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MY BACKYARD GARDEN

by

HEZEKIAH SMITHSTEIN

SUBMITTED TO PITZER COLLEGE IN PARTIAL FULFILLMENT OF THE DEGREE OF BACHELOR OF ARTS

PROFESSOR KIMBERLY DRAKE
PROFESSOR GLENN SIMSHAW

APRIL 28, 2023
Acknowledgements

I would like to give a huge thank you to everyone in my family who was a part of this project: I’m grateful to Jess for the immeasurable amount of support and encouragement every step of the way, from the start of the garden to the end of this thesis. I’m grateful to Eliana, for tending to the backyard, for all of the updates and for helping me stay strong through this writing journey. I’m grateful to my mom for all of the love, support, writing insight and for answering all of my many questions, and my dad for taking time out of a busy work day for a trip down memory lane.

I would also like to give a big thanks to all of the other eight members of “The Gang of Nine” Writing and Rhetoric seniors: Amie, Annie, Claire, Clare, Jack, Maryam, Molly, and Seerat, for all of their time and thoughtful feedback, and each of their part in creating a wonderful and supportive writing community.

Last but certainly not least, I’d like to give a huge thanks to Professor Kim Drake and Glenn Simshaw, for all the times you’ve pushed me to search words and ideas for deeper meaning. You have undoubtedly expanded the ways in which I think and write, which is a gift I will always be grateful for.
Abstract

This thesis follows my attempts to create a new relationship with the land outside my house, through transforming my weed-choked backyard into a native plant garden. Through styles of memoir, essay, and literary journalism, I examine what it means to take care of the outdoor home, as a human family part of an urban ecosystem. This project explores ideas surrounding people and plants, the effects on a space of actions and interactions both past and present, and brings into conversation different ideas and philosophies from homeowner to ecologist, city park to indigenous author, that shape the way we think and relate to the living world around us.
Preface

Ever since my mom sat me down in front of the television to watch David Attenborough’s Planet Earth in early elementary school, nature documentaries have taken me through a rollercoaster of emotions.

Settling down on my living room couch, I’m filled with awe as the camera pans over a polar bear wandering over vast expanses of ice, in search of a small circular hole where a seal will poke its head. Joy sparks in my chest as I watch a pair of young lion cups wrestle together on the fresh green shoots of early spring. Laughter bubbles up from my stomach as I watch the peculiar mating dance of a tropical bird as it tries to impress a potential mate. A gasp escapes my lungs as I watch two rams collide with 700 pounds of force.

Oftentimes, feelings of wonder are soon followed by a deeply rooted sense of despair. In a somber tone, Attenborough announces that the planet is warming at a rate not seen in the past 10,000 years.¹ The camera pans to a rainforest canopy, and Sir Attenborough solemnly reveals that 64% of the world’s rainforests have been degraded or destroyed since pre-industrial times² at a rate of 80,000 acres per day.³ In another episode it’s a mention of the filling of wetlands, or the melting of glaciers and ice caps, or trawling through delicate ocean floor ecosystems—the list goes on. My middle school self, filled with urgency at the careless way humanity treats their surrounding ecosystems, created a website urging people to pay attention to pollution and climate change, the horror of factory farming practices, the rapid loss of habitat and increase in endangered species.

It was hard to feel like low traffic blog posts or fundraisers I organized with my high school’s animal rights club throughout high school (first in a club led by my sister Eliana, then later in a club I founded and led with my partner Jess at a new school) did enough to change the often abusive relationship human societies have with their environment—especially when
classmates told me the brownies we were selling for the World Wildlife Fund or the Peninsula Humane Society were way overpriced. Money we raised disappeared to distant organizations, hopefully making the difference we were looking for. I felt like I was doing something for the environment—but I wasn't too sure these organizations were capable of saving the world on my behalf.

Throughout my early childhood, my actual physical interactions with nature—often through family camping trips—gave me the opportunity to visit state and national parks, hiking through expanses of land separated from human civilization. My relationship with nature was framed through the U.S. camps of environmentalism, conservation and preservation, which taught that nature is either a commodity that should be controlled and maintained for human use (conservation) or that nature should be maintained as a pristine, “untouched” wilderness, enclosed and defined by its separation for the inherent taint of human touch. As a whole, Western science views nature is one centered on control and domination. In Resisting the Domination of Nature, Bryan E. Bannon explains: "Typically, figures such as Bacon and Descartes are sighted as exemplars of these ways of thinking due to their respective beliefs that knowledge of the deterministic mechanism of the natural world would either deliver nature to us as a slave or make humanity the master and processor of nature." I wanted to find a new path between these ways of seeing nature. On the one hand, nature existed as a space for control and commodification. On the other, nature existed as a place where my presence and participation would only cause damage, where it was best to look but not touch.

My desire to be an active participant in my environment pushed me to search for what opportunities were available in my urban San Francisco home. At thirteen, with my mom’s encouragement, I found volunteer opportunities with San Francisco Recreation and Parks and the
Audubon Society, removing invasive species in parks and city green spaces. I attacked thicket
of invasive Himalayan Blackberry in Golden Gate Park with a pickaxe, excavated clumps of
invasive Black Mustard on Pier 94 to create space for native plants and birds, and pulled out
tendrils of Cape Ivy on the steep bluffs of Lands End. I felt the joy of being outside, the
satisfaction of pulling out plant intruders that were not supposed to be there. At the same time,
something felt missing from this relationship to the land; I didn’t know what I was working
towards for the space, only what it was moving away from, with this never ending exercise in
saving these spaces from impending destruction.

My first year of college I enrolled in Rhetorics of Sustainability, where I examined the
relationships between humans and the environments we live in, both natural and human made.
We dissected the language used by European colonists to describe the indigenous people of
America, replacing ideas of respect and reciprocity with the land and each other with a rhetorical
framework of desired control and domination layered into words like “wild” and “savage.” We
examined the accessibility of natural and built environments to groups of different backgrounds
and identities, whether it be race, class, or disability. With Eli Clare I grappled with the idea of
“cure,” of societal judgments on what is whole and what is broken, what is natural and unnatural,
what needs fixing—a lens applied to both human bodyminds and ecosystems. I focused on the
ways in which people create spaces and exist in them: how spaces are built, who they are built
for, the impact people have in them, who is allowed, or able, or invited in.

The following year, inspired by everything I was learning in my environmental science
classes about plants, insects, soil and ecosystems, I turned to a place that I did have access to, a
place I believed I could change for the better: the weed choked backyard that sat right outside my
childhood home. As I set out on my mission to create a native plant garden, I began to realize
that my simple and straightforward plan for what to do with the space was a lot more complex than I thought. My backyard, beyond being a site of colonization and indigenous displacement, had been shaped in the past 22 years by the ideas and efforts of my parents to create a home. It had been created as a setting and symbol of family, struggled against as a plot of property necessitating maintenance, and existed as a constantly changing outdoor urban ecosystem.

As I wrestled with what it means to create and maintain a home, I was challenged to re-examine what it means to create a backyard garden. I came to learn that the space was inseparable from my family, each with their own type of influence, past and present, their own ideas and involvement. I developed a kinship that started with a few young plants and grew into an entire ecosystem, full of life and death, growth and change, order and chaos. I was forced to question how city parks apply their own interpretations of science to creating and maintaining their idea of ideal urban ecosystems. In the process, I tackled crucial questions about what city natural spaces are supposed to look like, searching for my own ideas surrounding access to space and what makes an ecosystem whole or broken.

To explore each aspect of this story, I combine memoir, personal essay, and literary journalism writing styles that I studied in my Creative Nonfiction class. By combining these genres, I hope to join the history of the space, a storytelling of transformation (both in land and people), and my contemplative journey through what it means to provide care on this small piece of land that is a part of my home. I draw inspiration from authors such as Barbara Kingsolver, Robin Wall Kimmerer, and Lulu Miller. In Animal, Vegetable, Miracle, Barbara Kingsolver explores the relationships between land, family, and sustenance through the story of her family's decision to leave the city to start a homestead.” In Braiding Sweetgrass, botanist and member of Potawatomi nation Robin Wall Kimmerer weaves together “indigenous ways of knowing,
scientific knowledge, and the story of an Anishinaabekwe scientist trying to bring them together in service to what matters most. It is an intertwining of science, spirit, and story—old stories and new ones that can be medicine for our broken relationship with earth.”

