

SAGE

Cultivation Spring 2022

- 1 THE EMPTY SKY Alice Courtright
- 11 THINGS GROW
 WHERE YOU
 NURTURE THEM
 Gabriela Rodriguez
- 12 LESSONS FROM EXODUS Allegra Lovejoy
- 17 LEARNING WATER Zack Steigerwald Schnall
- 18 SELF INTERVIEW Claire Swingle
- 24 OF SOIL, OF SAND Elisse Roche
- 26 LOGAN
 Sawyer Cresap
- 28 DIRT Raghav Srivastava
- 30 WE DIG IT Jess Jones
- 32 SOLARPUNK Jonathan Chan

- 34 THE WORM
 DOWNSTAIRS
 Sam King
- 39 MANICURED ECOLOGY Kalle Fox
- 45 IMERINTSIATOSIKA Sam Feibel
- 62 FRUITING Julia Sweatman
- 65 RED FRONT TRAIL Fuad Khazam
- 66 MAY YOU REAP WHAT OTHERS HAVE SOWN Jackson Podis
- 68 FOG ON BUCKEYE Anelise Zimmer
- 69 GROUNDED Brooks Lamb
- 70 HONORABLE HARVEST #36 Jesse & Jack Bryant
- 75 OHABOLANA Dillon Phillips

EDITORS' LETTER

Cultivation: the act of caring for living things of all kinds. Cultivation: tilling, tending to, and turning pieces of the world over and over in our minds' eyes.

Agriculture and, in its most literal sense, *cultivation* is so many things at once: a carbon source and sink, an engine of profit and debt, a tool of oppression and liberation, a place to begin and a place to end. Wading through these contradictions can feel impossible. What's the point of a word that's all things to all people? Then again, maybe that's what makes it so compelling. *Cultivation* belongs to everyone, a commons in its own right.

This year's SAGE print selections revel in soil, sunlight, and rain, but they don't stop there. Throughout these pages, minds, bodies, lands, waters, and souls — human and morethan-human — are cultivated. We travel from Tennessee acres to Florida flatlands, from Ancient Egypt to Yale's future "Apple" orchard. We cover enormous ground.

We deliver these pieces with the acknowledgement that so much in this moment has been and will be tested, uprooted, redefined, and rebuilt. There is so much more to come, to *grow*.

Enjoy it all. Let it nourish you, because it will.

Lauren Ashbrook and Sawyer Cresap SAGE Magazine Co-Editors in Chief



THE EMPTY SKY Alice Courtright

Every idea I have is nostalgia. Look up:
there is the sky that passenger pigeons darkened and filled —
darkened for days, eclipsing sun, eclipsing all other sound
with the thunder of their wings.
After a while, it must have seemed that they followed
not instinct or pattern but only
one another.

Mary Szybist, "The Troubadours, Etc."

My five-year-old wanted to go for a bike ride, but my husband, Drew, was busy in the kitchen.

"Margaret, I can ride a bike with you," I said.
"You don't know how to ride a bike, Mom!" she replied, putting her hands on her hips.

I lugged my rusty bicycle out of the basement. I rode in circles on the driveway. Immediately, Margaret wanted to race. We zoomed down the street together, putting all our effort into pedaling. The ends of our scarves flew behind us in the wind. We looked at each other and laughed.

At an intersection, we stopped and waited for a truck to pass. My attention was drawn upward. Hundreds of blackpoll warblers were flying overhead. They were calling to each other. "Mom!" yelled Margaret. "It's a migration."

The songbirds darkened our view of the cloudy sky. They flew closely together in formation. The sun was overhead and each bird was silhouetted against the white backdrop. I glimpsed the rounded tail feathers and

short pointed bill. I couldn't see the details of the wing patterns. I couldn't make out the olive head and streaked cap. Each warbler was a shadowy unit, flying in its fall plumage over our neighborhood. How high above us were the small birds? I imagined admiring the flock from above. Blackpoll warblers have a wingspan of over eight inches. In air, their black flight feathers fan out and reveal two white wing bars.

In the spring, blackpoll warblers breed in the boreal forests of Canada. The males claim their territory and perform for the females. After a nest is built with moss and twigs, a mother bird sits on her clutch of eggs until they hatch. Each mating pair might produce several broods. In the fall, the warblers fly south. We straddled our bikes and watched them pass. The birds swooped and rose together. There were no divisions among the flock. The migrating collective formed its own singular shape, undulating in the wind.

The blackpoll warbler is in steep decline and the migration filled me with sadness. How empty will the skies be when my daughters are older? I find it impossible now to look at birds and not think about what once was, or what could have been. When my mother and grandmother were children, they looked up to fuller skies. But my daughter is five and still very innocent. She wanted me to know the birds were flying south, down to Florida like our neighbors. She pointed to a warbler that flew at some distance behind the flock. "There's the rotten egg!" she said gleefully. I smiled and waved her along. We pedaled down the winding street, each of us in our own thoughts. How will I teach her about the planet? I wondered. Will there be migrations when she becomes a mother? Will she want to bring children into this world?

After lunch, I take the compost out. When I open the back door, my dog Finlay pushes past my legs and sprints into the backyard. He chases a grey squirrel up a white oak tree. The squirrel grips a thick branch and makes a *kuk-kuk* sound. She flicks her tail and looks

down at the dog. Finlay barks and paws at the trunk, looking up at the squirrel. From a distance, they both seem to have black, glassy eyes. I watch them watch each other and dump out my pail on the compost pile. I call to Fin and he trots obediently after me to the house. When I look back, the squirrel is still sitting on the branch, staring at us.

I don't often think of myself as part of a species, but I am. My daughter and I, *Homo sapiens*, watched a flock of blackpoll warblers, *Setophaga striata*, cross the sky to their wintering grounds. We glimpsed one moment of their days-long flight. What did we recognize when we saw the birds? What was beyond recognition?

When I think about being a human, I think about my new baby, Caroline. She delights me. I love to prop her up on my thighs and sing to her. She wraps her tiny fingers around my thumbs and smiles. I watch her chest rise and fall as she breathes. She is a living creature, metabolizing air and milk. She sleeps and wakes. Her complexity fascinates me. So much is packed into her small round belly: organs, blood, tissue, muscle.

Over the last five years, I've borne three children into the world. My life has been dominated by the cycle of reproduction: pregnancy, birth, breastfeeding; pregnancy, birth, breastfeeding; pregnancy, birth, breastfeeding. The skin on my stomach now hangs loose. It is stretchy and soft. It reminds me of a deflated balloon.

Caroline was born in September. We are two separate creatures now, but we are symbiotic organisms. I need her to empty my throbbing breasts of milk. I need to hold her on my stomach. Her warmth feels healing on my shrinking womb. Over and over, she needs to be held and touched and cleaned and fed. She cries and I go to her. I am caring for her, but she is also caring for me.

I stood on the corner this afternoon, waiting for my Margaret at the bus stop. There's one more week of kindergarten until the Thanksgiving holiday, and the temperature has dropped. I pulled my hood up over my wool hat. Soon, the snow will come and the whole landscape will change. Purple shadows will stretch across the white lawns. My neighbors' driveways will go unplowed. The girls will lie on their backs and make snow angels in our front yard. In the sugar maple a few houses down, the crows will make their terrible racket.

I love the winter sky. Out on the cross-country ski course, there's a row of hemlocks in the middle of a field. I like to stop and catch my breath next to the trees. I rest my chest on the tops of my ski poles and shake the snow from my bindings. Bits of ice cling to my scarf. My warm breath is visible as it meets the cold air. I'm alone for a moment here by the hemlocks. I sense the enormity of winter, and my own basic needs for shelter and warmth. I look down the track to where it ends by Upper Turkey Pond. *One more loop*, I say to myself. Above the distant tree line, the blue sky is marked with the high feathery wisps of cirrus clouds.

Usually, I think in terms of theological classifications, not taxonomic ones. I went to seminary for three years and thought a lot about God. I remember sitting in chapel, listening to the scripture:

For my thoughts are not your thoughts, nor your ways my ways, says the Lord. For as the heavens are higher than the earth, so are my ways higher than your ways, and my thoughts than your thoughts.

There was a moment of silence before the hymn. What does God think about? I wondered, looking up at the beams of the chapel ceiling.

When the hymn began, two acolytes walked down from the altar carrying brass torches. They were followed by a deacon. She wore a red stole over a white alb. The stole crossed her chest diagonally, like a sash. The deacon carried the gospel book high over her head. The large book had a gilded edge and a golden cross on the cover. The procession stopped in the middle of the nave-aisle. The congregation moved in unison to face the deacon. Her gray hair was pulled back into a black barrette, and her voice was clear and crisp. I looked at the acolytes as the gospel was read. Their eyes flitted back and forth.

There are many forms of hierarchy. I'm a human being. My species is nestled within a genus (*Homo*) and then a family (*Hominidae*). We share our family classification with Great Apes, like gorillas and chimpanzees. I'm an organism that can be thought of taxonomically. But I'm also an organism that conceives of itself spiritually. I grew up going to the church where my mother was a minister. In her sermons, she made meaning out of the scripture. She spoke a lot about Jesus's compassion. At my wedding, I gave each of my flower girls a silver necklace. On it hung a pendant of the Holy Trinity. There were three interlocking rings: one for the Father, one for the Son, and one for the Holy Spirit.

I think about being alive a lot these days. I feel relieved to be through the harrowing process of birth. I feel protective of my daughters. Yesterday, my older brother Leland was driving to trade in his car. He was trading in his red Mini-Cooper for a Tesla. He was going 70 miles an hour on I-97 in the middle lane. He hit a triangular piece of wood in the road and blew out two of his tires. The piece of wood was four feet wide. He called me while he was waiting for the tow truck. He was fine. He made some joke about karma. I was glad Leland was okay. He has a baby coming in May, and I'm excited for him. He loves his wife and really wants to be a dad. He met Marguerite at a party in Washington, D.C. They took their engagement photos at the Lincoln Memorial, standing on the steps in front of the reflecting pool at sunrise. The early morning light turned the marble steps orange. Leland wrapped his arms around Marguerite and kissed her neck.

