Foraging in the Urban Food Forest: Noticing the Possibilities for Communal Cultivation within Urban Ruination

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Abstract

In this thesis, I use the Beacon Food Forest, located in Seattle, WA, as a case study to investigate how food and community grow in an urban community food forest. I discuss the founding of the Beacon Food Forest, the complex and overlapping history of the permaculture and agroecology movements, and the capitalistic process of urbanization that creates ruination of productive land. I pose Beacon Food Forest as a space to uncover a latent food commons that grows through this urban ruination to foster collaborative survival. I draw from scholars such as Anna Tsing, J.K. Gibson Graham, Robin Wall-Kimmerer, Ivan Illich, James Miller, and others to explore how a convivial commons is sustained at the Beacon Food Forest. I tie this into broader discussions of food justice and food sovereignty to highlight how the Beacon Food Forest can promote meaningful relationships between humans and non-human beings which works to undo the alienation between urban consumers and their food sources in the industrial food system.

Table of Contents

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Introduction

For many years, I lived keenly unaware of the abundance of free fruits and vegetables growing a mere 10 minutes from my Seattle home. In a car, it is difficult to make out what sort of urban agriculture project is emerging from the sloped hillside of Jefferson Park, in the Beacon Hill Neighborhood of Seattle. When I chose to write my thesis on food forests, I finally parked my car and entered the space known as the Beacon Food Forest for the first time. The following is the first part of my narrative:

I visit the Beacon Food Forest on a cold, rainy day in mid-January—not the optimal season for growing food. Though most plants display brown, barren stems, there is still much to explore. Just outside is a sign that reads "Welcome to the Beacon Food Forest" (image 1), printed in five languages—Spanish, English, Simplified Chinese, Vietnamese, and Somali. It includes a description of what a food forest is, who takes care of the space, the history of the land, and the background on the founding of the organization. The sign gives visitors a first glimpse at what a food forest is: "A food forest is an edible garden designed to mimic the ecology of a woodland. By copying the functions of a natural forest, we plan for an abundant harvest and to create cleaner water, common space, and community." Next to the sign is a small food pantry with several packaged snacks and canned goods. Upon entering, I am greeted by a gathering space: a semi-circle of wooden shelters displaying a large map of the food forest (image 2), an informational sheet about plant guilds, a code of conduct, and information about how to get involved in Beacon Food Forest. I stand there reading, trying to take in as much as I can. Then I begin my walk through the food forest.

Image 1: Beacon Food Forest Welcome Sign

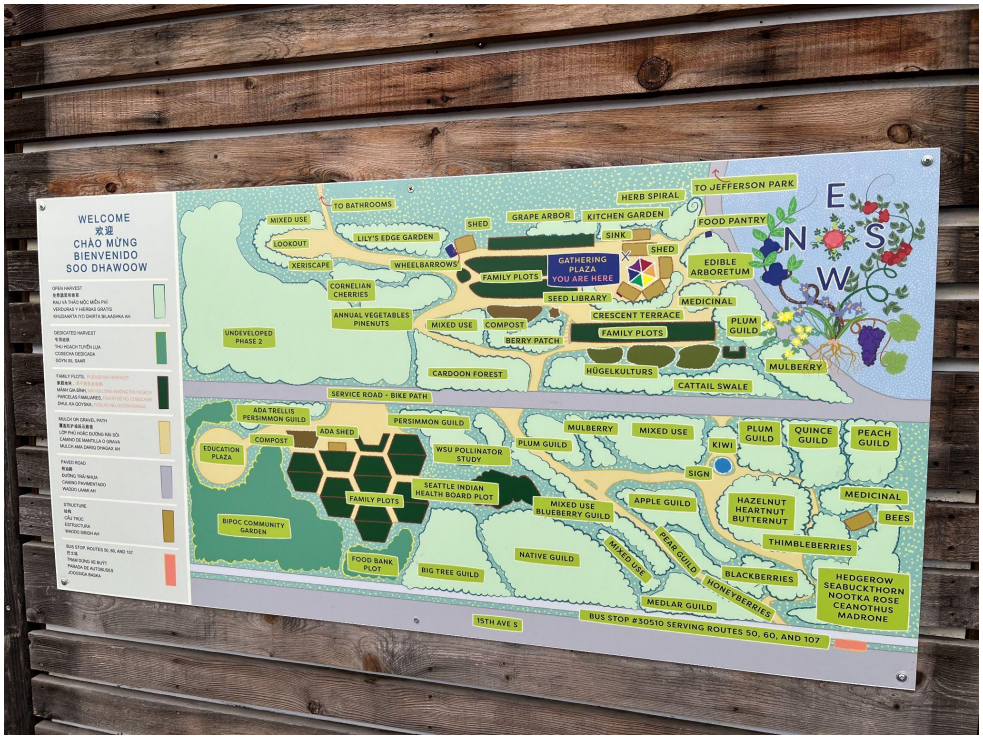

Image 2: Map of the Beacon Food Forest

As this thesis progresses, I will continue to walk the food forest, paralleling this journey with the reader's exploration through my thesis. To ground my thesis, I draw from scholarly research on urban foraging and food forests, and an archive of evidence collected on the Beacon Food Forest (BFF). The book *The Mushroom at the End of the World* by Anna Tsing was especially influential in my writing process. I utilize Tsing's language and theoretical threads to create a mycorrhizal network that ties together different ideas in my thesis. I assembled my BFF archive using information provided from the BFF website, the BFF Annual Reports from 2017 to 2022, and data from a survey BFF conducted in January 2023 via a QR code posted onsite. I also interviewed two individuals connected to BFF in February and March 2023: Khalil Griffith, who has served as a BFF board member and Community Outreach Coordinator, and is now the Site and Program Director; and Lucy Brown (Vassar Alum '22), who interned at BFF during the summer of 2021. I use my own experience to anchor my narrative, though I acknowledge that the time I have spent in the Beacon Food Forest is brief, thus I am limited by the amount of personal knowledge I have to contribute to my investigation.

This is by no means a comprehensive catalog of research; however, I aim to use BFF as a case study to investigate the different socio-ecological relationships that emerge within a community food forest. Rather than analyzing the potential for BFF to serve as a solution to food insecurity or a comprehensive alternative to the industrial food system, I apply a food justice and sovereignty lens to illustrate how BFF provides more than "food" as edible matter. In cultivating a productive and sustainable convivial food commons, BFF legitimizes urban foraging and makes visible the interdependence between humans and non-human beings that is obscured in capitalistic industrial food chains. This thesis is an exploration of the possibilities for collaborative survival in the face of capitalistic ruination of productive urban space.

