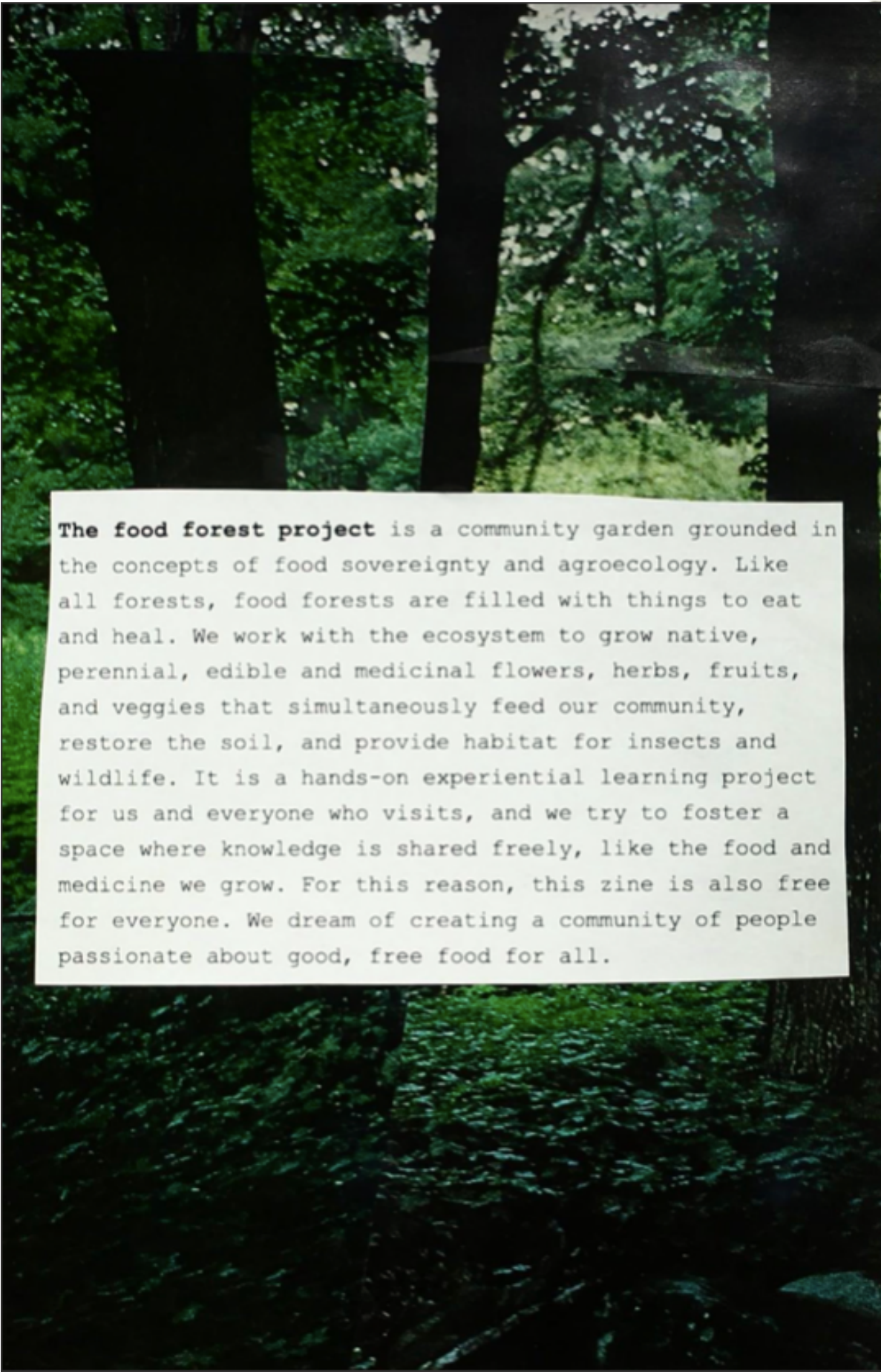


PRESENTING:

Food
forrest





The food forest project is a community garden grounded in the concepts of food sovereignty and agroecology. Like all forests, food forests are filled with things to eat and heal. We work with the ecosystem to grow native, perennial, edible and medicinal flowers, herbs, fruits, and veggies that simultaneously feed our community, restore the soil, and provide habitat for insects and wildlife. It is a hands-on experiential learning project for us and everyone who visits, and we try to foster a space where knowledge is shared freely, like the food and medicine we grow. For this reason, this zine is also free for everyone. We dream of creating a community of people passionate about good, free food for all.