In Why Fish Don’t Exist, Lulu Miller reflects on her desire to find order in the chaos of the natural world, combining stories of her life with the story of taxonomist and founding president of Stanford David Starr Jordan, who’s drive to classify and categorize led him to identify 20% of known fish species in his time, but created hierarchies of nature in his mind that led to his leadership of the American Eugenics movement. I draw inspiration from the way these pieces blend together reflections on the intersections between our understandings of nature and family, a questioning of how we see and relate to the natural world and each other—a combination of scientific, historic, and personal.

This time, the story is of a college student amidst a global pandemic, learning about ecosystems with wonder. It’s a story of a partner, a child, a sibling, a parent, pulling their family together through a backyard full of tangled threads of past and future. It’s a story about trying to bring life into a world full of climate change and habitat loss, destruction and chaos. It’s a search for a new relationship to the small piece of outdoor urban land I call home.

Welcome to my backyard garden.
Works Cited


My Backyard Garden

Landscape (noun):
1. A view or prospect of natural inland scenery, such as can be taken in at a glance from one point of view; a piece of country scenery.
2. A tract of land with its distinguishing characteristics and features, esp. considered as a product of modifying or shaping processes and agents (usually natural)

Landscape (verb):
1. To lay out (a garden, etc.) as a landscape; to conceal or embellish (a building, road, etc.) by making it part of a continuous and harmonious landscape.
2. transitive. To represent as a landscape; to picture, depict.
—Oxford English Dictionary

Part 1: Dad’s Garden

When my parents first moved into the downstairs unit of a two-story house next to Golden Gate park and nine blocks from the Pacific Ocean, their backyard was sand. It had always been sand: before San Francisco was built, rolling sand dunes extended far from the ocean’s edge, populated with a scattering of bushes, shrubs, and grasses. For over ten thousand years prior to Spanish settlement in 1776, indigenous groups now all named as the Ohlone lived amongst these rolling dunes, rippling grasslands, and reedy wetlands, moving between different villages to gather, fish, and hunt. By the time I come into this story, the only hint of this hidden landscape are the coarse, porous grains of granite, magnetite, and quartz that make up the texture of my backyard.

When my parents moved into the house in 1998, the lone features of the 80 square meter space were a tarp covered with some lava rocks unsuccessfullly trying to fight back the weeds, and a row of small pine trees along the back edge, which my grandpa warned my mom would need to be cut down once they got too big. My parents had a yellow lab-german shepherd mix named Jesse that liked to roam into the neighbors’ yards when let out, and quickly decided they needed to build a fence. My mom had just given birth to my sisters, a new set of twins. She explained to me that because her and my dad had two infants, they worked together to take care
of them both. Because of this, my dad would carry one of my sisters on his back while he worked: “So, this was a way that he could be parenting and building a fence at the same time.”

When the fence was almost finished, the retaining wall on the back edge of the yard fell apart. My dad went out back with a sledgehammer, breaking up the remainder of the wall into pieces to throw back into the backyard so that he could build a new one. He explained to me that the pine trees had been planted too close to the wall, and only had room to grow roots on the side facing the house, making them dangerously unstable. Right away, he had to cut two of the five down. After the first one went into the neighbors yard, he researched online the proper cuts to make the tree fall down in the right direction, rigging the tree with rope to help the process.

My dad wanted to put in some design elements, in what my mom called an English garden type architecture style. “I’m not an English garden type person, I’m more of a wild garden type person,” my mom noted. My dad had first built a Koi pond at the place they previously rented five blocks away, before they got evicted. Always the engineer, he used the new Koi pond as an opportunity to apply what he’d learned about keeping water contained. “The first one was a concrete thing with coating to make it watertight, and that was a losing battle,” he

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1When researching English gardens, I learned that they were developed in 18th century England as a “revolt against the architectural garden, which relied on rectilinear patterns, sculpture, and the unnatural shaping of trees. The revolutionary character of the English garden lay in the fact that, whereas gardens had formerly asserted man’s control over nature, in the new style, man’s work was regarded as most successful when it was indistinguishable from nature’s. In the architectural garden the eye had been directed along artificial, linear vistas that implied man’s continued control of the surrounding countryside, but in the English garden a more natural, irregular formality was achieved in landscapes consisting of expanses of grass, clumps of trees, and irregularly shaped bodies of water.” (Encyclopedia Britannica)
explained to me. He chuckled. “Water is insidiously leaky.” Instead, he used a plastic tub, surrounded by a five square meter rounded brick and cement enclosure, with a small wooden enclosure in the corner for a tree that survived to this day and is now slowly coming back to life. In the opposite corner of the yard, he put a bird bath and some plants.

The Koi fish were eaten by raccoons on their first night in their new home. After getting more, my father installed an electric fence to keep the raccoons out. But one night shortly after, as my mom was sitting outside on the back patio looking out at the backyard, she watched “an entire family of raccoons leap onto the tree, and figure out how to go on the back railing of the deck to jump into the pond area to eat the fish. And I said, ‘let’s forget about the fish.’” My Dad, also concerned about zapping a toddler, admitted defeat before long, eventually deciding to build a small waterfall feature instead that could be plugged in whenever he went outside.

While building the fence, my dad reinforced the posts in the other far corner to support a hammock, another feature replicated from the previous backyard. “The quintessential house experience is to have a hammock to lay in, relax and just be in that space,” my dad explained. “Especially if you built it all–there’s a certain satisfaction of hanging out in it, and just being able to appreciate a place that has your handiwork.”

My dad’s vision for the main body of the backyard was a lawn. My mom wasn’t a big fan (“I wasn’t a big lawn person myself”), but agreed after he painted a picture of their little children running around outside barefoot, playing freely. As my dad explains, once the fence was up for Jesse to roam around in the yard, he envisioned grass for her to be let out onto to pee. By the time the twins were one year old they had purchased sod and rolled out a lawn. By the time I was born two years later, they’d bought a plastic kiddie pool and set up a little play structure for the kids to play.

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2 No one remembers what species it is, though. We think it might be a Magnolia.
Like any other space, and especially an outside one, the backyard was not static by nature. It was part of the urban ecosystem, with many different living and nonliving forces acting on this small square of urban land. In addition to rain, soil, and sunlight, there were insects, birds, gophers, mice and raccoons. Plants, with seeds spread by wind or wildlife, found their way into our backyard of their own accord. New seeds ignored property lines, settling down in the sod and poking their way between blades of grass. Most of these new settlers integrated into a growing mosaic of grasses within the lawn. My parents maintained order with their lawnmower, keeping the grass height under control so that we children could run around and play on the new swing set they set up for us, having fun without needing to worry about such things.

After around four years, the remaining pine trees began to grow too big. My mom, who loved the pines, agreed with a heavy heart that they needed to be cut down. “Your dad cut the trees down,” my mom said, “And he had to cut them so that they fell into our yard and not the house, or the fence, which I was very nervous about.” In their place, my mom researched fruit trees that could grow in San Francisco, planting a pluot tree in one corner and an apricot tree in the other. The pluot tree, in the corner with sun, flourished. My first memories of the backyard

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3 ¼ plum and ¼ apricot hybrid, and according to the Food Literacy Center bears the “best qualities of both fruits.” I agree.  
4 The apricot tree, in the most shaded corner of the yard, did less well.
are running out there in the summer with my sisters and a basket, which we would fill up to the top with pluots. The flavors of the plum and apricot melded to create a unique sweetness with a hint of sour hidden within, and their textures combined to create a consistency similar to a nectarine. Once we ate one, we had a hard time stopping; but we all managed to hold ourselves back with the promise of eating them in the coming days.

By the time I was six years old and my sisters were nine (still young enough to use the swing set) the lawn became less and less of the original grass and more and more of what my dad called “something else.” “The grass just started turning over completely into weeds,” my mom said. *Weeds.* What made this new plant a weed? Oxford English Dictionary defines a weed as “Any herbaceous plant not valued for its usefulness or beauty, or regarded as a nuisance in the place where it is growing, especially when hindering the growth of crops or other cultivated plants.” From the perspective of the gardener: useless, ugly, bothersome, and in the way of something better.

“What did they look like?” I asked my mom. She described them: brown, unattractive, stiff stalks that were painful to walk on with bare feet. They didn’t look nice, the children couldn’t walk on them (mowing them didn’t solve the stiffness issue), and they were getting in the way of the lawn. The first backyard weeds had invaded and won. Between the water and upkeep demand, the increasing amount of prickly grass, and the resulting lack of outdoor play, the lawn’s time had come to an end.

My mom went back to the drawing board, finding a cost effective solution that would require little maintenance, fend off the weeds, and make the yard a place where the children could play. She discovered the perfect solution: free mulch, truckloads of it, that could be delivered straight to our driveway. After successfully pitching the idea to my dad, the mountain
of wood chips were dumped on our doorstep. The family had moved upstairs at this point, so they hauled bucketloads of mulch up the stairs, across the house, and down the stairs out back leading into the backyard.