Leland is older than I am by two years, but I had children first. I was worried about the age of my body and how much it could handle. My brother made a lot of money in the years that I went to seminary, served as a school chaplain, had my daughters, and became a stay-at-home mom. He lives in a big house in Annapolis and bought a little boat last summer. The bed in his guest room is very comfortable. My daughters love to play LEGO with Leland. They sit on tall barstools and build figurines together at the counter.

When my brother examined his car, the tires on the right side were shredded. Later that day, the mechanic said the damage was worse. The rims on the tires were cracked. The front axle was broken. The knuckle was shattered. The gas strut had gone up through the wheel well and dented the frame. Leland and I chatted on the phone tonight. I told him about my plans for the girls at Christmas and he talked me through his insurance claim. "I'm so sorry, Le," I said. We call each other by our childhood nicknames. "It's alright, Ali," he responded. "Who can I get mad at?"

My family always congregates in Vermont for Thanksgiving. We came up north a few days ago, and the first snow fell this morning. The girls ate breakfast, pulled on their bulky snowsuits, and ran outside with their cousins. They all lifted their faces to the sky. They stuck out their tongues to catch snowflakes. I nurse Caroline and watch them through the window. Sometimes they stop their play and look up at me in the house. Margaret waves, and Lucy tries to throw a snowball in my direction. Often now, I find myself caring for the baby inside and observing my older daughters outside. We're all having different experiences, I think. Lucy's cheeks turn red in the cold air. She spins around in a circle until she falls down, laughing.

A tangle of low bushes lines the edge of the yard. Behind them, there's a stand of paper birch trees. Only a few dead leaves hang off their spindly branches. I notice the lingering leaves are still. There's not much wind today. *Good*, I think. *The girls*

won't get too cold. The thin trees form a kind of boundary around the house. Behind them, I can see only white. We're socked in.

I notice that Caroline has fallen off my breast and is sound asleep in my arms. I pull my shirt down and put my hand over her toes. Tiny snowflakes flurry against the window. How quickly they added up and covered the ground this morning. I stare into the white sky. The snowflakes are falling toward me. I strain my eyes, but I can't focus on the point where they appear out of the clouds.

I go upstairs and heat up a bath for the girls. They come inside, clomping snow all over the front hall rug. My sister-in-law helps me take off their jackets. Margaret places both of her cold hands on Marguerite's pregnant belly. Marguerite laughs and chases Margaret up the stairs. Lucy runs after them, trying to keep up.

After the bath, I wrap them in soft white towels and brush out their tangled, wet hair. They run up and down the hallway, shrieking with laughter. Later, we watch a documentary about flamingos together. We sit side by side on the purple couch eating popcorn.

I remember one scene vividly. The crimson-winged birds, *Phoenicoterus roseus*, mated on a large red lake by a sulfurous volcano. Every year, over two million flamingos come to the same location to breed. Somehow, days before and miles away, the flamingos know when to arrive at the lake. One of the filmmakers captured thousands of them flying in at night during a thunderstorm. Streaks of lightning illuminated the dark sky. The birds thrust their long, graceful necks forward. They pumped their wings vigorously. When the sky blackened, the flamingos blended into the darkness. Thunder rolled, and the sky lit up again. The flamingo silhouettes reappeared, moving steadily across the sky. They were still flying in, beating their wings. There were so many of them.

I love to be in nature, but I have no illusions that it is a particularly kind place. In one shot of the documentary, a group of tall Marabou storks, *Leptoptilos crumeniferus*, flew in and landed on the lake. They chased the fluffy gray flamingo chicks around the shallow lake bed and pierced the stragglers with their long sharp yellow beaks. Lucy was horrified. She's only three-and-a-half. She put her chubby hands over her eyes. I put my arm around her and fast-forwarded to the next scene.

Flamingos are threatened, like all life on this planet. The "lake of fire" where they mate is drying up. On our drive home, I see several small flocks of birds flying south. I see no more than twenty birds at a time. "Look up," I tell the girls. They're in the back seat, absorbed in their coloring books. Between them, the baby is asleep in her car seat. "It's the last of the winter migrations."

What will the sky be like when the birds are gone? I think it will be familiar. Clouds will gather, rain and snow will fall. When the sun sets, colors will streak across the sky. Is emptiness only a projection? One of my cousins lost her pregnancy a few years ago. I remember how awful it was when her milk came in, and there was no baby to take it.

Back home in New York, December comes quickly. Every morning is busy. I don't have time to take the dog on a walk. I hurry to make sure the girls' hair is brushed. I hurry so that Margaret doesn't miss the yellow school bus. Today, the girls put all the couch cushions on the floor after breakfast. They placed them in a row and pretended they were on a bridge. My husband and I worked together and got the girls out the door in their little masks and backpacks. He kissed me and followed them outside. I yelled "I love you!" to each of them. I finished the dishes and swept under the highchair. Bits of breakfast were all over the floor. I ran a load of laundry and cleaned up the main room. Caroline began to fuss. I changed her diaper and put her down for a nap.

Finlay sits by the back door, whining to be let out. The baby is asleep upstairs in the nursery, and I can't leave the house. I open the door and he runs outside, galloping toward the trees. There are no squirrels, but he flushes out a large bird. The raptor was perched on a low branch of the white oak, and it flies upward to the top of a sugar maple tree. It's a common red-tailed hawk, *Buteo jamaicensis*. His head swivels and I see a sharp, curving beak.

It strikes me now that theological naming is much less diverse than scientific naming. Theologians talk in broad categories: sin, salvation, humanity, creation. But the naturalist must be specific. There are almost nine million different species on the planet. Every living thing, every kind of animal and flower and tree, has its own name.

Today, after church, we put out our nativity set on the front table. Lucy stood on a stool and carefully placed the wooden Mary next to the empty manger. Margaret was in charge of the animals. Drew put the three kings on the mantle. They'll travel around the room until Epiphany comes. Then, we'll place them in the stable. Sometime in late January, we'll box everything back up again until next year.

The girls learned some carols at Sunday School. We sat around our Christmas tree, practicing the songs. I held Caroline on my lap. She's grown at least two inches, and is much more alert. She gurgled and kicked. Her blue eyes were open wide. The girls sang to her, each of them trying to keep her attention:

On the ninth day of Christmas, My true love gave to me: Nine ladies dancing, Eight maids a-milking, Seven swans a-swimming, Six geese a-laying, Five golden rings!
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

Margaret and Lucy climbed up to the twelfth day and then began the song over again. They sang and sang, making up hand motions to go along with each line. Finally, I cut them off. I settled Caroline down in her crib and came back downstairs for lunch. We sat down at the table and held hands. Drew lit three candles on the Advent wreath. We sang our grace:

O come, O come, Emmanuel, And ransom captive Israel, That mourns in lonely exile here, Until the Son of God appear. Rejoice! Rejoice! Emmanuel Shall come to thee, O Israel.

We all began to eat. Our spoons clinked against our bowls of soup. The dog was lying underneath the table with his head on his paws. When the girls were full, they asked to be excused. They ran to the playroom together. I heard them squabbling over a stuffed teddy bear. I heard Caroline murmuring through the baby monitor.

Drew and I look at each other. His face is red from working over the stove. It's strange to think of him as my mate, but he is. We've been together for ten years. I still think he's very handsome. We spent most of the last decade talking about having children and then managing my pregnancies. Now, I have carried our last child to term. What will this next decade hold? What will it be that binds us together?

THINGS GROW WHERE YOU NURTURE THEM Gabriela Rodriguez

Things grow where you nurture them. When you commit yourself to dissolving extractive practices and building restorative ones, what you learn is overwhelming. Reading a dozen studies a week and writing a handful of papers a month is mind-numbing, but the content settles and takes shape. The consequence is mindfulness. You uproot your biases and your norms, especially the ones that felt right, and plant new ones.

But academia is exclusive. Discussions are drowned by jargon, airtime is sucked dry, anecdotes are not relatable, and case studies are abused. Higher education thrives on gatekeeping and feeds off neoliberal talking points. Breakthrough moments make it worth it. You remember what you're here for.

Then you find solace in community. Not through LinkedIn connections, but through family on the phone, friends down the street, mentors over lunch, neighbors downstairs, and strangers on campus asking for directions. You see that the people you meet and the relationships you form aren't career tactics. Power moves through collaboration and care.

Slowly, you see the seasons change. Nature refreshes itself through its own processes, but also the admirer without knowing. Seasons pass beautifully and fast and gaining elevation grants rewarding views. Despite the long cold, the leaves are coming back. Despite the slow pace, knowledge systems are challenged and power relations are changing, and the future will be fruitful.

LESSONS FROM EXODUS Allegra Lovejoy

The book of Exodus has been on my mind these last few years. Do you remember the story? The characters: The Egyptian Empire and the enslaved Israelites. The stage is set for moral combat. God is on the side of the oppressed, intervening in obvious and not-so-obvious ways for their liberation. There are ten plagues, we are told, parallel to the ten commandments. Water runs red, toxic. Agricultural pests run rampant. Disease sweeps through livestock — and people. Hailstorms ruin crops. Even the sun darkens in an eclipse. Infants die in their cradles.

In the biblical moral vision, natural disasters are not simply natural events, nor are they divine punishment. They are revelations of how immoral human society really is. They are meant to wake us up. The worse the disaster, the worse the problem. Some of the enslaved Israelites recognize God's hand in these revelations and risk escape, stepping into the total unknown. It takes them forty years to build a new society. Some of the Egyptians also recognize the plagues as revelations. But it is difficult for them to take the events seriously, and harder still to change behavior — to change society — as a result. A life of comfort blinds. One forgets the lessons of one's youth:

Do unto others as you wish they would do unto you. Preserve the earth for the next seven generations. Clean up. Share.

Plague narratives have been oddly comforting to me over the last few years, as we've suffered COVID-19, natural disasters, and the ongoing pandemics of societal violence and exploitation. It's not just me, and it's not just Exodus: a number of plague narratives have become repopularized, from Camus' *The Plague* and Thomas Mullen's *The Last Town on Earth* to the spiritual revelations of Julian of Norwich, written during a 14th-century outbreak of the bubonic plague in Europe. At first, this revival of disaster literature surprised me. Wouldn't people want to read for pleasure, for escapism? Yet, in a way, it makes sense. Reading narratives of disaster offers a sense of kinship in this unsettled time. They authorize the grief, loss, sense of dislocation, and weird pleasure we take in the tiniest things when our world shrinks. Someone else has felt what I've felt, these stories seem to say. Someone else has felt what I've felt and survived.