In Chapter 1, I outline the founding of the Beacon Food Forest, and I define food forests and urban community food forests. I then provide a background on the foundational design principles of BFF—agroecology, agroforestry, and permaculture. I present these terms as overlapping and messy, yet I also illustrate distinctions that can be drawn out. In comparing the permaculture movement with the grassroots peasant-led agroecology movements born out of Latin America, I argue that each takes a different approach to addressing the socio-ecological harms of industrialization. I then discuss how BFF contributes to food justice and food sovereignty scholarship, posing BFF as a space to reimagine our relationship to food and our conceptions of urban space. I draw upon the scholarship of Karl Marx and Anna Tsing to describe the process of capitalistic ruination through the metabolic rift. In converting eroded topsoil into fertile soil, I argue that BFF demonstrates a means of working through the metabolic rift to reveal moments of collective survival in capitalist urban ruination.

This leads to Chapter 2, where I hone in on the individual interspecific relationships explored in foraging. I present urban foraging as a highly contingent and heterogeneous practice constituted through a set of relational ecologies of belonging. I then provide historical context for the modern practice of foraging, exploring the settler-colonial rhetoric that colors assumptions about pre-colonial Indigenous societies, and the oppressive and racist laws that restrict foraging by protecting private property and natural habitats. I highlight the varied reasons why people forage today, and I explore how notions of urban space and food are renegotiated in the process of foraging. I conclude by drawing attention specifically to foraging in the Beacon Food Forest.

In Chapter 3, I situate the forager within the ecosystem of the community food forest, considering how Beacon Food Forest operates as a community economy. I focus specifically on the community ethics that govern open harvest—the anonymous and autonomous collection of

food and materials by BFF users. I address a commonly wielded argument against urban community food forests: the popular notion of Garrett Hardin's tragedy of the commons. Using Elinor Ostrom's rejection of this argument and the framework of gift economies offered by Robin Wall Kimmerer, I explore how the food forest is sustained as a commons. This discussion of community ethics and the commoning of food takes me to consider BFF as a convivial space.

In Chapter 4, I investigate the navigability of the food forest. I complicate Ivan Illich's *Tools for Conviviality* with James Miller's Living Systems Theory to explore how conviviality, which I define as living together through difference, emerges from the interwoven social and ecological systems of BFF. I consider how inclusion and exclusion are implicitly communicated in urban greenspaces and urban food forests. I explore the pedagogical strategy of standardized knowledge dissemination in the permaculture movement, comparing this to BFF's method of vernacular knowledge exchange to promote conviviality.

I conclude with a discussion of scalability versus noticing latent commons. I highlight other projects like BFF that are working towards making latent food commons visible and accessible to the public. This discussion helps to contextualize my thesis within the broader movement to create more equitable food system futures.

CHAPTER 1: "Welcome to Beacon Food Forest": Unpacking Historical Roots

In chapter one, I provide a background on the founding of the Beacon Food Forest, explaining what characterizes a food forest, and more specifically, an urban community food forest. I discuss the foundational design principles of food forests—agroecology, agroforestry, and permaculture. I provide a brief history on the introduction of the terms "agroecology" and "permaculture" in the 20th century, describing their founders, eco-mimicry practices and innovations, and evolution in popular conception. I argue that while agroecology has been increasingly used to refer to traditional Indigenous knowledge practices, permaculture tends to be associated with a co-opting of these practices by the white middle class. This is attributed in part to the differences between the core issues each movement tackles and the mechanisms for knowledge dissemination that each movement implements. I then discuss the overarching goals of the Beacon Food Forest, connecting this to La Via Campesina's food sovereignty movement. I use Anna Tsing's notion of "third nature" to complicate Karl Marx's discussion of irreparable soil ruination driven by the metabolic rift. I argue that as a project of collaborative survival, Beacon Food Forest makes visible the possibility for growing food in a city despite the perceived "ruination" of fertile land by processes of urbanization.

Founding of the Beacon Food Forest

In 2009, Glenn Herlihy and Jacqueline Cramer saw an opportunity to create a community food forest on a section of Jefferson Park in the Beacon Hill Neighborhood of Seattle, inspired by a permaculture design class they took together earlier that year. Herlihy brought his background in estate gardening, art, and community activism. Cramer brought her background in farming, education, landscaping, and community organizing. To plant seeds for the project,

Cramer and Herlihy had to garner support from multiple stakeholders. They first held a series of community meetings to gauge interest for the project. Then they sought approval from the municipal government. In the early 2000s, Seattle Public Utilities acquired the land that the food forest is now situated on to monitor the Jefferson Park reservoirs for water conservation. In 2010, the City of Seattle announced they would enact initiatives to support urban community agriculture. Cramer and Herlihy saw this as an opportunity to gain political and financial backing for the project, which they called "The Beacon Food Forest" (BFF). After receiving support from the city, they started a dialogue with Seattle Public Utilities. Seattle Public Utilities required BFF to find a sponsor umbrella organization because they did not trust that an all-volunteer-run community space would be effectively maintained. BFF partnered with P-Patch, a nationwide municipal gardening program where individuals rent out plots of land for personal gardening projects or food donation.[1] At present, BFF has a mix of private P-Patch plots and communal foraging and gardening zones.

Before BFF could start growing food on the site, the soil quality needed to be remediated. The city had previously put a hard cover top on the reservoirs in Jefferson Park to create recreation space. Due to frequent rainfall, most of the topsoil had been washed away, leaving the compacted soil underneath too hard to support plant life. This is a common reality in urban agriculture projects: often the environmental quality of the urban spaces has been degraded due to intensive development and pollution, rendering them unproductive for food growing. BFF utilized the Conservation Corps and multiple community volunteer efforts to bring in materials

[1] Catherine Bukowski and John Munsell, *The Community Food Forest Handbook: How to Plan, Organize, and Nurture Edible Gathering Places* (White River Junction, Vermont, UNITED STATES: Chelsea Green Publishing, 2018), http://ebookcentral.proquest.com/lib/vcl/detail.action?docID=5507858.

to improve soil quality.[2] Today, BFF continues to create soil and compost on site, helping to recycle nutrients back into the food forest ecosystem as much as possible.[3]

In 2012, BFF broke ground in Jefferson Park. Over 100 volunteers came to plant the first trees, bushes, and growing beds. Herlihy articulated that one of the foundational goals of BFF was to "develop a food system in a neighborhood that is looking for more self-reliance," speaking to the fact the Beacon Hill community struggled with issues of food insecurity. Herlihy wanted to present urban forests not only as conservation landscapes but also as "productive forests for foraging materials for food, medicine, and crafts."[4] Under these aims, the project sought to "provide a local and resilient food source; enhance ecosystem services; improve air quality and create carbon storage; and empower community connections."[5]

Defining Urban Community Food Forests

The Beacon Food Forest welcome sign describes a food forest as "an edible garden designed to mimic the ecology of a woodland." Food forests are built to be "self-regulating ecosystems with forest-like ecosystem services," meaning they physically mimic the "spatial and functional patterns of a naturally occurring forest ecosystem."[6] Food forests consist primarily of edible perennial plants, with the additional interplanting of annual crops. They aim to use the fewest artificial resources possible to support a network of plants, fungi, animals, and people.[7]

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[2] Catherine Bukowski and John Munsell, *The Community Food Forest Handbook*

[3] Beacon Food Forest, "Beacon Food Forest Annual Report 2020," 2020, https://drive.google.com/file/d/16cfLwtTV7tFbH8aG4G4eECdOrwbUEwl_/view.

