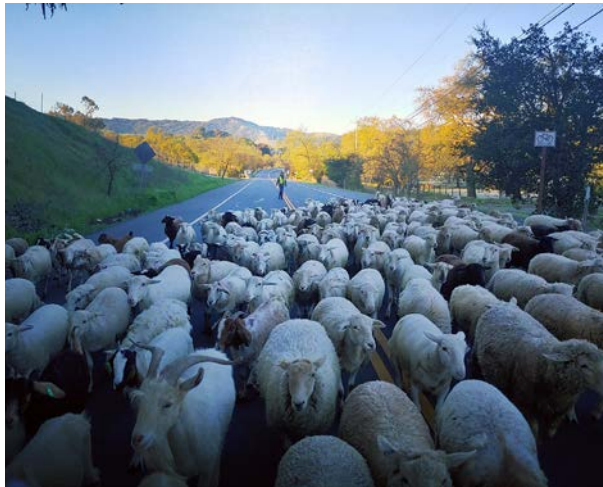


Hooves & Hands

*How We Work Together to Stay, to Heal, and to Coexist
in Fire Ecosystems Facing Climate Change*



Clockwise from bottom left: photos by Paige Green (3) and Paige Lynn Trotter (1)

*An Anthology Dedicated to Sonoma County Survivors,
and to all those committed to staying in place and to evolving
ways of being within changing landscapes and ecologies*





“As a community, we can accomplish things with ease that seem overwhelming when alone.”



Top: Sarah Tukman of the Herding Hope Grazing Cooperative and Sarah Keiser at the community barn building event (Photo by Paige Green); Above: Yuta, the livestock guardian dog



Above: Sarah Keiser and her livestock guardian dogs; Left and below: animals from Wild Oat Hollow



Below: Basko the livestock guardian dog and Alice the goat at Wild Oat Hollow



Foreword

BY SARAH KEISER

WE HAVE a desperate need to feel safe in our fire prone region of the Western United States. Our communities and neighbors have lost their homes and rebuilt, only to have another wildfire dance through and around their homes once again. It is not a question of whether these neighbors love the land they live on; it is a question of them having the tools to steward their land towards a healthy fire ecosystem. Community Grazing Cooperatives empower neighborhoods with the tools, the knowledge and the physical and emotional support to create this. They are a collaborative way to alleviate the anxiety of fire season, while regenerating and rebuilding the land and soil.

Community Grazing cooperatives are a collaborative land stewardship model whereby hooved animals are shared among neighbors to help them steward their land, and stay connected to the soil, the plants and each other. The grazing ruminants empower residents to create a healthy, fire safe ecosystem by reducing the fire fuel load, building relationships between neighbors, and increasing connections to the land that supports them.

These Community Grazing Cooperatives are a robust and flexible approach for communities to sustainably steward their land. They support any socioeconomic status and feed the development of creative, community approaches to living in fire-prone regions.

In a cooperative, each member brings their strengths, skills and knowledge. They learn to broaden their definition of community to incorporate the livestock and flora that decorates their land and the living soil beneath their feet.

Most Community Grazing Cooperatives develop from an overwhelming fear of wildfire. However, once the hooved animals arrive and everyone comes together to care for them—to move

fences, to plan the movement of the animals from neighbor to neighbor—community members evolve from that fear and scarcity into contentment and a feeling of fulfillment. As a community, we can accomplish things with ease that seem overwhelming when alone.

These shared hooved animals move from neighbor to neighbor, grazing, chewing their cuds, building topsoil and improving aesthetics. By sharing the herd and letting them graze down the grass and up the ladder fuel while moving around the neighborhood, the community is actively practicing prescribed grazing. This gives each community member, the land and the plants an appropriate rest.

In providing this rest to the plant through the movement of their shared livestock, the community is actively sequestering atmospheric carbon into the soil, where it becomes beneficial to the life of the soil and the plants. Each community member benefits from the rest as they share the herd, offering relief from 24/7 care every day of the year. Additionally they don't experience the deep loneliness that comes when the ruminants move off the land because they get to go down to their neighbors and visit all of the members of their newly defined community—both two-legged and four.

Some of the Community Grazing Cooperatives are witnessing the return of native California bunch grasses to their land. They're seeing more wildlife and songbirds. Some are even seeing the return of badgers and larger animals to their property.

The experience of shared animals, shared caretaking and shared experience also eliminates the high costs required to pay for grazing services. The need for liability insurance dissolves in a shared, non-monetized community grazing cooperative.

When people are directly involved in the care of their animals, the land they live on, the soil they walk on and the flora that shades them, they are

more connected to and less fearful of the landscape. What they once called “weeds,” don't look like weeds anymore. They look like delicious treats that their sheep love to eat. They start to identify different grasses, discovering the ones that they don't know. With their examination, their connection grows. They slow down, look down at the land, touch the plants and pet the sheep and continue to redefine community.

“Grazing Cooperatives are a robust and flexible approach for communities to sustainably steward their land.”

Too many times the word sustainable gets used to describe a system that is not sustainable to all of its moving parts. One piece of the system gets overworked, bled dry or ruined to provide for the identifying sustainable piece that is being emphasized by the author. If the rest of the system suffers for the sustainability of one, we have not reached a healthy system. At their core, Community Grazing Cooperatives are sustainable. All members of our cooperatives get to tend and to rest. All members participate, give input and feel supported. This is how we develop a system that can work indefinitely.

I love my work, my sheep, my evolving community. I love this land that I live on and tend. I find great joy in being the connection between these amazing people through the hooves of their animals down into the soil that feeds us all. I am truly blessed to be a part of this burgeoning community of people remembering their faith in humanity. I am blessed to hear how their lives have changed and how they have learned to trust again, learned how to listen, remembered how to find their peace in being. I find my joy in the dirt that makes us all. I love bringing more and

“Community Grazing Cooperatives are a way for us to move forward together through the chaos of modern life and find joy in the moments.”

more members into the community of dirt. Community Grazing Cooperatives are a way for us to move forward together through the chaos of modern life and find joy in the moments. These feelings of joy are bubbling up all around every community, every individual, every plant and animal. This work is here to highlight that joy and bring it forth.

Community Grazing Cooperatives are a resurgence of our memories of connection and abundance. They are the beginning of our remembering how to flow with the river, let the current carry us, and return to having faith in humanity and our instinctive connection to the land that we care for.

This book is an anthology of resilient communities telling their story of how they built collaboration with people and ruminants. Each one is told with a different voice, a different experience, yet all are connected through the hands of their community and the hooves of the grazing ruminants that brought them together. Through these stories, we hear about collaboration, unity and how human hands are a critical piece in the stewarding of our lands back to health: hooves and hands coming together to heal this land.

Herding Hope Cooperative

BY SARAH TUKMAN

THE NIGHT of October 9th, 2017, the Tubbs fire ripped through our valley and destroyed almost every house and building in our neighborhood. On that dreadful night, our kids were six, four and two. Luckily, they were at their grandparent’s house and did not experience fleeing the fire. But in the smoky, unsettled days to come we explained that our house and everything in it burned down. My two-year-old kept asking, “When are we going home?” It was heartbreaking.

My husband and I fell in love with the six acres in Northeast Santa Rosa in 2012. We walked around the gently sloping pasture, the oak riparian corridor with two seasonal creeks and imagined a dream coming true. Chickens in the yard, a big garden, space for the kids to explore and connect with nature. And in my dream of dreams, a milking goat and I’d make cheese. We both grew up in suburbs and lived together in big cities, so we lacked animal husbandry experience. However, we took a leap of faith and were able to purchase the house and the lot. Our first house. It needed plenty of work.

Back to the night of the fire. I was almost certain our house was doomed. I’d watched flames lick hundreds of feet into the air and engulf an entire ridge behind our house. When I left our house, maybe an hour or so before the fire got to it, I was sure it wouldn’t make it. And in the days to come, our area was blocked off to traffic, making it impossible for us to go see what had survived. Later, we found out that our house was gone by watching a video that a neighbor sent. The house, barn and guest house were turned to a smoldering pile of ash. But one thing on our property remained, the mobile chicken coop that was on a trailer, and all of the chickens. That was the best lesson in defensible space that I could ever have. The chickens had eaten all the vegetation within around 100 feet of the coop and

nothing burned—not the rubber tires or the plywood siding or even the plastic pool we used for the geese. The fire came up to the electric fences, melted some of them and stopped.

The irony is that about two months before our house burned down, we met with the fire marshal and three other neighbors interested in creating a group to help mitigate disasters. The fire marshal talked to us about defensible space—creating an area around our house without flammable material including trees, vegetation wood chips. I laughed at the thought of removing the wood pile adjacent to the house and the beautiful wooden wisteria trellis with wisteria climbing onto the roof. I chuckled at the cost of re-doing the old wooden deck. Hindsight is 2020.

In the year after the fire, my husband and I struggled. We struggled to replace the things we needed, we struggled with the decision about whether to rebuild, buy or move, we struggled to stay emotionally stable. Eventually, we decided to rebuild on our same property. We always dreamed of growing our own food, owning animals and working with the land. That’s why we bought our six acres in the first place. The process was costly, both financially and emotionally. However, three years, and thousands of decisions later, we moved back to our property.

During those three years we rented a small, but practical condo in town. The kids had friends to play with in the neighborhood and we had a bike path out the door. However, we were anxious to get back. We had a pool on the property that we refurbished. We missed our chickens, our garden, the sounds of coyotes. We missed hearing the frogs and the crickets. When we moved back, we were thrilled to be home. And we did what we could to create defensible space. We built a large area with decomposed granite on both sides of the house. We planted succulents mulched with gravel and left the northern side of the house graveled instead of planting anything.



The Herding Hope Grazing Cooperative on their land walk with the Intersectional Land Stewardship group. Indigenous Fire Ecologists Clint McKay and Peter Nelson stand on both ends. (Photo by Paige Green)

We planted an orchard, but kept it at least 50 feet away from a structure. The outdoor furniture we bought was portable, so that if a fire came we could quickly move it away.

My daughter had nightmares that our new house would burn down. I had a nightmare that everything was on fire. And in that nightmare, every road was gridlocked. My family and I ran to the coast, with our backpacks. We stood, feet in the sand, looking up at the hills on fire, hoping the salty sea would save us from the flames.

We moved back to our new beautiful house in September of 2020. It was smack in the middle of the Coronavirus pandemic. We were masking indoors and out. No one was vaccinated, kids were learning at home. My two sisters-in-law and my mom came over and

helped me unload all the boxes from the kitchen. I was so grateful. “Maybe this hell will be over,” I thought.

Two weeks later there was a red flag warning. A fire had started in Napa, just to the east of us. The following evening the phone rang and it was my sister. “There’s a fire in the hill just east of Josh’s (my husband) parents house. Eli’s (nephew) friend saw it on the fire camera. It looks bad.” Her voice was shaky. I picked up the phone and called my in-laws and all the people that I knew in the area. I told my mother-in-law to come to our house. Then, I looked out my window. I could see the fire on the ridge to the east of my house. I started shaking. I told my husband, Josh. We quickly took everything off the porch, grabbed our bags and important items. Then, we woke up the kids and got them to the car. “We have to go to

uncle Jed’s house. There’s a fire nearby.” We drove to Marin, where my brother lived on the boardwalk on the bay. One of my daughters trembled that whole night. I trembled too. Would our worst fear come true? Would our house burn down again? I spent that night sleeping on my brother’s little boat docked on the bay with our dog, Chico. I needed to be surrounded by water to feel safe.