There is power in extreme events that shock our ways of seeing. In the early days, weeks, months of the pandemic, I heard lots of revelation language. "This pandemic reveals the economic inequality of our society," or "It reveals the vulnerabilities of our public health systems," or "It reveals the extent to which people are willing to step forward and help each other." Do you remember that time? Amidst the anxiety and uncertainty there was, at least in some sectors, an excitement. A sense that anything could be possible. A hope that maybe *this* would bring about universal healthcare, or a living wage, or full rights for essential workers. Yet two years in, we've seen none of the systemic changes, in the U.S. or nearly any other country, that a revelation might warrant.

It shouldn't take a disaster to cultivate change: to suddenly care about the lives of the poor, the sick, and the working poor. It shouldn't take a disaster to work for universal healthcare or a living wage or worker protections or environmental protections. COVID-19 brought a new way of seeing for some that for others was a fact of life — just as each successive natural disaster brings a new way of seeing climate risk, and just as nuclear disasters in the previous generation brought a new way of seeing that existential risk. Time after time, it's taken a disaster for humanity to take

something seriously: a disaster, or series of disasters, sufficiently shocking to bring an openness to radical change.

The way the Exodus narrative is often told, it seems as though its natural disasters and plagues happened in quick succession. It seems as though it was obvious these were sent by God to push the Egyptians to liberate the Israelites from bonded labor. That's how Moses told the story: "Let my people go!" I wonder how many other prophets were interpreting the events differently.

I imagine that the natural disasters did not happen one day after the next. Even today, a plague of locusts or livestock disease plays out over weeks. I imagine that the natural disasters of Exodus unfolded over a few years. It would not have been obvious how to interpret the individual losses and threats. It would not have been obvious that they were connected, or how, or what their purpose was, or that there was even a purpose at all. Agency and purpose are tools of storytelling. Although a belief that abundance or disaster were Divinely sent was a cultural norm of the time, I imagine that the unfolding natural disasters may have seemed, well, natural. Their meaning would have been ambiguous and contested.

It's no wonder, then, that in our time, conspiracy theories and simplistic answers are so attractive. We want answers. A Wuhan lab leak is not a great answer for the source of COVID-19, but it is *an* answer. Extreme weather being part of natural cycles, not climate change, is not a complete answer, but it is *an* answer. A disaster can simply serve to confirm our existing suspicions about how the world works.

"Those conservative Senators don't care at all about the plight of the poor — they're just out to protect their own interests."

"Those liberals will take any chance they can to clamp down on civil liberties. Now it's mask mandates — then what?"

When we remain stuck in confirmation bias, nothing really changes. We continue fighting in the same roles. It took ten plagues for Pharaoh to begin to see things differently — and even then, he wasn't fully convinced. If revelation means new vision, how long do we have to look at something for the filter of confirmation bias to dissolve?

This is where, I think, hopefulness comes in. A stance of hopefulness looks for the potential in every situation. COVID-19, the continued unfolding of climate change and ecological destruction, and the daily pressures of racism, poverty, economic exploitation, and violence are real. The burden can feel overwhelming. The future — bleak. The temptation of fatalism is great. It's almost comforting to turn in on oneself, to shut out the world, to purchase the lies peddled by fatalism. Fatalism says that the status quo holds all the cards. That things won't change. Fatalism says that the future is already determined.

These threats to life don't have the final word. If biblical stories tell us one thing, it's that the future is never determined. From Genesis to Revelations, these stories are full of reversals, full of the unexpected. I doubt that many of the Israelites in bonded labor in Egypt seriously anticipated that they would walk free, that their children would not grow up in the conditions they did. I doubt that any of them anticipated *how* they would walk free. I doubt that any of them anticipated how, against the odds, they would support one another, struggle and fight, and build a new society.

This is where hope finds its power. Hope is not merely optimism. A stance of hope is an act of courage. It's something you cultivate. To maintain hope when a situation is bleak, when the future seems foreclosed, when you feel powerless amidst the status quo — that is courage.

Often we are told that hope means we have to 'do something.' We jump into action hastily, without a lot of thought, grasping at small tools like petition-signing or angst-Tweeting or

lightbulb-changing. We feel pressure for our action to be shiny, to connect passion and purpose, to be LinkedIn-worthy. If we don't feel we are in the right place at the right time, we may feel incapable of doing something meaningful.

I want to suggest that a stance of hopefulness is not the same as quick, pressured action. A big problem should be dignified with thoughtful discernment and ongoing commitment. Commitments like participating in a mass movement or advocating for systemic change within your professional field or helping loved ones believe a future into existence.

Good discernment and meaningful commitments take time. They require community. They are rooted in a stance of hopefulness because only that stance of hopefulness can sustain you when things are discouraging or boring or overwhelming. Remember, for most of the drama of Moses' negotiations with Pharaoh, the Israelites hoped and waited. Hoping and waiting can be enough. We've done a lot of it over the course of the pandemic. Sometimes it is all we can do.

LEARNING WATER Zack Steigerwald Schnall

I am tilling my mind with these pages at two in the morning and wondering why.

Am I sowing my head with new phrases so I can recite them with cheeses and wine?

It is hard to learn water that's reaching new stages when treading's enough to get by,

but to learn is to know and to know is to fight and to fight is to touch the sublime.

SELF INTERVIEW Claire Swingle

Claire 1: If you cut down a tree and left the stump, and mushrooms grew on it, would that be cultivation?

Claire 2: We passed pecan orchard after pecan orchard. There were many groves of smaller, younger trees. Farmers clearly thought they had a future. The cotton crop was just harvested, and wisps of white were scattered along the road. I learned later that it was a wet year, and so the chili harvesting was delayed and the pecan harvest, too.

I looked at my mother. She was beautiful and also starting to show her 66 years. As she drove, she narrated various points of interest. I tried to listen. The Rio Grande was dry — we're downstream of the dam, she said — and filled with coyote willow. Or maybe it was red osier? She pointed out houses that were ugly or nice, houses she was looking at buying and flipping but had this or that issue.

I took a few apple slices from the Tupperware she set on the console. She was a few years older and in a different state — pushed from Colorado to New Mexico as the Californians keep invading — but she still covered apples in lime juice. For years I wondered why even apples tasted worse at her house than at dad's. That was before I knew that lime juice keeps apples from browning.

What if you cut down a tree and left the stump, and mushrooms grew on it, and you harvested them?

In her self-published memoir she explained that she's always chosen Granny Smith apples because being ordinary has never been good enough for her. They're less predictable, she wrote, but with the potential to wow, as compared to red apples, reliably unimpressive. I told my brother about that ridiculous line. Raymond just shook his head and bent his neck slightly to meet the cigarette in his hand, filling the wordless distance with smoke. He was the one who told me that she'd written a book, but he hadn't read past the first chapter. I've never asked her if the cover photo — a little boy looking out a window under the serif title, Lives Shattered — is Raymond.

We pulled off the highway into a little neighborhood filled with mobile homes, dogs barking, and yards filled with machine parts. Mom stopped next to a giant ocotillo. She pulled on the parking brake and jumped out to unlock the large, red wooden gate to the courtyard. She's an atheist but now owns a Spanish adobe church from 1860. Her sister, the co-owner, is still Catholic.

What if lightning strikes down a tree and mushrooms begin to grow?

The court issued an order that my dad be given full custody of both children when I was three days old. So, according to her memoir, I stopped breast-feeding at three days old, except when I saw her occasionally over the next six months. She wrote that I experienced nipple confusion. And that my babysitter heated her breast milk on the stove and several times let it boil over.

What if you cut down a tree and left the stump, and inoculated it with mushroom spawn?

Onions have buyers and contracts ahead of time, but pecan markets are negotiated each season. The price depends on how much nut there actually is. We're shown the machine that calculates the nut-to-shell ratio daily in order to get the harvest's average.

Before the pecans get to the processing facilities, a machine sweeps leaves and twigs out of the alley between rows. Then a different machine puts iron claws around the base of each tree and shakes them, one by one. Nuts clank and ricochet off the machine's metal roof but most fall neatly into the cleared alleys. A third machine, the harvester, gathers the nuts into a windrow. Someone goes in front to remove branches that have fallen and then the harvester drives over the pile and suctions the pecans onto a collector belt. Mechanized air gusts sort out any leaves. As the machine goes down the row, a great dust storm follows.

Lonnie, mom's neighbor across the arroyo, took us pecan gleaning at an orchard he used to work at. The owner gave the okay, though they don't always. We heard several stories that "people come in to pick pecans without permission and when you tell them to leave they pretend like they don't speak English." There were so many missed pecans. We filled three 5-gallon buckets in not much time at all.

If you plow or till or burn a field but don't plant anything, would that be cultivation?

What did she teach me? In brief: it's bad to be a woman. It's a shortcoming to be slow and measured rather than

quick and decisive. My brother is more creative and talented. She put letters from Santa in my stocking that chastised me for being a terrible daughter and person. She then photocopied the angry and confused journal entries I wrote and sent them to court-appointed psychologists in order to seek medical treatment, temporary living quarters, and/or medication and restraints for me.

In brief, she feels my father is responsible for everything that went wrong. She didn't have much time to learn how to be a mother. "You are the child and I am the parent" is what she knew. She never had a chance to influence me. She would get me for four days a month, and then have to listen to me talk about eating McDonalds and know that if I were with her I'd be eating healthy food and learning how to cook it. She thinks I should read about transference and parental alienation syndrome. They all said this would happen, that I'd turn out like this.

Briefer, still: She failed me. But it would've been almost impossible not to.

What if you plow or till or burn a field and plant something but the seeds don't germinate or animals eat all the crops?

> We started spending an hour or so each day shelling the pecans. They're indehiscent, unlike the Carya relatives I'm more familiar with. One person had the nutcracker, the other used a pick to pull out the meat. It was a threebowl rotation system. We sipped micheladas and watched Outlander as we worked.