Before laying down the mulch, my parents laid down a thin sheet of plastic to provide an extra barrier against the weeds. The new downstairs renters at the time recommended my parents use the herbicide Roundup, “But I didn’t want to put toxic chemicals into the backyard—into the Earth. I just didn’t want to do it.” Instead, she settled for a sheet of plastic and about a foot of wood chips, knowing it would break down eventually, the weeds would at some point poke through the plastic, and seeds would blow in from the surrounding area. She knew that without upkeep it wouldn’t last forever. But she had at least won temporarily, holding the weeds at bay.

The mulch lasted around three years. I spent those days running around and playing in my own little world: during elementary school, I flew around the courtyard in countless games of tag, or spent hours nose deep in a fantasy book, letting my imagination run wild, becoming inspired to write short stories I would eagerly share with my mom. After school, I took the running to the soccer field. In fifth grade my dad was my school soccer coach for a year, driving me to all of my club team practices and games. It was during these drives that we would catch up on daily events, listen to Aerosmith, AC/DC, or Van Halen on the Bay Area rock radio station 107.7 “The Bone,” or give our best attempts at deciphering the meaning of life. The lawn in the backyard was replaced by the soccer field in a park: an even bigger lawn, in the city’s backyard. In the summers, the family went camping, a yearly tradition since the kids had been born. When we arrived, my Dad would scout out the campsite: “Always do a recon⁵,” he used to say, citing his military and police academy training.

⁵ Short for reconnaissance
By the time I reached middle school, new weeds had poked their way through the decomposing layer of mulch, with the power of nature’s endless persistence. By then, my sisters and I had fully graduated from the play structure, busy with homework or other extracurricular activities. At home, my Dad spent most of his time in his office working on his computer software. My Mom had long days at work, her hands full with her full-time psychology practice. No one had time for the backyard anymore.

Shortly after the invasion of weeds, the fruit trees began to die from an unknown disease and began their slow decline. “And then when the whole thing went to pot,” my mom said. My parents sold the playset, and then the pond became a breeding ground for mosquitoes, so my mom told my dad he had to drain it: “So he drained the pond, and then we just let the backyard completely go.”

The year before our family fell apart, as my mom tells it, she was looking out at the backyard and saw a space with potential to be a pleasant, low maintenance place to spend time. The neighborhood had gotten less foggy and rainy and more sunny in recent years⁶, making it more pleasant to sit outside. She convinced my dad to build a floating deck, which he wanted to be in the center of the yard, but she determined should be more towards the far corner, not set as the complete focal point of the space. “If we created a significant footprint that was just a deck, then we could do something else with the surrounding area and it would be a little bit more manageable—and at least the deck area would always be the deck area,” my Dad explained. My mom’s vision for the main body of the backyard was a sea of tall dune grass, similar to what was growing by the beach: “I thought, there’s all these grasses, and they grow naturally.

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⁶“Unfortunately, I know that’s a bad sign,” my mom commented in our conversation, referring to climate change.
here—nobody’s taking care of them,”7 she illustrated. “And they’re pretty.” She couldn’t find the grass at the beach, instead ordering a nice looking dune grass seed online and scattering it around the backyard with my sister Eliana. It grew in a few small patches, but never really took hold.

I was in eighth grade at the time, and I remember my dad spending hours out there alone, digging the trenches to put in the support for the deck. “Made a lot of trips to home depot, bought a lot of beer because that was summer time construction out back, so that helped get everything done,” my dad remembered. He decided on a material that was permanent: planks for the deck surface made out of Trex composite, a material made with wood fibers combined with a plastic film that is impervious to termites and rot from the fog. My mom was hesitant, but went with it, because he was in charge of the building process. I remember going out a few times to help him, working with him side by side in silence. He felt more distant then, like he was already somewhere much farther away.

“One time your dad was out, I don't know what he was doing,” my mom said, pausing for a moment. “And we carried some boards back there for him to continue building it. And I remember because when you put your board down it scratched the deck a little bit, and you felt bad about it. And then when your dad came home I told him that I had done it because I didn’t want him to be upset at you. And he yelled at me for being careless.”

“Oh,” I said. “Damn.”

“Well, he yelled at me because we were not getting along. I mean, he was yelling at me about everything at that point,” she said. “He was just angry.”

When he left the family at the end of that summer a new type of weeds settled in, a long grass with pointy, sticky seed pods that grew rapidly and died just as fast. Looking down at the

7 Drawing inspiration from nearby surroundings while designing an ecosystem is a cornerstone of ecological restoration. Unfortunately, much of the native grass growing along the beach had already been replaced by the invasive, European beach grass.
backyard from our balcony then, all I could see was the deck standing alone in a sea of prickly, uninviting yellow, flanked on either side by two hammocks my dad had put up, now molding. Sitting on the deck was an old, rusty, outdoor fire pit table that had only been used a few times. Resting in the corner, on top of the old, cracked concrete where the small pond used to be was a small round stone engraved with the words “Dad’s Garden.” It sat quietly in the corner like a tombstone, a symbol of my dad’s efforts to build a home.

Manage (verb) (root manus, meaning “hand”):

1. To control (a person or animal); to exert one's authority or rule over.
2. transitive. To conduct, carry on, supervise, or control (a war, undertaking, operation, affair, etc.).

—Oxford English Dictionary

Part 2: Deconstruction

Halfway through my sophomore year of college and one year into the COVID-19 pandemic, my pet betta fish named Snake died prematurely from a disease called dropsy. Dropsy is a disease with many causes. As a new fish owner with a lack of expertise in fish tank care, I blamed myself for his death. I thought of countless potential wrongdoings: a bad filter, not enough water changes, too small of a tank, too much food, any number of issues. Despite not knowing the precise issue, I was in charge of every environmental variable within the fish tank. I knew his death was my fault.

As I flushed him down the toilet, I felt tears well up in my eyes, and felt silly. I wasn’t sure how well this fish knew me. But I had just lost someone I felt close to, someone who I enjoyed spending time with and taking care of. Like many others, I had become a new pet parent at the beginning of the pandemic, gaining a new companion at a time that was intensely isolating.
One year later, it was impossible to deny the emptiness where the little iridescent blue and purple fish had once been.

It took me a month to start a new tank. My partner Jess had noticed how sad I was at the loss of Snake and how happy caring for him had made me and encouraged me to follow through with getting new ones. I had done more research this time: I learned a larger tank was easier to take care of than a smaller one, found fish that were easy to take care of, deliberated over how many I should get, trying to account for everything. The next time Jess visited the pet store to get food for their cat, I bought a ten gallon tank. I also bought a light, a large filter, a tank heater, and tank decorations; I wanted my fish to be comfortable and well entertained. A few days later, bursting with excitement, I bought my first fish: zebra danios, known to be hardy, and a pair of African dwarf frogs we named Bloodworm I and II (we are what we eat!).

I quickly learned I was still far out of my depth. Fish blogs taught me that instead of buying the fish right away, I should have “cycled” the tank, allowing it to develop the bacteria needed to complete the nitrogen cycle. By putting my fish in before the tank was cycled, I had initially exposed them to the highly toxic ammonia from their poop, causing the fish severe levels of stress. Why hadn’t the pet store employees explained this to me? Scared I was doing something else wrong, I began to fiddle with everything: light (if the light is on too long the fish won’t be able to sleep), oxygen level (bought a bubbler to add oxygen lower in the water column), heating (bought two heaters for different parts of the tank to create uniform water temperature), diet (one time, when I thought my fishes were bloating, I took advice from fish forums and fed them chopped up boiled peas to help with digestion), algae (I regularly scrubbed the tank to remove algae build up and even bought small algae eating fish to help the cause).

Chemicals that are harmful in higher quantities to residents of the fishtank take longer to build up to harmful concentrations.
Once I was confident everything was going well in my fish tank, I decided to introduce live plants. The plants would provide new structure for the fish to swim through and for the frogs to perch in when they go up for air; they would also naturally use some of the excess nitrogen created by the bacteria cycling the fish poop. The fish tank looked amazing with the new plants, and the fish and frogs enjoyed them greatly. Then, one day, Jess saw a tiny snail crawling up the side of the tank wall. *It's so cute!* we exclaimed. *We got a bonus free snail with the plants, and it will help clean the algae!* I added.