[4] Kristofor Husted, "Seattle's First Urban Food Forest Will Be Open To Foragers." The Salt. NPR (March, 2012) https://www.npr.org/sections/thesalt/2012/02/29/147668557/seattles-first-urban-food-forest-will-be-free-to-forage.

[5] Rebecca McLain et al., "Producing Edible Landscapes in Seattle's Urban Forest," *Urban Forestry & Urban Greening* 11, no. 2 (January 2012): 187–94, https://doi.org/10.1016/j.ufug.2011.12.002.

[6] Bukowski and Munsell, *The Community Food Forest Handbook*.

[7] Kathleen Alacalá and Joel Sackett, "What We Can Do Together," in *The Deepest Roots*, Finding Food and Community on a Pacific Northwest Island (University of Washington Press, 2016), 253–81, https://www.jstor.org/stable/j.ctvcwn322.10.

Species in the food forest are grouped into guilds categorized by the ecological functions they serve and the mutualistic relationships they hold. Organisms with different ecosystem roles are planted together to promote mutualistic ecological relationships, which contrasts sharply with industrial agriculture's reliance on machines to sow monocultures and pesticides to control plant growth.[8] Additionally, while humans play an important role in the food forest ecosystem through weeding and harvesting, they do not take on a position of domination. Thus, "humans are just another organism to a food forest, one that needs to be integrated into the needs of the forest."[9]

BFF is not just a food forest; it is an urban community food forest. Community food forests (CFFs) consider community impact as central to the project, whereas other forms of food forests may focus more narrowly on ecosystem structure and function.[10] Urban food forestry is a practice that utilizes edible perennial plants to "improve the sustainability and resilience of urban communities."[11] According to *The Community Food Forest Handbook* , a wide range of projects fit under the umbrella of urban food forestry, including urban community food forests, urban orchards, community gleaning, and foraging in urban forests.[12] Unlike traditional food forests, urban community food forests are both a commons—a property, practice, and/or knowledge shared by a community—and they are situated on public land, thus open-access to everyone.[13] The organizational structure of BFF is also open-access; anyone is allowed to become involved in the decision-making, maintenance, and utilization of the space through volunteering or joining a committee.

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[8] Bukowski and Munsell, *The Community Food Forest Handbook*.
[9] Alacalá and Sackett, "What We Can Do Together". p. 267
[10] Bukowski and Munsell, *The Community Food Forest Handbook*.
[11] Bukowski and Munsell, *The Community Food Forest Handbook*. p. 11
[12] Ibid
[13] J. K. Gibson-Graham, Jenny Cameron, and Stephen Healy, *Take Back the Economy: An Ethical Guide for Transforming Our Communities* (University of Minnesota Press, 2013), p. 130

Community food forests build biological and social resilience into their physical design and organizational structure. Ecosystem redundancy occurs when multiple species have overlapping functions, which allows for resilience in the ecosystem if one population dies out. Similarly, social resilience is created when people who have overlapping skills and abilities participate in the CFF. Bukowski and Munsell explain that "as people form a relationship with a community food forest, they reconnect as part of a natural ecosystem. Functions and behavior such as environmental awareness and food literacy often emerge as a result. These outcomes benefit community well-being and environmental stewardship."[14] Creating CFFs on public urban lands allows for a multifunctional utilization of space: the food forest provides access to local, sustainably grown food, and it functions as a public greenspace, an educational resource, and a communal gathering space. The BFF is comprised of multiple interconnected projects: the food forest, which includes species such as mulberry, peaches, quince, plums, hazelnut, heartnut, butternut, apple, blackberry, and cardoon; a native wetland and prairie, which grows culturally important native foods and craft plants; a series of gardens growing annual vegetables, which include the BIPOC community garden, the helix garden, and the food bank garden plot; and P-Patch plots, which are private plots tended by individuals or families. In addition to the natural ecosystem, there are also two gathering plazas, two tool sheds, and a few raised beds for ADA-accessible picking.[15] Each offers avenues for the community to procure edible plants, fungi, and craft materials, and to hold community events and socialize.

[14] Bukowski and Munsell, *The Community Food Forest Handbook*. p. 35
[15] "About Us." n.d. Beacon Food Forest. Accessed April 22, 2023. https://beaconfoodforest.org/about-us.

Agroecology, Agroforestry, and Permaculture

The BFF website explains that they combine "agroforestry and permaculture design principles to create a diverse and resilient edible landscape."[16] Agroforestry and permaculture are typically considered components of agroecology. The use of agroecology, agroforestry, and permaculture is common in food forest design. However, the boundaries and scopes of each term are messy, overlapping, and entangled within academia and public discourse. Detailing the historical trajectories that have shaped the present-day disputes over the defining characteristics and credibility of each practice is beyond the scope of this thesis. However, I present this section to highlight terminology relevant to describing BFF, and to argue that through this complicated narrative, different connotations of agroecology and permaculture have emerged.

Agroecology encompasses agricultural practices that use eco-mimicry to create environmentally sustainable systems of food production.[17] Agroforestry is the intentional integration of trees and shrubs with crops and/or livestock to create productive, sustainable agro-ecosystems. Forest farming, which is the cultivation of crops under a managed forest canopy, is one of the primary forms of agroforestry.[18] Today, agroecology and agroforestry are considered scientific disciplines that draw from Indigenous ecological knowledge and land management practice.[19] However, the introduction of the term "agroecology" in academia is credited to a handful of European and American scientists working in the 1930s.[20] According to Hecht, the "hard" science of agroecology began to significantly influence agricultural practice in 1960s,

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[16] Ibid

[17] Bukowski and Munsell, *The Community Food Forest Handbook*.

[18] "Agroforestry Practices | USDA National Agroforestry Center." n.d. Accessed April 22, 2023. https://www.fs.usda.gov/nac/practices/index.shtml.

[19] Colleen Rossier and Frank Lake. "Indigenous Traditional Ecological Knowledge in Agroforestry." *U. S. Department of Agriculture* (2014) Accessed April 16, 2023.