> We barely made a dent in the pile of nuts in the buckets and, even so, had more pecans than we knew what to do with. It reminded me of mom's story where the nuns asked her and her friend to help them shell peanuts

at recess for weeks. Later in life mom found out that it had been her father's idea as a way to keep her off the playground because she couldn't get along with the other kids. In fact, the nuns had no idea what to do with the thousands of shelled peanuts.

What if you intentionally leave your field fallow to allow natural succession to take over?

I wish I'd asked, "What do you need from me? What do you need and who is responsible for meeting those needs?" But I thought that I had asked that and that she'd responded. I thought I heard her say that I would need to continue revisiting the past until I shared her version of the truth about how and why things happened. Otherwise, she would still see me as someone who's 'just not there yet,' rather than someone who has been dealt a certain hand and has decided how to proceed.

Sarah Manguso wrote, "Every hour was part of a ritualized ceremony of adding and subtracting milk... He floated down the milk river toward the rest of his life... The mother becomes the background against which the baby lives, becomes time... My body, my life, became the landscape of my son's life."

Sometimes, holding all of this feels like too much. But what happens if I stop being angry? These are some of the worst parts of myself, and if they don't belong to me, then they won't belong to anyone. Sometimes I'm scared that I never had that first part of myself, the body and life of my mother.

Is cultivation just the process of growth after any change? Or does it have to benefit the actor, specifically?

Neither my mom nor I like pecans. It'd be better if they were walnuts. But, the day after we went gleaning, we made two pecan pies. One was for Lonnie, to thank him for taking us. The second pie was just for us. I'd take a fork to it every time I walked by. Then another few forkfuls to even out the row. I'm not sure how to distinguish destruction from cultivation, given enough time. What's the difference between burying and planting?

1 Manguso, Sarah. Ongoingness: The End of a Diary.

OF SOIL, OF SAND Elisse Roche

The sower holds worlds
Within weathered palms
That stroke the land,
Tap the sand for the
Vibrations that sound
Out. Away. Loud!

She knows the world, tuned. It is that knowing that Brought her to the toil that Brought her, wringing, hands To the nodules of soil, she

Dives, she
Dowses for water that
Slides beneath the surface,
Glides kinetic with purpose
To the beat of gravity, suspended —
Aquifers and stores and
Underground shores. Gone, still.

What once was earth is now Dirt, upended and Where she knelt, once Was live, once Where she kept, once Was held, once And where she sipped, once Was fit, once. Now?

Dry.
Tumble sweetly, dusted earth, you
Desiccated husk, you,
Go! Spin greatly and rise and rise and
Turn air to cloud of displaced dusk, look
Down and find us spinning, too, the
Dowser, dry, too, the
Sower, left, too, the
Body, bent, too, we
Dry as you do, we
Pale as you do when —

Vital green seeps to white, to clear We raise our hands, now, to shade from fear. To shirk the sky is to burn in time; The end written in purple, dyes.

25

LOGAN Sawyer Cresap

One of my mother's friends gave me a gift certificate when my dad passed away. "So we can plant a tree to remember dad by," my mom explained. I was eleven, and didn't understand the cultural symbolism between death and plants.

We got a bush of some kind from a nursery my friend's parents owned. I wish I could tell you what kind. We planted it in the backyard. I wish I could tell you I helped dig the hole.

"It's not doing too well," my mother said the next summer. It's a shame I can't remember the look of it, its leaf shape or margin, if it flowered or fruited. Its tolerance for wet or shade.

But the bush hung on. It was there in the background while I mowed the lawn or reluctantly helped my mom rake leaves. After a while I started to forget which one it was. I had no use for the metaphor, my dad reduced to a laurel or linden.

My father's name was Logan, the third in our family. And bearing his name was an American Elm, one of the largest ever measured. It loomed for decades in Ohio, an homage to an era when cold blood was spilled on the frontier, at times at the hands of my "pioneer" kin. There are debts I can never repay. The elm dropped branch after branch, weakened by Dutch elm disease, until the rest crashed down in a storm.

When my mother suggested she and my father name me Logan, he refused. "I think your dad's relationship with his family was too fucked up to even consider it," she told me. They divorced several years before he died. Sometimes she refers to him as "your father," sometimes just "dad." Often, he is plainly, *Logan*.

My mother sold the house when I graduated college. I don't believe I ever once stopped and thought of the bush we bought in my father's memory. I hear the new owners are dentists. Perhaps they'll take an interest in the yard.

Fifteen years have passed since my father died. Things he barely touched have become sacred to me. Amazingly, the bush never did. It grew like so many things we refuse to tend. Independently, of its own accord. Not so differently from the way an illness develops, or love blooms. Not so unlike how my father raised me to be.

Lately, when the magnolias blossom in spring, I like to stand under them: ornamental trees planted for scent and sight. I like to blur my eyes and look up. A world of pink under light blue sky. Things happen, I say to myself. They just happen.

As I walk home, I watch a mother hold the back of her boy's tricycle while he wobbles down the sidewalk. I see little brown birds zip and flit. I see my father in it all, everywhere. Every genus, every species. Every sound. Every ray of light. There is nowhere else he could be.

DIRT Raghav Srivastava

Birthed by
Destruction, decay
Assembled by spirit
Flowing through, irrigating
Every speck of being with
Life
Music
Which makes the field once fallow
To again issue green

On another day,
the earth will again lay bare
it does not
Bow to the laws
Of the eyes
It matters not, to the field
How far its bounds, nor how widely it
Is beheld
It is reined
By the very soul,
The soil
That fills it
Whose tiniest specks
Hold hostage
power, bounty, beauty

There is no music, without it *Dirt*Everywhere

Softening blows
Sweetening sound
Blunting currents
Taking
The gentler waves and me, both
Closer to the sure

WE DIG IT Jess Jones

Gradients of hair texture and leaf density, shades of plant pigments and melanin, we exist in polycultures and poly-cultures.

What we say quietly to ourselves and what we share with each other, all of it is a nutrient flow, an energy exchange.

We are at the garden, playful sky overhead, I look up to see you pulling weedy vines.

I follow, watering the tomatoes, then we sit on blankets to eat the sweet peppers, our sticky skin attracting ants.

The sun blazes above, but we are shaded because Mrs. D built a gazebo out here, thinking of us.

She must have imagined this — the moment when others would tend her garden, dog-tired under a white-hot sun.

We plant paw-paws for whoever's next to come from that brave dimension we call 'tomorrow.'

SOLARPUNK Jonathan Chan

where the sun first lands, eyes kept sharp for an inscription of shade, day by week by year, light giving strength to tilled fields, fingers crossed with soil and seed, feed for roosters and cattle, slosh of porcine jowls, mass in cinders, smoke rising from stirred pot, lamps that glimmer by the languor of evening thick, before again the first sweeping crash of light, effervescent, constant, radiance trained again from swaths of memory, washed over by the acrid sea, incantatory words: kerosene, petroleum, coal, shale, sputtering in speed and scale, cables laid like hands on sea beds, coursing under a tarmac skin, felt in the daily rush of hastened time, a pause foreign under the garish, colorless glow, nose bristling against the persistent stickiness, heat stretched, eye drawn again to the skies, hope in tessellated formations, across urban crowns, the unfathomable float

upon aquatic acreage, fixed and vivified beneath blistering hands, all for the flash of heat and light, the redress of every brown, yellow, and black anthropocene, the billowing billions awash in the hope of mutual futures, standing, bending, aching toward the sun.

33

32

THE WORM DOWNSTAIRS Sam King

I sit under a bright light in an upstairs office. My bare feet are planted against the cool wooden floor. Through the window I can see the faint outline of a crescent moon obscured behind billowing gray clouds. A flurry of ideas rushes through my mind, though nothing seems to land. My eyes are weary and my brain fried from staring at a screen all day. How can I think outside the box when life is mediated by a machine?

I let out a sigh and head downstairs. The air is cold and the stairwell pitch-black with a broken light bulb. After tip-toeing down a flight of stairs, I flick on a light switch and proceed down another stairwell until I catch a whiff of the musty basement. As my eyes adjust to the yellow light, I see cardboard boxes, paint buckets, skateboards, and a warped mattress scattered beneath stringy cobwebs dangling from ceiling pipes. Who knows if anyone cares to retrieve these things anymore.

Next to a crumbling cement wall is a gray box with tiny holes in its lid. I walk over and kneel down on the dusty floor. As I lift up the lid, the smell of rotten food wafts into the air. I know that beneath the dried leaves, blackened banana peels, and a moldy celery stalk there is a colony of wriggling worms. The top layer of compost is overrun by small, grayish-brown larvae with accordion-like ridges on their backs. Some are busy crawling about; others are curled up in little spirals. One of them has what looks like a baby riding on its back. They must be getting enough to eat, I figure. Above them on the lip of the lid are three yellow-brown slugs with pointy antennae. I can see the mucus oozing off their fleshy bodies. I wonder if they register my presence here. Are they bothered by the bright light intruding on their cave-like home?

I joke with friends that I've become a worm dad. Perhaps it's a strange way of satisfying a paternal instinct as I approach 30.

A few months ago, my friend Gabe asked if someone would look after red wiggler worms for the winter. Normally they live up the hill at the Yale Divinity School farm, where they chomp away at food scraps from the campus dining hall. The worms would freeze outside in the winter, Gabe told our faith-based environmental group, so I agreed to house them in my basement.

I have to dig to check on the red wigglers. It's been almost a month since I've seen them. I returned to New Haven a week later than planned after a bout with Covid, though my roommate was able to feed them in my absence. As I scan the pile of leaves and rotting food, I fear the larvae may have crowded out the worms I've been entrusted with. Is there enough food to go around?

I stick my hand in the bin. Gently, I pull aside clumps of leaves and hardened avocado peels. All I see are larvae. There are adults and babies — some appearing to nap in curled-up spirals. I keep digging until I feel the moist texture of humus at the base of the bin. They must be down here, I assure myself. I dig my fingers deep into the soil, trying not to disturb any of the worms.