What do all these words mean?

Permaculture¹, or permanent agriculture "is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems" in response to the "damaging impacts of industrial agriculture"².

Agroecology is most often associated with the food sovereignty movement and it can be understood as "a scientific discipline [which] aims to apply ecological concepts and principles to sustainable food systems design and management"³.

Food sovereignty is defined as the "right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems"⁴.

Regenerative agriculture has a deep emphasis on soil health⁵. While hard to define, it can be understood as systems that "improve the environment, soil, plants, animal welfare, health, and communities"⁶. It includes a wide range of practices⁷, including permaculture and agroecology, intended to regenerate and restore the land rather than degenerate and degrade.

What these have in common is a respect for how ecosystems adjust to disruptions in the environment and strive for a dynamic equilibrium. If farmers and gardeners can be consciously responsive to the ecosystem in which they're growing, their food and medicine production will be more resilient and sustainable.

THE FOOD FOREST



Art by Brook Artizimiga

What is a food forest? Really, all forests are food forests if you know where to look. There are tons of creatures that live off of forest ecosystems, contributing to the natural succession: things grow, they are eaten, die and go back to the soil to nourish new growth. Food forests are slightly more curated, as one tries to make edible plants more abundant and accessible and minimize toxic ones. The modern day food forest or forest garden is an echo of Indigenous land stewardship prior to colonization, where plant, shrub and tree species were placed strategically across the land, forests were fertilized with fishbones, and controlled burns were performed to restore soil and forest health⁸. They encouraged the forest to produce food and medicine, always paying mind to what the land needed to continue to provide for generations to come (7 generation teachings)⁹. We learn from them by not using chemical fertilizers and pesticides, preserving the soil's microbiome by not tilling, and supporting the forest's natural cycle.

Food forests are built in layers:

1. Underground, you have the mycelial layer, the mushrooms, keeping the soil healthy and alive.

2. There is also the root layer (rhizosphere)¹⁰, including root vegetables and plants with edible roots.



3. Next is the groundcover, very important for keeping the soil from flying away with the wind, protecting the soil from the scorching sun, and improving water retention.

4. Just above the groundcover is the herbaceous layer—herbs, medicines and other leafy plants.



5. Next are shrubs, slightly woody bushes and such like berry bushes!

6. Can't forget the vine layer, which uses the trees to grow upwards.

Lastly, there are two layers of trees in a food forest

7. a canopy layer at the top that provides some shade,

8. and the understory layer with slightly smaller trees.

Food forests are composed of primarily native perennials

It's great when your plants serve more than one purpose, or are multifunctional. For example, when a plant has a tap root, and/or fixes nitrogen, provides good mulch (dynamic accumulator), attracts pollinators, distracts pests, etc. That way, there are a bunch of symbiotic relationships happening in your forest at once.

Fostering relationships between layers is a great way to improve the resiliency of your garden. Sometimes these relationships are called companion plants, plants that grow really well together like corn, beans and squash (the three sisters), tomatoes, basil, and parsley or strawberries and rhubarb. Taking it a step farther than companion planting, place a tree as the centerpiece and multifunctional companions around it to form "self-sustaining polyculture systems"¹¹ called guilds, permaculture guilds, or tree guilds. For example, we plant marigolds, creeping thyme, borage, oregano, and mullein around our pear tree, hazelberts and serviceberry.

