" he wails.

"Of course not, miudo!" Luiza (or perhaps Marina) reassures him.

"Then why ...?"

Why doesn't he feel like he needs to spread his wings and fly away like his friends?

"See, that is the problem! You assume that because your friends are like butterflies, you must be one too, but not everyone needs a metamorphosis in their lives."

The other twin taps a finger against her chin, deep in thought.

"Every person is different, and it's not like people need a calling to be complete. Being alive and experiencing life is purpose enough, don't you think?"

Nuno cannot help but nod. That's what he's always thought.

"It's just that ... everybody except Janice and Neusa is leaving, and even they have all of these big plans to specialize and become something else, and I ... I just want to be plain, old, boring Nuno, helping around at the IPSAB and in town. I am happy as I am."

"If you're happy and you feel like you're living life according to your values, you are already in a good place."

Marina (or perhaps Luiza) nods.

"Better than where most people were in our parents' generation for sure," the other twin agrees.

"And at any rate, if later in your life you find something that you enjoy even more, you can always retrain."

"Yes, like we did. We started out as shepherdesses, but it was too boring, and we were always misplacing some sheep because we were too busy looking at bugs."

"So we did entomology for a bit, but eventually we figured out we liked to teach better than to research."

"So now we're back in the montado, but at least this time we don't have to worry about what the sheep get up to."

Mildly disoriented by the back and forth between the twins, Nuno listens and nods. Everything they say makes sense. It makes a lot of sense.

This is no big tragedy, just a minor bump in the road toward figuring oneself out. And it's not like he's wasted his time. All the extra training will make him extra useful to the IPSAB and the community of Algés.

In that moment of understanding, it seems to him that the skies have gotten clearer, the little birds are singing louder, and the flowers are dancing in the sun and the breeze.

He feels like he's about to break into song like a cartoon princess, when his eyes slide once again to an unassuming patch of little pink flowers clustered around an absolutely massive, twisted, and gnarly cork oak.

The sugary pop music soundtrack that was playing in his head scratches to a halt and he bolts to his feet, fumbling his ConvivialPhone out of his pocket with trembling hands.

He ignores the twins' mildly alarmed questions and checks the flowers against the pictures Neusa sent. He checks them once, and then again, more closely.

It can't be.

The odds are, like, ridiculously low, and yet, somehow these are Neusa's orchids around their Grandparent Tree.

He tries to steady his shaking hands and takes as many pictures as he can, from all sorts of different angles, then harvests a flower and places it in the inner pocket of his jacket.

Neusa might want to have its DNA sequenced to make sure it is the same species as her previous samples.

"I gotta go," he tells the twins.

"You ... why? What happened?" one of them asks, but Nuno has already jumped on his bike and is barrelling downhill at full speed.

"You better come back tomorrow! Do you hear me?" the other yells.



And this, dear readers, is the story of how Nuno ends up racing down the path by the river Jamor with a whole herd of overenthusiastic sheep galloping after him.

Entire educational cohorts of coaches and physiotherapists pause in their training at the Jamor Sports Centre to watch him pass.

Several cyclists, runners, dog-walkers and their dogs end up jumping in the river to get out of his path.

Buses and trams honk their horns, people scream and cross themselves, and at least one woman gives birth (correlation, not causation) before this bleating, smelly vision of the apocalypse skids to a halt in the front courtyard of the IPSAB.

Covered in sweat and debris, Nuno jumps off his bike and breaks into a staggering run toward the office.

A few of the bravest sheep try to follow him into the building but are eventually defeated by the automatic doors and a few determined researchers, and are left outside to bleat their outrage at being excluded from further adventures.

Blessedly unaware of the stand-off between his colleagues and his wooly groupies, Nuno zips down the corridors and up the stairs, scaring the hell out of everyone and causing several health and safety near misses.

He slams open the door to the shared office and, carried forward by his own momentum, crashes to a halt against a desk.

"Nuno! What the hell?! I am in a meeting!" Neusa protests, jumping from her chair, headphones clattering against the worktop.

On the screen a few faces look on, mildly perplexed.

Out of breath and out of steam, Nuno extricates himself from the furniture and shuffles forward on weakening legs.

"For you," he manages to rasp.

The orchid doesn't look like much, especially after what it has been through, but Neusa recognizes it immediately.

She lets out an almighty shriek of delight and somehow, even though she's about half of Nuno's size, she manages to pick him up and spin him around like a doll.

"You're welcome," he croaks as he slides to the floor.

Neusa straightens up and marches to her triumph, orchid held high.

The people on the other side of the screen look cowed and a bit confused.

Victory is almost assured.

And Nuno? Well, Nuno has just passed out on the floor, back against a desk.

He'll regret it later, but now?

Now he regrets nothing.

Guglielmo Miccolupi (he/him) is an illustrator and graphic designer based in Milan, Italy, and Reading, England, and the founder of Commando Jugendstil. One of the initiators of solarpunk in Italy, he has led the Commando through several sustainability and public art projects across Europe, has contributed to the narration of several short stories published in international solarpunk anthologies, and has realized several illustrations depicting hopeful, sustainable futures, such as the postcards published monthly by Solarpunk Italia and Solarpunk Magazine. **Laura C Zanetti-Domingues** (zie/zir) is a senior staff scientist at the CLF Octopus facility in Oxfordshire by day, and a founding member of Commando Jugendstil for the rest. As part of Commando Jugendstil, zie has taken part in several sustainability projects around Europe and has been included in several solarpunk anthologies published in the U.S., Spain, Australia, the U.K., and Italy.

Stefan Grosse Halbuer is a digital artist from Münster, Germany. In over 10 years of freelancing, he worked for brands like Adidas, Need for Speed, Samsung, Star Wars, Sony, and Universal Music, as well as for magazines, NGOs, and startups. Stefan's art is known for a love for details, storytelling, and vibrant colors, and has been exhibited and published all around the globe. Recently, he released his first solo book, "Lines," a coloring book with a selection of his art from the last years.

Imagine 2200 is Grist's climate fiction short story contest, celebrating stories that offer vivid, hope-filled, diverse visions of climate progress. Read all the 2024 winning stories at grist.org/imagine.