Quickly one snail became two, then four, then eight. I began to worry that they would overwhelm my perfect little fish tank ecosystem. Their miniscule clear egg sacks and asexual reproduction capabilities made population control close to impossible. Unsure what to do with these pests, I removed them as soon as I saw them, piling them into my old small tank with a few algae pellets as I tried to decide what to do. But there was nothing to do with them. Eventually I started killing each new snail I found in the main tank, shuddering after crunching each small shell beneath my fingers. When I realized that feeding the snails I had quarantined in the extra tank was only leading to a growth in population, they too were left to die. In the name of my fishtank, I had committed genocide.

A year later, when I would eventually have to give away my fish tank,\(^9\) I removed every snail I could find, cleaned the water, rinsed and scrubbed the tank and all of its plants, decorations, and gravel. The fish and frogs were packed up and delivered to their new owner, along with explanations of everything I had learned about taking care of a fish tank, so he didn’t make the same mistakes I did. A couple weeks later, I heard from him that a couple of snails had

\(^9\) After I had moved back into my college dorm and had made Eliana and Jess both take care of the fish tank for me for extended periods of time.
been spotted in the new fish tank. Even in the total isolation of a glass box, it was impossible to create the perfect ecosystem.

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I didn’t become interested in my backyard until the end of my sophomore year of college. Removed from the Claremont Colleges by the pandemic, I spent my sophomore year in an apartment in Santa Barbara with my partner Jess—who was majoring in evolution, ecology, and biodiversity at UC Davis—taking zoom classes for my environmental science major. In introductory biology I studied the ways that plants and animals have interacted and evolved over millennia in a constant effort for survival of the next generation. In environmental science and physical geography, I learned about air and water cycles and moving forces within the earth that have created the building blocks for earth’s many complex ecosystems.

I was especially taken in with my soils class. Before taking soils, it was hard for me to imagine spending a whole semester learning about dirt. *Is there really that much material to cover?* I asked myself then, before having the world opened up under my feet. As the pandemic otherwise ground my life to a halt, I let myself be enchanted with this new world. I fell in love with bacteria that swim in little lakes, in the pore space between two grains of sand, silt, or clay. I became fascinated by the way water winds a path through the earth, running into a root perhaps, or maybe the strands of mycorrhizal fungi attached to the root, which uptake the nutrients within the water in exchange for sugar; I learned that entire forests are connected by a network of fungi, the plants and fungi alike using the pathways to give resources to each other.

Sometimes on the edge of the afternoon Jess and I drove over to Santa Barbara Shores Park, walking through the trees to reach the bluffs in the waning daylight. Ahead of us, knee high yellow grass waved in the wind as frogs croaked into the cooling air. As we reached the edge of
the cliffs, we gazed out across the ocean as it lit up gold. But the scene below me was equally eye catching. Below us, nestled in the curves of the cliff face just a few feet away from the ocean’s edge, lay a sea of tree canopies and shrubs. Birds flitting in between their branches, singing their songs into the sunset. Yes, I thought. *Things grow here by the ocean.*

As I learned more about soil and climate, I realized my backyard was not as inhospitable for plant life as it had always seemed. A variety of plants were adapted to grow in the foggy, sandy coastal habitat of my home. Despite the time I had spent volunteering to restore habitat in Golden Gate Park just a few city blocks away, I didn’t make the connection that such life could exist right beyond my back porch. As far as I could remember, the backyard had existed as a battleground, a site whose magic had slowly slipped away. The weight of this inevitability hung over the space, immobilizing it, choking out any seeds of hope that might have grown.

By June, equipped with new knowledge about soils and ecosystems, I had been given the inspiration I needed: I was ready to start a garden, and I knew just the place to do it. Jess loved the idea. After a small amount of research to ensure that native plants were available in San Francisco, I called my mom, eager to share my vision of the backyard: a native plant garden.

“I don’t know,” she said slowly, a note of hesitation detectable through the phone. “We’ve tried a lot of things before, and I’m not sure if that will work. How much water will it need? Who will be there to water the plants while you’re back at school? How will you be able to deal with the weeds?”

“Don’t worry, it’s going to work,” I assured her, unable to be deterred. My classes, work with local county parks, and nature camps my mom had sent me to had all taught me about the power of native plants: native plants had evolved over thousands of years to thrive in their local soil and climate, had built beneficial relationships with the insects and animals around them, and
were crucial to a healthy ecosystem. They were the perfect opposite of invasive plants: foreign imposters who settle rapidly and threaten these perfectly balanced and harmonious ecosystems, spreading rapidly and choking out many native plant species.

“If we plant native plants they’ll be used to growing here and won’t need watering. Once they’ve established they should be able to at least hold their own against the weeds.”

“Hmmm,” she said, afraid to hope. “I like the idea of a native plant garden, but I’m not sure it’ll work. But if you want to research the plants and take it on, I’m open to giving it a try.”

That summer, Jess and I moved into the downstairs unit with Eliana, where we would live and commute to our second season working at Marin County Parks. The upstairs unit had been rented out since my mom moved out a couple years earlier. She was in a new relationship now, moved in half an hour north to live with my stepdad and stepbrother. We were moving in with a new perspective on the backyard: there it sat, no longer a small square below my balcony. It sat right outside the sliding glass doors, eagerly waiting to be transformed into a resort complete with soil microbe swimming pools, all-you-can-eat sweet nectar buffets for the passing bee or butterfly, and fruits and seeds for the neighborhood birds, rodents, and raccoons.

When I introduced the idea of a native plant garden to Eliana, they were equally doubtful. Jess, Eliana and I were standing in the back bedroom, looking out at the backyard through sliding glass doors. “The soil is sand and the weather is constantly foggy,” Eliana said. “There is hardly anything that can even grow here.”

“There have to be plants that evolved to live in this soil and climate. Things grew here in the past.”
“It has to be something strong enough to beat the weeds, though,” they said. “Mom has tried everything already. We should just put down something that will win against anything.” They paused for a moment. “We should just cover the whole thing with ice plants.”

Jess and I looked at each other and winced. Ice plants are not only invasive, but change the pH of the soil to prevent anything else from growing.

“Trust me,” I said, not totally sure it would work, but certain it was worth trying. “The native plants aren’t going to prevent the weeds, but they won’t be quickly overwhelmed either. There will probably still be weeding that needs to be done, but it will get easier and easier as we plant more and there is less space for them to grow.”

They looked out the window at the thick mass of prickly grass coating the yard, looking doubtful. “If you’re willing to do the work.”

This was the first time I looked at the backyard through the eyes of a homeowner. To own a home is to do battle against leaky pipes, caving ceilings, and crumbling walls. Nature is a relentless, invincible enemy to the homeowner, causing breaks costly in time and money to repair. A homeowner tries to keep these forces of nature out: wind, water, earth, and pests all threaten the carefully maintained control within well-built walls that keep all of it out. Even still, mice infested our garage, chewing up walls and pooping on the floor. I remember years ago when the house was infested with ants, and I imagined them crawling on my floor, up my walls, in my bed. I wanted to kill them all. When they invaded our apartment in Santa Barbara I did just that, spraying every trail of ants religiously with citrus surface cleaner and taping up any cracks in the walls I could find.

This all changes when the part of the home in question is outside of those walls. Ants are a blessing to an outdoor ecosystem, decomposing plant litter, pollinating flowers, providing food
for other insects, birds, and small animals. Sure, I wouldn’t invite a mouse into my house. But would I stop a mouse from visiting my backyard? A pest is place and perspective dependent. The backyard was no fish tank, where every aspect of the ecosystem needed managing and one tiny snail could topple it all. But it did have its own kind of pest: the weed. How could I battle these relentless invaders as I try to establish and maintain my ideal backyard, full of a wide range of healthy, thriving native plants? How was I to maintain control and stability in a world naturally full of chaos?

In the middle of June, my dad drove down from Vancouver, Washington, where he moved with his girlfriend to be close to his parents, to come into town for a visit. It was my first time seeing him since the start of the pandemic, but even before the long absence, our conversations were halting at the best of times. They were awkward in a way that comes with distance and time, surface level conversations and attempts at deeper ones that often venture too far into the abstract. So we came up with a plan that involved less talking and more doing. Eliana was interested in at least cutting down the weeds to give their small poodle mix Max a place to pee without getting burrs and prickers stuck in his hair. So the first day my Dad came over to the house, Eliana, Jess and I sat in the living room awkwardly as I explained to him my idea of a native plant garden: we shared our idea of spending some time together clearing out the weeds and debris of the backyard to start again.

He glanced out the back door and into the backyard and gave a wry chuckle.

“That’s going to be a big project.”

“We’ll just be cleaning it up a bit to get things started.” I tried to sound reassuring.