[20] A. Wezel et al., "Agroecology as a Science, a Movement and a Practice. A Review," *Agronomy for Sustainable Development* 29, no. 4 (December 1, 2009): 503–15, https://doi.org/10.1051/agro/2009004.

spurred by works such as Rachel Carson's "Silent Spring", Paul Ehrlich's "The Population Bomb", and Garrett Hardin's "Tragedy of the Commons", which created public awareness of the environmental harms caused by overpopulation, pollution, and industrial agricultural practices.[21] In the 1980s, agroecology became a popularized movement, not just a scientific discipline. Wezel et al. articulate that during this time period, research from "traditional farming systems in tropical and subtropical developing countries made significant contributions to the field of agroecology."[22] In this historical narrative, "agroecology in the USA was first explored by scientists concerned with environmental pollution from agriculture who built up a scientific corpus based on analyses of traditional and conventional practices."[23] However, the emergence of grassroots peasant-led movements in Latin America in the later 20th century sparked a broader understanding of agroecology. The term has evolved to refer explicitly to traditional Indigenous and peasant farming practices.[24]

Today, agroecology is considered to be a science, a movement, and a practice.[25] While agroecological science is concerned with the practical application of certain land management principles, agroecology as a movement is concerned with empowering local communities and protecting traditional Indigenous and peasant farming knowledge in the face of land appropriation and degradation by neo-capitalist political and economic forces.[26] On an international stage, agroecology is recognized as a practice comprised of both scientific and

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[21] Susanna Hecht, "The evolution of agroecological thought." In: Altieri, M (Ed.), *Agroecology: The Science of Sustainable Agriculture*. (Westview Press, 1995) 1–20.
[22] Wezel et al., "Agroecology as a Science, a Movement and a Practice. A Review." p. 4
[23] Ibid p. 5
[24] Valentín Val et al., "Agroecology and La Via Campesina I. The Symbolic and Material Construction of Agroecology through the Dispositive of 'Peasant-to-Peasant' Processes," *Agroecology and Sustainable Food Systems* 43, no. 7–8 (September 14, 2019): 872–94, https://doi.org/10.1080/21683565.2019.1600099.
[25] Wezel et al., "Agroecology as a Science, a Movement and a Practice. A Review."
[26] Val et al., "Agroecology and La Via Campesina I. The Symbolic and Material Construction of Agroecology through the Dispositive of 'Peasant-to-Peasant' Processes."

traditional Indigenous knowledge, as evidenced by the Food and Agriculture Organization's statement that "agroecological innovations are based on the co-creation of knowledge between traditional and indigenous knowledge, producers' and traders' practical knowledge, and global scientific knowledge."[27] These innovations include bio-diversification through intercropping, vertical farming, and co-planting annuals with perennials, and creating closed-loop systems through composting, recycling water, nutrients and organic material, and utilizing natural energy sources.[28]

Though permaculture utilizes these same innovations, its origination and present-day conceptualization differs from agroecology. Like agroecology, permaculture emerged following the era of whistle-blowers and counterculture movements that raised awareness to the toxicity of industrial society. Bill Mollison and David Holmgren, two white Australian scientists, are credited with coining the term "permaculture"—a portmanteau of permanent agriculture—in the 1970s. Their ideas were influenced by a range of sources, including Howard T. Odum's theories on ecosystem ecology, Robert Hart's "forest garden" design, Mollison's field work with indigenous Tasmanian farmers, and the "back-to-the-land" projects of the 1970s—a movement to "withdraw from the world," settle in isolated areas, and rebuild a pre-industrial connection with nature.[29] Mollison and Holmgren advocated for the use of biomimicry to create autonomous, resilient, sustainable living spaces. They developed a set of ethical values and design principles based on a holistic worldview that rejected anthropocentrism and opposed utilitarian reductionism.[30]

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[27] FAO, "The 10 Elements of Agroecology Guiding The Transition To Sustainable Food And Agricultural Systems." *Food and Agriculture Organization of the United Nations: Rome*. (2018) https://www.fao.org/3/i9037en/i9037en.pdf. Accessed April 2023

[28] FAO, "The 10 Elements of Agroecology Guiding The Transition To Sustainable Food And Agricultural Systems."

[29] Kevin Morel, François Léger and Rafter Sass Ferguson, "Permaculture." In: Fath, B.D. (editor in chief) *Encyclopedia of Ecology*, (Oxford: Elsevier 2nd edition, 2019) vol. 4, pp. 559–567.

[30] Terry Leahy, *The Politics of Permaculture* (London, UK: Pluto Press, 2021).

In their original 1978 book, *Permaculture One*, Mollison and Holmgren defined permaculture as "an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man."[31] In 1988, Mollison's *Permaculture: A Designer's Manual* expanded this definition to include "the harmonious integration of landscape and people providing their food, energy, shelter, and other material and non-material needs in a sustainable way"[32]. In 2002, Holmgren expanded this definition yet again in his book *Permaculture: Principles and Pathways Beyond Sustainability*, characterizing permaculture as a "system design for a sustainable society."[33] Today permaculture is described as a decentralized international network focused on the sustainable design of human settlement. It is considered a set of associated practices, a worldview, a design system, and an international movement.[34]

Though permaculture takes on many definitions, it is typically characterized by its design principles and ethical framework. Mollison outlines the three ethical tenets of permaculture as "Care of the Earth, Care of the People, and Setting limits on population and consumption,"[35] which was later changed to "share of surplus."[36] These ethics mirror BFF's core tenets of "Earth Care, People Care, and Fair Share."[37] Permaculture utilizes vertical planting to mimic the seven layers of natural forest ecosystems—the canopy, understory, shrub layer, herbaceous layer, ground cover, vertical layer, and rhizosphere. Plants are grown in guilds, which are species grouped by their mutually beneficial symbiotic relationships that comprise a piece of the larger ecosystem. Zones help organize different species and design elements to promote a logical

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[31] Bill Mollison and David Holmgren, *Permaculture One: A Perennial Agricultural System For Human Settlements.* (Melbourne: Transworld Publishers, 1978), p. 3.
[32] Bill Mollison, *Permaculture: A Designer's Manual* (Tagari Publications, 1988), p. 4.
[33] David Holmgren, *Permaculture: Principles and Pathways Beyond Sustainability* (Holmgren Design Services, 2002), p. 6.
[34] Morel, Léger and Ferguson, "Permaculture."
[35] Mollison, *Permaculture: A Designer's Manual.* p. 5
[36] Holmgren, *Permaculture: Principles and Pathways Beyond Sustainability*
[37] "About Us." Beacon Food Forest.

spatial flow, moving outwardly in concentric circles from the focal point. The first zone contains flora that require the most attention, and the subsequent zones correspond to decreasing maintenance needs.[38] Guilds, zones, polycultures, and vertical planting are also utilized at BFF.