Fortunately, our house did not burn down again and the Glass fire stayed a few miles away. But, I was scared. I felt unsettled. I questioned all the decisions to rebuild and stay on our land. I made a list of places that I wanted to move to. My husband and I talked about moving. He said, “Let’s give it a little time. We love it here. I have a good job, the kids like school, and you love living here.” We decided to give it time, but I wasn’t

sure I would be able to live with such a high level of anxiety. It was clear that we lived in a fire path and the only way that we would be able to live there and stay sane was to do everything possible to mitigate hot, intensive fires in our area.

After this, one of my close neighbors and friends and I decided that we should start a neighborhood group in order to bring people together. Our goal was to try to create a community where we could talk about vegetation management, fire preparedness, managing anxiety and other issues that we had in common.

Another neighbor expressed interest in helping. We sent a postcard to people in the community and invited them to join our Fire Safe Group. At our first meeting, we started talking about how we were going to keep our neighborhood safe. By this point, I was totally aware of how important fuel load reduction was. We knew to cut our grass in the spring, to clear out dead wood and debris, to limb up trees and prevent ladder fuels.

We prepped garden beds, started a compost pile and it felt as though we were finally re-connecting with the land. I still really wanted goats or sheep in order to eat our grass and clean out the riparian area. But I didn't know where to start. I'd never raised hooved animals before.

I was writing the agenda for a community fire safe meeting and I came across an article that helped me find the answer. It was about a woman named Sarah Keiser who was working with communities to start community grazing cooperatives. I excitedly emailed Sarah, thinking I'd probably never hear back. A few days later, she was sitting on my porch. Not only did I find someone who could help me learn about goats, fences, and community, but I met a kindred spirit that day.

Sarah and I walked around my property and decided that with the exterior fencing, I'd be a great candidate for a flerd (a combination of sheep and

goats). But, the whole point was to create a cooperative. She told me just to get the animals and, "if you build it, they will come."

I remembered sharing this idea with a community member named Vicky a few years ago, and the day after I talked to Sarah, Vicky called me. "Do you remember how we talked about sharing goats for grazing?" she asked. She also had connected with Sarah Keiser through a mutual friend and somehow it felt as though the grazing cooperative was meant to be. We shared our fire story and talked about our rebuilds. It was really nice to connect with Vicky. We decided to go visit another grazing cooperative to see what it was all about.

Visiting the Hunter Grazing Cooperative in Southeast Santa Rosa gave me the courage to start our own. Unlike us, they hadn't lost homes from fire, but they still lived with chronic anxiety. When we arrived, I met a wonderful woman and her two kids. Everyone was so excited about the animals.

I went to our next neighborhood meeting and told the community about the idea. We sent around a piece of paper for people to indicate if they were interested. That's how we found Kurt, the retired dentist. He was keen on the idea.

My sister-in-law sent me a message that a friend of hers, Melissa, down the street from me, wanted goats and was interested in dairy. I called up Melissa and we met for coffee at her house the next day. That day, there was another fire nearby our house. I brought my dog to help me stay calm. Meeting Melissa was amazing. We were both on edge, both proud of our nearly rebuilt houses, both sick and tired of the hassles, both excited about goats. We could've talked all day. I could tell she was in.

So, we had our cooperative. Next, we needed the goats.

I ordered electric fencing and a charger and decided that we could let the goats stay with our chickens until we had

a better set up. We were ready to get started, I thought.

Sarah told me she knew someone near Sacramento selling goats that she thought would work well for us. They were mini Oberhaslis and mini Nubians. They were grazers, friendly, not too big, and could also be used for dairy if we desired. I felt like Sarah was the interior designer of grazing cooperatives—she listened to our needs and found us the right animals.

I wanted to know where our animals were from, so I offered to drive with Sarah to get them. She said she would rig a cage to the back of her pickup.

It was the hottest day of the year when we went to get them. I stopped to get gas on the way to our meet up point and the phone rang, "There's a bunch of sheep out at one of my cooperatives and I'm delayed. Not sure I'm going to be able to make it. I'll call you back." Sarah sounded frantic. My heart sank. I'd been waiting for this day for what seemed like years. I'd gotten my in-laws to watch my kids. I had my overalls and work boots on. The fence was set up and the orchard grass, and minerals were waiting for the goats.

A few minutes later Sarah called back, "We got the sheep in. Do you still want to go?" "Umm, YES!" I responded. By the time we got to the goats around 11:00 am it was 105 degrees. We met the owner of the goat farm, who was lovely and knowledgeable. She started spitting out numbers about milk fat content and volume of milk. My head was spinning. Then we went into the barn. Some of the goats were scared and running around. But two goats came right over. They nudged me. They nibbled gently on my clothes. I fell in love. One of them had a name, Sassy, short for Sassafrass. My kids named the other Niblet because she nibbled on everything in sight.

Somehow, Sarah wrangled eight goats into the van in a matter of minutes. I tried to help, but was useless. We hopped in the truck and headed home. At one point the thermometer in the

Right: Clint McKay speaking to the Herding Hope Grazing Cooperative; Below left: the Herding Hope goats doing their job; Below right: Sarah Tukman and Sarah Keiser check on the goats (Photos by Paige Green)



“I think less about fire now. The goats bring joy and laughter and community and peace. They give us something positive to focus on. It’s impossible for them not to make us smile.”



Above and right: Areas that burned in 2017 where the members of the Herding Hope Grazing Cooperative live (Photos by Paige Green)



Above: Herding Hope Grazing Cooperative barn raising party building shelter for the goats (Photo by Paige Green)

“Knowing that we are taking proactive steps to protect our ecosystem from devastating fire makes me feel more relaxed. Knowing that we are helping to support a strong ecosystem, makes me proud.”

car read 110 degrees. I turned to Sarah and said, “Do you think they will die?” “They better not,” she replied.

When we pulled up to the house with the goats, my kids sprinted towards us. They were thrilled. They asked a million questions. The goats happily jumped out of the truck and started munching the grass. They loved the weeds, the acorns, the dead leaves. The kids met the goats and named them. It was such a happy moment. I hoped the excitement would last. For me, the excitement only lasted a few minutes before I had my first challenge to sort out.

Before we came, I had all the fences set up and ready to go but I couldn't get the fence to work. I tested the fence. Nothing. My heart started beating faster. Sarah told me to try moving the fence around. Maybe a rocky area grounded it out. I frantically moved it and banged in the fence posts while trying to keep the goats in the area with the chickens. I was sweating and getting nervous. What if they all jumped the fence? I took a few deep breaths, had a sip of water and went online. I watched a video from Premier 1 Fencing and realized that one of the strands slipped down the pole and was grounding the fence. My first fencing victory! I was so proud that I fixed it.

The biggest goat, Sassy, was in milk. We bought her and her son, Jetster. I was eager to start milking Sassy, but we needed a milking stand. I talked about it with Melissa and she and her husband Gary offered to build a milking stand.

I couldn't believe it. The next week Melissa and her teenage son delivered the milking stand to us. They met the goats, and my six-year-old son met his teenage neighbor. He looked up at him in awe. I realized in that moment that the connections we were making went deeper than the goats.

Around the time we got the animals, we were meeting as a co-op once every other week to decide about shelters, logistics, finances and ground rules. We agreed that when the goats are on our property that we are responsible for them. We agreed to take care of the animals and ask for help when needed. We debated the benefits and challenges of a portable structure and ultimately decided it would be easier for each member to have a permanent structure to put the animals into at night. We would add all of our expenses to a spreadsheet and divide the costs up at the end of the year.

At this point we had four members, Kurt, Melissa, Vicky and myself. And we didn't have a feasible way to move the goats. We thought it would be a good idea to buy and fix up a utility trailer. Around this time, I went to a neighborhood meeting and gave an update on our grazing cooperative. An older gentleman, Bob, raised his hand. “I have a horse trailer,” he said. I'm happy to help you move the goats. “Really?” I asked. Bob was serious and he meant it.

One of the hardest parts about grazing goats is moving fences. It's pretty easy on dry, flat land. But we were trying to get them to eat all the brush and vegetation in the creek bed. I asked Sarah to come help me and we set up fencing around a lot of poison oak, oak trees, this invasive plant called spurge and lots of dried brush. It was hard to run the fences through the creek bed because there were a couple spots where the fences sagged. We used a spare post to prop it up. I loved tramping through the brush, seeing what was growing in the creek and using my body to do the work. Once the goats got in there, they were so excited. All of my physical work

felt worth it. Yes, I needed to spend some time setting it up, but then I'd watch the goats munch away happily on all the poison oak leaves. Sometimes, they would stand on each other's backs in order to get to branches higher up. If I ever needed to relax, I would go sit near them and the sound of the goats chewing their cud calmed me down.

As the goats slowly did the work of eating the vegetation, I felt more relaxed. There was less to burn. The ground was more moist with their urine, and the soil would be better off with their poop.

Moving the goats from the creek area to the small barn we had built was a comedy show each night. I'd recruit one of my kids to come help me. One of them would carry a small bucket of scraps or grain and I would put Sassy on a leash. Then, we would undo the fence and all of us would run together up to the barn. Inevitably, one of the goats would sprint away. And we'd have to lure him back to us and into the barn. We always ended up laughing after moving the goats.

In order to get ready to move the goats from my property to Kurt's, we met to help build a structure. Kurt had everything all planned out. He decided to re-purpose an old propane storage tank area for a goat shed. It had a concrete slab and the wooden frame was there. Melissa, Sarah, Bob and I came to help and we finished much of it in a day. Kurt finished putting the roof and doors on himself.

Every time that I mentioned the goats leaving our property to my kids they would cry. I told them that the goats would come back to us and that we could visit them in the meantime. I found myself in tears the day before they left. I realized that our grazing cooperative was an exercise in trust. Not only did I have to work with my neighbor, I needed to trust him to care for the animals I had come to love. So, like a good goat mom, I started texting him info. Poor Kurt. He's gonna be sick of me by the time this is over.

Moving day came. I was so excited. This was a big day for our cooperative. Bob came early with his trailer and backed it up to our barn. Then my youngest son got sick. I couldn't help. And despite the fact I wasn't there, Kurt, Melissa and Bob got the goats in the trailer, the fences down and off they went. It's so exciting to be able to trust your neighbors.

Knowing that we are taking proactive steps to protect our ecosystem from devastating fire makes me feel more relaxed. Knowing that we are helping to support a strong ecosystem, makes me proud. The thought of building soil and sequestering carbon is exciting. I've come to see the plants as individuals. Weeds aren't weeds, they are goat food. I can usually identify them. When the goats clear out land, I'm able to see better and it's easier to remove dead wood. The wood chips have a use as mulch for the barn. I'm outside more.

Now I drive by my neighbors and stop to let my kids ride horses at Bob's, or take care of the puppies at Melissa's or see the goats at Kurt's. I know and feel connected to their lands too. Our whole neighborhood matters to me. But in a different way. I've stood under the enormous oak at Kurt's and felt the breeze blow down Melissa's valley. I wonder what food the goats will eat at their houses.

My dream is that our cooperative continues and thrives. It would be amazing if we develop a schedule over the years so people can anticipate when they will have the goats. I hope that Periwinkle will go into heat, that we will take her to get bred and she will have kids in the spring.