I’m not sure if he agreed to oblige us, or because it was just as easy (if not easier) than sitting and talking. Or maybe a part of him liked the idea of being part of cleaning up the rubble
of the backyard, giving it hope for a new life. Whatever the case, outside we went the next couple days, home depot weed bags, shovels, and weed wackers in hand, attacking the stagnant space with vigor. While Eliana weed wacked, my dad and I set to taking apart the old fountain and clearing out the concrete.

“Were you old enough to remember when we used to have the pond back here, with the fountain running?” my dad asked me as he sifted through the dirt and uprooted the pump.

“I do remember! Only a little bit though. But I remember sitting out here a few times with the fountain—it was nice.”

He broke off another chunk of concrete, tossing it to the side.

“Yea, I guess we didn’t really end up using it that much.”

We worked the rest of the time in a nostalgic silence as we disassembled the past in little fragments of concrete, putting them in a bucket to eventually be carried away. Eventually, Eliana finished weed wacking and came over to help. My dad dusted off a stone, revealing the faded words “Dad’s Garden” underneath. He leaned it against the fence and looked down at it, lost in memory. Eliana and I glanced at each other. “We can leave it there,” Eliana said. I nodded. “You are here helping us start the new garden, after all.”
Clearing away the visible debris was only the beginning. On the days I wasn’t at work for Marin County Parks, I was digging through the dirt in the backyard, clearing out the dense root balls left behind by the thick mat of invasive grass. While the end of June quickly turned into the end of July, I went outside every chance I got. I enjoyed the solitude: the rhythmic grab, pull, shake, and toss of removing each chunk of roots, the time to be alone with my thoughts or to have no thoughts at all. Day after day I found myself out there: in the mornings before the other events of my day, in the afternoon, until the sun sank low in the sky. I enjoyed the satisfaction it brought, but it was pride that drove me forward as relentlessly as I worked, with a determination bordering on obsession.

Sitting back and looking at each newly cleared area, I was proud of the progress I had made. As much as I was out there to create a garden, I was out there to prove to my family that I could do it, and do it alone. I wanted to succeed where all previous attempts had failed, a triumph at the site of defeats. I enjoyed pulling out the weeds, clearing out every last one to create space for something better. My headphone band blackened with dirt and my muscles ached as I filled another thirty gallon bag full of roots, shaking out a cloud of dirt as I threw them in. As I dug into the soil, I ran into the occasional earwig or spider, which quickly scurried away. They were my only companions in this barren landscape.

As I pulled the last clump of dead roots out of the ground, I held it in my hand for a second as I stood outside my home, breathing hard, staring out at the empty expanse of sand before throwing it into the weed bag next to me. I pictured a new landscape, brimming with native plants that all once again had found a new home here. I imagined a perfectly balanced and harmonious ecosystem full of insects, birds, rodents, and small mammals, all finding homes to eat, drink, nest and play. I imagined myself: their caretaker, their parent, their protector.
**Nature (noun):**
1. The phenomena of the physical world collectively; *esp.* plants, animals, and other features and products of the earth itself, as opposed to humans and human creations.
2. In a wider sense: the whole natural world, including human beings; the cosmos. *Obsolete.*

**Maintenance (noun):**
1. The action of providing oneself, one's family, etc., with the means of subsistence or necessaries of life; the fact or state of being so provided.
2. *Biology.* The process or action of maintaining physiological stability, *esp.* stable body mass. Also: designating the energy or nutrients required to keep an organism in such a state (as distinct from energy used for growth or reproduction).
   — Oxford English Dictionary

**Part 3: Reconstruction**

The plant nursery was perched at the east edge of San Francisco right on the bay, the most promising result of my google maps search for native plants. It sat hidden in a forgotten, industrial corner of the city, tucked in next to an aggregate import pier between a Recology and a large construction equipment rental store. A large green sign in the entryway was framed by fences covered with crawling vines. In big, white capital letters, it announced: BAY NATIVES. Upon walking in, the first thing we noticed were the chickens. They pecked around the plants growing freely around scattered rows of metal tables, holding groups of plants labeled with key characteristics on painted wooden signs: habitats such as coastal scrub, wetland and beachside, plants tolerant of different conditions like shade, fog, and full sun, plant types such as sages and manzanitas.

My mom and I looked around in amazement as we walked towards the rows and rows of plants. Still most concerned with the weeds, she gravitated towards the sages, picking out a ground cover sage called “Bee’s Bliss,” with long, silvery green leaves and fragrant smell. “I’ve always loved sages,” she told me, for their beautiful looks and smell. “Those are really pretty!” I
agreed. “Let’s get a few of them, no?” my mom asked, putting a few into the cart. “Yea, that should be good,” I said, hovering next to her.

“Let’s get some other things too,” I said after a moment, when we had added four to the cart. “Maybe some other types of bushes and shrubs?” My doubts about inviting my mom to come with me to the nursery came rushing back. Would my vision for the backyard, of a garden full of all kinds of different native plants of all shapes and sizes, end as soon as it had begun? Why hadn’t I just come alone, picking out exactly what I wanted?

Maybe it was the abandoned effort of past attempts, recently cleared away, that persisted in my mind as a reminder. Alone, could I really do better than my dad, one engineer facing down the elements? Could I do better than my mom, with the full burden of care resting on one set of shoulders? Deep down I knew that as soon as I faltered, my vision would also fall apart, the backyard crumbling back into the empty landscape of hopelessness—it was only by letting others in that the space would get the love and care it needed. So there we stood, ready to imagine a new backyard together. In front of us they sat, a wide array of plants all native to the region, the first pigments that would paint our new landscape.

“That sounds great,” my mom said, “What do you want to get?”

The people working at the nursery had a soft glow as they walked around, watering plants and chatting with customers. Our soil is pretty sandy and the area gets a lot of fog, we’d ask, for one plant after another. Do you really think they can survive?

They smiled. Of course.

My excitement grew with the size of our cart as we added in plant after plant. In addition to the four Bee’s Bliss, we bought two feathery-bushed David’s Choice, one dark leaved Coffeeberry bush, a soft stalk of Milkweed, two purple Seaside Daisies, a small tendril of Yellow
Bush Lupine, Purple Nightshade, White Yarrow, a silvery sage bush, and a Giant Coreopsis—bushes and shrubs to go with the ground cover, and even a small tree, plants of all kinds of shapes and colors that were attractive to the eye. The prices were very reasonable, we both thought, and my mom was happy to pay. Part of it was her interest in improvement of the house, and a mounting hope that the space might become something like the wild garden she had once imagined. But beyond that, I think it made her happy to see how excited I was to start a garden. A parent supporting their child’s dream, but more, a grandparent perhaps—excited to see the life that her child would bring into the world. As we piled all fifteen plants into the car for their trip to the backyard, I knew why I had invited my mom to come pick out plants with me. The garden meant more to me with my mom as a part of it; I wanted her to be a part of this new beginning, a participant in the growing of something new and beautiful in the space we had called home.

Upon arriving home, we set them out in their small black plastic containers on top of the empty sand. They looked so small as we shifted them around, trying to find a configuration that made sense. *How far apart should the sages be? How big is this little tendril of Lupine going to grow? Where should we put the Milkweed?* The backyard was no longer a monoculture in design. Suddenly, we were tasked with organizing a group of plants that would all grow to different sizes and in different directions, spreading roots and leaves, blooming into flowers, then fruits, then seeds, until at some point they would eventually begin organizing themselves.

Bringing home plants, in a way, did feel similar to bringing home a pet, or a child. It was love at first sight when we picked them out at the plant store, and as we brought them home my imagination bursted with images of what they might grow to become. Although I was told the plants were suited to live in the conditions of my backyard, I had just been entrusted with the responsibility of their upbringing, and I wanted to do the best that I could to help them succeed.
At the local garden store I picked up bags of compost to mix into the soil as I planted. I spent close to forty-five minutes on each plant. The process went something like this: 1) Identify the exact spot to plant; 2) Mix \( \frac{1}{4} \) to \( \frac{1}{3} \) of a two cubic foot bag of compost into immediately surrounding soil to add nutrients, until soil looked like an even mixture of sand and compost; 3) dig hole the size of the pot, tease plant out of current container and place into hole; 4) fill in soil around the plant without covering the top; 5) give initial deep watering. Every detail was done with love, care, and fear—fear that if I did something wrong, the plant would not survive.