Suddenly, I see a sliver of sinuous flesh the color of blood. With the tip of my finger I scrape aside more humus until I can see the whole 4-inches of wriggling body. The worm looks busy at work gnawing its way through the dark brown soil. After a moment I see what looks like its head plunge down into the soil away from the intrusive light. I grimace slightly. There's something grotesque about this creature burrowing through rotting waste. How pathetic it must be to live a life buried in the bowels of a basement.

As I gaze down at this strange, blood-red creature, I'm reminded of Plato's Allegory of the Cave. In the story, narrated by a fictionalized Socrates, a group of prisoners are chained together in a dark cave. Shackled by their legs and neck, all they can see is a cave wall. Above them is a fire. Between them and the fire is a walkway with a low wall where people are milling around chattering

and carrying various carvings. Since childhood, all the prisoners have known are the echoes of the strangers' voices and the shadows of objects cast by the glow of the fire. They spend their days entertaining themselves through conferring prizes on those able to make out what flickers by on the cave wall.

Later in the allegory, Socrates describes what happens when a prisoner is unchained from his bondage. When he turns around and looks up at the fire, he feels great pain and denies the truth of what he sees. The shadows are all he knows. But then, someone starts dragging the prisoner up the rough and steep ascent towards the sunlight outside the cave. He's angered, and his pain intensifies. When he first steps beyond the cave he cannot see the objects themselves — only shadows and the images of people reflected in water. Eventually, though, his eyes adjust to the new reality. He comes to see objects in their fullness, and even sets his sight on the sun, realizing it's the cause of all he'd known in the cave.

The man feels pity for the other prisoners and descends back down into the cave. Shrouded in darkness, he tells the others of the truth he's experienced, that the cave is only a sliver of a larger reality. But they ridicule him in disbelief: the truth is too much for them to handle. And when he tries to free the prisoners from their bondage and lead them out of the cave, they try to kill him.

As I look down at this blood-red worm squirming through the smelly humus, I feel a similar pity from my vaulted perch. Does the worm know of its confinement? Is it cruel to trap it here in this cave-like bin? What a pitiful life buried in soil competing for rotten food scraps with larvae and slugs. I must have won the evolutionary lottery to be born a human: I've traveled across the blue-green Earth, feasted on fresh food, basked in the warmth of the sun. What is life without these joys?

Yet when I look more deeply at this tiny invertebrate, watching its supple body wriggle through the dark brown soil, my

perspective starts to shift. Maybe it's not such a bad life after all. Here the worm has plenty of food from the bounties of a kitchen and a denuded cottonwood tree. Perhaps this creature — who even defies gender as a hermaphrodite — lives with a whole family here, reproducing as it does by joining clitella and sperm to lay egg capsules resembling tiny lemons. Maybe life is a communal feast, a celebration of simplicity. I remember the words of a farmer named Dick Riseling, a graduate of the Yale Divinity School whom I visited in upstate New York: "The best farmers are bees and worms."

I suspect he was right. Red wigglers, or *Eisenia fetida*, are known to be excellent decomposers. Eating about 25-35% of their body weight per day, they churn organic matter into vermicompost filled with inorganic nutrients to be absorbed by plants. The worms do this by pushing their pharynx, or throat, out to grab microbes and bits of organic matter to pull into their toothless mouths. Inside their bodies, the food's coated with saliva before being pushed down the esophagus into the crop and then the gizzard, where it's crushed and ground up. It then passes into the intestine where it's broken down further by digestive enzymes. Some of the food is absorbed into the bloodstream; the rest is passed out through the anus as nutrient-rich worm casting.

Red wigglers don't have eyes. They make their way through the soil by way of receptor cells sensitive to light and touch. The worms move away from light when they can; in fact, if they're exposed to light for as little as an hour, they become paralyzed and die. Like deep-sea fish, red wigglers thrive in the darkness; in these depths they perform their silent alchemy turning death into the substrate for life.

As I watch the worm burrow through the soil to escape the oppressive light, a sense of awe overwhelms me. Perhaps this being who had looked so grotesque to my arrogant human gaze is actually essential, even beautiful. I begin to see that without decomposers like this worm, plants would be unable to grow. And without such plants, I and the rest of the mammalian world would be nothing. Life would be nasty, brutish, and short — in the words of Hobbes — if not impossible altogether. Yet unlike so-called "Enlightenment" thinkers such as Hobbes, who scorned "the state of nature" as a place of depravity, a realm to be overcome by social contract — or René Descartes, who divided the exalted human mind from the lifeless world of matter — I begin to see that this wriggling being in the soil is actually holding up my life. Perhaps even holding up the world. Maybe it's the human upstairs — the one indulging in plastic-wrapped food, the one tapping away on an aluminum machine — who's been living in a proverbial cave.

I take a deep breath above the bin. The pungent, earthy air refreshes me as it sinks down into my chest. I realize I should get going — no need to expose this being to the light any longer. After a quiet moment I brush some soil over the worm until it's buried out of sight. I take my palm and start evening out the dried leaves and food scraps above the moist humus below. Gently, I place the lid back onto the bin — careful not to squash the resident slugs — and get up onto my feet. I return up the flight of stairs and flick off the light switch. Slowly, I make my way up the steep ascent until I cross back through the kitchen and return into the fluorescent light of my office. I sit back down at my desk. Exhaling softly, I steady my gaze on the gleaming glass screen, my eyes blinking, my sights set on sharing the beauty of what I'd seen below.

MANICURED ECOLOGY
Kalle Fox

Trigger Warning: Body Issues, Substance Abuse, Body Dysmorphia

T

When my older sister and I migrate south to the house we grew up in for the holidays, two things are guaranteed: that she will get sick at some point during her visit, and that I will step on the scale in my parents' bathroom.

We don't know why Keaton was cursed with a brittle immune system. As a teen, she first suffered from stomach issues. Then it became gluten intolerance in college. Now, she gets urinary tract infections and depressive episodes every few months. She is the thinnest of the three children, though she is genetically on par with our mother and grandmother — being size zero to two. To a stranger, she's as hot and healthy as they come.

My body doesn't betray me like Keaton's does her; instead, I chose the reverse. Throughout my formative years, I was subservient to an electronic slab of glass, letting the number, usually twenty higher than that of the women around me, judge the worth of my flesh.

And so, throughout my twenties I've made offerings to my body that I believed were for good for it, to keep it functioning, fit, and, most importantly, contained: relatively healthy food, a lot of exercise, coffee, appetite-suppressing ADHD medication, weed, cigarettes, late-night munchies from weed, and sometimes kombucha as a treat.

My efforts were rewarded one evening a few years ago, when I returned home from up north for Thanksgiving week. I was in my mother's bathroom while she was getting ready for a family dinner out.

"You look good, Kal," said my mom as she applied the last of her foundation. I was wearing a crop top and high waisted pants, baring a few inches of my stomach I was comfortable with. To my knowledge, it was the first time she had complimented my body in our history of exchanges on the subject.

"Thanks, it's from all the crying I did last week," I responded in dry cheerfulness, since she knew about how a recent lover of mine started seeing someone else.

"Well then, depression looks good on you!" she joked, and we both laughed. It took 24 years and being too sad to eat properly to get there, but at last my southern roots were proud that I was starting to resemble their low-lying geography.

TI

I am from a part of the earth that is so flat, even the petite women in my family have more natural elevation than the place we were raised.

Florida's flatness isn't what makes the state ugly to me—that's on the government and a personal history of male encounters. There is plenty of beauty to be found a few feet above sea level, though I never went out of my way to find it. In the backyard of my childhood, in the poorly-zoned suburbs of Miami, I was surrounded by countless vegetal bodies, each with a unique form that provides for itself and the resident wildlife, that never once browns, falls, or withers in the nearly year-round humid climate. Some bodies are light, like the Areca palms and Wart ferns, who hiss wildly against coercive gusts of coastal wind. Some are sturdier against the breeze, like the thick-leaved, Swiss-cheese Monstera or the hardy Green Island Ficus. It's an Eden around me, each body beautiful in its own right.

Still, because their beauty was noticed by human eyes, their bodies were bred, cultivated, planned, and placed into my yard, mostly by my mother's design. Only the native oak trees — tallest, shadiest, and most supportive of them all — were

respected enough not to be bulldozed down in the name of our house's inception.

One could say that the backyard village is part of the family, on the grounds of longevity and rootedness in one place. But it would be unfair to saddle it with the baggage of atomic nuclear family dynamics, stacked within the man-made walls that the village has fortunately been excluded from. Preservationists may have a point — separation between man's judgment and nature's innocence is sometimes appropriate.

* * *

I am also from a place that, like all places, experiences little and huge change, the most tangible being the incremental sea level rise and never-ending commercial development. Once upon a time there was no such thing as eco-conscious landscaping or high-rise condos in South Florida. It was 75% wetlands, with mangroves, prairies, swamps, and marshes — a combination of aquatic and terrestrial ecosystems, shared by the Seminole, Taino, and Tequesta peoples. Today, the built environment sprawls for miles over an ecological graveyard in the form of wealthy and middle-class single-family homes, agricultural fields with induced drainage, and a city skyline that serves as the highest point of elevation in a slowly drowning metropolis.

What has not yet been paved over often requires a vehicle to get to, and the differences between the mother-curated ecosystem I grew up in and the Mother-Earth-curated version that evaded my youth are stark. In suburbia, we share a fenced yard with squirrels, red-capped woodpeckers, an iguana dynasty, and cardinal couples that raise their babies; beyond the pavement, alligators and anhingas sun themselves in the Everglades and Big Cypress Preserve. Our property has fenced boundaries that separate us from our human neighbors; across the federally protected landscapes, Floridians and Florida's remaining ecology stare at each other from a distance.

III

After being surrounded by near-permanent flatness for 19 years, both outside and within the walls of my upbringing, it's not so much a wonder that I fell in love with mountains as hard as I did when I moved to Montana.