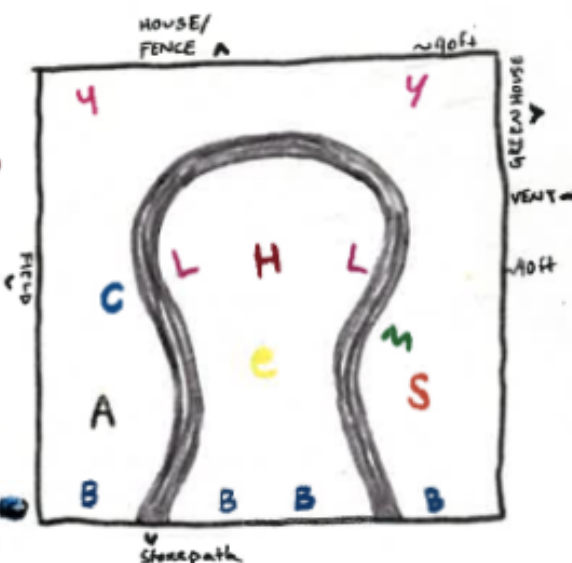
Food Forest Design

Trees: Apple tree (Honeycrisp)
Hazelbert (two for fertilization)
Serviceberry

Shrubs: Blueberry
Raspberry
Strawberry

Herbaceous: Beebalm (e)
Mexican mint
Marigold
St John's wort
Calendula

Mushrooms: Lion's mane
Chicken of the Forest
Oyster



So... How did we do it?

March 2023

- Conception, planning, relationship building (CultivAction, Mycological Society)

March 31 2023

- First site visit with friends

May 22 2023

- Soil remediation and site preparation, plant, with volunteers

May 28 2023

- Buy herbs, flowers, shrubs

May 7 2023

- Buy trees, shrubs, and plants, pick up donations from CultivAction

May 8 2023

- Breaking ground, clean up, with a team of volunteers
- Consultation on design

May 15, 16, 19, 21

June 8 2023

- QPIRG-Concordia Grant Application

June 9 2023

- Sustainability Action Fund Grant Application

Apply to be a QPIRG-Concordia Working Group

August 30 2023

Accepted as a QPIRG-Concordia Working Group!

THE FOOD FOREST PROJECT TIMELINE

July 10 2023

- Awarded QPIRG-Concordia Grant \$500

July 29 2023

August 1 2023

- Did not get the SAF grant :(

- We install a mushroom bed with Eugenio

strawberry

October 29 2023

- End of season celebration and garlic planting

January 20 24

- Start plan for garden for upcoming growing season, purchase seeds, start seedlings

April 2024

- Pick up donations from Sankofa Farming Cooperative

May 5 2024

- Launch of the food forest's second season!



- Plans for the coming years: Add more trees, add a chilling area, grow a medicine garden, grow a pollinator garden with native wildflowers, improve berry harvest, collect rainwater, start seed saving, more collaborations with herbalists, cooks, gardeners, Indigenous collectives. Host gardening, harvesting, cooking, preserving workshops. More BBQs! More free food!

Challenges

Practicing food sovereignty means that tending to the food forest will never be profitable or sustainable without outside funding or support.

Initial investment (time and money) is higher than subsequent years, especially when designing a system that aspires to be self-sufficient.

We had to plan for years down the line when the trees get larger and create more shade. For this reason, we did not include canopy trees.

It's not located in Tiohtià:ke, it's on farmland so carpooling is a must.

Our first summer it was hot. Everything bolted in the first heat wave (flowered/went to seed), which meant it got tough and bitter, like the basil, lettuce, and kale. Harvesting well and on time is as important a skill as growing.

It is really difficult to grow exclusively native plants when colonization has brought and naturalized so many species. We prioritize native species, with some flexibility and a lot of care and attention.

Pampas grass- We should have set it on fire and watched it burn.

Planted annuals, mistake! Planted things too far apart, mistake! Didn't mulch enough and the soil got burned, mistake! Mushroom bed on high ground so not moist enough for mushrooms, mistake! Trees so close they touch, mistake! Not pruning raspberries and they get fungus, mistake! So hot that everything bolts cuz we don't prune the buds soon enough, mistake! Planted lemon balm in the soil, mistake!

Successes

We turned a nook overgrown with weeds filled with trash and construction material into a garden teeming with life and things to eat (and weeds)!

Made a path out of salvaged stones, added benches, and a new compost pile.

We have seen bunnies, frogs, field mice, butterflies, praying mantis, bees, ladybugs, and birds of all kinds (not to mention Canelo, Vespa and Aria).

Last year, we grew strawberries, lettuce, sage, yarrow, basil, kale, and raspberries. This year, we'll have strawberries, sage, red and black raspberries, beans, peas, oregano, creeping thyme, blue flax, mushrooms, st john's wort, heal-all, skullcap, mullein, calendula, pineapple weed, currant/gooseberries, garlic, leeks, and grapes. Not to mention all the flowers!