Just as any concerned parent does, I searched for resources on how to best care for these plants. I scoured the internet for garden tips and tricks on planting and soil amenities, called the plant nursery to make sure I was on a correct watering schedule, and soaked up as much information as possible to try to avoid mistakes as much as to help the plants. My coworker at Marin County Parks, who was also an experienced gardener, taught Jess and I the magic of mulch. We learned that mulch is much more than a weed prevention blanket: it traps warmth and moisture in the soil, contributes nutrients to the soil in the form of organic matter as it decomposes, and protects the soil from erosion. As soon as one of the trees at the park needed to be cut down, Jess drove me to the site after our shift and I climbed the hillside with buckets and empty trash bins to shovel in the chipped wood. After a big heave of the bins and buckets into the kubota, and a brief break as we bounced along the path towards the car, it was another set of big heaves into the car to drive the mulch home—where it would be carried through the house and eventually spread out across the backyard.

Sitting back after scattering the final layer of mulch, I pulled out my phone to snap a photo, like a parent taking a picture of their kid on the first day of school. I was proud of what I accomplished up to this point, in a few short months. It was late August, and my work in the
backyard that summer was finished. I knew it would change—that was inevitable. But the thought of change filled me with hope as I imagined my plant children growing up in the environment I had created for them.

It was hard to tear myself away from this space I had worked so hard on. I felt attached to it then in a way that comes only with the pouring in of time and care, and the feeling of responsibility for the wellbeing of another being—in this case, the beginning of a community. But soon the end of August arrived, and both Jess and I left it all behind to return to our schools.

Before I left—like a parent leaving the babysitter a child-care schedule—I shared the remainder of my plant-establishment watering plan with Eliana over google calendar. _You don’t have to get all the weeds, I said, but maybe try to make sure the area right around the plants is okay, if you can._ They didn’t make any promises, but said they wanted to go outside more now that the backyard was a nicer place to be, and they would try their best. It would have to do. And
at some point, the time would come for the native plants to be put to the test, at least a little bit. They had been given compost, water, and love, and soon it would be time for them to grow up and forge their own path through the world.

True to their word, Eliana made it outside. While they didn’t follow my rigorously detailed watering plan or obsessively pull every unknown plant, they did set aside time to spend out in the backyard watering, weeding, and watching. As roots deepened, and new leaves sprouted from lengthening stems, the plants began to grow on Eliana, too. They began sending me updates over Snapchat: There was the sage, taking hold and spreading across the ground with leafy vigor. There was the small tendril of Yellow Bush Lupine, suddenly a huge mass of stems, leaves and flowers. I watched as the Purple Nightshade, the Giant Coreopsis, Seaside Daisies, and Beach Evening Primrose all exploded with growth and color as spring came.

But the world is also a dangerous place for a plant, and the tragedy of this story is that they never all make it. One morning, I woke up to a picture from Eliana showing an empty hole where one of the beautiful purple Seaside Daisies had been: it had disappeared by the hands of a gopher overnight. Others were slower deaths: periodic updates bore witness to both of the silvery David’s Choice bushes dwindling away into nothing for reasons unknown, perhaps just unable to establish their roots. Soon after that it was the Milkweed, losing one soft, bowl-shaped leaf after another from the moisture trapped in their hollows. From afar, Jess and I both mourned the losses of these plants that all three of us had grown attached to.

I returned home that summer to an explosion of life. Many of the plants that had survived the year were now thriving, and had attracted new visitors. I noticed European honeybees visiting the yellow flowers of the beach evening primrose in the brick enclosure. The purple nightshade had also made a friend, a single bumblebee that often came to flit in and out of its
violet colored flowers. Spiders lurked on the edges of the fence, scurrying away when I got too close, while ants and roly pollies trekked over the new terrain.

But not everyone got along perfectly in this new landscape. An aggressive vine had slipped unnoticed through the back fence, choking out the White Yarrow\(^\text{10}\) with its dense tangle of thin tendrils and yanking the Giant Coreopsis sideways. Various foreign grasses and shrubs had found their way into the backyard, growing quickly and taking away space, light, and nutrients from some of the native plants that were still in early stages of growth. Even among the native plants some grew faster than others. The Yellow Bush Lupine tendril had grown into a massive bush, blocking light from the sage bush next to it and forcing it to lean sideways to get light. The Bee’s Bliss spread rapidly across the ground, engulfing other plants we had planted nearby.

I immediately got to work pulling up every foreign plant without mercy, starting with the aggressive vine, which had already scattered its seeds everywhere. I recognized its leaves in little seedlings poking their way through the ground and yanked them out with relish. I pulled out by the root everything we hadn’t planted: Sourgrass, Clover, Thistle, Nasturtium, working through all of the foreign plants both known and unknown meticulously to make sure I hadn’t missed a single stalk. They were all threats to grow out of control and overwhelm the native plants, all disrupting the picturesque presentation of the garden. *You don’t have to get every single one,* Eliana remarked to me at one point. *We can let them grow a bit and see if they need to be pulled later.* They were right, but still I pulled every single one I could find.

Soon it was time to get more plants. With time left in the summer and a garden already full of life, a feeling of urgency was replaced with a more relaxed excitement at the opportunity to fill in the gaps with new plants and think about what we wanted to do with the space. Jess had

\(^{10}\) Miraculously, under the thick tangle, one long strand of yarrow had survived.
more time available and was ready to go from cheering me on to getting their hands dirty.

Eliana—who had just spent a year watching the garden take its first baby steps—was excited to welcome new additions into the family. It was an excited air that Jess, Eliana, and I made the pilgrimage back to Bay Natives. While everyone was focused somewhat on the visual appeal of different plants, everyone had different priorities beyond that. For Jess, the main focus was the number of pollinators and amount of biodiversity the plants would attract. *Hey look, this one attracts eight different species!* they’d exclaim. *That’s awesome,* I’d respond. Eliana, as with my mom, was most interested in covering the space to lower maintenance, but liked the idea of getting plants with edible fruit, and groundcover that could tolerate getting peed on by Max. I was most interested in growing plants of varying heights for both visual appeal and to create a nice habitat for the local wildlife. To prevent more of the aggressive vines from coming through the fence, we bought two vines of our own, getting them trellises to help them climb upwards to block the fence.

The backyard was less of a canvas this time and more of a puzzle. Jess, Eliana and I were in charge of their placement, the new architects of the landscape. We discussed different locations for the Beach and Woodland Strawberries, Blue-eyed Grass, Pink Flowering Currant, Yerba Buena Mint and Orange and White Monkeyflowers, setting them out in different locations just as I had done with my mom the first time. This time, Jess and I both took a plant and began the planting process together. As I glanced over at them, I noticed they were not mixing the compost in quite the way I usually did, or digging the hole so that the root ball of the plant being put in lined up exactly with the soil line. I hovered nearby, on the verge of speech. Finally, I couldn’t hold back. *I usually mix in a little compost further out, then mix it in half and half right*
around the plant; The hole could be a little deeper so that it matches the soil line; I think it’s better not to cover the plant too high up.

Each time I jumped in as they went through the process of planting their first plant, inching closer as I dispensed unsolicited advice. They responded more tersely each time, until finally they’d had enough.

“If you don’t want me to do it, fine.”

“I’m sorry, I’ve just done a lot of these and I’ve created a whole process...” I trailed off.

“It just feels like everything I’m doing is wrong. If you don’t want my help I can leave.”

And then I was standing there alone again. But this time I did not find comfort or triumph in my solitude. Instead, the space felt empty of the person who should have been there, planting next to me. I followed them inside, knocking softly on the door.

“If you wanted it to be a certain way, you should have shown me how you wanted to do it in the beginning then, instead of just standing over me and telling me everything I was doing was wrong.”

“You’re right. I’m sorry. And I really would love for you to be out there planting with me. I promise I won’t do that this time.”

Maybe I wasn’t as relaxed and open as I thought.
After my ornithology class taught me bird feeders are beneficial to city birds, Jess and I brought hummingbird and bird seed feeders to the backyard. With a host of new plants, frequent insect and bird visitors (and the occasional rodent), the garden was teeming with life. The summer was only halfway over and the backyard was already a pleasant place to spend time. We began searching for new projects: looking for a replacement hammock, cleaning and selling the abandoned grill, and installing a bird box. Towards the end of the summer, after I had already left for school, Jess and Eliana built a bench together to create another spot to enjoy the space.

Eliana’s dog Max was not the only pet that got to enjoy the backyard. We built a catio for Jess’ two cats, so that they could enjoy the sights, smells, and sounds of the garden and watch the bird feeders. They both often sat at alert behind the metal paneling, watching the birds at the bird feeders that sat just beyond their grasp, at a midway point between the house and the garden.