Some scholars pose permaculture as a piece of the broader alternative agroecological movement, and a means to advance agroecological transition to sustainable agriculture, highlighting how the two concepts fit into each other. However, permaculture has largely remained a grassroots movement, existing on the fringes of scientific credibility. While permaculturists argue that permaculture principles are supported by contemporary science, most permaculture texts do not reference contemporary scientific research.[39] In their systematic review of permaculture literature, Ferguson and Lovell found that most permaculture literature is written for popular audiences by non-scientists and is less commonly mentioned in peer-reviewed scientific publications.[40] Furthermore, perhaps because it was introduced by white, English-speaking men in the Western world, permaculture has largely remained a movement dominated by white people.[41] From my research, I have found that agroecology is more commonly used to describe traditional Indigenous agriculture practices, while permaculture is often regarded as a co-opting of those practices. I argue that this distinction has emerged from differences in the core issues each movement tackles, and the way each practice is disseminated. I will explain in Chapter 4 why this is relevant to the way inclusion/exclusion is implicitly communicated in the community food forest.

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[38] Mollison, *Permaculture: A Designer's Manual*

[39] Rafter Sass Ferguson and Sarah Taylor Lovell, "Permaculture for Agroecology: Design, Movement, Practice, and Worldview. A Review," *Agronomy for Sustainable Development* 34, no. 2 (April 1, 2014): 251–74, https://doi.org/10.1007/s13593-013-0181.

[40] Ibid

[41] Rafter Ferguson and Sarah Lovell, "Grassroots Engagement with Transition to Sustainability: Diversity and Modes of Participation in the International Permaculture Movement," *Ecology and Society* 20, no. 4 (December 17, 2015), https://doi.org/10.5751/ES-08048-200439.

In broad strokes, agroecology and permaculture both aim to address the harms of industrial agriculture. Permaculture does so by calling for individual self-sufficiency. Founder Bill Mollison explicitly expressed opposition to permaculture as a "political" practice. Critical of strategies aimed at direct contestation of the state, he called instead for a strategy of replacement: abandoning urbanism and returning to small sustainable rural lifestyles.[42] In *Permaculture: A Designer's Manual* Mollison articulates key strategies for decreasing individual energy consumption through producing local food for local consumption, utilizing diverse polycultures, emulating natural forest systems in agriculture, moving out of cities and into rural settlements, and establishing political decentralization and local autonomy.[43] This text provides the curricular framework for Permaculture Design Courses (PDCs), which are the primary mechanization for the dissemination of permaculture globally. PDCs teach individuals to implement permaculture design practices in their own lives, which typically necessitates having access to land and financial resources to pay for the course and the materials needed to create a permaculture landscape. Through this process, a decentralized network of small institutes and individual permaculture practitioners has been internationally established. In *The Politics of Permaculture,* Terry Leahy articulates that "the de facto strategy of permaculture is to use the discretionary income of the middle class to drive a change towards a more sustainable society."[44] This approach differs significantly from agroecological movements that organize in rural peasant communities.

In 1997, Asociación Nacional de Agricultores Pequeños (ANAP) launched a project of "peasant to peasant" (ptp) agroecological knowledge transfer and adaptation in Nicaragua. The

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[42] Leahy, *The Politics of Permaculture*.
[43] Mollison, *Permaculture: A Designer's Manual*
[44] Leahy, *The Politics of Permaculture*. p. 99

success of this project lead to the emergence of the nationwide movement, Movimiento Agroecológico de Campesino a Campesino, which uses a "pedagogy of example" to "build territorial processes that support the scaling up of agroecology by integrating many families in agroecological production together with an expansion of the territory and subjects involved in agroecological praxis."[45]

During the 1996 World Food Summit, the grassroots peasant-led organization La Via Campesina introduced the concept of "a people's food sovereignty" as "the right of local populations to define their own agricultural and food policy, organize food production and consumption to meet local needs, and secure access to land, water, and seed."[46] La Via Campesina incorporated agroecological scale up into the food sovereignty movement as a global strategy to defend territories, seeds, and the commons in an effort to establish sustainable alternative agriculture systems. They utilized ptp horizontal agroecological knowledge transfer as a key mechanism to counter technologies of power and structures of oppression, through which heterogeneous concepts of agroecology emerged and were reconstituted.[47]

In agroecology, traditional Indigenous and peasant management practices are used as models, whereas in permaculture these practices are seen as contributors to the development of a new framework. Additionally, land redistribution to enable agroecological transformation is a critical component of La Via Campesina's work, while permaculture praxis typically depends upon individuals already having access to land that they can transform. La Via Campesina scales up agroecology through horizontal ptp knowledge co-production and transfer as a means of

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[45] Val et al., "Agroecology and La Via Campesina I. The Symbolic and Material Construction of Agroecology through the Dispositive of 'Peasant-to-Peasant' Processes." p. 5

[46] Hannah Wittman, "Reworking the Metabolic Rift: La Vía Campesina, Agrarian Citizenship, and Food Sovereignty," *The Journal of Peasant Studies* 36, no. 4 (October 2009): 805–26, https://doi.org/10.1080/03066150903353991.

[47] Val et al., "Agroecology and La Via Campesina I. The Symbolic and Material Construction of Agroecology through the Dispositive of 'Peasant-to-Peasant' Processes."

incorporating more people, communities, and organizations into the movement. In contrast, permaculture is scaled up through consolidation. PDCs teach a prototypical model of permaculture that is reproduced and adapted to local conditions. Though both movements are evolving and becoming more heterogeneous, permaculture has historically focused on revoking the status quo through individual lifestyle change, while agroecology has directly contested institutional powers of oppression. La Via Campesina links agroecology and food sovereignty together, calling for the protection of preexisting traditional peasant farming practices and enabling agency in marginalized groups who are disproportionately impacted by capitalistic environmental degradation. As this comparison illustrates, the boundaries delineating each term are hazy, yet key differences in the permaculture and agroecology movements can be distinguished. I now turn to discuss how BFF's agroecological and permaculture origins situate the food forest within conversations about food security, food justice, and food sovereignty.

