

Greening Our Thumbs

The Narrative Practice of Caring for Plants and People through Community Zine-making

Martin Abbott, Amy Cheatle and Lissette Lorenz

Thinking and Feeling through Stories from the Garden

Plants and people meet in the garden. Whether this meeting takes place in a bedroom (spider plants on a bedside table), the backyard (black-eyed Susans in a sunny border/vegetable patch) or the bush (where some people gather food), plants and humans care for one another. Sometimes this *care-full* growth occurs in unexpected ways. Plants and people also gather and grow together on the page: literally, when human hands grasp plant-derived materials (pencils, paper, glue) to produce words and images for a do-it-yourself (DIY) magazine known as a zine. And figuratively, when plants and humans share kins stories in the zine.

Before moving further, a note on multispecies pronouns: In this chapter, we experiment with indigenous scholar and botanist Robin Wall Kimmerer's proposal to use *ki* (singular) *kin* (plural) and *kins* (singular and plural possessive) pronouns to accommodate and honour all living things (Kimmerer 2013). Such an approach is based on kins proposal that nature needs a new pronoun, one that recognizes the subjectivity of other beings beyond humans. Kimmerer, who is a member of the Indigenous Potawatomi nation, chose *ki* because it comes from the Anishinaabe word *Bemaadiziiaaki*, which means "beings of the living Earth" so that "we can now refer to birds and trees not as things, but as our earthly relatives" (ibid.: 344–345). In making this narrative move, we seek to acknowledge and elevate the subjecthood and agency of plants and other non-human beings.

We ask in this chapter: How can the entangled practices of gardening and zine-making foster multispecies relations? How can the stories produced from these practices nurture, inspire and strengthen love among plants and people? To answer these questions, we search for experimental art-science methods (Rogers et al. 2021) that support plants and people by framing both the garden and the zine as a convergent narrative space. In this space, stories can be "feasts for mind, heart, and body" (Haraway 2016: 83) with transformative potential. During this time of mass extinction, the stories told through gar-

dens and zines can help us think and feel through, enact and nurture crucial interspecific relations. To this end, we argue that when gardening is paired with zine-making, a new shared action, or *relational praxis*, emerges. We define praxis as a reflexive blending of theory, methods and justice-oriented action(s) (Freire 2020; Furman 2012). Such praxis aligns with the relational ethics of care that are established between species in every garden and further developed in narrative cultural objects, such as zines. The first issue of our community-based zine, *Maybe the Mustard Will Save Us* (Ziney Gardeners 2023), includes 21 contributions of stories and artworks that describe the personal and collective experiences of those whom we call the “Ziney Gardeners” – people and plants who have come together in “matters of care”, transforming kinselves in the process (de la Bellacasa 2017).

In what follows, we discuss the emancipatory character of both zines and gardening and reflect on the relational praxis of *growing a zine*. We argue that linking the act of gardening to zine-making propagates stories and critical reflection about more-than-human collectives. As the anthropologist Natasha Myers and kins colleagues remind us, the stories that plants tell (and those that we tell about them) need to be told, “[...] again and again” (2023: 268). Zines can provide such a forum for elevating more-than-human community voices.

Putting down Roots in the Garden

The act of gardening reveals a complex interplay of symbiosis, care and transformation. Gardens and gardeners co-create and shape each other within broader ecological and socio-cultural contexts. Both Indigenous and scientific stories tell us that mutually supportive relationships between a wide diversity of living organisms have created cycles of symbiosis over millennia (Gershuny and Smillie 1999; Williams 2018); cycles that move according to kins own cadence and rhythms, unique timelines and equilibriums. At the same time, however, we learn that other species benefit from disturbing these cycles in unpredictable ways (Marris 2001). How do you articulate the unkempt garden gone wild? Circling around balance, it seems, lurks chaos. Where does the gardener fit into this ram-bunctious ensemble?

We shape these relations as gardeners and scholars by tending to them in whatever spaces are available. In turn, gardens shape us back, by appealing to our needs and desires (Pollan 2011). We garden for sustenance, art, intellectual curiosity or pleasure. We garden for novelty and nostalgia. We garden for calm, peace, joy or food. We surround our homes with gardens of all shapes and sizes. We fill our homes with plants in pots. Even the most neglected “plot” of land in the built environment can be considered a garden (Clément 2015), as a space where species meet, cooperate or compete in new kinds of gatherings (Gandy and Jasper 2017). Gardens are amalgamations and transmutations of time, place and bodies; flora and fauna in a dance of everchanging becomings from which we humans cannot be separated (Bateson 1972).

The gardener is in a dialogue with kins garden, and both are co-constituted; the garden begets the gardener. Both are transformed. This relationship is a form of *sympoeisis* for environmental philosopher Donna Haraway, a relation built on making-with (2016).