Imagine stepping outside your front door and being greeted by waves of asymmetrical geography that emerge organically from the earth, instead of meticulously placed vegetation and egotistical skyscrapers covered in window panes that reflect off of one another. Unlike Miami, where man zoned the earth beyond recognition, the mountain valley town of Missoula seems to work within nature's more curvaceous boundaries. City planners have done their darndest to avoid urban sprawl in the name of protecting existing open space and critical wildlife habitat from further development. One can actually experience the mountains as bodies, making contact with flesh that hasn't yet been lost to the concrete epidemic. You can believe these bodies once existed — for millions of years — without being scrutinized and evaluated and trammeled by human eyes.

As I adjusted to life in Missoula, so too did my body when I didn't even realize. I walked and biked more, played hours of year-round recreational volleyball, learned to cook cheaply but healthily for myself, hiked several bodies west of the Continental Divide, and burned extra calories dwelling on the state of the world and academic imposter syndrome. Phases of heartache and loneliness that once turned me to parentally-funded food in college, now directed me toward a higher intake of cigarettesper-day, shrinking my appetite in the name of cathartic outdoor brooding. I recently noticed that whenever I'm grieving a lost human connection, I look incredibly good naked in the mirror.

By the time I stepped on a scale after two years of living out west, I had returned to my weight as a teenager, recontextualized in the mold of a grown woman with greater muscle definition and greater struggles than a number on a scale.

A human landscape, just as modified by hazardous external human inputs as the place she still calls "home."

Perhaps that is the Florida birthright.

* * *

"I don't do leftovers, especially not seafood," my dad grunted after I insisted he finish my takeout shrimp dumplings for me. As I began launching into my hippie environmental grad school liberal agenda about food waste and class privilege — again — he interjected: "Well then why did you order so much food?"

Because I was going to share the dumplings as an appetizer and if I eat the rest of it in front of either of you, one of you will make some comment about my eating habits — the kind that has given me all the fucked up perceptions of my body for 15 years — that will leave me pissed off the rest of the night but too tired to fight back the way I used to, I wish I had said.

My mother added: "Well it's no better to fill your own body with trash instead of filling the planet with it!"

You couldn't ask for a more poignant insight into how bodies were valued in the walls of my upbringing. How I ever made it to Montana and pursued a degree focused on earthly bodies that are not my own is a miracle in retrospect.

IV

One afternoon this past winter, somewhere in the middle of Christmas and New Year's, I stared up at the sky while sunbathing on a spot in the mulched yard that the oaks weren't shading. It was the bluest I've ever seen down south, a stark backdrop to the chaotic latticework of branches above me. My dog Story trotted over and sat down next to me, squinting toward the sun, almost glowing along the outline of his fur. As I stroked his chest, looking up at his uncomplicated face and the ecosystem that has sheltered me and my family from the world, I felt, for once, at ease. Serene, even.

Miami, Florida is where one crawls into an illusion of time standing still. Where there's no reason to grow and change and die and be reborn again. But like all paved places, it holds a history. A history of wetlands and evolved reptiles and Latin American emigration and flat beaches and erotic skyscrapers and violence to bodies of all kinds.

And, within my parents' private property, a history of subtle generational trauma that started with my maternal great-grandfather looking down at his daughter eating ice cream one afternoon and saying, "You know, you'll get fat if you eat like that every day."

But in those few minutes, with a domesticated animal, a series of branches from a tree that existed on this earth before my family transformed its surroundings, and a brutally blue void — none of which cared how my flesh presented itself — I was grateful to be where I was: in a fake-ish landscape, in a fake-ish city, on a fake-ish lawn that lost so much of its old body so that I could lie comfortably on it. At the very least, I know now that looking up at what still remains is more important than looking down at a man-made number, on a man-made scale, on a man-made tile floor.

IMERINTSIATOSIKA Sam Feibel

From 2017 to 2019 I served as a Peace Corps volunteer in the Rural Commune of Imerintsiatosika in Madagascar's Central Highlands. My official title was "Agriculture Food Security Advisor." The responsibility implicit in that title intimidated me at the time. Yet my friends, neighbors, and the children I taught knew me simply as 'Sahm' — the foreigner who learned to speak Malagasy, ate rice three meals a day, and liked to take pictures of everything.

Looking through my camera lens became a meditative act. I could indulge my curiosity about the people, culture, and landscape of Imerintsiatosika by deciding what to fit into the frame. That constant visual scrutiny forced me to think more critically about the complexity of my environment. I tried to distill what I was learning about my community into straightforward images that convey the pride, humility, and vitality of the Malagasy people.

At some point — in an attempt to make people more comfortable being photographed — I began offering to print portraits at cost for vendors at the market. Word quickly spread through the bustling, labyrinthine alleys. Before I knew it, I could hardly ask for a quarter kilo of onions without being stopped to snap a picture. This led to deeper conversations with vendors I'd only bartered with before. I found out some of them had children who were students of mine. I knew their homes and the fields where they worked. When I was lucky, I could capture in a photograph the pride people took in selling the fruits of their labor.

Photography also helped me grapple with my role in the community. As an inexperienced foreigner attempting to address profound agricultural challenges, I could sometimes combat feelings of inadequacy through thoughtful observation. No matter how complicated the realities of Malagasy life and culture, I could at least be a witness and document what I was seeing.

Gradually, my understanding of the language improved, and with that came a deeper appreciation of Malagasy culture. From fellow teacher Madame Clarice, I learned how people understood time without clocks. It was known to be 5 a.m. when "industrious people rise." Likewise, newborn calves return home at 5 p.m., and at 7 p.m. "the mouth of the rice pot is dark." I saw young children laugh and play as they worked the fields alongside their parents and grandparents. I attended marriages, funerals, and a ritual exhumation. Such experiences helped me begin to understand the Malagasy concept of *tanindrazana*, "the land of the ancestors."

As my friend Dillon Phillips articulates with his two beautiful illustrations of Malagasy proverbs in this volume — the Malagasy have a unique understanding of the natural world and their place within it. In Imerintsiatosika, beliefs about taboo and the dialogue between the dead and the living coexist with numerous forms of Christianity, yet at the center of all life is the land that sustains it. With each strike of a shovel into red, desiccated earth, I saw the legacy of generations of farmers extracting all they could from barely arable soil.

During my time there, I also observed dramatic changes. A new AGRIVET shop stocked with chemical pesticides and fertilizers opened up on the main road. Mechanized rice and cassava processing set Imerintsiatosika apart from more remote rural areas. And while the ancient, weathered soil sustains so much life, there are many mouths to feed. Despite the ubiquity of lowland and upland rice cultivation in every corner of Madagascar, the country is still a net importer of rice from China.

In curating images for this photo essay, I relived many memories. I realized that it was impossible to capture the complexity of my community in a series of photographs. To understand the place — the soil, the landscape, the livelihoods — you must understand the people. It was an honor to spend a part of

my life in Imerintsiatosika. These images show not only what I saw through my lens, but what I learned about family, community, and tradition.

OPPOSITE

Dety walks to Catholic Mass at sunrise

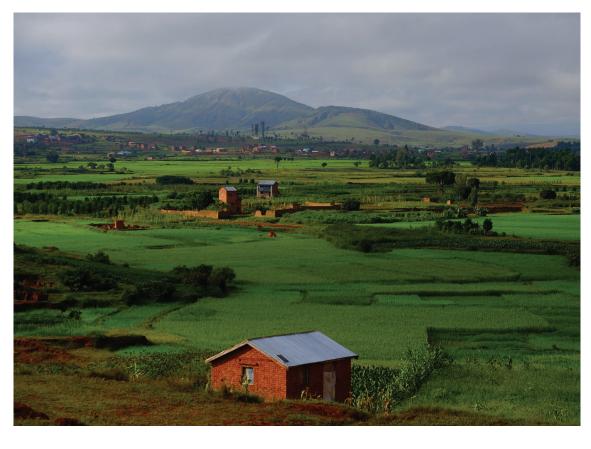
FOLLOWING

Rice paddies

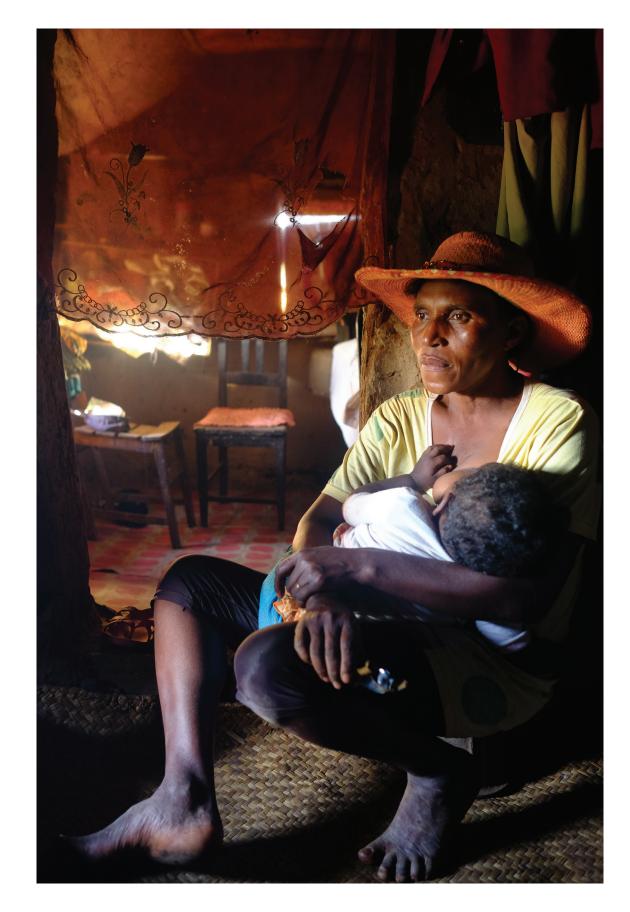
Footprints between freshly transplanted rice seedlings