Connecting Beacon Food Forest to Food Justice and Food Sovereignty

Urban community food forests renegotiate urban space as sites of production, not just sites of consumption. There is a growing body of scholarship that outlines how community food forests and urban food forestry can be used to improve local food security.[48] Food security, according to the FAO, is the condition when "all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active, healthy life." The four main dimensions of food security are food

[48] Kyle H. Clark and Kimberly A. Nicholas, "Introducing Urban Food Forestry: A Multifunctional Approach to Increase Food Security and Provide Ecosystem Services," *Landscape Ecology* 28, no. 9 (November 2013): 1649–69, https://doi.org/10.1007/s10980-013-9903-z.

availability, food access, food utilization, and food stability.[49] If one or more of these aspects are jeopardized, there is vulnerability in the food system. At BFF, food availability and food access are limited by factors such as seasonality, production capacity, and species diversity. In January of 2023, BFF conducted a survey that found that only 4% of respondents were meeting their daily needs for fruits and vegetables through harvesting in the food forest.[50] Since 2017, the Beacon Food Forest has produced between 2800 to 4250 lbs of harvested goods annually, but this still isn't enough to feed an entire community.[51] When I interviewed Khalil Griffith, the current Site and Program Director and former Community Outreach Coordinator for BFF, he concurred that the food forest does not have the breadth or production capacity to be the primary method of food acquisition for the local community. "We have lots of berries and leaves for salad, but we don't have a lot of heavy hitters like corn or potatoes, things that people eat as a form of sustenance."[52] In learning this, the focus of my thesis shifted from looking at BFF as a strategy to improve food security to noticing the ways that the food forest contributes to broader food justice and sovereignty goals.

As noted before, La Via Campesina brought "food sovereignty" to the international stage in 1996, as a response to the "era of unbridled capitalist expansion" of the late 20th century." This era was characterized by an intense growth of cities and a neo-capitalist ideology of insatiable consumption, which effectively rendered rural peasant farmers and other small-scale producers invisible.[53] Karl Marx argues that prior to capitalism, human society was connected to

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[49] FAO, "Climate Change and Food Security: A Framework Document." *Food and Agriculture Organization of the United Nations: Rome*, (2008) http://www.fao.org/forestry/ 15538-079b31d45081fe9c3dbc6ff34de4807e4.pdf. Accessed April 2023

[50] Food Forest Collective. "Beacon Food Forest Survey January 2023," (January 22, 2023), *Beacon Food Forest.*

[51] Beacon Food Forest Annual Report, (2017 - 2022).

[52] Khalil Griffith, Interview with Beacon Food Forest Site and Program Director, (February 19, 2023), *Monique Allen.*

[53] La Via Campesina, "Food Sovereignty, A Manifesto For The Future of Our Planet." Food Sovereignty Publications. La Via Campesina (October 13, 2021) https://viacampesina.org/en/food-sovereignty-a-manifesto-for-the-future-of-our-planet-la-via-campesina/.

nature through labor in a socio-ecological metabolism. He describes the socio-ecological metabolism as "the unity of living and active humanity with the natural, inorganic conditions of their metabolic exchange with nature," in which people "appropriate the materials of nature through labor, in the process transforming the environment and simultaneously their own human nature."[54] He saw that the socio-ecological metabolism of agriculture was maintained through soil regeneration in the process of closed-loop nutrient recycling.[55]

However, Marx argued that a metabolic rift emerged from the "ongoing transformation of agriculture from a metabolic activity linking society and nature to a commodity-based driver of capitalist expansion."[56] John Bellamy Foster explains that "Marx employed the concept of metabolic rift to capture the material estrangement of human beings in capitalist society from the natural conditions of their existence."[57] This metabolic rift was characterized by a "disruption of traditional nutrient cycling, causing extensive soil depletion and an increasing dependence on imported fertilizers," which widened the separation between urban consumers and rural producers.[58] In capitalist agriculture, Marx articulated that "all progress in increasing the fertility of the soil for a given time is a progress of ruining the more long-lasting sources of that fertility."[59] Thus, notions of progress create capitalistic ruination that cannot be ameliorated by capitalistic technologies. He furthered that "long-distance trade in food and clothing made the problem of alienation of the constitutive elements of the soil that much more of an irreparable rift."[60] Marx's use of "irreparable" suggests that he views these processes of ruination and

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[54] Karl Marx, *Grundrisse: Foundations of The Critique of Political Economy*. (New York: Vintage Books, (1857-1858) 1973)
[55] Wittman, "Reworking the Metabolic Rift."
[56] Ibid p. 806.
[57] John Bellamy Foster, "Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology," *American Journal of Sociology* 105, no. 2 (1999): 366–405, https://doi.org/10.1086/210315. p. 383.
[58] Wittman, "Reworking the Metabolic Rift." p. 806.
[59] Karl Marx, *Capital,* vol. 1. (New York: Vintage Books, (1867) 1976). p. 637.
[60] Foster, "Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology." p. 380.

alienation as catastrophic. His discussion here focuses particularly on the degradation of soil in rural sites of agricultural production. However in my thesis, I consider the city as its own "ruined" productive landscape. I draw Anna Tsing into Marx's discussion to complicate his conceptualization of capitalistic ruination.

In concurrence with Marx, Anna Tsing explains in *The Mushroom at the End of the World* that capitalistic wealth accumulation relies on alienating human and non-human beings from their "life worlds"—the social and ecological entanglements they grew out of—and turning them into individual mobile assets which can be exchanged or used as resources for investment.[61] She notes that "the dream of alienation inspires landscape modification in which only one stand-alone asset matters; everything else becomes weeds or waste."[62] Capitalism seeks to exploit an environment until it has taken everything "desirable" from it, leaving a ruined landscape. Marx's metabolic rift pays specific attention to the way that agricultural crops—desirable capitalist commodities—are impacted by progressive soil depletion. However, Tsing adds to Marx's discussion of ruination and "irreparable rifts" the argument that many different life forms can persist in this "ruination." She offers the term "third nature" to describe what manages to live despite capitalism. This follows from first nature, ecological relations, and second nature, capitalist transformation of the environment. Tsing argues that the notions of progress and alienation that underpin capitalism obscure collaborative survival. However, she advocates for noticing as a practice to understand how we can adapt to our current state of precarity within the simultaneous reality and imaginary of capitalist ruination.[63] While Tsing's work in *The Mushroom at the End of the World* focuses on rural forest landscapes, I turn to

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[61] Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press, 2015), https://doi.org/10.2307/j.ctvc77bcc.
[62] Tsing, *The Mushroom at the End of the World*. p. 62
[63] Tsing, *The Mushroom at the End of the World*.

urban food forests as another site to explore survival in ruination. I use the term "survival" not to mean meeting the minimal requirements for sustaining life, but the act of living, eating, and creating community in the face of oppressive technologies and politics.