Similarly, Vinciane Despret writes of being-with, a transformative experience of multispecies becoming what *ki* calls “anthropo-zoo-genesis” (2004) – or in our case, such as mustard-with-human, the term might be anthropo-*botano*-genesis. By making- and being-with, our senses are sharpened towards the awareness that both the garden and gardener are not only caring for each other, kin are becoming each other (Barad 2007; de la Bellacasa 2017; Despret 2004; Haraway 2016; Kimmerer 2013; Thomashow 2002). Gardening (and zine-making) also becomes praxis (Wilson and Weinberg 1999), a way of enacting our beliefs about it. Plants have coaxed kin human companions to develop skills and tools to help us humans do more work in the garden. Human tasks, such as propagating, planting, weeding, digging, raking, trimming, picking, watering and feeding, happen repeatedly as we craft a garden space. Our bodies grow rooted to the ground and reach up into the canopies of trees. We plant and nurture and tend to our horticultural and ecological beliefs. We bring new plants into the space, remove or cut others back, divide kin as kin outgrow kin space, place kin in new beds with other plant species. All the while, commitments are made; routines and repetitions are built around our responsibilities to each other’s mutual care.

At the same time, gardening can be a radical act of DIY, one that occupies a set of heuristics historically removed from scientific experimentation and academic knowledge production (Polanyi 1964). Reminding us that “radical” was a term etymologically akin to “from the roots”, the feminist activist Penny Weiss demonstrates how the act of gardening allowed her to metaphorically define a powerful form of radical activism (2013). Flexibility, variability in tactics, open-mindedness, as well as relational and systems thinking all emerged as garden-based approaches to dismantling the patriarchy. Similarly, Peter Lamborn Wilson and Bill Weinburg in *Avant Gardening* (1999) explore the greening of urban environments through community activism, where plants are used to create liveable worlds transmuted from capitalism’s contaminated, debased and abandoned lots. Urban gardens created lively new narratives for invisible streets and neighbourhoods. In essence, both Weiss and Wilson and Weinburg underscore how gardening serves as a profound and transformative genre of activism, cultivating not only plants but also new possibilities for ecosocial justice. Gardening, thus, emerges as a multifaceted practice that intertwines stewardship, expression and radical activism.

Zine-making: A Brief and Situated History

How is a zine like a garden? Zines, by their nature as self-made objects, defy strict categorization. Our survey of zines turns up a variety of ephemera and online artifacts, paper or digital montages of text, images and ideas put together to communicate a message that operates outside of traditional publishing systems – and the hierarchies that support and uphold them. A zine is often collaborative and self-distributed, a subversive or radical action rooted perhaps in the first political pamphlets made on early mechanical printing presses (Rutter 2022).

Zines have historically amplified underrepresented voices. *Fire!!: Devoted to Younger Negro Artists* was published in 1926, featuring the under-represented works of Zora Neale Hurston, Aaron Douglas, John P. Davis and Langston Hughes among others (Nugent

1982). This act elevated single voices into a collective and creative power. Later, punk music subcultures in the 1970s developed a culture of “fanzines”, described by cultural historian Steven Duncombe (and quoted by Teal Triggs 2006) as “little publications filled with rantings of high weirdness and exploding with chaotic design”, where the makers “privilege the ethic of DIY, do-it-yourself: make your own culture and stop consuming that which is made for you” (Duncomb 2017: 1–2).

The zine aesthetic became a graphic language of resistance during this time (Triggs 2006). Authors used collage techniques, cutting text and images from various sources and recombining them in raw and radical ways to tell alternative stories. Kin claimed and remixed hegemonic cultural objects – the very culture that sidelined kin – to create new narratives. Queer and feminist zines of the 1980s and 1990s, for example, focused on raising awareness, education and community building. *ACT UP* and *gendertrash* both provided platforms for self-expression and documentation during the AIDS epidemic, enabling a strong advocacy community to emerge. By necessity, these communities operated outside of the mainstream media (Sheth 2022) which refused to recognize them. At times, zines were incorporated into larger political scenes where they could further the cause of marginalized communities (Nowakowski 2023). They operated on the fringes of mainstream culture, outside of academia and independent of the status quo of the art establishment.