We went from complete and utter novices to more informed and confident novices.

We made so many friends, and many volunteers come back time and time again! The parties hosted at the food forest were beautiful events full of laughter and life.

Most of all, we learned how to begin
Connecting to land...

Connecting With Land

A great way to connect to land is to listen closely to what it says. That is a skill to hone. Knowing the Land is Resistance (KLR)¹² is an anarchist collective sharing a new approach to ecology, and they offer exercises during their workshops. Here's a quick deep listening exercise inspired by KLR.

I welcome you to find a space outside: An abandoned lot with weeds taking over, small greenery growing in the cracks of the sidewalk, a patch of grass and flowers in your backyard... Listen with all your senses- hearing, sight, smell, touch, taste. Notice what you can about the landscape, and just be in silent curiosity. Let your questions flow, and let them turn into more questions that maybe you won't find answers to. But having that continual curiosity and desire to learn will have you much more synced to the land. Let your focus drift around until something catches your attention, and then take a closer look.



What do the leaves look like? Can you see the path of the sun throughout the day and how it shines on your space? On a rainy day, would this spot be watered? Is the soil dark and rich or sandy and dusty? What other plants are growing there? Do you smell the earth, the plants, the flowers? Are there nearby shrubs or trees? How big are they? What kind of animals and insects are around here? Do you see debris like sticks, stones, leaves, decomposing organic matter, candy wrappers, water bottles? Is the land sloped? Are there wet spots and dry spots? Does it get good ventilation or is it stuffy? What infrastructure is nearby? Condos, houses, schools, hospitals, meadows, public parks, restaurants, greenhouses, parking lots, gardens? If you are curious enough to touch, are the plant's leaves soft or sharp? If you tug, does it come out easily or put up a fight? What are the roots like? If you rub the plant between your fingers, what smell does it give off?



Now, let's say you're looking at your new garden or guild: It could be a big pot on your fire escape, a raised bed in your parents backyard, a plot in a community garden, window sill planter, an abandoned area being rewilded, or a large field. Now you need to ask more specific questions, which I will guide you through here, inspired by the Permaculture Apprentice Food Forest Site Survey Checklist¹³. If the question is not relevant to your site/garden, just skip!