I think less about fire now. The goats bring joy and laughter and community and peace. They give us something positive to focus on. It's impossible for them not to make us smile.

I'm so grateful for Sarah Keiser. Without her energy, her can-do attitude, her laughter, her knowledge, and her dedication to this project, it never would have happened.

BY VICKY MCKAY

THE SEEDS of my relationship with Sarah Tukman were planted when our post-October 9th, 2017, Tubbs fire rebuild neighborhood groups merged. The two of us had similar dreams to find a way to use goats for vegetation management to reduce fire risk on our challenging properties. The fire made us both realize that we needed to learn how to live more cooperatively with the land as stewards.

Our first efforts were to rent goats and hire a herder to manage transportation and tend the herd. We quickly discovered that the complexity and cost were prohibitive. Two years later, synchronicity brought us together again with the connection to Sarah Keiser, who received funding from Globetrotters Foundation and Fibershed to continue to develop community grazing cooperatives in Sonoma County. And the next thing we knew is that we were forming our own grazing project—linked to other communities. Another aspect of working with Sarah Keiser allowed us to connect with two local tribal fire ecology experts in habitat restoration. We arranged a walk-through on our property. They shared their perspective of traditional tribal ways we could explore as we sought to improve the natural health and fire resilience of the land.

We found joy in coming together as a community and were empowered to make choices that are important for humans as well as birds, plants, insects, mycelium. I hope to one day be able to re-inoculate our area with the chanterelles that once grew in symbiosis with the oak trees.

“We found joy in coming together as a community and were empowered to make choices that are important for humans as well as birds, plants, insects, mycelium.”

BY KURT MITCHLER

LIVING in the rural area of Sonoma County is incredibly gratifying and I feel fortunate to continue to be part of that community. After the devastation of the 2017 fire, I was committed to stay and rebuild, not only my property but the community as well.

Rebuilding my property does not solely refer to construction of a home, but a management of the land as well. Removing dead trees, nurturing the trees that survived. And most importantly creating an environment that could withstand the next wildfire. All the animals and plants rely on my property as much as I do. We share this land.

Joining the Riebli/Wallace Firewise group has been instrumental in that goal. Creating a herding cooperative was a result of our Firewise group contacts. Using grazing animals to maintain the property in the most natural way promotes the health of the land and vegetation while reducing the risk of extensive fire damage.

Two other efforts include: a fire suppression system that will deliver surface water regardless of PG&E power supply and create a local environment that will reduce loss, and creation of defensible space around all structures.

Kinship Canyon Cooperative

BY NICHOLE WARWICK

Fires and Evacuations and Fuel Load, Oh My!

I'VE EVACUATED from my home four times in the past three years due to threats from wildfires and a flood. Each time I returned, I felt grateful to be here, but that changed after the Lightning Complex Fires of 2020. I had a difficult time returning home to the forest. I didn't unpack my go bags from the car or bring in my family photos or art until after the first rains a couple months later. I never left my home without my dogs. My nervous system was on high alert for months, and I wasn't sleeping or eating well.

We live in a canyon in Forestville, Sonoma County, CA. It is a densely forested area with various species of trees, flora and fauna. Blackberries, poison oak, and wild grapes grow relentlessly across the land and up into the trees. We are committed to non-toxic practices and, as such, must continually prune back new growth all around the houses, propane tanks, and driveway. There is a seasonal creek that runs through the canyon, but the creek has been dry for nearly two years. Evidence of the impacts of climate change are abundant in this ecosystem. The threat of catastrophic wildfire is great. I'm on only 3.6 acres out of a half-million forested acres in Sonoma County. What could I do to lessen the threat?

I seriously considered moving from my home of eighteen years. I'm a renter with affordable rent in Sonoma County, which is a rarity. There are three homes on this property; my neighbors and my family are all long-time friends. We have a strong community. We share land stewardship responsibilities, gardening, food, and care. I don't want to leave here—I've become part of this wild place, and it is part of me. My community is here.

A couple days after returning from the last evacuation, I was sitting on my back deck, sipping a cup of tea and having a telephone conversation with my colleague Sarah Keiser, owner of The Holistic Herder. She specializes in developing community grazing cooperatives. As we talked, I felt as though the density of the forest was closing in on me. What was once beautiful, lush, and comforting, felt threatening, overwhelming, and beyond my ability to remedy. Everywhere I looked, I saw fuel for fire. I could feel the panic in my body—my breathing was tight and shallow and my heart raced.

I shared my distress with Sarah, who listened to my concerns and offered prescribed grazing as a possible remedy. This was something I could do. She said prescribed grazing in forested land was new to her, but that it would be effective for reducing fuel load while maintaining new growth. She also said the grazers' presence on the land would help build soil and its capacity to sequester carbon.

Intersectional Land Stewardship—Combining Indigenous Wisdom with Prescribed Grazing

Our small community is piloting an Intersectional Land Stewardship Project, so in addition to learning about prescribed community grazing, we are also learning about Indigenous land stewardship practices specific for this forest ecology. The Intersectional Land Stewardship Project is a collaboration between Clint McKay (Wappo/Pomo), Peter Nelson, PhD (Coast Miwok), Rebecca Burgess (Fibershed), Sarah Keiser (Holistic Herder) and myself (Daily Acts). It offers a collaborative approach to fire resilience that partners indigenous knowledge of ecosystem health and stewardship practices with contemporary tools for reducing fuel load.

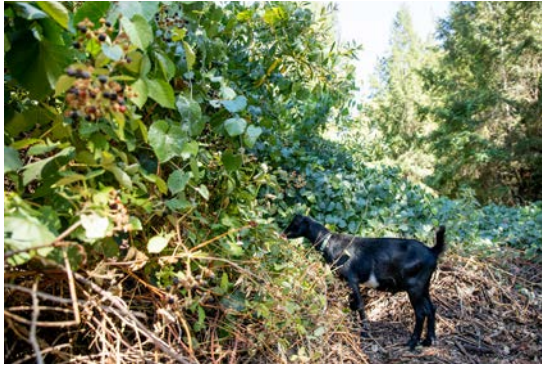
We began this process by gathering with Clint, Peter, Rebecca, Sarah, my community members, and our neighbors for a land walk on our property. This was an important first

step, as we were able to both share our knowledge of this land and how we've cared for it and also learn from Clint and Peter about what we are doing well and what we might consider doing differently. After assessing the needs of the land, we deduced that grazing would not be enough. We needed to remove dead and diseased trees and thin the growth of new trees coming up under the canopy before we could put hooves on the land.

Clint suggested prioritizing the health of the oak and bay trees, removing the dead and young Douglass firs, and coppicing the willows. He encouraged us to leave our creek as is, indicating that the downed limbs and natural debris helps slow the movement of water to prevent erosion. Clint made a great impression upon us all, especially my community members who believed, as many naturalists do, that we shouldn't disturb the ecosystem and we should leave the forest floor untouched so the debris can decompose naturally. Clint shared with us that this is not how his people historically stewarded this land. He said that human hands on the land are not poisonous, but essential for the health of the forest ecosystem and all who are part of it. Leaving the forest floor to decompose naturally is not the best practice for a fire ecology.

Peter also shared that in a fire ecology, fire is essential to the health of the forest ecosystem and all species. The potential for fire always exists. If that potential is stored up over hundreds of years by lack of stewardship, then that potential builds and expresses itself in large wildfires. If the land is properly stewarded and Indigenous peoples are able to practice cultural burns, then fire expresses itself in healthy ways that are beneficial to all species. Our forests are not ready for cultural burns though—there is too much fuel load now for that to happen safely. While prescribed burns are being used more often in the fight against wildfires, they are not cultural burns. Peter said we could potentially have a cultural burn here at some point. Our landlord is not opposed

Below: members of the Kinship Canyon Grazing Cooperative support each other (Photo by Paige Green)



Below: the goats of Kinship Canyon Grazing Cooperative; Left: the goats eating invasive blackberry (Photos by Paige Green)



“I feel a greater sense of belonging here because of these intersectional land stewardship practices, including having the goats on the land.”



Above and right: members of the Kinship Canyon Grazing Cooperative on their land walk with Indigenous Fire Ecologists Peter Nelson and Clint McKay (Photo by Paige Green)



but also has concerns. We may do some pile burns in the winter after the rains come. This is a beginning.

Hooves on the Land

We had a lot of work to do before we could bring the goats on the land. It took months and several work parties to complete the work recommended by Clint and Peter. We had help along the way from friends, family, Fire Safe Occidental, AmeriCorp Volunteers, and the Sonoma County Chipper Program. We turned our old 10' x 10' dog kennel into a goat shelter and built a manger to keep them safe. We were fortunate to receive funding from Fibershed to purchase portable electric fencing with a solar charger, which enables us to move the goats around the property without having to install permanent fencing.

I was skeptical of my ability to become a goat herder and had a lot of questions. I knew nothing about livestock or herding animals, and I've heard stories about goats being rascals and getting into all kinds of mischief—which they do! I wasn't sure I was prepared for that or had the time to manage goats. How did this sharing animals concept actually work anyway? I spent a lot of time worrying about them before they even arrived. Of primary concern, could we keep them safe from predators: mountain lions, coyotes, my dogs?

Sarah supported me through this process by answering my questions and introducing me to other grazing cooperatives so I could learn from and be reassured by their success. I also did a lot of research online and watched many YouTube videos about caring for goats and how to introduce dogs to goats. Sarah delivered our baby goats in mid-May 2021, just as the grasses, berries, poison oak, and wild grape were starting to take off. They are triplet mini LaMancha goats that we named Laverne, Lenny, and Squiggy.

Trials and Giggles

All those things I was worried about were for not: the care and feeding of these goats is rather simple and easy. We've learned by trial and error. Mostly, the struggles have been navigating things that are out of our control. Our little community was supposed to partner with another small community down the road so that we could share the responsibilities and benefits of the goats and move them amongst all our land, but two people backed out, so that fell through. Now, one of our community members is having health complications that prevent them and their partner from helping with the goats. There are three of us actively caring for the goats now, although most responsibilities and all costs are on me at the moment. I don't mind, actually. I know this won't always be the case; this is just where our community is right now.

The portable electric fencing was on backorder for three months, which meant we had to leash and tether the goats, constantly untangling them every hour or so. With the fencing, we are able to easily move the goats to prescribed areas for grazing. Keeping them in their prescribed areas is a whole other matter. I'm not sure about all goats, but these three are clever escape artists. The bells on their collars give them away and, thankfully, I always find them back outside their kennel, their whole bodies inside the feed bag, chomping alfalfa voraciously.

I'm learning a lot about animal husbandry and enjoying the goats' presence on the land. They are hilariously funny to watch: they are marvelous climbers and their leaping and bounding about makes us all giggle. It seems odd to me, but it is soothing to watch them chomp away at the relentless undergrowth. They've reduced our fuel load considerably, helped us maintain defensible space around our homes, and made it possible

to access areas of the land we haven't been able to access due to overgrowth of poison oak and brambles—and they've only been here six months! I know our impact is small compared to the greater need for fire resilience, but we've got to start somewhere.