Perhaps controversially, academic institutions and art museums have begun to collect and draw on the affordances of zines for their own pursuits.¹ Some scholars find that zines can communicate and make complex ideas accessible (Wang and Cruz 2023) or even act as low-carbon alternatives to in-person conferences (Rayner and Pasek 2023). For better or worse, zines allow information to be quickly assembled and narrated outside of the formal constraints (and sometimes safeguards) of peer review. With these barriers down, scholars-turned-zine-makers are free from the usual constraints of academia to assemble transdisciplinary information and sentiments into speculative montages narrated through multiple modalities – born-digital publications can use sound, animation, video or non-linear hyperlinking to their full advantage. Zines, in their various forms, provide scholars with the means to communicate research in more accessible ways (Borgdorff et al. 2019).²

While historically rooted, zines today remain “absolutely necessary” tools of emerging culture (Heins 2022) and continue to animate storytellers whenever their unique powers are needed. They gather and grow in alternative spaces where small-run and handmade publications are welcome, popping up between the cracks. Community bookshops, small art venues and local libraries have all been known to house zines. We encourage you to *dig a little deeper* (gardening pun absolutely intended) into your own community to find zine gatherings online or at your alternative community spaces.³

1 See, for example, Cornell University’s zine collection or the Watson library at the Metropolitan Museum of Art.

2 Moreover, it is not lost on us that we, too, are tapping into the historical praxis of and freedom afforded by making a zine.

3 In Ithaca, New York, for example, we know of such events occurring at Autum Leaf bookstore and the Downstairs event space.

The Garden as Zine, the Zine as Garden

We understand the garden and the zine to be transmuted extensions of each other: a (meta)physical meeting place; an (im)material location where human and non-human species gather and are gathered. These interspecific places are a forum for untrammelled expression. Like gardens, zines are collections and the repurposing of ideas and artifacts. They are art spaces to think and work through, from which a practice-oriented ontology (Harman 2011) can emerge. Our materials and tools, flora and fauna, have kins own agencies. Kin are dialogical and able to push back (Ingold 2007) on us, redraw our boundaries and transform them in kins likeness (Molander 2022: 379; see also Barad 2007; Bennet 2010). Our tools and materials offer kins own unique propensities. Similar to talking to your neighbour over the fence, growing a zine collectively is a form of knowledge creation and cross-pollination which helps foster a more-than-human community.

Through active engagement in gardening and zine-making, we link theory and action through praxis. Growth, sustainability and aesthetics are not merely abstract ideas, but are lived and experienced through enactments of both. The combined praxis of gardening and zine-making, whether in a pot, plot or page, triggers a reflection about our relationship with plants and space.

When we organize and make a zine or organize and make a garden, an awareness surfaces that our decisions are enactments and expressions of a value we hold, or an exploration of a value forming. These values circulate around a set of core questions in our work: How can we nurture and express an “evolutionary system of mutual aid” (Palmer 2023)? How do we do so in unison with others? How can these stories act as a balm, inspiration or motivation? In times of climate crisis, and ecological and social devastation (Dwyer and Viglione 2023), healthy plant-people relations are central to healthy futures.

Now that our defining work is done, we turn towards descriptions of our fieldwork and methods. We focus on how the zine evolved from the seed of an idea into a collection of stories on plants and people.

Working in the Field

How can we foreground plant-and-people relations? Research has pointed to a general unwillingness on the part of scientists to engage with “the public” in matters of scientific importance (Besley and Nisbet 2011) or called out the unidirectional flow of information from scientific communities to communities’ writ large (National Academy of Sciences, Engineering, and Medicine 2017). For these reasons, we were not looking for ways to share our own message with a “lay” audience – we asked contributors to share kins knowledge and expertise in ways with which kin felt most comfortable. This meant we accepted poems, paintings, photographs, short stories, digital drawings, audio playlists and other two-dimensional arts. Contributions were born digital or later digitized and laid out online by one of our contributors who designed the zine.⁴

4 Thank you Izzy for designing the zine!

Our invitation to participate was iterative, and our deadline rolling. We generated an 8.5" x 11" call for participation and posted a flyer around Ithaca, New York, our small college town. We made digital versions of our invitation and shared it on social media. Finally, we reached out to friends and family individually. We adjusted our expectations as we went along, learning what worked and what did not; finding what took root. We ended up with submissions coming from Australia, Germany and the United States. Altogether, 21 people contributed. The ages of our contributors ranged from young children to elders.

We presented our collective zine, *Maybe the Mustard Will Save Us*, at the "Narrating the Multispecies World" conference at the University of Würzburg in the summer of 2023. We also presented the zine in our academic home, at Cornell University's Science and Technology Studies Department's "Science Studies Reading Group" weekly workshop. We shared the finalized issue of the zine with friends, family and members of our respective gardening and zine communities. Conversations with others about the project often prompted opportunities for reflection. Personal stories were shared in surprising ways. And we continue to collect stories for future issues. Below we offer stories from this first issue *Maybe the Mustard Will Save Us*, and reflect on our understanding of gardening, zine-making and community building.