Madame Marcellin nurtures her tenth child









OPPOSITE

Cedric's mother waters greens with her baby

A farmer applies chemical pesticides to his cucumbers

FOLLOWING

Carrot salesman

Rice vendor

A woman sells tomatoes and chayote



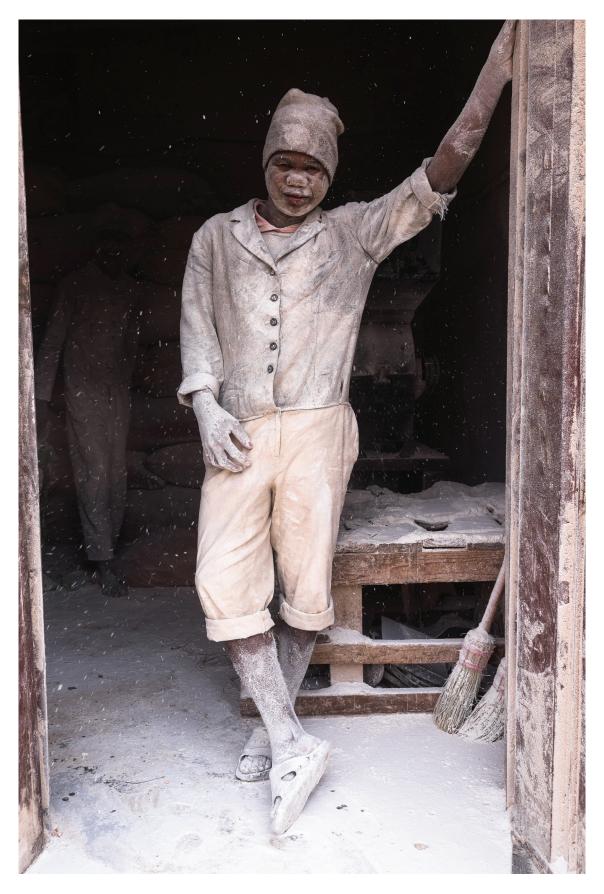












PRECEDING

A farmer departs to the fields

A laborer grinds dried cassava into flour

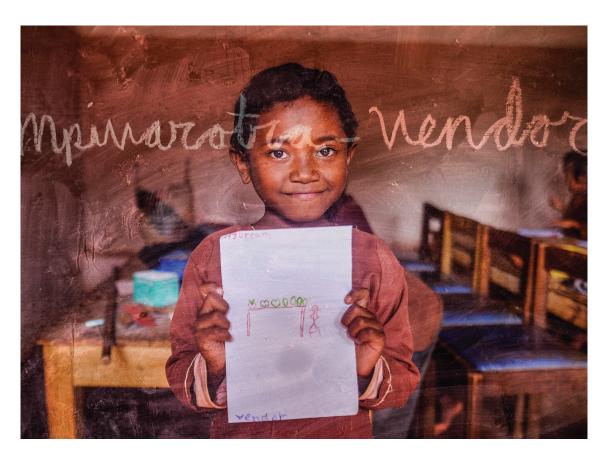
OPPOSITE

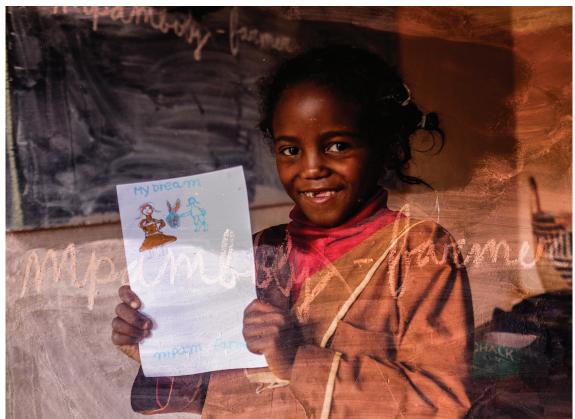
A family navigates a narrow path through a rice paddy

Hortence and her family in their home









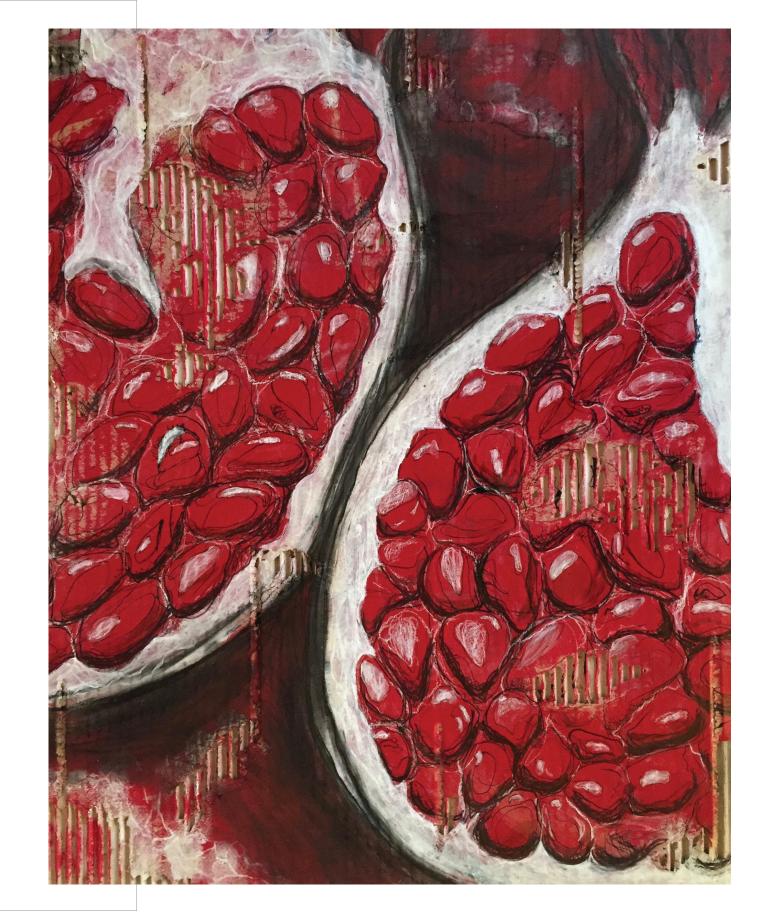
OPPOSITE

Students in English class share their dreams for the future

Mpivarotra, vendor

Mpamboly, farmer

FRUITING Julia Sweatman





RED FRONT TRAIL Fuad Khazam

- Dead White Pine
- Hemlock Trees
- Native Bird zone
- Burn Area
- The Red Front Trail
- Marsh
- Vernal Pools
- † Dead Saplings
- Red Oak
- White Oak / Striped Marble
- White Pine
- Red Pine
- § Shelter Woods
- 🖒 Coppy (Coppice) Cut Trees

MAY YOU REAP WHAT OTHERS HAVE SOWN Jackson Podis



FOG ON BUCKEYE Anelise Zimmer



GROUNDED Brooks Lamb

Fog has settled over Buckeye Ridge. Its hills and trees, rocks and streams now hide behind damp clouds. In my mind, I hear my father say, "The sun'll burn the fog off soon." And I know that he's right. This beautiful, distant land will be revealed before long. But until that happens, I turn my focus to the place I can already see and touch, imagine and love: the land that lies before the clouds, the ground beneath my boots, the here and now of home.

HONORABLE HARVEST #36 Jesse & Jack Bryant Yesterday engineers at Yale University invented a new machine that using just water, carbon dioxide, and light as inputs can produce human food. The team says that the new technology will be cheap, and require no fossil fuels whatsoever to run. In many cases the new technology will even be carbon negative!

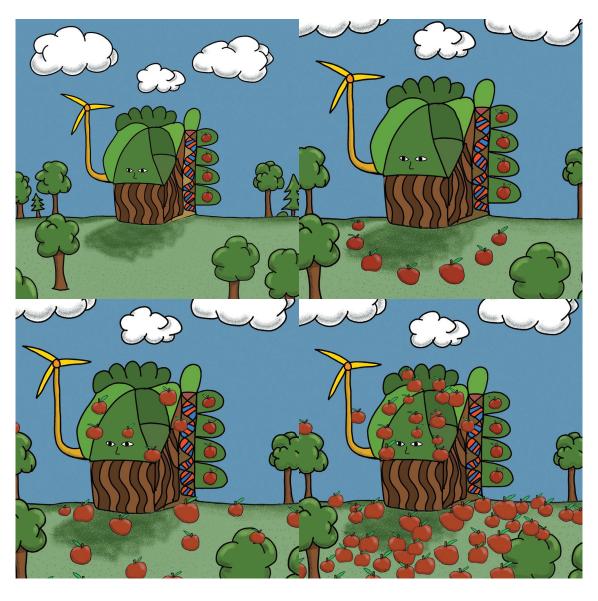




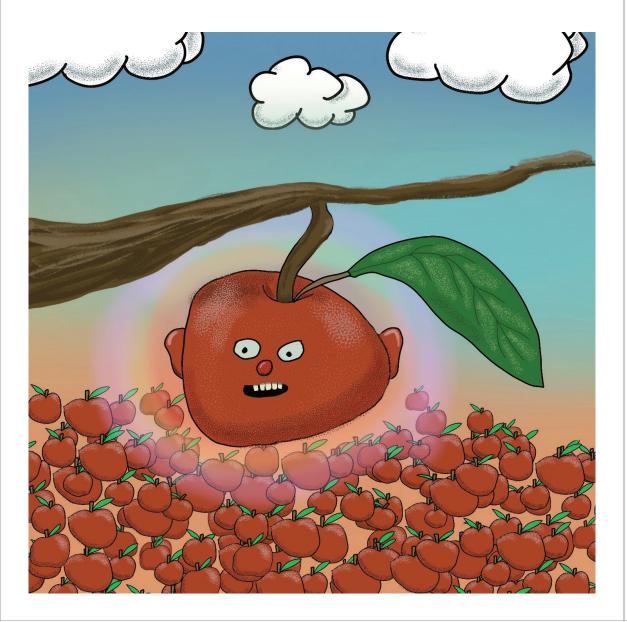
It will in fact be entirely autonomous and only require minor setup. Best of all, it will be cheap: only \$0.05 for a starter set.

In honor of the late techvisionary Steve Jobs the team has decided to call this new technology an "Apple seed" which slowly over time turns into what they're calling an "Apple tree" which grows "Apples" which are said to resemble the apples found in grocery stores.





"This is truly revolutionary," said PhD candidate Bob Bob-Bob, "to remember."