What we've learned and applied to this land is helping me move through my fears of living in a fire ecology and take action to be better prepared. I feel a greater sense of belonging here because of these intersectional land stewardship practices, including having the goats on the land. Working with the goats provides many opportunities to be out on the land in a way that feels proactive and remediative. I no longer feel the panic I once did, and I'm sleeping well again. I feel more connected to the land and this ecosystem. I notice that my nervous system feels calmer after I spend time with the goats in the forest. It's been a restorative experience on many levels.

Gratitude

I'm grateful to Sarah, Clint, Peter, and Rebecca for their partnership, guidance, and friendship.

Receiving Clint and Peter's guidance and applying Indigenous land stewardship practices here are so meaningful to our community. Learning how to be better stewards in alignment with Indigenous wisdom and knowledge is a great honor and a responsibility. Receiving guidance and support from Sarah and Rebecca has made the process of grazing easier than I could have imagined. Honestly, I don't think I would have embarked on this adventure if it weren't for Sarah's determination that this could work in the forest. Lastly, I'm grateful for Lenny, Squiggy, and Laverne, who've inspired in me a love of goats that I never had before and for helping me feel safer living in the forest.

Intersectional Land Stewardship Project

BY PETER A. NELSON

I REMEMBER where I was when I first heard that the Sonoma Complex Fire (Tubbs) began burning in October of 2017. I was sitting in my apartment in San Diego, having submitted my dissertation a few months prior in August. I started my first job as a professor in the American Indian Studies Department at San Diego State University that same fall. Though I was living outside of the Bay Area, my community, the tribe in which I am enrolled (the Federated Indians of Graton Rancheria), and my research were all based in Marin and Sonoma Counties. I had studied Indigenous land stewardship practices for my dissertation at Tolay Lake Regional Park, tracking the historical accounts of my tribe's ancestors burning for cultural purposes in Southern Sonoma County and meticulously analyzing the charred seeds and plant materials from sites to reconstruct what the environment looked like in the Tolay Valley before contact with Europeans. Throughout these areas of Southern Sonoma County were extensive grasslands and oak woodlands filled with abundant plant and animal life. Stewarding and tending these lands, Coast Miwok and Southern Pomo peoples maintained a reciprocal relationship and delicate balance with the world around them that provided an abundance of food, medicine, and tools to support their livelihoods. The broad scale use of low-intensity fires as a stewardship tool in these areas also prevented high-intensity, catastrophic wildfires from damaging woodlands that were these peoples' orchards and supported other plant and animal communities. My first thoughts upon hearing about the 2017 fires were about loved ones. My second thoughts were about how backwards our management practices are today and how the wildfires are a symptom and a product of colonial mistreatment of Indigenous peoples and places here locally.



“Stewarding and tending these lands, Coast Miwok and Southern Pomo peoples maintained a reciprocal relationship and delicate balance with the world around them that provided an abundance of food, medicine, and tools to support their livelihoods.”



Top: Clint McKay (left) and Peter Nelson (right) speak to the Herding Hope Grazing Cooperative; Above: Peter Nelson presents at the Community Education Event on Fitch Mountain; Right: Peter Nelson enjoying some time with the goats of the Herding Hope Grazing Cooperative (Photos by Paige Green)



“I believe that the only way for us to lessen the severity of climate change and make our communities resilient to the extreme conditions we will experience in the coming years is for us to work together at the community as well as the policy level.”

Cultural burning was effectively outlawed in section 10 of “An Act for the Government and Protection of Indians,” which was enacted in the *Statutes of California, First Session of the Legislature, 1849-1850*. Even though some European and American farmers and ranchers used fire to burn piles and brush, Europeans and Americans did not value fire as a more holistic stewardship tool. Europeans and Americans imposed their systems of farming and ranching on Indigenous landscapes that had not been previously exposed to such practices, and they discouraged burning because they saw forests as commodities to be exploited in the timber industry rather than places that produced food. Tanoaks that provided Indigenous peoples with food were systematically poisoned to make room for conifers, and Indigenous peoples themselves were hunted, captured, and forced to labor as de facto slaves on the early American farms and ranches. In this framework, burning was viewed as criminal arson rather than a healing and rejuvenating practice. Indigenous regimes of burning were largely replaced by a “hands-off” approach to maintaining timber, and wilderness areas in parks and open spaces were deemed “untouchable” by human hands or land management practices. These policies and practices restructured our forests

and tribal ancestral lands that became dense with understory vegetation and thick with young trees. The crowding in these areas gradually saw a decline in the abundance of healthy plant foods and materials for baskets and an increase in the danger of wildfire.

Indirectly experiencing the 2017-2019 fire seasons in California and the urgency with which we need to address these issues, I applied for and accepted a position in the Environmental Science, Policy, and Management Department at UC Berkeley. This position allowed me to return to the Bay Area in 2020 and reposition my work more centrally between cultural and environmental studies to advocate for change in land management policy. In doing so, I am fulfilling my commitment to mobilize my historical and archaeological work to benefit my community and others in the present and plan for futures that include Indigenous peoples and perspectives. These futures are even more complicated now than ever before by human-induced climate change resulting from global industrialization, colonialism, and imperialism.

Upon returning to the Bay Area, I moved to Santa Rosa, became involved in prescribed burning efforts led by Audubon Canyon Ranch’s Fire Forward Program, volunteered in wildland firefighting efforts through Northern Sonoma Fire District, and accepted an invite to be involved in the Intersectional Land Stewardship Project. I believe that the only way for us to lessen the severity of climate change and make our communities resilient to the extreme conditions we will experience in the coming years is for us to work together at the community as well as the policy level. Innovative strategies that bring multiple knowledge systems together to protect our human, plant, and

animal communities will be essential for ensuring the safety and health of our world. The Intersectional Land Stewardship Project is at the forefront of these grassroots efforts that are empowering Sonoma County residents to join a community of practitioners in reducing vegetation and fire danger, creating habitat, and supporting ecosystems through manual or mechanical clearing, grazing, fire, etc. It is encouraging to see and be a part of this on-the-ground initiative of neighbors helping neighbors and responding to community needs, rather than waiting on slow bureaucracies to respond after more damage has already been done. We should not have to call wildfires, death, and destruction our “new normal” before help arrives. These past few years should be enough symptoms of the sickness for us to join hands, work towards a cure, and take care of one another. I joined this project because I see strength in togetherness and people who mobilize resources, ask the right questions about process and protocol, and have a deep respect for human life and lifeways. This approach to how we heal our world as settlers or newcomers and Indigenous peoples working together will build more inclusive and supportive futures for our community.

Intersectional Land Stewardship

BY CLINT MCKAY

MY NAME is Clint McKay. I am an enrolled member of the Dry Creek Rancheria Band of Pomo and Wappo Indians of Geyserville. My people have enacted Traditional Ecological Knowledge (TEK) to help steward the lands within Sonoma County since time immemorial. We have lived in harmony with our natural world and accepted our position in it, with respect and reciprocity. We understand that we have neither the ability nor right to attempt to manage our environment. Instead, we respect our place in the wheel of life. We don't see ourselves as being any more important than the plants, animals, water, or air that sustain us. We practice reciprocity in implementing stewardship practices that are in the best interest of everything in our natural world. We don't make decisions that only benefit us, or ones that negatively impact other aspects of our environment.

While my people's voices have never been silenced, they have been ignored for decades by mainstream society. A society that recognized Western science as being the only true science to authorize land and natural resource management practices. I must say, I was a bit apprehensive when I was contacted by Sarah Keiser and then Nichole Warwick and Rebecca Burgess, regarding the Intersectional Land Stewardship project. I was concerned this might be just another group looking for a presence from the Indigenous community, but not really subscribing to TEK or a willingness to implement it. After our first meeting, it became clear to me that this group would be different than ones I experienced in the past. There was a sincerity and deep respect for the environment and TEK, an atmosphere of welcoming Indigenous knowledge and ways of knowing. It is critical when partnering with Indigenous communities to allow



Left: Clint McKay speaks to the Herding Hope Grazing Cooperative; Below: Clint McKay presenting at the Community Education Event on Fitch Mountain; Bottom: Clint McKay with the Kinship Canyon Grazing Cooperative

“My people have enacted Traditional Ecological Knowledge (TEK) to help steward the lands within Sonoma County since time immemorial. We have lived in harmony with our natural world and accepted our position in it, with respect and reciprocity.”



“The Intersectional Land Stewardship project is working hard to alleviate some of the fears surrounding the use of fire. The project is incorporating the best possible knowledge from all partners to help educate our community on how to work with fire, instead of against it.”

time for relationship building, centered on a foundation of mutual trust and respect. My relationship with the project team is certainly founded on a strong relationship and we continue to build on that foundation.

When the project group began meeting with landowners, caretakers, and community members, I was blessed to be a part of such an uplifting experience. I have been invited to visit numerous sites and asked to provide advice on stewarding a variety of landscapes that have been affected by various circumstances—from the intentional planting of livestock grazing feed to restoration of native plants after devastating wildfires. One thing has remained consistent with our site visits. The strength, determination, and courage of those affected has been deeply moving and an inspiration to me. Some of our community members have lost their homes, landscapes, and in the worst cases family members and friends. Their resilience continues to amaze me, and I hope the support and advice I can offer provides them some level of comfort and continued hope.

The project started out as a grassroots movement that took small steps and looked for opportunities to give itself the best possible chance for success.

As with other successful movements, the Intersectional Land Stewardship project truly came to fruition through a meeting concerning the stewardship of Fitch Mountain. This area has deep cultural significance for my Tribe, and I was encouraged to see the wide range of participants in this gathering. Peter Nelson and I were asked to present our perspectives on Indigenous land stewardship to Sonoma County Supervisors, Healdsburg City Council members, Fire Chiefs, Cal-Fire personnel, and several other agencies, partners, landowners, and community members. This was the first time I can remember Indigenous TEK taking a lead role in local conversations about fire ecology.

After decades of governmental policy that suppressed fire as a stewardship tool, we have recently experienced devastating wildfires that seem to be unrelenting. The ravages of these fires have been nearly to the point that the community is questioning whether these fires have become the new normal for our area. The Intersectional Land Stewardship project is working hard to alleviate some of the fears surrounding the use of fire. The project is incorporating the best possible knowledge from all partners to help educate our community on how to work with fire, instead of against it. The project combines several aspects of preparing the land for fire. This includes not only mechanical means of reducing fuel loads, but natural means as well. The incorporation of a grazing program is critical not only in reducing potential fire fuel loads, but also provides ground disturbance that is beneficial for propagation of native and desirable plants. In the early days of my people, the animals were allowed to roam and follow food

sources that provided the necessary soil disturbance. Now, with endless fencing and private property designations, the soil lays dormant for years and native plant species are often encroached upon by invasive, non-native plants.

The Intersectional Land Stewardship project provides each partner with the opportunity to participate as full partners. Partners that are equal in planning, implementation, and sharing of the findings and information produced by the project. The project team has welcomed me and the Indigenous TEK that I respectfully hold. Respect that is not only for me, but more importantly, for my ancestors and teachers that made sure our Indigenous Knowledge Systems were passed on from one generation to the next. I am honored to be able to participate with a team that acknowledges the value in all partners and realizes and embraces the idea that not one group or partner holds all the knowledge necessary to make profound improvements to our natural world. It will take all of us working and learning together and from each other, to take our rightful place within our natural world and to respect our position, and act with reciprocity to help keep it in balance.