Climate

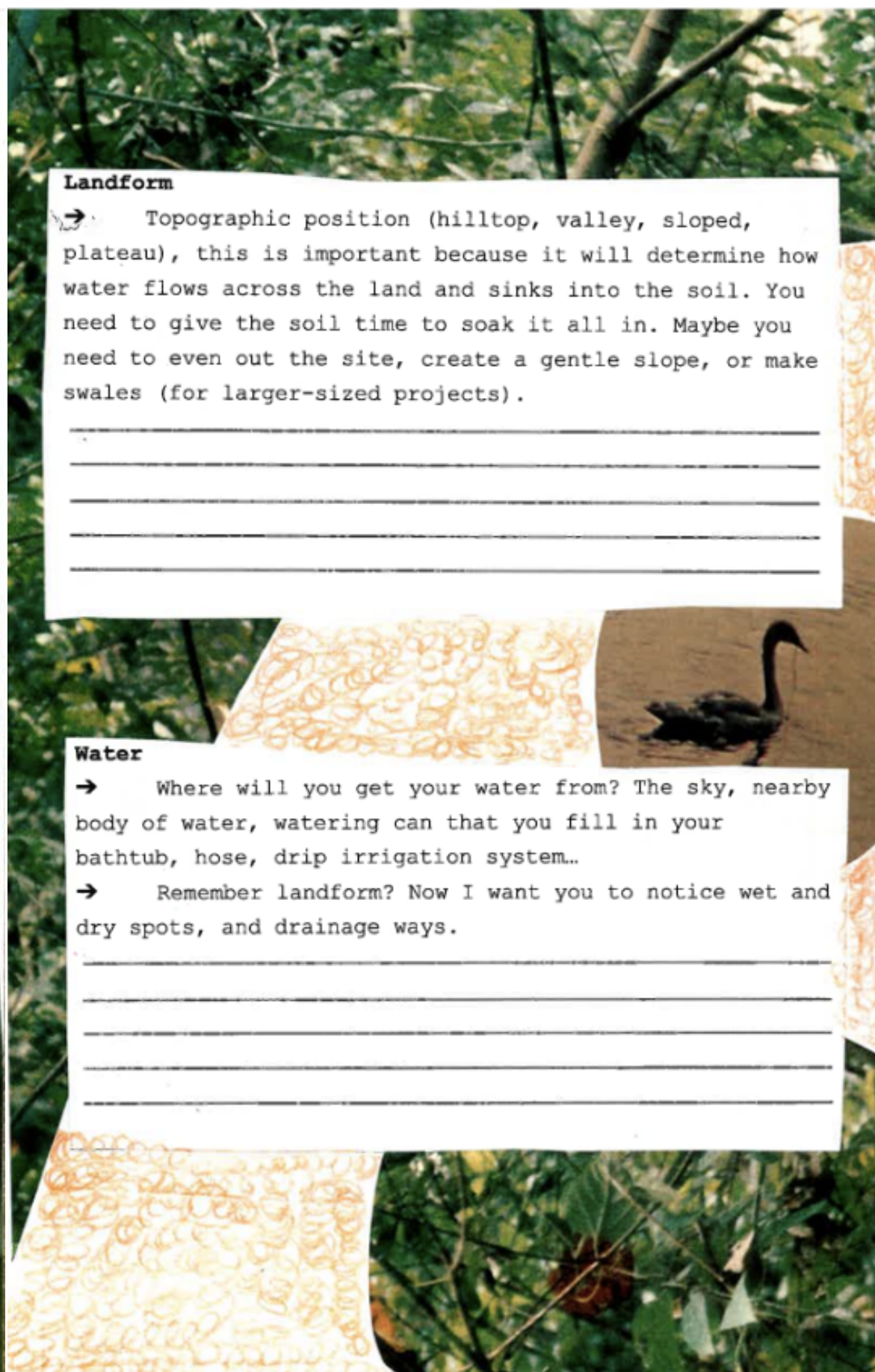
- Plant hardiness zone
- Annual precipitation
- How windy, or exposed to wind, is your site?
- Average number of sunny days in a year
- When is the first/last frost?
- Breakdown of the seasons and how long they last

Landform

→ Topographic position (hilltop, valley, sloped, plateau), this is important because it will determine how water flows across the land and sinks into the soil. You need to give the soil time to soak it all in. Maybe you need to even out the site, create a gentle slope, or make swales (for larger-sized projects).

Water

- Where will you get your water from? The sky, nearby body of water, watering can that you fill in your bathtub, hose, drip irrigation system..
- Remember landform? Now I want you to notice wet and dry spots, and drainage ways.



Soil

→ Observe with your senses- Hard, compacted, dusty, sandy, rocky, dark, rich, lots of worms, organic matter, easy to dig. Tells you the kind of work you have to do to remediate the soil (you can add organic matter, mulch, wildflower and groundcover seeds)



Vegetation and Wildlife

- Existing plants (trees, shrubs and herbs)- bring a knowledgeable friend!
- Wildlife paths and safe havens
- Indicator plants (indicating soil health or pH...)
- Existing plants that you want to keep



Infrastructure

- Existing buildings, fences or structures- for instance, we have fences on two sides and a greenhouse on the other side. Important info!
- Access points and existing paths- as mentioned there's only one way into our food forest and one way out.
- Other structures (electric lines, poles, underground pipes, septic tanks...)

Microclimate

- Shady areas
- Areas exposed to winds
- Sun's path throughout the day

A big thank you to QPIRG-Concordia for their belief in our project and generous funding and support. Thank you also to CultivAction, Sankofa Farming Cooperative, and the Concordia Mycological Society.



Special thanks to Erik Chevrier, Nico Schutte, Caleb Woolcott, Satoshi Ikeda, Hannah Eggleton, and Eugenio Jose Garza Fernandez for all their knowledge and encouragement.



Thank you as well to Maya's family, specifically Ronaldo and Eloisa, whose neverending generosity and support made this project possible.