Maybe the Mustard Will Save Us: Meeting at the Table, in the Garden and across Generations

A Seat at the Table

Imagine this scene: two humans huddle over a pile of dried pinto beans splayed across a table. "I think five beans per envelope should do it", one says to the other. The pair, community horticultural volunteers called "Master Gardeners", have sat down in a corner of the public library in Hampton Roads, Virginia, USA. Kin count out the smooth, speckled crops-to-be in order to stock the free community seed cart for the summer. It is April, and the growing season is about to begin. Tasked with growing a zine, a third human approaches the casually chatting pair. After learning that there are some 200 Master Gardeners in the area, the visitor asks, "Do you know if any Master Gardeners would be interested in sharing a plant story with me?" "Let me think ...", a Master Gardener responds, an amused expression on kins face. Then ki quietly consults the beans. How do the beans respond?

(Fig. 1:) A black background with painted butterfly wings.



Seven Master Gardeners offered essays, poems and artwork to *Maybe the Mustard Will Save Us*. One gardener decorated a large seashell in decoupage – the decoration of objects with paper cutouts – which depicts a flower which is visited by a butterfly and a bee (Fig. 1). The scene is accompanied by the line, “Life begins the day you plant a garden” (Ziney Gardeners 2023: 24). Later, a line from another Master Gardener’s haiku reads, “Purpose, sharing gifts, and hope/Together we are better” (Ziney Gardeners 2023: 39). Master Gardener Vernelle Curtis wrote:

I get mental energy and physical joy from being part of a bigger community of people who want to learn, to share knowledge and to use horticulture to make whatever environment we have better. It is a privilege to watch others enjoy the display gardens, knowing I have helped to nurture them. It is rewarding to answer someone’s question from behind the ‘ask a master gardener’ table and I love to learn from knowledgeable people, whether members of the public or other master gardeners. (Ziney Gardeners 2023: 34)

Like a plate of summer squash dished out from the yard, here is some food for thought: Is it just humans who plant gardens? What if it’s the other way around, and it is the garden that has planted humans? What if more humans were to recognize that the joy they get from the garden is a gift bestowed from these more-than-human “communities of people” – people who live in shells, who photosynthesize, whose wings buzz in the breeze

in search of nectar? As yet another Master Gardener puts it, “pollinators float in and out while providing the essence of life – talk about pollen powder [...] now that’s garden *power*” (Ziney Gardeners 2023: 14). If we could learn to listen to the other Master Gardeners, like the beans who offer kinselves as gifts for the community seed cart, would we not then truly be better, together?

Planting Plants, Plants Planning

How do plants plan? In another set of entries, two contributors bring to the fore the challenges of plant planning. In one, the author discusses the beauty they find in the tree of heaven (*Ailanthus altissima*), a polarizing plant that, similar to so many other species, found kinself in a foreign land with little competition and favourable growing conditions. In this instance, the tree is host to a species of planthopper, the spotted lanternfly (*Lycorma delicatula*), highly damaging to productive orchards and vineyards in the eastern United States. Both are considered a blight. At the same time, lanternflies find the tree of heaven, which grows in almost any crack and crevice of a city (and which seems to prefer the disturbed earth of urban spaces), an emancipatory plant capable of transporting kins personal subjectivity from the forest to the city.

Contributor Annika Ross writes:

This one probably wasn't planted, it probably wasn't wanted. It's the preferred host of the spotted lantern fly, the moths you see on the sides of New Jersey buses, next to a child's foot and the big words: STOMP IT OUT. You've got to get rid of the tree of heaven too. Because it's a weed. Because it helps the flies. Because it spreads fast and creates too much pollen. Because it's a weed. Because it's invasive. But I like the way it branches over and over and over and twists and turns, so that by the time you look from the base of the trunk to the tops of its leaves, it feels like you start out of a city sidewalk and you end up in a tumbling forest of green. (Ziney Gardeners 2023: 28–29)

Ross dwells on relations between plants and people, between the moth and the tree, and between urban and forested landscapes. And between plants, and kins plans and plan(t)ings, and people, and kins plans and plantings. Decisions are made by plants as kins seeds disperse into the ecosystem. For human people, this wild freedom is outside of an order they have planned for kinselves.

Another contribution points to the careful attention given to starting a garden on a city balcony. Here, the author describes the delicate work of collecting the seeds of a strawberry, and the ways in which those tiny seeds could thrive first during germination in a clear plastic bag and later in the centre of Manhattan, New York. Ki discusses the collecting of strawberry seeds:

In an effort to brighten up our home in the city, we started a garden. We collected seeds from produce and saved them for spring. In the case of strawberries, the small seeds were harder to access. I shaved thin slices of the outside of the fruit and left them overnight to dry. In the morning, I could rub the seeds away from the soft, leathery skin [...]. (Ziney Gardeners 2023: 18–19)

Fathoming the tiny root of a strawberry seed is not easy. It must have been thread-like; it must have taken steady and gentle manoeuvring to nurture a plant on a windswept New York City balcony. The tender treatment of a strawberry seedling hints at the kind of skilful care people can bring to the garden.