In mid July, my dad came back for a much anticipated visit. I was excited to show him what the backyard had become, since we had taken down its remains one summer ago. Our walk up to the nearby burrito place had been filled with me chattering on about how I had found a new place with endless free mulch right next to Bay Natives, how we had planted so many more plants, how we had put up new bird feeders and now there were lots of birds. My dad nodded along, asking the occasional follow up question until we got to the restaurant. *It’s been a while! Good to see you!* The people at the burrito place greeted my dad, who they knew starting from before I was born. *Hey man! How’s it going?* They traded small talk as we ordered the usual.

As soon as we made it back to the house, I ushered him towards the back door, excited for him to see the garden. He walked around the garden slowly, looking around at all the plants.

“Oh yea, wow, look at this,” he said. “It looks great.”
As we sat down on the deck to eat burritos, Jess and Eliana arrived home and joined us. We all sat out there together, pointing out the birds (Jess), talking about their job (Eliana), talking about the gym and his work (my dad). Somehow, the conversation ended up on the topic of relationships.

“You know, relationships are a lot like creating a garden. You’ve got to both show up to clear out all of the weeds or your garden will become overgrown and neglected. You have to give your plants a place to grow, sunlight and nutrients and water, otherwise they’ll wither and die…” As he continued, my eyes followed the bumblebee moving from one purple nightshade flower to the next, the hummingbird hovering above us, vocalizing. I remembered what the backyard was like when he left—the weed choked backyard, devoid of plants, the emptiness in the house where he had once been—and thought that maybe tending to a garden has never been so simple. As my dad continued the metaphor, I locked eyes with Jess, then with Eliana. After a moment, Eliana said, “Wait, hold on, I’m not sure I’m following.”

Wild (noun and adjective):
1. Not under, or not submitting to, control or restraint; taking, or disposed to take, one's own way; uncontrolled. Primarily of animals, and hence of persons and things, with various shades of meaning.
2. Of an animal: living in a state of nature; not tame, not domesticated.

Wild (verb):
1. Of an animal or plant: To be or become wild; to run wild, grow wild.

— Oxford English Dictionary

Part 4: Wild Garden

When I left the backyard once again for my final year of college, it wasn’t for Claremont this time, but for a semester abroad in Costa Rica. Living in the tropics was a quick lesson in the impossibility of keeping insects out of the house, even in the middle of the capital city of San Jose. I developed an uneasy acceptance of the trail of ants climbing up my bedroom wall, and
even grew fond of the cockroach that scuttled behind the same painting every night when I turned on the bathroom light. The bugs were everywhere; I had no choice but to accept they would be living with me.

In Costa Rica I visited many indigenous communities, getting the opportunity to experience their gifts of stories, art, ceremony, foods, crafts, culture, and perspectives that they shared, many of which were tied deeply to the land. At the same time, I was struck by their treatment by the government. Much like in the United States, European colonization of Costa Rica came with genocide, takeover of land, and forced assimilation. While small portions of land were returned, the Costa Rican government took a similar approach as in the US: leaving them alone, or offering limited resources at the cost of further assimilation, instead of offering genuine and equitable assistance in the rebuilding of land and community. There was no feeling from the government of responsibility, to make up for the harm they had caused to place and people—not to rebuild to an unattainable version of the past, but to give these communities the opportunity to be the best version of themselves in the present and future.

It was in the midst of these visits to indigenous communities that Jess introduced me to *Braiding Sweetgrass*. In the book, member of Potawatomi nation and professor of botany Robin Wall Kimmerer uses her scientific background, knowledge of indigenous stories and perspectives, and personal experiences and perspectives to show a nation of settlers how to heal our broken relationship with the land.

Midway through the book, Kimmerer discusses the idea of indigeneity, questioning whether the people of the United States, a nation of immigrants, can become indigenous to this land. She wrestles with this question using the Anishinaabe tale of the Original Man told by elder Edward Benton-Benai in *The Mishomis Book*. Kimmerer starts by describing this story as both
history and prophecy, in accordance with the circular nature of time. In the story, Nanabozho, the newest member of Earth and teacher of how to be human, is instructed to walk so that “each step is a greeting to Mother Earth.” Nanabozho is given a new responsibility as he explores the land to name all beings. He watches them carefully, learning how they live and speaking with them to learn their gifts. It is these names that cure loneliness, “are the way we humans build relationships, not only with each other but with the living world.” Kimmerer continues: “As our human dominance of the world has grown, we have become more isolated, more lonely when we can no longer call out to our neighbors.”

As Nanabozho travels to the West, he learns that there are huge fires that destroy forests in addition to the fires that warm his home, and learns of the interconnectedness of the powers of creation and destruction. It is at this point he learns that he has a twin brother who is as set on creating imbalance as Nanabozho is to balance. This twin “found that the arrogance of power could be used to unleash unlimited growth—an unrestrained, cancerous sort of creation that would lead to destruction.” After learning of this, Nanabozho vows to balance his twin’s arrogance by walking with humility. “That too,” Kimmerer finishes, “is the task of those who would walk in his footsteps.”

As Kimmerer returns to the question at hand, she struggles at first to find an answer: how can a group of people be indigenous who don’t have birthright to the land, a soul-deep connection to a place and its wildlife that comes with generations of family and community, centuries of values and practices? It’s here that Kimmerer introduces the idea of becoming naturalized to place. Unlike the invasive Black Mustard and Ice Plant, which chemically alter the soil, or Tamarisk, that uses up the water, or Kudzu, which grows limitlessly, the Plantain, which followed the first settlers and was thus called “White Man’s Footsteps” by the Anishinaabe
people, learned to co-exist with its surroundings upon introduction to North America, bringing gifts of health and healing to those who knew the uses of its leaves. Similarly, we are tasked with unlearning the model of unlimited growth and destruction, instead finding a path of integration. Kimmerer states that to become naturalized to place is to give your gifts and meet your responsibilities, to “live as if this is the land that feeds you, as if these are the streams from which you drink, that build your body and fill your spirit...to take care of the land as if our lives and the lives of all our relatives depend on it.”

Being Jewish, the question of indigeneity has always brought up more questions than answers for me. How far back in time do I go to assign my identity a place of origin? Though the religious and ancestral home of the Jewish people lies in the middle east, my family lived in Russia, and Germany, and New York, before moving to the west coast of the United States. For me, San Francisco is undeniably home, the place I was born and grew up in my entire life. What does being indigenous to place mean in a world where constant movement has caused the mingling of countless people, plants, and other species? Looking at the backyard as a relative newcomer myself, who was I to say who was allowed and who wasn’t?

I realized I had not truly taken the time to get to know many of the new plants that had settled in my garden, before ripping them out of the ground. At one point Kimmerer mentions clover, one of the plants I had been yanking with fervor, as a species having beneficial effects to the soil due to its nitrogen fixing abilities. I had decided it didn’t belong because I had not planted it, thought it made the backyard look too crowded, assumed it could only have arrived with intentions to take over. Filled with urgency, I sent Eliana a text: Have you been pulling all of the clover? I just learned they are nitrogen fixing and help improve soil nutrients– we should leave them!
The idea of native and non-native plants began to decompose in my mind. In my confusion, I turned back to the place I pulled my first weeds, the place I was first taught the difference between the two: the San Francisco Parks Department. Today, what’s left of San Francisco’s public vegetation spaces are managed by the Natural Resources Department (NRD) of San Francisco Recreation and Parks. The NRD was formed in 2006, “in response to citizen concerns about the loss of natural resources” to “protect and manage these Natural Areas for the natural and human values they provide.” Part of their management plan includes goals for conservation and restoration goals for the city’s natural habitats, which are distinguished from other human influenced habitats by their attempt to mimic or maintain historic, pre-colonized landscapes. On the surface their list of goals seems noble: maintaining and re-establishing native plant and animal communities, local biodiversity, and viable populations of all endangered and special-status species, and decreasing the extent of invasive exotic species cover.

But my online inquiry soon yielded critiques of their practices. Local conservation organizations and blogs such as San Francisco Forest Alliance and Conservation Sense and

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11 https://sfrecpark.org/1402/Natural-Resource-Management-Plan
12 https://sfforest.org/
Nonsense\textsuperscript{13} argue passionately against the ideas of nativism and invasive biology, making the case that plants have been constantly being introduced to new areas and shifted in geographical distribution with changes to their environment long before humans. Even pre-colonization, indigenous societies were manipulating their environment, fostering the growth of certain plants and limiting the growth of others through a variety of practices. Most of all, they were against the idea of keeping the landscape frozen in an idealized ecological past. The problem was, in pursuit of this mission the NRD were removing many recently human-introduced trees, shrubs, and grasses that provided habitat, food, soil (including soil restoration), and carbon-sequestration benefits, in addition to resilience in rapidly changing climates where previous native plants have more difficulty surviving. On top of that, the NRD was applying pesticides to remove the most aggressive of non-native plant species\textsuperscript{14}, the ones labeled invasive, applying 700 fluid ounces of herbicide in 2021, three times more than in 2016—accounting for over 70\% of the entire Parks Department herbicide use.