Respectfully,
Clint McKay

Grassroots Fire Systems Education at Fitch Mountain

BY SARAH KEISER

FITCH MOUNTAIN is a beautiful oak woodland open space area in Sonoma County. There are hiking paths riddling the hillside for the public to use and wildlife risk is always present. The undeveloped mountain is surrounded by rural residential communities and nestled next to the town of Healdsburg. The brushy understory has been left to grow, unrestrained, under the management mindset that wild spaces should be left untouched and untended by humans.

This lack of stewardship has led to the development of a thick, brushy understory—ripe for a devastating wildfire. Both Healdsburg Fire Department and Calfire understand that if a wildfire reaches Fitch Mountain, it will be nearly impossible to stop the fire from reaching the town of Healdsburg. This knowledge and our past experience with wildfires in Sonoma County led to the development of a stewardship plan for Fitch Mountain, spearheaded by Linda Collister, the Healdsburg Fire Marshall.

Fire Marshall Collister is a forward thinking, progressive woman who manifested her vision to steward this land towards a healthy fire ecosystem. Her passion and leadership engaged all invested parties in collaboration to tend this beautiful open space. Her positive energy and dedication to her work and community led to the development of a new stewarding plan for Fitch Mountain. This template used grazing goats to reduce fire fuel load and actively engaged the participation of the public, while adding an educational piece to answer questions and create an atmosphere of teamwork. The messaging was clear: We are all on the same side and can partner with and trust in each participant to improve our

stewarding of our open space. This is a project and an event that demonstrates how hooves and hands working together can heal this land and how we can learn from each other.

This unprecedented collaboration led to a Community Education event at Fitch Mountain in Healdsburg, which included firefighters, local politicians, Sonoma Ag & Open Space, Sonoma County Ag Extension, Chasing Goats Grazing (contract grazing services), the local leaders of the Fitch Mountain COPE (Citizens Organized to Prepare for Emergencies) and two Indigenous Fire Ecologists.

The day of the event was a hot August evening. Fire Marshall Collister had planned for this summer weather by hosting the event under a large grove of ancient oak trees at the base of Fitch Mountain. These trees offered up a cool, shady place to gather, collaborate, listen and learn.

The speakers who stood up front were framed by the hills of Fitch Mountain, recently grazed by the goats owned by contract grazer Chase Cianfinchi of Chasing Goats Grazing. The stewarding work had already begun in this open space; it started with the goats and their shepherds working together to bring down the understory and ladder fuels that filled the mountain. After the goats do their job, Linda has skilled people come through to do the mechanized work. All of these stages are done to set the scene for a healing cultural burn. This work can make the difference between a devastating wildfire and a regenerative, smoldering burn.

Fire Marshall Collister stepped to the front to begin the messaging to the audience, speakers and all who were listening, explaining why we were there. Her message was direct and strong but warm and friendly. Linda has an incredible ability to connect with a diverse audience. She did a quick introduction of the progressive land stewarding collaboration project

“This is a project and an event that demonstrates how hooves and hands working together can heal this land and learn from each other.”

she developed. Next, she introduced our first two speakers, Jason Liles of Senator Mike McGuire’s Office and County Supervisor James Gore. We started our messaging with our local politicians due to their time constraints. Their presentations were simple. They expressed that we needed to keep finding money to fight and stop these fires. It was a battle they planned on winning.

Then Linda introduced me, Sarah Keiser, the Principal and Founder of The Holistic Herder. With my grazing and land stewardship connections, I introduced the rest of the collaborators: the Indigenous Fire Ecologists, the grazers and Stephanie Larson from Sonoma Ag extension. I began my presentation by thanking the audience for their willingness to learn and ask engaging questions in order to better understand how to steward our lands towards a healthy fire ecosystem. I thanked all of the participants for adding their knowledge and flexibility to this unique and visionary collaboration. I expressed my hope that the Fitch Mountain land stewarding collaboration could represent a way forward in the stewarding of our shared land.

The first speaker was Clint McKay, a tribal citizen of the Dry Creek band of Pomo and of Wappo heritage. There was so much appreciation of his willingness to participate in and educate the public on how to steward the land that his family once resided upon and tended. Fitch Mountain was the land of his people and he has a great connection with it. This history was clear in his presentation.

“Clint reminded us that the way we have been doing things isn’t working. That it is time to change our language from management to stewardship when we discuss how to tend this land.”



Clint McKay (left) and Linda Collister (below) presenting at the Community Education Event on Fitch Mountain (Photos by Paige Green)



Chase of Chasing Goat Grazing (left) and a fire fighter (right) holding baby goats at the Fitch Mountain Community Education Event (Photos by Paige Green)



Above left: one of the many goats working to keep ladder fuels down; Above: community members asking questions and expressing concerns at the Fitch Mountain Community Education Event (Photos by Paige Green)

When Clint McKay took hold of the microphone, everyone grew silent and was ready to listen. Clint carries himself with the presence of an elder and is an incredibly powerful speaker. His voice and messaging brought the audience into focus; we opened our ears and hearts to listen. On that warm August evening under the ancient oak grove that his people had tended prior to white colonialism, he was ready to tell his story.

There was a powerful resonance to his voice. His voice was articulate yet raw and clear as he explained how we had failed at stewarding our fire ecosystems. He made clear that we need to change our language and relationship to the land we live on and tend. He reminded us that the way we have been doing things isn't working, that it is time to change our language from management to stewardship when we discuss how to tend this land. Finally, he said that we need to work together in our actions to heal and tend the land rather than control it. He reminded us we do not have control, but we have the ability to nurture and steward this beautiful land back to a healthy fire ecosystem.

Beneath Clint's powerful voice, there were shuffling feet. The sounds of discomfort whispered under the oak grove as people moved around and had trouble sitting still to listen. Despite this, he continued and we continued to listen, which was most important: sitting with our discomfort and staying present, willing to listen.

The next speaker was Peter Nelson, Coast Miwok and tribal citizen of the federated Indians of Graton Rancheria. Peter came to the microphone as a natural educator. He is a professor at UC Berkeley.

Peter's calm, strong presence invited the audience to listen to his story. He carries so much knowledge about the way the native people of California lived prior to colonization and was able to

articulate how different their lives were from the lives of people in other parts of the country.

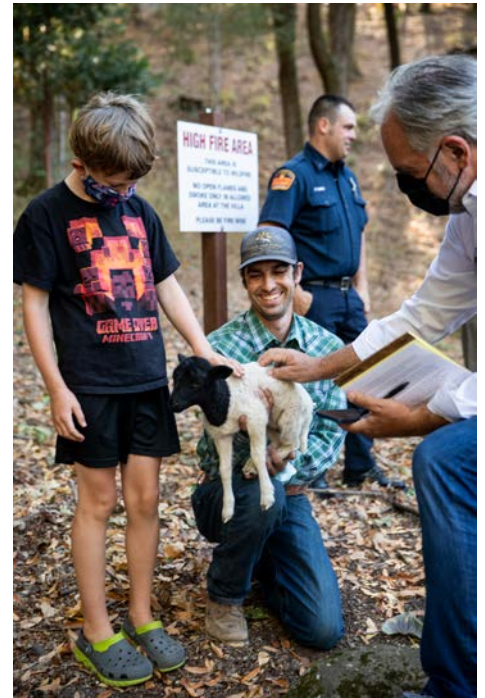
It was incredible to watch him step in with his message and create such a different atmosphere and energy. The audience was able to settle down and listen to his story and his knowledge.

Peter and Clint were both clear about how important it is for fire to return to this land. We listened to them talk about the difference between prescribed burns and cultural burns. Prescribed burns are used to reduce fire fuel load and cultural burns are intended to heal and restore the land. One is to control and the other is to nurture. One approach comes from the perspective of managing a landscape for safety; the second leads from a deep connection to the land and a desire to care for it.

After they spoke, Chase, the contract grazer, presented on prescribed grazing as a method for ecological restoration. With the massive understory overgrowth on Fitch Mountain and many forests of the west, the grazing ruminants reduce ladder fuel loads and reduce the risk of wildfire.

Of course, the audience and fire fighters enjoyed the baby goats and sheep as well. We all experienced the greater connection to the land that comes through animals. They tell of the food they eat and what they enjoy and how the land looks differently after they come through. Much like all of our Community Grazing Cooperatives, the animals were the warm, easy connection between the land, the soil and the people. To end the Community Education event with embraces with baby goats and lambs brought healing to the audience, who had heard so much that evening.

“We do not have control, but we have the ability to nurture and steward this beautiful land back to a healthy fire ecosystem.”



Chase of Chasing Goat Grazing holding a baby lamb for community members to enjoy (Photo by Paige Green)

Hunter Lane Community Grazing Cooperative

BY BO LAURENT & SACHA LEPLEY

LOCATED in unincorporated South Santa Rosa, the Hunter Lane Community Grazing Cooperative consists of five households on Hunter Lane and Horn Avenue and plans to include a few more members as time goes on. Each household stewards one and a half to four acres. Our adult members range from ages twenty-four to sixty-five and have many different walks of life, including a registered nurse, machinist, homemaker, park ranger, and computer commuters. Jesse and Jenny have two elementary school aged children. Sacha and John live with a group of other people, including visitors from abroad. Bo has her own abode that she shares with her dog and two other people who live on her property. Carson's household includes his parents, who are supportive observers.

In the summer of 2020, Bo was so fed up with wildfire danger, power shutoffs, evacuations, and dangerously contaminated air that she was determined to move away from California. As she considered where to move, however, she realized how much she loves Sonoma County, and the reality is that climate change induced dangers are increasing everywhere. She decided to apply herself to figuring out how to mitigate her fire risk.

Researching many areas of fire, she came across the idea of grazing sheep and goats. She contacted several contract grazers; most would not visit her small 1.5 acre property. Those who would were prohibitively expensive. Perhaps it was impossible? Then, through matchgraze.com, Bo found Sarah Keiser. Sarah suggested Bo get her own animals. Bo resisted, thinking she didn't want to be so tied down. Sarah explained that if she brought her neighbors together into a community co-op, she wouldn't be so tied down.

Bo spoke with her neighbors John and Sacha, who loved the idea of sharing

the responsibility of the herd, the expenses and of the decisions. Because the responsibility is shared, no one has to feel pinned down. There's always someone to help.

Sacha wondered if she would be able to contribute equally because she's less able to get around. She was a bit apprehensive about the responsibility. "It's been fairly easy to get started, and we've learned a lot as we go. I was mainly interested in reducing our wildfire risk by grazing. But now, I'm excited to be closer to my neighbors, to be a better steward of our land, a part of Fibershed, and (sometime in the future) our own, cruelty-free organic meat. Our Community Grazing Cooperative stacks functions! John felt "excited and delighted." "I had always wanted goats. But now that I have come to know goats, I really prefer sheep. They are easier to manage, and they don't test the fence." John, Sacha and Bo and other cooperative members manage the flock, getting alfalfa when there is not enough grass, moving sheep, giving medications and immunizations, organizing the shearing, discussing when to get a ram and what to do with the lambs (keep or sell, bottle-feed if rejected by mom, etc.).

Jenny and family, the newest member to our Community Grazing Cooperative, were thrilled to be participating in this collaborative land stewarding project. Jenny was on a walk around the neighborhood and came across our sheep grazing in Bo's yard. She stopped to watch and enjoy the sheep. Bo came out of her house and the two of them started chatting. Jenny expresses that experience: "Bo mentioned she started a neighborhood grazing cooperative to help with fire fuel load mitigation. Having two small children, I thought it sounded like a great educational experience as well. Out of this we have met so many of our neighbors, our girls have been able to bottle-feed baby lambs and learn about how to raise goats and sheep. This cooperative has brought so many wonderful things for our little family! We are doing what we can to manage fire fuel loads, not only for our own property but for those around us as well."