BFF had to transform a "ruined landscape" of infertile, compacted soil to create a fruitful greenspace. I read this regeneration of soil fertility as a reconstruction of the socio-ecological metabolism on a local scale. Urban community food forests reveal the possibility of a third nature in enabling formerly unproductive urban land to become a site for food gathering and communal cultivation. A critical part of food justice and sovereignty scholarship is "examining the political-economic dimensions of control over food resources."[64] As an urban community food forest, BFF works to reconnect urban consumers with their food sources, fostering interspecies connections in the face of capitalistic alienation in the industrial food system. In reference to La Via Campesina's definition of food sovereignty, I argue that the open-access nature of BFF does enable Beacon Hill residents to "secure access to land, water, and seed," but on a smaller scale than what La Via Campesina is working towards in their agroecological transformation. The ability of BFF to "organize food production and consumption to meet local needs" is not comprehensive, but it does empower people to autonomously grow and harvest their own food. Additionally, BFF provides a space for individuals to forage and equips people with the know-how to forage. In urban space, foraging can be conceptualized as a practice of noticing third nature, and a means of working through the estrangement between urban consumers and their food sources. In the next chapter I examine how modern foraging is practiced generally, and how it translates into the food forest space.

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[64] Melissa R. Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City," *Human Ecology* 41, no. 3 (June 2013): 409–22, https://doi.org/10.1007/s10745-013-9572-1. p. 10

CHAPTER 2: Urban Foraging: Noticing and Renegotiating Boundaries

I step out of the gathering plaza and set forth on the path. The turns and switch-backs create a labyrinth-like effect that contrasts sharply with the straightforward sidewalks of the city, entangling me within the space. I can tell that the food forest is young, only about a decade old. The trees don't tower above me like they would in a large, old growth Pacific Northwest forest. They don't obscure my view of the cars zooming by on the street below or the airplanes roaring overhead. However, the range of species and plant guilds is highly impressive. As I walk, I notice salal, strawberry, birch, lambs ear, and plum, to name a few. I begin to imagine what the food forest would look like in the summer—the height of the growing season. I see fruits hanging from trees, herbs growing in big bushes, clusters of vegetables sprouting leafy tops, an edible understory sprawling green across the ground, vines laden with legumes, and brambles offering colorful berries.

While some people visit the food forest already equipped with years of foraging experience, I am a newcomer, practicing inquisitive observation. For an experienced forager, noticing is a highly nuanced and refined practice. In *The Mushroom at The End of The World*, Anna Tsing describes the process of looking for Matsutake mushrooms as a dance—an embodied form of forest knowledge. To become alert to the lines of life, one must use all their senses. Tsing remarks that this forest dance, which differs subtly between each forager, "brings us to the liveliness of beings experienced as subjects rather than objects."[65] In foraging, human and non-human beings converse, mutually influencing each other. In this chapter I focus on foraging, looking closely at the relationships formed between human and non-human beings in

[65] Tsing, *The Mushroom at the End of the World*.

the process. I begin by providing a historical background on the colonial appropriation of Indigenous land and ensuing legal restrictions on foraging, contextualizing my discussion of modern foragers. I frame modern foraging as a highly heterogeneous, mutable practice which is not easily definable. I discuss how urban foraging contests standard notions of "food," "nature," and "urban space," prompting a relational understanding of human and non-human agency. As a form of noticing third nature, I also highlight the ways that foraging reworks the institutionalized alienation of urban consumers from their food sources. I conclude by discussing foraging practices in the Beacon Food Forest.

Defining Foraging

Poe et. al. define foraging as "a practice that involves the removal of fungi, plants, or parts of plants with the intention of using the materials gathered for foods, medicines, crafts, fuel, ceremony, decoration, or exchange."[66] They consider foraged items to include entire plants, plant parts, plant exudates, fungi, moss, lichens, honey, and non-timber wood products. They exclude animals, fish, shellfish, and insects. Though there is some subjectivity in this definition, this is the list I will use to refer to foraged items. Urban foraging refers specifically to practices that occur "in and around cities and connected urban spaces." Foraged species are typically unintended, meaning wild-growing or self-sown, or unattended, meaning purposely planted but then neglected.[67] This highlights a commonly held distinction between farms or gardens, which are actively tended to produce harvestable goods, and foraging spaces, which are not deliberately cultivated for human use. Foraging exists "along a continuum of human-plant production

[66] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City." p. 413

[67] Marcus Nyman, "Food, Meaning-Making and Ontological Uncertainty: Exploring 'Urban Foraging' and Productive Landscapes in London," *Geoforum* 99 (February 1, 2019): 170–80, https://doi.org/10.1016/j.geoforum.2018.10.009. p. 12

interactions with gathering on one end, tending in the middle, and cultivation of domestic plants on the other end."[68] Thus, foraged areas occupy a liminal space between intended food production zones and purposefully non-edible zones. Human engagement in cultivation is seen as a defining characteristic of each food procurement practice. These distinctions become blurred in urban foraging because foragers may gather species intentionally planted or cultivated by others. Urban foraging is a dynamic process and thus not easily definable.

I utilize the concept of relational ecologies of belonging to explain how urban foraging is constructed as a heterogeneous communicative project between people and non-human beings, and the spaces they inhabit. Poe et. al. use the term "relational ecologies of belonging" to describe the way that "relationships with nature are formed, legitimized, and mobilized in discursive and material ways" through urban foraging.[69] Urban foraging practice is shaped by contingent and contradictory attitudes towards the value of certain species, where they "should" be, and what cultural practice or knowledge should be utilized to harvest them. These inhabiting practices, which constitute a set of relational ecologies of belonging, allow for agency to be conceptualized as "the capacity for response/ability—the ability to affect and be affected by others." In this sense, agency in foraging is "an emergent property of heterogeneous assemblages comprised of multiple entities, spaces, and times."[70]

Anna Tsing's notion of contamination and polyphonic assemblages adds to the conversation of relational ecologies of belonging. Tsing describes contamination as transformation through encounter. Assemblages, she says, are patterns of open-ended gatherings

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[68] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City." p. 410

[69] Melissa R. Poe et al., "Urban Foraging and the Relational Ecologies of Belonging," *Social & Cultural Geography* 15, no. 8 (November 17, 2014): 901–19, https://doi.org/10.1080/14649365.2014.908232. p. 312

[70] Poe et al., "Urban Foraging and the Relational Ecologies of Belonging," p. 313

in which species influence each other in a dynamic process.[71] Both humans and non-human species, as well as the landscape itself, have agency in these assemblages, allowing for the construction of relational ecologies of belonging. Foraging is not simply the act of picking a plant; it is a layered, contingent process that enables dynamic relationships between urban space, food, and other beings. Before I discuss foraging in the food forest, I must first discuss foraging outside of the food forest because they are processes that inform and enable each other.

Colonial Myth Histories and the Legal Restriction on Foraging

In this section, I unpack the myth history that pre-colonization, Native people of North America lived as small bands of foragers in a pristine "state of nature," and that human food procurement technologies developed in linear stages. The historical context behind this myth history helps frame my discussion of modern-day foraging practices.