OHABOLANA Dillon Phillips

Anyone with the most basic knowledge of Madagascar is aware of the marvelous flora and fauna endemic to the island — its vanilla, its chocolate, its lemurs, and its beaches. However, those blessed with the opportunity to stay for some small amount of time know how impoverished an account this is of the island's true character. These visitors, myself included, have undoubtedly experienced the kind, generous, proud, hardworking, humble, gracious, and dignified spirit of the Malagasy people: a legacy of the unique human culture that has co-evolved for millennia with the island's natural systems. Sustained as it is in the minds and hearts of its people, the beautiful Malagasy culture is as delicate as the island's ecosystem and no less worthy of veneration.

At their core, the Malagasy are masters of the poetic. Their vocabulary is ripe with playful imagery and the spoken word is as fluid as the ocean. Take these three words for example:

Masoandro: the sun (literally "the eye of the day")
Fihiam-boa: fruit tree (literally "to hug a seed")
Voajanahary: natural (literally "fruit of the creator")

The use of natural symbols to describe spiritual tenets suggests that early Malagasy perceived the world in a more holistic manner than our contemporary Western mind (a holism our species is in urgent need of rekindling). The culmination of the verbal arts in Madagascar lies in their proverbs — *Ohabolana* (00-ha-BOO-lana). In these proverbs one finds the picturesque language woven into a tapestry of aphorisms that both pique the imagination and convey eternal, practical wisdom.

Ohabolana are precious gems of wisdom. They are, as with natural gems, radiant specimens in and of themselves;



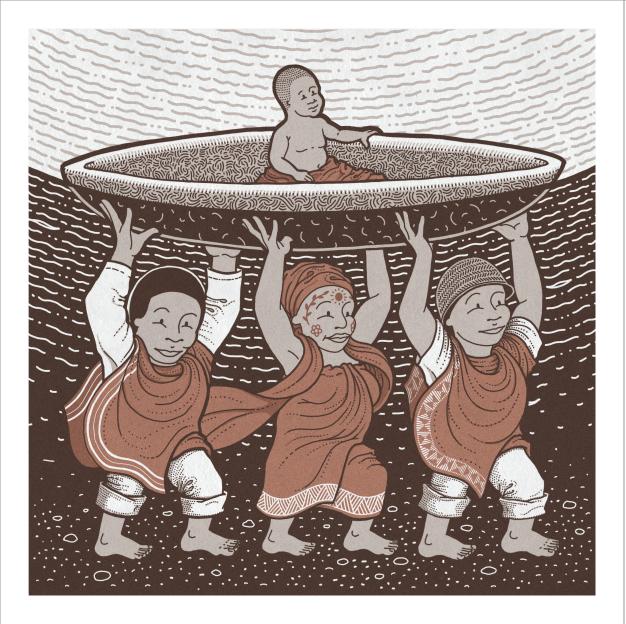
however, if one introduces even the most rudimentary light of awareness, they have the potential to be mesmerized by omnidirectional rays of insight. While the structure of the gem remains (relatively) constant through time, no two circumstances are the same and each light lends its unique color and intensity. In that way, *ohabolana* are cultural touchstones — as relevant today as in their original inception.

During my time with the Malagasy people in the rural highlands of the island, I noticed a trend familiar in many countries around the world — the gradual displacement of traditional cultural practices by Western norms. In a modest, personal attempt to honor Malagasy wisdom, I began a series of illustrated proverbs. By cataloging these illustrations in a booklet alongside their native Malagasy text and English translation, I hope that Malagasy youth will continue their multi-cultural pursuit of learning English but do so by celebrating their own timeless cultural values. For the rest of us, I offer these illustrated proverbs as an invitation to reacquaint ourselves with the familiar — to cultivate the Malagasy spirit of equanimity and witness the sacred in the everyday.

* *

Velona iray trano, maty iray fasana. *One house in life, one grave in death.*

This proverb speaks to the wholeness of the Malagasy worldview. In the Malagasy culture, man and spirit are interdependent realms whereby our physical existence is directly influenced by forces beyond our conscious perception. Therefore, in the same way that one fosters a balanced environment for a prosperous crop, the Malagasy actively attend to the well-being of their ancestors so that those of us in the physical realm may flourish.



Ny hazo no vanon-ko lakana, ny tany naniriany no tsara. A strong canoe is proof of good soil.

For the Malagasy, this proverb advocates one to nurture their own moral ground so that their children may be better equipped to navigate the uncertain waters of life. This metaphor is also extended to personal acts one seeks to manifest — for the buoyancy of any endeavor relies on a broad network of circumstances and actions.

SAGE is a publication of the Yale School of the Environment.

CO-EDITORS IN CHIEF Lauren Ashbrook Sawyer Cresap

MANAGING EDITOR Shaylyn Austin

ARTS EDITOR Sam Feibel

SUPPORTING EDITORS Molly Ryan Elizabeth Himschoot

COVER IMAGE Sam Feibel

DESIGN
The Aliens
thealiens.online

Typeset in William's Caslon Text

Printed by the Prolific Group in Canada. Edition of 500.



Thank you to our outstanding staff, contributors, and designers for bringing this magazine to life.

CONTRIBUTORS

ALLEGRA LOVEJOY (Master of Divinity '22 and Environmental Management '22) writes and teaches on spiritual care in the context of the climate crisis.

ALICE COURTRIGHT is a writer who lives in New York. She studies theology and literature at Yale Divinity School.

ANELISE ZIMMER is a 2021 graduate of the Yale School of the Environment who now works in coastal restoration and resilience. She started hobby watercolor painting in 2016 as a way to slow down and take in the details of the world.

BROOKS LAMB is a farmer, writer, and conservationist from Holt's Corner, Tennessee. Now based in Kentucky and working with American Farmland Trust, he is a 2021 graduate of the Yale School of the Environment.

CLAIRE SWINGLE is a second year Master of Environmental Management candidate at the Yale School of the Environment focused on climate change policy and community building. She is grateful for the expansive possibilities of the collaborative space between the reader and the page.

DILLON PHILLIPS is an architect and illustrator living in Portland, Oregon. He has special interest in the power of line and space as means to inspire curiosity, creativity, and compassion.

ELISSE ROCHE is a joint-degree candidate between the Yale School of Management and the Yale School of the Environment. Writer, creator, and carbon-mediator, she weaves together themes that franscend time.

FUAD KHAZAM is a Syrian-born artist and designer who holds a BFA in Interior Design from SVA in New York City. He moved to the United States as a refugee in 2013 after his Syrian hometown Homs fell under siege. Fuad is currently pursuing a Master's degree in Architecture from the Yale School of Architecture.

GABRIELA RODRIGUEZ (she/her/ella) is a first-year Master of Environmental Management at the Yale School of the Environment focusing on how communities can advance procedural justice in their approaches to climate change by using equitable engagement and participation strategies for decision-making processes.

KALLE FOX is an Environmental Studies graduate student at the University of Montana. A transplant from Miami, Florida currently living in Missoula, Montana, her place-based writing examines the complex relationships between the land, the people within it, and the self.

JACK BRYANT lives in Cooperstown, New York and his drawings are inspired by his work as a woodblock wallpaper printer in a nearby small rural town. He has been recently collaborating with his brother on an illustration-based Instagram account, @bitsbitsbitsbitsbits.

JACKSON PODIS is an artist from Salt Lake City, Utah who splits his time between collage, carpentry, biking, and environmental nonprofit work. He sees his art as a process of borrowing, recreating, and innovating to arrive at a new and unique creation.

JESS JONES, Master of Forestry '23, engages with the art of living. Jess writes with the Forest School Communications Team and stewards the Kroon Forest Garden.

JESSE BRYANT is a PhD student at the Yale School of the Environment focusing on the intellectual and political history of environmentalism. He has been working

with his brother on creative projects since they were toddlers.

JONATHAN CHAN is an MA student in East Asian Studies at Yale. He received a BA in English from the University of Cambridge and was raised in Singapore.

JULIA SWEATMAN is a Master of Environmental Management & Master of Public Health candidate, focusing on climate change from a public health lens. Prior to the Yale School of the Environment, Julia worked as a scientific illustrator and still makes art reflecting the natural world in her spare time.

RAGHAV SRIVASTAVA is a second year graduate student (Master of Environmental Management), interested in the environmental social sciences and humanities. He thrives in the company of thoughtful cats, kind people, and radical ideas.

SAM KING is a graduate student in Religion and Ecology at Yale Divinity School. He is also completing a Masters in Creative Writing at Dartmouth. A version of this piece will appear in his forthcoming thesis, "Intimations of a Living World."

ZACK STEIGERWALD SCHNALL is a graduate student in Environmental Policy Analysis and Climate Change Science & Solutions at the Yale School of the Environment.

EDITORS

ELIZABETH HIMSCHOOT is an alumna of the Yale School of the Environment. She is interested in cooperative landscape management strategies that support healthy communities and ecosystems. Elizabeth holds a bachelor's in Biological Science from the University of Alaska-Fairbanks, and has worked for the Smithsonian National Zoo and Conservation Biology Institute.

LAUREN ASHBROOK is a Master of Environmental Management candidate at the Yale School of the Environment. Her research focuses on soil health, climate adaptation, and rural livelihoods. One day, Lauren hopes to farm herself, so she tends to write about real or imagined acres.

MOLLY RYAN is a Master of Environmental Management candidate at the Yale School of the Environment, where she studies the social aspects of conservation and land management, with a particular emphasis on stewardship behavior, environmental communication, and equity. She loves stories, sunbaked canyons, and starry skies.

SAM FEIBEL is a first year Master of Environmental Management candidate interested in land use history and science communication. He has mapped erosion in the Chesapeake Bay Watershed and served as a Peace Corps Volunteer in Madagascar. Sam is a photographer who uses his camera to connect with people and tell stories.

SAWYER CRESAP is a Master of Environmental Management candidate coming to New Haven by way of the Adirondack Park. She traffics in the systems, histories, values, and meanings beneath our land-related conflicts. She is captivated by wild places on foot and on the page; through the lens and through the tax records.

SHAYLYN AUSTIN is a first year Master of Forestry candidate at the Yale School of the Environment. Previously, she worked as a field researcher in Kalimantan, Indonesia, and then on a trail and restoration crew in her home state of California. She is passionate about community-centered, temperate forest management and seeking place-based solutions to complex environmental issues.