As Bo said, "All of the grazing cooperative families have been neighbors for two decades, but most of us didn't really know each other. Now we have a shared message thread; we get together socially; we help each other out. My life here in the neighborhood is richer!"

Carson and his family decided to participate as well. Here he adds his voice to the story: "My experience with the grazing cooperative has been minimal but very powerful and influential. I am personally very interested in introducing grazing animals to my open acreage, but with my lack of knowledge and a busy schedule, I have been skeptical about whether I could handle and care for several large animals. However, this grazing cooperative provides a perfect solution for my situation and location. It is perfect for rural neighborhoods with large grass fields and landowners who aren't full time farmers and/or land maintainers. With my little exposure to the project I can see now that it is very possible for me to be a temporary caretaker and still meet my goals of overall fuel reduction and practicing good environmental stewardship. I am very eager to participate and no longer have the fear of not being able to care for large animals full time. The cooperative allows for proper rotational grazing, temporary caretaking and the fun of farm animals without being tied down to a full time farming lifestyle. It is also great because a willing landowner now has access to very experienced people who can answer and solve the tougher questions and/or issues that will arise during this process."

Overall, the cooperative closes the gap between those who don't know how to care for grazing animals and those who are seasoned and/or experienced at caretaking for these productive and beneficial animals. All while providing for themselves and their local community. With California's current fire risks this could be a very important change for how we manage our backyards and our environment.

“The cooperative closes the gap between those who don’t know how to care for grazing animals and those who are seasoned and/or experienced at caretaking for these productive and beneficial animals.”



Top: community members feeding the bottle babies at the Hunter Grazing Cooperative; Left: moving sheep on the hoof (Photo by Julie Royes); Above: Bo Laurent of the Hunter Grazing Cooperative



Left: ewe with her lambs at the Hunter Grazing Cooperative; Below: bummer lambs Thunder and Lightning



“We have met so many of our neighbors, and our girls have been able to bottle-feed baby lambs and learn about how to raise goats and sheep.”

“Words of wisdom for a new cooperative: go for it! Reach out to Sarah and others who have created their own cooperatives. What a great way to feel empowered!”

First Attempt at Moving the Flock

Once Bo, John and Sacha agreed to start a flerd (flock of sheep/herd of goats), Sarah Keiser helped them get six sheep and three goats. After grazing Bo’s fields, we needed to move the flerd to another field. Sarah told us that moving the flock down the street from Bo’s home to Jesse & Jenny’s home would be easy. “You’ll just walk calmly down the street, carrying some alfalfa, and they’ll follow you. That’s how I move mine.” So Jenny and Bo distributed a pamphlet on our street, inviting our neighbors to help us by standing along the road to prevent the sheep from wandering off the road. Dozens of neighbors came! But the sheep had other ideas. They scattered here, they scattered there, and Sarah and Carson ran themselves ragged chasing them down. In the end, we returned them to Bo’s pasture. “We really wanted to move them by walking,” says Bo, “because we wanted our project to be easily replicable by people who might not have a truck and trailer.” Now we move the flock with John’s truck and a used utility trailer that we bought for \$500.

“The fact that so many neighbors showed up for our ‘flock moving party’ is a reflection, I think, of a desire for community in our neighborhood,” Bo observes. The three mile walk that Bo and Jenny took while distributing the pamphlets in the neighborhood gave them a chance to get to know each other. John recalls that while we were trying to move the flock by walking he met our neighbors Brett and Fran, who have regular gatherings outdoors during the summer. Now our households participate in Brett

and Fran’s gatherings as well. More connections!

We got our first six sheep in October 2020; we borrowed a ram for the month of November. We had them sheared in February, and three of them gave birth in April. The first birth (two boys) was miraculous and went smoothly. The second birth was different; the mother struggled until Bo called Sarah for help. Sarah diagnosed the birth as breech, and she pulled out the first lamb, stillborn. Then she pulled out the second lamb, a boy who was missing one front leg. The mother recovered from the difficult birth, but she did not accept her baby. Now we had a lamb who needed to be bottle-fed and brought inside at night for shelter. The third birth went smoothly but the mother did not accept either of her lambs. With Sarah’s help, we confined the mother and two lambs in a “jug,” a small pen where the mother would not be able to escape the lambs. In the end, she accepted her girl but rejected her boy. Now we had two lambs to bottle-feed. This lamb was black with stark splotches of white, so we named him Lightning, which provided the inspiration for naming the three-legged lamb. We wanted him to have a really strong name. Thunder! Yes, Lightning and Thunder. They are both completely tame now, following humans around, happy to be petted, and likely to enter the house if you leave the door ajar.

Here the cooperative model came in handy again as we shared the responsibilities of bottle-feeding and caring for the rest of the flock. Each household’s composition helped with bottle-feeding. Thunder and Lightning delighted the young children in Jenny’s household and the visitors and inhabitants of Sacha and John’s household (at that point a group of 12 people). This was easy with so many people involved, creating a gateway for bonding and learning about lambs. Daniela, one of the visitors, exclaimed feeding and caring for Thunder and Lightning was a beautiful experience.

Several times, one of the households had other commitments so another household would jump in and take over the duties for the time period needed. Now, the two bottle-fed lambs are back with the rest of the herd but still eager to interact with humans.

In addition to birth, we also experienced death. One member of our flock began showing signs of age and illness. We reached out to our community and arranged for a quick, painless end for this ewe, with several people giving emotional and physical support while the process was completed in the field. Her death was sad, but the cooperative created community and support around her ending.

Financially, initially we thought we would share the responsibility with each new cooperative member. But we soon realized that the finances would be difficult to apportion fairly. Who pays for hay during the months when the grass is dormant? What about households who join at different times, or who might decide to leave the cooperative? Should we account for different acreage?

After some discussion, the original members agreed the financial responsibility should be shared amongst only the two original households. New cooperative members would be responsible for the care of the flerd while in their possession, but we would provide the fencing, salt, additional feed, breeding and shearing costs, and other additional costs as necessary. We track all income and expenses, splitting them in half between the two original households. We expect that in the long term, the budget will show a very slight income, although there were capital outlays at first for electric fencing. With Sarah’s assistance, we have been able to sell our wool for slightly more than the cost of shearing and hoof trimming.

Words of wisdom for a new cooperative: go for it! Reach out to Sarah and others who have created their own cooperatives. What a great way to feel empowered!

NeighborGate Grazing Cooperative

BY MARIANNE BARRELL

VRRROOOMM! The mower started with a roar and the man seated on it smiled. “Always starts right up,” chuckled Ed, who’d been mowing the three acres on Eastman Lane for years. My husband Ross and I were looking at Ed’s property in 1997 and he was showing us around. Like most of the neighbors on the street, he kept his pastures mowed regularly and short each spring and summer. I followed in his footsteps for the next twenty years.

I greatly enjoyed mowing *the first time I did it*. I purchased three bred ewes right away, thinking that they would “mow for me.” I laugh now to think of that and whenever I hear someone else say it.

The property was fenced, so the sheep were secure from the road and my yard was secure from the sheep. They trampled on every square foot of the pasture every day of the year. I still found myself mowing from March through June. “Oh, well,” I thought, “people *have* to mow.”

Then, in February 2018, inspired by the Penngrove Cooperative Grazing Project run by Sarah Keiser, I attended the UC-ACNR Grazing School at Shone Farm in Santa Rosa. I came away inspired to do it all: restore the soil health and the native grass, catch the rain, sequester the carbon, increase the diversity of wildlife, provide habitat for animals and birds, raise fatter sheep, not buy hay, and never mow again. The grass would start growing in a couple of months and I wanted to be ready with a plan.

My neighbor to my north, a couple who had raised show llamas in the 80s and 90s but whose land was now being mowed in the spring, have a tenant named Terry, who is a dedicated conservationist. Terry had been encouraging her landlords, Herb and Sandy, to put grazing animals back into their paddocks, but they were reluctant

to own any animals year-round due to the vet care and feed costs.

After I’d completed grazing school, Terry and I approached them with a new proposal. We suggested rotating my animals through their paddocks. By now, I had a flock of about eight adult sheep and four dairy goats. It would be easy to drive the sheep through a gate that connected our properties. We invited the neighbors to my south and west. All of us are connected by neighbor gates. All of us had been mowing our high grass in the spring. All of us were in!

So, we needed a plan! At the end of grazing school, the coordinator, Dr. Stephanie Larson, offered her help and I took her up on it. I invited her to meet all of us to create a grazing rotation schedule. Sarah Keiser also attended. Stephanie piled loads of good resources for grants, mentorships, and other aids on us. When she left, I had a bunch of paperwork and applications but no grazing plan.

Next, Sarah connected us to Richard King, a proponent of Holistic/Regenerative Grazing following the Allan Savory method, and we invited him over to help us devise a grazing rotation plan. He inspected our pastures and spoke with great knowledge (and at great length) about the concepts I was so excited about from grazing school; and when he left, we still didn’t have a plan!

Terry and I invited him once again, for a one-hour meeting to fill out the grazing plan form he uses. What I understood from two days of grazing school was this: the paddocks should be just the right size for the flock to bite, lie on, or pee or poop on every plant in it in twenty-four hours. The sheep should be moved to unbiten, untrampled, uncontaminated pasture each day. Seems like pretty simple math.

Well, golly, there were many steps and lots of math in the rigorous approach that Richard outlined for us from the instructions in the *Holistic*

“It seems that each grazing operation needs to take what works and move forward...it has to work for the grazer and her group of neighbors.”

Management Handbook, by Allan Savory, Jody Butterfield and Sam Bingham. But after a little more than an hour, we had our plan at last. It seems that each grazing operation needs to take what works and move forward. Moving the sheep from paddock to paddock without a specific grazing plan may work for some. Others may require a strict, concise grazing plan to manage their shared flock. It has to work for the grazer and her group of neighbors.

We pitched in for equipment and began. At first we all joined together to “drive” the sheep. We’d been conditioned by the movies to yell and wave our arms but soon learned that simply walking quietly behind them was as effective and less stressful. The sheep themselves caught on quickly that they were going to greener pastures and actually were running ahead of us many times. Soon, I could move the sheep with only the neighbor receiving the flock as my helper. We stayed in touch and spread the word when each lamb was born. This year, at least one lamb was born on everyone’s property!

We learned right away that having a plan required flexibility. What if you were too busy one day to move the sheep? What if the receiving neighbor couldn’t let you in for a couple days past the planned date? How do we handle a neighbor whose grass is too high and wants the sheep to come to her for longer than planned before her turn? I called Sarah for advice and moral support—and just to vent when I was frustrated with a neighbor’s commitment level or misunderstanding of the process.

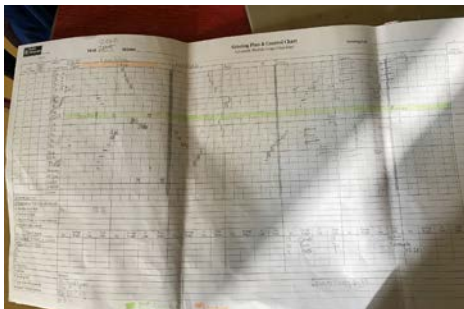
Of course, the sheep could not handle the abundance of grass in the spring



“I see more lizards and butterflies than ever before and evidence of badgers passing through in the spring. When I found a Western Ribbon Snake in grass that never grew in summer before, I was thrilled!”