On another balcony on the other side of the United States, a contributor described kins appreciation for a cherry tomato plant called Monster. From the beginning, Monster was “taller than the rest” of the seedlings (Ziney Gardeners 2023: 7). This particular cherry tomato plant grew on a balcony in Los Angeles, California, USA. During the pandemic, Monster took over a “large portion of the balcony [...]”. As Monster “grew and grew; it was an effort to keep up with picking the ripe tomatoes and finding ways to use them”. What a wonderful feeling that must have been during the pandemic. Seated at the kitchen table, trying to figure what to do with the cherry tomatoes, proved a challenge. From pizza toppings, vodka sauce, caprese salads, to raw cherry tomatoes straight into the mouth, some with truffle salt, and others used in *strapatsada*, “I made every dish I could find on-line” from Monster’s cherry tomatoes. The relationship grew tepid, however, when other forces intervened, and the relationship ended. Suddenly. This contributor wrote:

After almost three years, Monster developed a virus, speckling its leaves with purple. I pulled Monster from the planter with a reverent sadness and disposed of him carefully down the trash chute. (Ziney Gardeners 2023: 7)

What we are trying to hint at here is the organic-ness of the garden and zine as something that is compostable. Both are sustainable, easily put back into cycles in a caring way that is accessible to the community. You can experiment together. Throw materials and ideas across the table. Sweep them up when done. Then put it all back in the garden. We think it is worthwhile dwelling in the garden and repeating this exercise over and over, until we are transformed, we become each other, we care for each other in interspecies thriving.

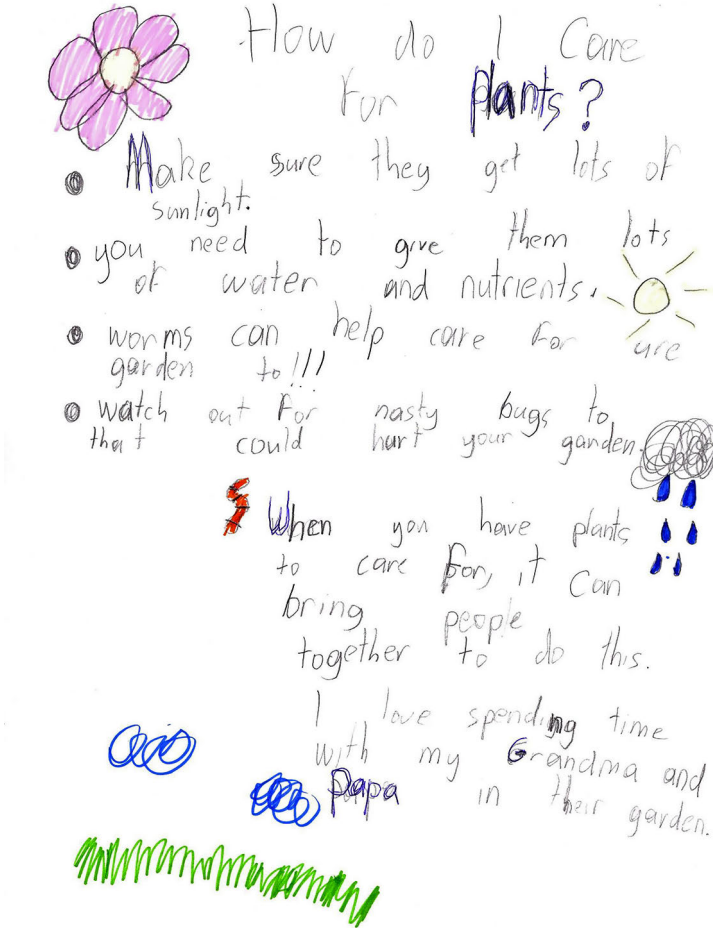
Or, we toss each other out.

Juxtaposing these balcony gardens with the child’s foot stomping out the lanternfly and the urban sprawl that the tree of heaven so enjoys gives us a range of human affects brought to bear in the garden. We try to decide what can live and thrive and what cannot, but plants have plans of kins own.

Sharing Intergenerational Wisdom for Equitable and Just Futures

A sampling of our contributors told stories of kins intergenerational meetings in the garden. Gardening and zine-making alike encompass a community, young and old.

(Fig. 2:) Evie's artwork and writing.



One image submitted was drawn by Evie, a young child. It features a portrait of kinselves working alongside kins grandparents in the garden (*image 2*). Flowers in many shades are growing along a garden row. Below are the indispensable words: *water*, *Remy*, *Grandma* and *Evie*. Below, *Remy*, the smiling dog, stands on a green lawn.