It turns out invasive plants were never the villain of the story; they were just a part and symptom of the way of life brought to America with its human colonization. The urbanization, population growth, and a culture of consumption of recent centuries have paved the way for air, water, and soil degradation, vegetation and biodiversity loss. It is our cities, our societies themselves that have changed the climate and landscape conditions so that many species of native plants can’t survive, causing populations to diminish and struggle to reproduce. Instead, in limited space and stressful environmental conditions only the toughest species survive. It’s the ones who can spread their seeds widely, laying dormant and ready to pop up in cracks and

\textsuperscript{13} https://milliontrees.me/
\textsuperscript{14} Their first line of defense, the passion and free labor of people like middle-school me (volunteers), has been unsurprisingly inadequate. And so, the NRD turns to its final line of defense in their Integrated Pest Management (IPM) plan, pesticides.
crevices, finding any available sliver of soil. It’s the ones that snatch up any sunlight, water, or nutrients within reach, growing and reproducing rapidly to retain their abundance in the islands of city greenspace. It’s the ones that have outrun their predators, altered the chemistry of the soil, done anything they could to thrive. So when they conquer all others in their path, seizing land and resources while they poison away their competition, who are we to look at them and call them weeds while we call ourselves winners? They are the colonists' shadow, a frontiersman’s dream, the landscape legacy of the settlers of this country. It’s no wonder they are all around us.

Still, I had seen and cleared out swathes of black mustard, thistle, and himalayan blackberry in the park. I had kept the lonely earwigs company as I cleared out the dense mat of prickly grass from the backyard. Over the past couple of years, I watched the difference in amount of life a diversity of plants could bring: the ants and rolly pollies in the soil, the bumblebees and butterflies, spiders and flies. The native plants still deserve a chance to grow here too, the place they’ve called home for centuries, the place that many still thrive in this climate and soils when given the opportunity. At the same time, the lines between native, non-native, and invasive were beginning to blur. Maybe newcomers should be allowed to introduce themselves, show what they have to offer, and make their intentions clear before decisions are made. And the native plants needed to be watched also: after all, even the native sage groundcover and yellow bush lupine needed to be cut back when they threatened to overwhelm the other plants. Maybe this was my gift, and responsibility: to get to know these plants, doing my best to maintain a pocket of plant diversity in this small plot of land amidst the concrete jungle.

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In the winter, the west coast stormed like we had never seen before, another inescapable reminder of our increasingly volatile climate. I opened videos from Eliana of the garden under the assault of gusting winds, intense rain, and hail. *I hope the plants are okay*, they said. *I’m not sure how they are handling this kind of weather.* I wasn’t sure either. When I came back to visit for a day during my winter break in December, most of the plants had survived, but the backyard was full of weeds. *It’s falling apart,* the fleeting thought still ran through my head. *I don’t have enough time to fix all of these weeds.* Still, I celebrated the new growth: the mint in the corner had grown three times as big. The sage was bigger than ever, and the strawberries had ventured out across the ground with more little tendrils.

A month into my final semester, I got a text from Eliana in a group chat with Jess, me, Eliana, and my mom. *Omg just had a magical little moment in the backyard! Went out to let Max pee and saw four different species of birds, a little gopher pulling weeds into a hole, and a little mouse sharing sunflower seeds with the [Dark-eyed Juncos].*

Then they added: *And mom before you freak out about rodents, I saw it leave through the fence to the neighbors yard. And our hope is that by creating a great environment with food & shelter in the backyard, they’ll have no reason to come inside.*

*My mom: That is a magical little moment! Thanks for sharing that’s super sweet.*

*And yes I’m a little freaked out about the rodent so thank you for addressing it.*

This would be the first of many texts from Eliana. As the weather cleared, they went outside to do some weeding, let Max out to pee, or get some fresh air. They began to notice, share, and celebrate the first blooms, the variety of new insects crawling around in the soil, new and different bird species stopping by to eat from the bird feeder or bathe in the bird bath. A couple weeks ago they put a seal on the bench and put it outside for the first time, sharing
updates on the Chestnut-backed Chickadee that had started frequently visiting the nestbox and the on gopher that was helping out by munching on some weeds. Even the weeds did what plants do—drank carbon, attracted insects, and provided a source of food.

A few weeks ago Jess made plans to visit and work on the garden with Eliana to do more planting, clear out some of the spring growth to make room for our plants to grow, and spread California wildflower seeds to take advantage of the last few weeks of spring. Before the visit, Jess spent hours looking through Calscape\textsuperscript{15} and the Bay Natives website, picking out plants that looked nice, provided good habitat, and would work in our soil and climate, adding them to a

\textsuperscript{15} Calscape is a native plant garden planning tool by the California Native Plant Society. Their slogan: “Restore Nature One Garden at a Time”
growing list of plants on the tracking spreadsheet they created. Last week they drove down from Davis, picking up both new plants and giving a new opportunity to ones that hadn’t survived: seaside daisy, chaparral currant, and blue-eyed grass. With Eliana they planted each plant, putting wire meshing around the root balls of the ones that hadn’t survived in case they had fallen at the hands of a gopher, convincing Eliana to cut back the sage a little more to make room for the other plants. On a video call, Jess showed me each new plant they had bought, and we marveled together at all of the new growth from all of the other plants that spring. *Max loves it out here now,* Eliana commented on the call: *Sometimes he’ll just lay down on the deck after going pee and refuse to come back in.*

“My dream was always to have a backyard that was attractive, and nice to sit in and be in, but that was low maintenance, because it would naturally grow and maintain on its own as much as possible without needing a lot of time, energy, money and forcefulness to maintain,” my mom told me. “And I like the wild look—I really like when sage is everywhere, or when whatever it is is everywhere, doing its thing. So I’m very grateful and happy that that’s what you’ve done—that’s what I always wanted.”

“I think it’s awesome, I think the strategy to work with what’s natural in the area is a much smarter strategy.” If it’s not like weather proof building material, it better be something the landscape knows how to embrace,” my dad said. “I think the design is really nice too, the arrangement of everything is also very aesthetically pleasing,” he finished, nodding. After a moment's pause, his eyebrows raised and his lips quirked into a small smile: “Combined with the deck, I think it’s really a nice space.”

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16 “There’s things that the San Francisco landscape can tolerate and things that it won’t,” he said, chuckling. “Lawns and Koi ponds aren’t on the list.”
Is my backyard a wild garden? I think of the ecosystem of this garden as my child, the one I want to create a home for. Jess, Eliana, and I parent it together. We plant the plants with love and care, providing them with compost, water, and a place to live, watching as they grow big and bloom with flowers and fruits. We parent by providing nectar and seeds for the hummingbirds, finches and sparrows to eat at the feeders, a place to bathe, and a little house for the chickadees to raise their children.

And yet, the backyard is also a landscape that we manage: thoughtfully choosing each new native plant and where it will live, putting meshing around the root balls of new plants to prevent them from being completely eaten by the gophers. We spread seeds and mulch, prune the Bee’s Bliss and Yellow Bush Lupine, let clover stay but remove aggressive grasses and vines. We enjoy it from the comfort of the deck my dad made, surveying our creation from a distance on the surface of unweathered permanence, one of the last remaining relics of Dad’s garden.

But as any parent will learn, your child does not ask your permission to change. We watch as the plants grow quickly in unexpected directions, or die completely, or drop seeds that start new generations in unplanned locations, including a new generation of Purple Nightshade.
plants growing through the slats of the deck. We watch as plants provide for the gophers who aerate the soil, who nibble on sourgrass and are at times the reason our plants disappear overnight. We watch as plants like the Bee’s Bliss, Yellow Bush Lupine, and Purple Nightshade my mom and I picked out together provide pollen for bumblebees and butterflies, insects for wasps and spiders, dead and decomposing life for roly pollies, earwigs, and ants, which hold the potential to invade the house. We watch as seeds dropped from the bird feeder to the ground provide food for the Dark-eyed Juncos and mice to root around for, who provide prey for hawks, owls, and raccoons. The child takes your gifts and learns the many ways they can care for themself.

All we can do is hope we are raising them the best we can, figuring things out as we go. All I can do is hope the ecosystem we create is a happy and healthy one, as full of life as the life it gifts to me. When Jess and I get back, we’re planning to paint the bench with Eliana: a mural of this ecosystem of plants, insects, birds, raccoons, and rodents, a symbol of home.