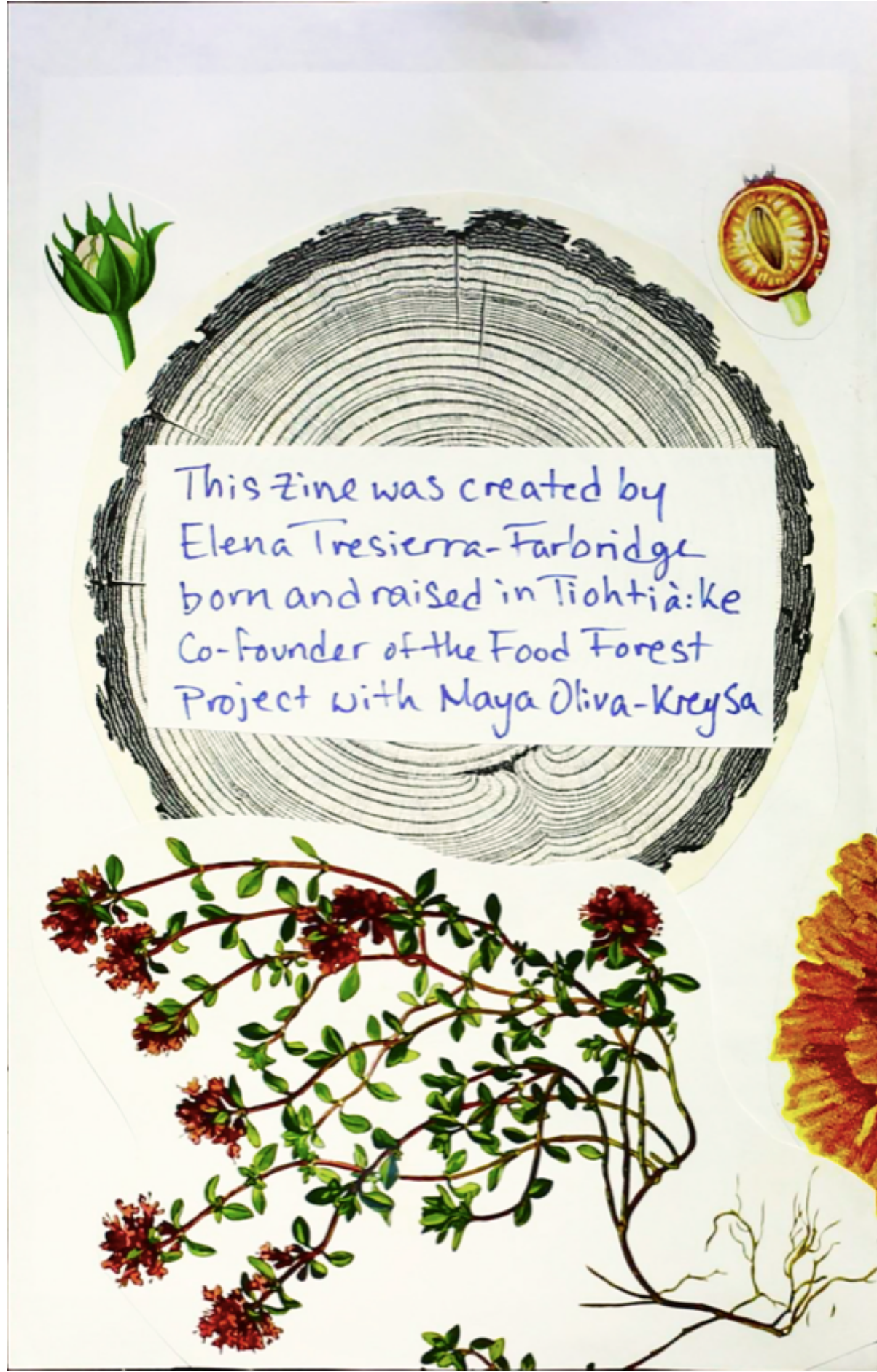
Thank you to my family and all our friends who visit the food forest time and time again, wipe our tears during grant applications, garden with us with love and care, share their knowledge openly, and keep both of us alive!

Lastly, I thank our volunteers without which we could not have done any of this. Rain or shine, we have not been alone in this journey and we do not take that for granted. From the bottom of our hearts, thank you.

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(Images from HiClipart.com, Freepik.com, and Brooke Artiziniega)

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