In another young child's submission, *Olivia* has drawn pictures of flowers, grass, the sun and a raining cloud. *Olivia* writes:

How do I care for plants? Make sure they get lots of sunlight. You need to give them lots of water and nutrients. Worms can help care for the garden too! Watch out for nasty bugs that could hurt your garden. When you have plants to care for, it can bring people together to do this. I love spending time with my Grandma and Papa in the garden. (Ziney Gardeners 2023: 28)

The relational ethic is not only evident between people and plants but the animals at home in the garden, including dogs, worms, bugs and other critters.

Drawing again on Vernelle the Master Gardener in kins 70s: “As a retired educator, it is exciting to be a part of the ‘Ready, Set, Grow’ project team, where I get to interact with first and second graders, as they plant seeds and explore plant life. This project keeps my pulse up” (Ziney Gardeners 2023: 11). This vignette points to the intergenerational meetings that happen in the garden, and how knowledge and techniques of care are shared among generations. While these contributions do not explicitly call out feelings of love, it is not difficult to feel love in kins drawings and expressions of nurture and pleasure at being in the garden.

Nurturing, Inspiring and Strengthening Love among Plants and People

We began *Maybe the Mustard Will Save Us* in an attempt to gather stories about plants and people. Our awareness of how we can connect with the (human and non-human) people around us grew throughout the project. Robin Wall Kimmerer, scholar, founder and director of the Center for Native Peoples and the Environment in New York State, recommends that one way to restore the relationship between land and people during these times of ecological devastation is to plant a garden. Kimmerer writes that a garden is “a nursery for nurturing connection [...] for cultivation of practical reverence [...]. Something essential happens in a vegetable garden. It’s a place where if you can’t say ‘I love you’ out loud, you can say it in seeds. And the land will reciprocate, in beans” (Kimmerer 2013: 126–127).

If we take Kimmerer’s words to heart as we reflect on the process of growing a zine in a community, we realize that growing together is transformational for all beings involved. A transformation occurs in individuals and collectives, with a recognition that the very act of growing together challenges any static lines drawn between individuals and collectives. It also occurs across generations, going back as far as the evolution of life on Earth and going forward as far as we can imagine. We observe this theme in the pages above when intergenerational wisdom is shared. In this way, growing a zine is not only an emancipatory way of telling stories about ourselves, but a way of world-building with others. Gardens-as-zines and zines-as-gardens provide us all with blank pages, holding space for sharing our reflections, curiosities and memories.

Growing a zine can also be a multispecies technique for subversive conversation with hierarchical knowledge structures. It is a praxis that encourages multivocality and more-than-self-actualization in a myriad of formats, visual and text. The mundane task of picking an unending harvest of cherry tomatoes that volunteered to grow on a balcony, for

example, can become the radical centre of a story. Monster reminded one of the authors of this chapter of kins own cherry tomato plant growing in a faraway backyard. In a sunny subtropical setting on Australia's east coast, a cherry tomato plant has long grown of kins own accord. The stamina of this cherry tomato plant knows no bounds. The plant was kinself transplanted from a previous vegetable garden. This cherry tomato plant continuously reproduces new plants from fallen fruits, over and over, to the delight of all who can effortlessly enjoy kins juicy tomatoes.

In the way that growing tomatoes on your balcony can be emancipatory during a pandemic, environmental author Annie Proulx points to the relationship between plants and people with the example of living root bridges and ladders in northern India as an example of infrastructure that is handmade in conversation with rubber trees (2022: 11–12). Similar to all infrastructure in the garden and beyond, the relationship requires ongoing maintenance and repair. Such relationships can require more radical and repetitive accommodations, as cultural anthropologist Bettina Stoezter notes in a vignette about the “Berlin tree house (*Baumhaus*) or *gecekondu* [...]” (2022: 2). At the centre of this special home in Kreuzberg, Berlin, a tree of heaven grows. “As the trunk expands”, Stoezter writes, “Osman and his son cut further into the wall [of the tree house] to accommodate its [sic!] growth” (ibid.: 3). These stories signal to us a relation we might otherwise overlook – a relationship that exists between people and plants, between types of care and types of creative accommodation and growth. These defiant examples represent and symbolize the kinds of subversive stories that plants and people can pursue in conversation.

Narratives and stories told through (and during the creation of) the zine provided opportunities for voicing. We acknowledge that it can take a lot of time, patience and courage to voice a political idea, a creative thought or anything that might make us feel vulnerable or exposed. It is not always easy to share with others what we think. Creating together can be a liberatory, agency-developing practice. The conversations we are free to have while seated around the table sorting beans, or making a zine, are of a special kind; different from what we might experience in day-to-day life. They provide an opening for dialogue. And in this opening, a method of inquiry and sharing emerges. In this way, we found that gardens-as-zines and zines-as-gardens are as much a mode of listening as a method for speaking and sharing. Listening, along with making, is a necessary practice for nurturing forms of mutual aid.