Top: moving sheep at the NeighborGate Community Grazing Cooperative; Above: some of the new wildlife present at NeighborGate; Right: a ewe and her lamb at NeighborGate; Below: the grazing plan developed by the NeighborGate Grazing Cooperative



when temperatures and daylight increased. So what does a good grazing co-op do? I cold-called a dairy that operates a half mile away and proposed they graze some of their heifers here. In no time, they had dropped off fifteen calves, and those calves stayed for sixty days, moving through our fields and biting, lying on, peeing and pooping on the tall grass that the sheep wouldn't. That dairy does not share a neighbor gate with us, and the following year circumstances prevented them from bringing calves. Once the connections are made, it is easier to find more like-minded people to cooperate with.

We had conversations about when and how to mow when the grass inevitably got too high for the sheep in late spring. Each neighbor made their own choice. One neighbor really feels that it is important to have her fields look tidy and still cuts the grass in June, after the calves leave. But one neighbor is delighted to save the money she used to pay for high-weed mowing. One neighbor mowed after the flock's final late-spring visit the first year before we found the calves but this year attended a Regenerative Grazing seminar herself and decided to quit mowing. She is convinced of the rain storage capabilities her soil can have if roots are allowed to grow.

I have not mowed my fields for three years now and have only a passing twinge of worry for about a week in June about what the neighbors will think. Those thoughts are chased away by the joy of replacing the ear shattering VROOOM of the mower with the rhythmic sound of munching of the contented flocks. I see more lizards and butterflies than ever before and evidence of badgers passing through in the spring. When I found a Western Ribbon Snake in grass that never grew in summer before, I was thrilled! Even Valley Quail come to investigate my property now (although they do not stay because there are many cats in my neighborhood and my dogs roam with the sheep). Each year, I find another patch of perennial or native grass or a flowering plant escaped from my garden that could not have grown there without retiring the mower.

Grazing In Collaboration

BY PAIGELYNN TROTTER

I WAS spending my days off reading about the symbiotic relationship between grass and grazing animals. I craved romantic text revolving around soil biology that became abundant only when intentional disturbance took place. I started to consider words like *manure* and *organic matter* to be sweet, tasty words; they would roll off my tongue the way my partner would say *apple pie*. Dinner parties consisted of long conversations with anyone willing to chat about hoof impact and carbon sequestration. Weekends were often just hours of watching animals graze, ruminate, poop, move, then start again. Insistent that they were teaching me the most important life lessons, I leaned in further and further.

I unloaded my first fourteen goats in 2016. I had just finished my first year of working part-time as a “livestock operator for hire” all over Sonoma and Marin Counties. I worked for anyone who needed a little extra help. Some days, I was gathering or sorting animals; other days, I was working the corrals for processing of some sort. Then there were days where I would get to be out on the land, dropping hay, fixing or picking up fences, checking water. On those days, my lens would widen and narrow as I moved across grazed spaces. I’d see patterns that began telling me stories of who and what had been there.

To complement this work, I was attending classes at the local college, studying Sustainable Agriculture and Natural Resource Management. Thankfully, the majority of my instructors were adjunct with primary jobs in ranching, farming, tracking, and other earthly endeavors. They knew the importance of hands-on experience with real-life people and brought my classes all over the county to different progressive operations and thoughtfully managed landbases. I ended up on a field trip at a small sheep ranch in West Petaluma called Monkey Ranch. There, I

met Aaron Gilliam, owner of an evolving company named Sweetgrass Grazing.

I worked on and off with Aaron until, eventually, we determined it only made sense for us to join forces. It certainly wasn’t a clear-cut collaboration: we were constantly asking questions about fairness and finances, how to value the hidden benefits or compensate for the work less easily logged. Each time we would overcome an obstacle, we would deepen the collaboration and increase our relationship’s complexity again. Soon his sheep and my goats were grazing with each other through much of the year, sometimes tackling paid grazing projects together, other times begging for space to stand. The work constantly provided empowerment and humility—often in the same breath.

In addition to our collaboration, Aaron was already in several collaborative relationships and I was quickly woven into the intricate web of community he had created for himself. When we needed a bit of storage space, a place to rest or a table to host intentional gatherings, Sue and Alan Cooper, longtime supporters of young agriculturalists and owners of Monkey Ranch, seemed to have an open door around the clock. Alongside our animals, Guido Frossini’s sheep grazed. Guido would come out with our team on days when we needed the extra hands, feet or wheels. He somehow always found a way to make the work even a bit more romantic than it already was.

A majority of Sweetgrass Grazing projects consisted of neighbors or friends of friends—individuals who wanted to do right by their piece of land. It seemed like Aaron always had someone visiting the flock, sprawling out on a blanket between tasks, eating local earthly delights and drinking wine. It felt so fancy to me at first, overwhelming even. Hard work was the main contribution I had ever felt was expected of me; but now, a sense of belonging started to settle in over shared meals, reflections and love for the land. Eventually, our team developed and we became this force of

shepherds, each with unique talents to round out our community—and with the food came music and laughter.

Connectivity was a running theme in our lives and work. Not only connecting people, but connecting land was of high importance to Aaron, and so it became important to me as well. We did not enjoy the disconnect that occurred when we loaded our flock into trailers and delivered them to the next space. They were troopers, but we imagined a life where they could see the journey with us or migrate, in a sense. So, as often as we could, we would use the roads, passing drivers that typically smiled, waved or recorded us as the sheep surrounded their vehicle for a moment.

We were hired, and totally honored, to graze public lands, specifically regional parks. Park visitors would stop and stare at the sheep grazing, the sight resonating in their bodies, often creating calm, safe feelings. Sue described her experience: “I can be anxious about anything and everything, but then I watch them graze for a bit, turning grass into food—fuel into fertility—and I am shown by them it is going to be alright.” The sheep were reminding folks daily to ruminate, appreciate the simplicity of life, and shake off what does not serve them.

After the 2017 fires, folks were offering testimonies like this frequently. Suddenly, we found no opposition to grazing—grazed land simply felt safer. Data showed grazed areas burned less intensely, giving more time for evacuations and allowing for a swifter recovery. The oak trees even proved to appreciate a low burn when the surrounding area had been grazed, while trees in unmanaged space suffered if they survived. Appreciation for the work of grazing animals rose, and the value of our service became more evident.

These interactions fueled the desire to share the shepherd’s experience with more of the community. So, when Guido proposed we herd the sheep through town where we would invite anyone and everyone to come celebrate the beauty

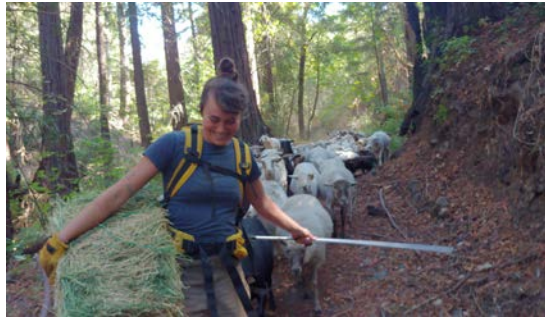
“It is not easy work, creating something alongside others, but it is by far the work most worth doing.”



Left: the 2020 Sweetgrass team (left to right) James Edmondson, Aaron Gilliam, Paigelynn Trotter, Riley Steidlmaier, Jason Holtz, and Isha the herding dog (Photo by James Edmondson)



Above: even the Sweetgrass Goats can't help but admire the art of grazing (Photo by Paigelynn Trotter)



Above: Gabriella Cobb, 2019 shepherd, leading sheep through redwood forest along Calabasas creek (Photo by Paigelynn Trotter)



Above: grassland picnics with 600 sheep and goats on a low density green season contract (Photo by Paigelynn Trotter); Above that: the legendary Lora Kinkade, taking care of our seasonal shearing needs (Photo by Paigelynn Trotter); Left: the Sweetgrass flier staying close while moving through congested forest (Paigelynn Trotter)



Above: James Edmondson and Shogun the guard dog settling into a new grazing project (Photo by Aaron Gilliam); Above that: collaboration in action—Ruthie King (and dog Cholla) dials in Paigelynn Trotter (and dog Briar) on new equipment and new spaces (Photo by Eva King); Right: the 2018 Transhumance herd down D Street in Petaluma. Pictured: Aaron Gilliam, Guido Frossini, Leland Falk, Paigelynn Trotter, Marie Hoff, Lora Kinkaide, Ruthie King (Photo by Noelle Gaberman)



of this work, Aaron couldn't resist. We would work through the light of day then spend the dark hours preparing for the event. After many months of planning, with dozens of folks as eager as us to make it happen, on June 9th 2018, the first annual Transhumance Festival took place in Downtown Petaluma. We herded our finest, most fit yearlings two miles past homes and over the D Street bridge. Then we gathered to watch them graze, learn from each other, share food and celebrate.

With truths such as these, why would one ever change course? Well, 2020 brought unique opportunities and unforeseeable challenges. Target Grazing as a paid service had really taken off and, if we were better capitalists, we surely would

have ridden the wave hard—but we're not. We both wanted a home and some semblance of a family and had been living through the pandemic in our trailers as housing prices rose. In November 2020, we sat down, satisfied, exhausted, proud of our relationship—and we called it. We determined that what we both needed most was a season off. There were changes that needed to happen and no time for the creative strategic planning that would get us there.

You don't park animals in a garage when you need time off: Fortunately, stars aligned. The sheep were sold to a famous shepherdess in Southern California. My life partner Donald and I became pregnant with our first

child Leland James, and we moved to Mendocino County where we found affordable housing near good friends. The goats came with us, thanks to seasoned collaborator and good friend Ruthie King, who was willing to manage them while our son was born. However, the goats eventually followed the sheep south, ending up in San Diego with respectful shepherds doing similar work.

My stockdog and I are finding work with good folks in this area, lending a helping hand and finding our feet at a pace I have truly missed. The collaborations here are brewing, which puts a smile on my face. It is not easy work, creating something alongside others, but it is by far the work most worth doing.

Rachael's Grazing Cooperative

BY RACHAEL PHILLIPS

TEN YEARS AGO, with a toddler and a more-than-full-time job, I moved back to my family home. This has always been called "the farm," despite it being just shy of three acres. As kids, we had horses, a couple of 4-H cows, sheep, a few fowl, cats, dogs and a barn and a half full of rabbits. My mother was the county Rabbit Leader for thirty-plus years and had developed her own breed. Tragically, the entire project was lost, with both barns, in a fire in 1996. The barn was rebuilt, half-sized, due to tighter county regulations, but the fields went unused. Fences fell, one board at a time. Tree limbs grew and fell; old cages littered the fence line. My parents never replaced any livestock. It felt to me that she lost her love of the land after the tragedy.

Fast forward twenty years, and my ten-year-old asks for a goat. "What a great idea!" I thought to myself. "He can gain the knowledge and experience of animal husbandry, and we can act like this is really a farm again." So on Christmas Eve, I erected a kennel and filled it with straw, hay, water buckets, fixed fences and got ready for the big Christmas morning surprise. The 4-H-er that was

leaving the project gave me a good deal on the whole herd, so we got a mama and her two wethers (one was still just a kid) and the old auntie that just kind of tagged along. It was exciting and a very special moment to see my son's realization that he was now a goat owner.