How is making a zine like planting a seed? Each act is trusting in a future we can plan for but not control. Yet, we can keep certain guiding principles in mind as we turn towards that future. Indigenous law scholar Kayanesenh Paul Williams reminds us of the Haudenosaunee principle of seven generations: “in any decision [...] consider the effects of [your] choices on the seven generations downstream” (2018: 357). And let us not forget that plants, of course, have plans of their own. We do not know how it is all going to turn out. But somehow, through care and attention, and with a little bit of luck and skill and trust in the praxis, a zine-as-garden takes root. Something exciting starts to happen when we talk to plants and people about submitting to the zine. We hear kins stories of past, present and future gardens. Pains, pleasures, hopes, dreams. These are some of the best conversations. We could not have got to the heart of these stories without the zine as a transdisciplinary method of inquiry and co-production.

Growing down, Growing up, Growing forward

We have argued that tending to our plant kin opens us up to questions of care, ecological responsibility and relationships with others. Our aim is not to romanticize gardening or the act of making a small publication. Each surely has its limitations, especially in terms of who can participate. We acknowledge that not everyone currently has the resources or means to access the garden. This need not be the case. As a justice-oriented collective, we are committed to supporting community self-actualization for multispecies thriving.

Since the first volume of the zine, we have taken our practice on the road. We have set up tables to collect contributions at a variety of happenings, collaboratively creating zines that are thematically aligned with the event at hand. For future work, we ponder what can we draw from zine-making that we can bring back to the garden? How can community-based research be restorative and transformative for all involved? How else can the radical, relational praxis of growing zines facilitate diverse forms of partnership, coalition building and self-actualization for the many more-than-human communities of which we are a part – and especially those that have been historically oppressed – in order to bring justice to bear for all Earthlings? These questions will guide the Zine Gardeners as together we simultaneously grow future zine issues and plant-people relations.

Bibliography

- Barad, Karen 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Bateson, Gregory 1972. *Steps to an Ecology of Mind*. New York: Ballentine Books.
- Bennett, Jane 2010. *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.
- Besley, John C., and Matthew Nisbet 2013. How scientists view the public, the media and the political process. *Public Understanding of Science* 22(6), 644–659. DOI: 10.1177/0963662511418743
- Borgdorff, Henk, Peter Peters and Trevor Pinch (eds) 2019. *Dialogues Between Artistic Research and Science and Technology Studies* (1st ed.). New York: Routledge.
- Clément, Gilles 2015. *The Planetary Garden and Other Writings*. Contributions by Gilles A. Tiberghien; trans. by Sandra Morris. Philadelphia: University of Pennsylvania Press.
- De la Bellacasa, Maria Puig 2017. *Matters of Care: Speculative Ethics in More than Human Worlds*. Minneapolis: University of Minnesota Press.
- Despret, Vinciane 2004. The body we care for: Figures of anthropo-zoo-genesis. *Body & Society* 10(2-3), 111–134. DOI: 10.1177/1357034X04042938
- Duncombe, Stephen 2017. *Notes from the Underground: Zines and the Politics of Alternative Cultures*. Portland: Microcosm Publishing.
- Dwyer, Orla, and Giuliana Viglione 2023. *Kew Report: Five key extinction risks facing the world's plants and fungi*. Carbon Brief. [website] Available at: <<https://www.carbonbrief.org/kew-report-five-key-extinction-risks-facing-the-worlds-plants-and-fungi/>> [Accessed 15 June 2024].

- Freire, Paulo 2020. Pedagogy of the oppressed. In: *Toward a Sociology of Education*, edited by John Beck, Chris Jenks, Nell Keddie and Michael F. D. Young. New York: Routledge, 374–386.
- Furman, Gail 2012. Social justice leadership as praxis: Developing capacities through preparation programs. *Educational Administration Quarterly* 48(2), 191–229. DOI: 10.1177/0013161X11427394
- Gandy, Matthew and Sandra Jasper 2017. *Natura Urbana: The Brachen of Berlin* [documentary film]. London, UK.
- Gershuny, Grace, and Joe Smillie 1999. *The Soul of Soil*. Vermont: Chelsea Green.
- Haraway, Donna 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- Harman, Graham 2011. *The Quadruple Object*. Washington D.C.: Zero Books.
- Heins, Camelia 2022. Generation zine: Why the revival of zine culture is crucial today. New University, 8 January, Official campus newsletter of the University of Irvine. [online]. Available at: <<https://newuniversity.org/2022/01/08/generation-zine-why-the-revival-of-zine-culture-is-crucial-today/>> [Accessed 10 February 2024].
- Ingold, Tim 2007. Materials against materiality. *Archaeological Dialogues* 14(1), 1–16. DOI: 10.1017/S1380203807002127
- Kimmerer, Robin Wall 2013. *Braiding Sweetgrass*. Minneapolis: Milkweed Editions.
- Marris, Emma 2001. *Rambunctious Garden*. New York: Bloomsbury.
- Myers, Natasha, Frederike Middelhoff and Arnika Peselmann 2023. Stories are seeds. We need to learn how to sow other stories about plants. *Narrative Culture* 10(2), 266–276. Available at: <https://www.uni-frankfurt.de/141477379/Myers_Middelhoff_Peselmann_Stories-are-seeds_.pdf> [Accessed 12 September 2024].
- Molander, Bengt 2022. Freedom of thought and the longing for reality: About ‘theory’ as an idea, a concept, and rhetoric. In: *Craft Sciences*, edited by Tina Westerlund, Camilla Groth and Gunnar Almevik. Gothenburg: Kriterium, 374–396.
- National Academies of Sciences, Engineering, and Medicine 2017. *Communicating Science Effectively: A Research Agenda*. Washington, DC: The National Academies Press. DOI: 10.17226/23674
- Nowakowski, Theresa 2023. How zines brought power to those on the margins of culture. *Smithsonian Magazine*, 25 December. [online]. Available at: <<https://www.smithsonianmag.com/smart-news/brooklyn-museum-explores-how-zines-offered-a-voice-to-those-outside-mainstream-culture-180983351/>> [Accessed 6 February 2024].
- Nugent, Richard Bruce 1982. Fire!: Devoted to Younger Negro Artists. *ISSUU*, 4 July. [online] Available at: <https://issuu.com/poczineproject/docs/poczp_fire_1926_readview> [Accessed 10 February 2024].
- Palmer, A Laurie 2023. *The Lichen Museum*. Minneapolis: University of Minnesota Press.
- Polanyi, Michael 1964. *Personal Knowledge: Towards a Post-critical Philosophy*. New York: Harper and Row.
- Pollan, Michael 2011. *The Omnivore’s Dilemma*. London: Bloomsbury Publishing.
- Proulx, Annie 2022. *Fen, Bog and Swamp: A Short History of Peatland Destruction and Its Role in the Climate Crisis*. New York: Scribner.

- Rayner, Sarah, and Anne Pasek 2023. Zine-based conferencing: A guide. [white paper]. Experimental Methods and Media Lab/Low-Carbon Research Methods Group. March 2023. Peterborough: Trent University.
- Rogers, Hannah Star, Megan K. Halpern, Dehlia Hannah and Kathryn de Ridder-Vignone (eds) 2021. Routledge Handbook of Art, Science, and Technology Studies. London: Routledge.
- Rutter, Joanna 2022. How zines influenced mainstream design – and how to join the conversation. Webflow, 12 April. [online] Available at: <<https://webflow.com/blog/zine-history>> [Accessed 10 February 2022].
- Sheth, Aarohi 2022. How zines became a beacon of queer love and community. LGBTQ Nation, 17 October. [online] Available at: <<https://www.lgbtqnation.com/2022/10/zines-became-beacon-queer-love-community/>> [Accessed 6 February 2024]
- Stoetzer, Bettina 2022. Ruderal City: Ecologies of Migration, Race, and Urban Nature in Berlin. Durham: Duke University Press.
- Thomashow, Mitchell 2002. Bringing the Biosphere Home. Cambridge: MIT Press.
- Triggs, Teal 2006. Scissors and glue: Punk fanzines and the creation of a DIY aesthetic. *Journal of Design History* 19(1), 69–83. DOI: 10.1093/jdh/epk006
- Wang, Sophie, and Taylor M Cruz 2023. AI for Whose Good? Lessons from Community Resistance to Automation at the Port of Los Angeles. [pdf] Available at: <<https://www.taylormcruz.com/zine-ai>> [Accessed 10 February 2024].
- Weiss, Penny 2013. Getting to the roots; or, everything I need to know about radical social change I learned in my garden. *Women's Studies Quarterly* 41(3/4), 131–150. DOI: 10.1353/wsq.2013.0091
- Williams, Kayanesenh Paul 2018. *Kayanerenkó:wa. The Great Law of Peace*. Winnipeg, MB: University of Manitoba Press.
- Wilson, Peter Lamborn, and Bill Weinburg 1999. *Avant Gardening*. New York: Autonomedia.
- Ziney Gardeners 2023. Maybe the Mustard will Save Us [zine]. *ISSUU*, 14 August, Ithaca, New York. Available at: <<https://issuu.com/igrimffreelance/docs/maybethemustarddigital>> [Accessed 17 June 2024].