"Oh dear, what did I do?" I wondered, as I became a stall-mucking, hay-hauling, shot-giving, milking-by-hand mom. The first years were muddy and wet. The grass grew. My biggest worry was taking the tractor into the field too early to mow, knowing how often my dad got it stuck in the springtime before the ground hardened up. We have silty, fine soil, and without grass it behaves like sand. When the horses of our youth lived in the pasture, it was hard and nothing grew. By the time the ground was firm enough to mow, the grass was waist high. I was becoming reacquainted with the trials of this place as the seasons changed.

I fed hay. The goats didn't eat all of it. It was a mess and expensive. The first summer, I tried to cut the tall grass and save it, but it dried out so fast that it wasn't very good—not to mention, it was so much hot and uncomfortable work! I'd look out at the neighbors with their cows eating the grass and think, "That's a good idea. Aha!" So I built a few more fences, ran a water line,

and moved a couple of the goats down there. They are good climbers and can find a weak spot in any fence. If you leave a gap more than three inches between the fence and the gate, the goats will escape. They love stripping redwood bark and killing young trees. I struggled. I persevered.

The fall of 2018 was not good. It was smoky. It was dry. It was hot. My neighbors on the windward side did not tend their fields. I was nervous. I know first-hand how fast a fire can move through dry grass with a wind on it. I spent lots of money limbing and trimming the treeline. I bought a used horse trailer to move our growing herd. Twice, I hosted family and friends that were evacuated from fire areas. I had to find a solution. Every summer, I would get on the tractor and mow our fields multiple times. The first cutting is the hardest since it grows so tall before the dirt is dry enough not to get the tractor stuck.

Because I live in an amazing, proactive, involved community, life was about to change for me. My friend Sarah Keiser told me she had recently received funding to help people start Community Grazing Cooperatives. She explained how to use temporary electric fencing and move livestock around the property. I could receive the dual benefits of the animals grazing the

“I learned that raising animals is not a thankless chore but a way to share and reciprocate, to stay connected to my home in a meaningful way—from the dirt up.”



Top right: Rachel and her goats; Above: the goats out on a new pasture; Left: Rachel using her new tester to determine if the fence is hot; Below: Rachel's ducks out on pasture; Below right: Rachel's goats getting to eat green grass, rather than hay



fields and building top soil. I learned that they don't wander away once they know the boundary, although there were difficulties at first. I tried to move them to a new field entirely. But my goats always wanted access to their home base, so they tore right through it even as I was sure they were happy. I couldn't walk away. I tried putting the fence in their pen to get them used to it, and ended up with a tangled mess. Finally, I realized a compromise was needed. We cut a path through the home paddock into the old sheep pasture, which was where there is a plentiful and varied bounty to feast on. They taught me to move the fencing as the food was eaten away (they also taught me that they will eat a young oak tree right down to sticks). There is enough electric fence to shift the areas as it is eaten away.

Head slap! Yes, of course that is the best way to get food to the animals. Let them eat it from the ground, when it is highest in nutrients, and the wide variety of plants is the best for the ruminants. Luckily for my goats, we had trees to munch on, too. They really love the crunchy redwood needles and oak leaves! A big part of the experience was the transformation of my spirit as I moved out of work mode and into communing with them as they ate and ran, playing with each other. The youngest would join me for strokes and nudges then go find more wild, tasty treats. A funny thing started to happen.

My role was shifting to being a part of the herd as its leader. With the freedom to eat when they pleased, I was not being mobbed when I entered the pen as ferociously as before. My phone was full of pictures. I learned that raising animals is not a thankless chore but a way to share and reciprocate, to stay connected to my home in a meaningful way—from the dirt up.

Thank goodness I have the animals. The power shutdown we all just survived, along with my ailing mother, would have felt so overwhelming without the love and joy I felt just sitting in the field watching the kids and mama does eat and play.

The milk I was getting was delicious and abundant. My signature snack to share with friends and neighbors was my chèvre and crackers. I shared milk, cheese, and even yogurt. I learned that there are others who want to be in a community built on restoring the bounty of the earth and sharing it with others. I also began sharing my stories, and learned so much more from others about how they made it work for them. The garden benefited from the increased fertilizer left by the animals, and I could also share my bounty proudly.

This year, I was astounded by how fast the land dried out. There was not much left to eat after April, so I left the field open to the barnyard and let the goats roam as the kids grew up. They feel safe

now, the ground is healthy and stable. Unlike the years before, where skunks and raccoons were all we seemed to get around here, I was delighted this summer to see a gopher snake sunning itself on a patch of dirt. The hawks are close, and the owls roost in the redwood trees above what appears to be a favorite lane for the wild turkey family that frequents the yard. The deer are challenging my roses. I've even seen foxes and badgers around here. It feels a bit miraculous. While not the best for our chickens and ducks, it's a sign to me that our property is more in balance, healthier, and offers refuge to wildlife in this horrible drought time that I thought had been pushed out permanently. I attribute this all to the sustainable land stewardship practices I've learned. It also means I can stay off the tractor and don't have to mow the grasses until it's really necessary: I don't waste the bounty nature gives us each spring.

I know there is much I don't know, but it's good to know I have a community of friends to call on for help. Sarah, Marianne, my fellow 4-H parents and volunteers, neighbors who have discovered the same benefits: we share stories and help each other in both trying times and times of prosperity. A grazing cooperative helps build empathy and understanding, and creates a community to turn to any time. I am so grateful.

Penngrove Grazing Project

BY SARAH KEISER

I'M WALKING down Dutch Lane right now, speaking into a talk-to-text app. It seems appropriate to tell the story of the Penngrove Grazing Project while walking down the same road that sparked the concept.

It's a story of evolution, modification and flexibility—a story about how a rural residential community changed their connection to the grass, the soil and each other. Of how a neighborhood

changed their experience of the land and each other: all because I fell in love with sheep, the grass they eat and the road we walked every evening.

I was excited when my family managed to obtain two acres of land in Sonoma County, California to tend to, love and grow on. What I wanted when I planted my feet on this lovely space was a dairy goat or two and some sheep. I purchased my first two sheep off of Craigslist, and I immediately fell in love. This love and excitement led to my purchasing a ram, which of course led to lambs. My love of sheep, fiber, breeding, and land stewardship grew. I stumbled

upon Fibershed and became a producer member, back when there were only forty of us.

As I walked around my neighborhood every day with my four-year-old daughter and my seven-year-old son, my eyes began to see my rural residential community through the eyes of a shepherd. What I saw was many overgrown pastures with tall grass, weeds and shrubs that my growing flock would enjoy! What the neighbors viewed as work or an overwhelming responsibility, looked like food for my growing flock.

The pastures varied in appearance throughout the neighborhood. The ones that were overgrown were full of upright, dry annual grasses. This was before the big fires in Sonoma County in 2017, so many pastures were full of tall, dry grass. We had not experienced the fury of a real wildfire for quite some time. The other pastures were mowed heavily and regularly. They were full of dry, pokey weeds like thistle and bristly ox tongue. These plants painted the picture of an overworked and undernourished soil. A soil and a grassland that, in my mind, was begging for sheep and goats. The plants were telling the story of the soil and it was time for my neighborhood to become a community and listen.

It was Hazel, our mini LaMancha goat who made the first introduction. This precocious young goat jumped our fence and was in the road on Dutch Lane. Our neighbor and new friend Pat stopped to help. She is an animal lover and was very concerned to see our girl out frolicking on Dutch Lane so close to the highway. Pat stopped and tried to back into our driveway. She took the turn too close and ended up halfway in the ditch. This led to a stream of profanities at such a volume and pitch that we had heard her in our house. My children and I ran out of the house to see what was wrong and this is how we met our friend Pat. We captured Hazel and put her back in the pasture and spent several hours chatting with Pat as we waited for AAA to come and help her out of the ditch. We learned she had goats and horses. Thanks to Hazel and the ditch, we made a new friend and prepped the field for our Penngrove Grazing Project.

Pat lived up the road on Brand Lane. She was close to her neighbors there. When her neighbor and friend JD was walking by, he expressed his concern for his quickly growing pasture and lack of livestock to keep it down. Pat thought of us and our expanding flock of sheep. She introduced us to JD, who had a two-acre pasture and would appreciate some sheep to provide mowing services.

It took a few of us coming together, but we moved the sheep up to JD's and the Penngrove Grazing Project began.

It was such a pleasure to walk up to check on my sheep every day. It was a joy to chat with JD and Pat on the way, to build relationships with them and watch my children's village grow. The hooved animals led the way, but the plants, the people and the soil followed with joy.

We made more friends; we identified more plants; we watched bunch grasses come back on multiple properties. We watched pastures, made up of thistle that had split wide open in the summer from the harsh sun on adobe soil, turn into luscious grassland that now bends in the spring breeze.

It is wonderful to experience all of these relationships—to the soil, the land, the plants and the people in my neighborhood—on a daily basis: something that never would have happened if not for Hazel and the sheep.

We all enjoyed the sheep and they became shared by our community. The sheep took care of the land. Because they did so, we built gates into fences that had never existed before. Everyone had my number and kept an eye on the flock, calling me when anything looked off. We all enjoyed the lambs in the spring and talked and laughed through the fence while watching their antics. The community grew.

When the horrifying fires of 2017 licked the walls of our community, everyone came to help me load the sheep. We shared trailers and found places for our flock to stay safe from the fires. We all took care of the sheep. We also took care of each other.

The Penngrove Grazing Project and its flexibility was tested in June of 2020 when a mountain lion came down into our neighborhood and began to kill all of the sheep and goats that had built the soil, tended the land and inspired a community. We couldn't stop it. Our

160-pound livestock guardian dog could not stop it. Locking up the sheep at night didn't stop it, and the lion began to kill in the middle of the day. We could not watch all of our beautiful animals lose their lives one-by-one. We decided as a community that we had to bring everyone home. We ended the grazing up on Brand Lane and brought the animals to one location with four livestock guardian dogs so we wouldn't lose them all.

Our sheep are back home now. I reduced our numbers and minimized our flock as they could not go out to graze up with our neighbors on Brand Lane. They must stay close to stay alive. So we graze only next door, where the dogs can go, and we bring them home each night. Sadly, the lion has killed all goats and sheep that dare to live on Brand and Davis lanes in Penngrove.

The land has changed because the sheep can't graze anymore, but the community has not. The neighbors have had to go back to mowing and watching their bending grasslands disappear again. But we stay close in our community and are attached to each other and the sheep that are left. The connection is not gone: it only grows. We will continue our potlucks and barbecues together. We're great friends, in service of each other and our community. We toast each other and the sheep at the BBQs, and look forward to the day the sheep can return.



“It is wonderful to experience all of these relationships—to the soil, the land, the plants and the people in my neighborhood—on a daily basis.”



Above right: Sarah Keiser with her ferd; Above: Sarah and her daughter Imogen leading the sheep down the road to a new pasture; Right: Imogen leading the sheep onto the new pasture (Photos by Paige Green)



Above: Sarah’s daughter Imogen and her favorite goat Sandy; Below: The Penngrove Grazing Project—community coming together to move sheep and take care of the land and each other (Photo by Paige Green)





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