Our perception of early human foragers has been misconstrued by the theory of social evolution, which was first posited by A. R. J. Turgot in 1751. According to Turgot, human society developed in a linear progression, from hunting and gathering, to pastoralism, to farming, to finally, contemporary industrial agriculture and urban commercial civilization. He argued that this progression in modes of food acquisition correlated with increasingly complex and hierarchical structures of civilization, thus "those who still remain hunters, shepherds, or simple farmers are best understood as vestiges of our own previous stages of social development."[72] These four stages of development and the social evolution theory behind it quickly caught hold in Europe, appearing in lectures by scholars like Adam Smith, Lord Kames, Adam Ferguson, and John Millar. This rhetoric continues to permeate our thinking today. For example, in the

[71] Tsing, *The Mushroom at the End of the World*.
[72] David Graeber and David Wengrow, *The Dawn of Everything: A New History of Humanity* (London: Allen Lane, 2021). p. 96

introduction to the *Community Food Forest Handbook*, LaManda Joy writes, "we have civilization because of agriculture. Food is, and always will be, the number one concern of humanity."[73]

However, modern anthropological research reveals that many Native "foraging" societies of the pre-colonial era also practiced varied forms of agriculture and land management. According to the American geographer William Denavan, modified landscapes were actually ubiquitous in the pre-colonial Americas, including large earthworks, transportation corridors, grasslands, and modified forests used for subsistence food provision. Indigenous agricultural practices are evidenced by the extant features of "terraces, irrigation works, raised fields, sunken fields, drainage ditches, dams, reservoirs, diversion walls, and field borders that are distributed throughout the Americas."[74] On the Enumclaw Plateau of Washington State, for example, the Lushootseed people hunted marine and terrestrial fauna and gathered wild flora, but also "practiced a form of food cultivation that nurtured the growth of their wild root crops in estuaries, supplementing their diets when salmon runs and other food sources were less bountiful."[75] As Graeber and Wengrow explain, "what to a settler's eye seemed savage, untouched wilderness turned out to be landscapes actively managed by indigenous populations for thousands of years through controlled burning, weeding, coppicing, fertilizing and pruning, terracing estuarine plots to extend the habitat of particular wild flora, and so on."[76]

Native American agroecologist Jennifer Grenz argues that "the colonial concept that our food system is strictly agrarian is a haunting reminder of the perceived notion of settlers that our

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[73] Bukowski and Munsell, *The Community Food Forest Handbook*, p. 9
[74] William M. Denevan, "The Pristine Myth: The Landscape of the Americas in 1492," *Annals of the Association of American Geographers* 82, no. 3 (1992): 369–85, p. 375
[75] Dina Gilio-Whitaker, *As Long As Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock* (Boston, Massachusetts: Beacon Press, 2019), p. 112
[76] Graeber and Wengrow, *The Dawn of Everything*.

pre-contact lands were unproductive and 'wild'."[77] Refuting this myth history is important because settler colonial societies validated their appropriation of Indigenous lands through arguing that Indigenous peoples were not working the land, and thus had no legal claim to it. In Locke's Second Treatise of Government (1690), he argued that property rights should be derived from labor because "when working the land, one "mixes one's labour with it; in this way it becomes, in a sense, an extension of oneself." Locke claimed that Native peoples were "not 'improving landlords' but simply made use of the land to satisfy their basic needs with the minimum of effort," and thus had no right to it.[78] Operating under this malicious logic, European settlers forcibly displaced thousands of Native Peoples in a process of extreme violence. Detailing the complex historical trajectory of colonization is beyond the scope of this thesis; however, I want to call specific attention to the way that traditional Native food systems were disrupted in the process.

The Indian Removal Act of 1830 made it illegal for Native People to gather traditional foods outside of reservation lands.[79] Indigenous scholar Dina Gilio-Walker (Colville Confederated Tribes) explains that when food sources were disrupted in the imposition of the reservation system "health and culture were also disrupted, triggering a cascade of sociological repercussions." She articulates that native foods offer more than just nutritional matter; they are the "conduit between people and place that ensures cultural longevity and personal physical vitality."[80] Chery Bryce, a member of the Songhees nation, explains that this was form of cultural genocide because "the practice of gathering traditional foods, processing and eating

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[77] Jennifer Grenz, "Healing the Land by Reclaiming an Indigenous Ecology: A Journey Exploring the Application of the Indigenous Worldview to Invasion Biology and Ecology" (The University of British Columbia, 2020), p. 85

[78] Graeber and Wengrow, *The Dawn of Everything*.

[79] Jeff Corntassel and Cheryl Bryce, "Practicing Sustainable Self-Determination: Indigenous Approaches to Cultural Restoration and Revitalization Indigenous Political Actors," *Brown Journal of World Affairs* 18, no. 2 (2011): 151–66.

[80] Gilio-Whitaker, *As Long As Grass Grows*.

them were what kept [Indigenous people] alive both from the perspective of diet and culture."[81] In a bitter irony, American colonists were afforded the legal right to forage, graze, hunt, and fish on public and private lands. Into the late nineteenth century, many colonial households supplemented their diets with fruits, nuts, berries, and herbs that were foraged from unenclosed land.[82]

Over time however, anti-foraging laws were wielded throughout the US as a tool of racist colonial oppression. After the Civil War, foraging for wild foods to eat and sell provided a means of self-sufficiency to freed slaves. These wild foods "presented a clear threat to the re-establishment of plantation agriculture," thus Southern states enacted criminal trespassing laws to restrict foraging in response.[83] White rural subsistence farmers were also targeted by anti-foraging laws in the post-Civil War era. In the 1880s, the budding environmental conservation movement sought to protect natural spaces from human intervention by creating laws that turned previously acceptable practices illegal: hunting and fishing were redefined as poaching and foraging was redefined as trespassing. Foragers were effectively "charged by state officials with looking upon forests as 'a piece of commons.'"[84]

In the mid nineteenth century, landscape architects and health professionals advocated for bringing more nature into cities through the creation of public parks, appealing to the aesthetic ideals of nature popularized in the practice of estate gardening—a symbolic performance of upper class wealth.[85] In 1858, Frederick Law Olmstead designed Central Park in

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[81] Briony Penn, "Restoring Camas and Culture to Lekwungen and Victoria: An Interview with. Kwungen Cheryl Bryce," *Focus Magazine*, June 2006, http://wwvw.firstnations.de/media/06-1-1-camas.pdf.
[82] Brian Sawers, "The Right to Exclude from Unimproved Land," *Temple Law Review* 83, no. 3 (2011 2010): 665–96.
[83] Laurelyn Whitt and Alan W. Clarke, "Bringing It Home: North American Genocides," *Journal of Gender, Race, and Justice* 20, no. 2 (2017): 263–348, p. 340.
[84] Peter Linebaugh, *The Magna Carta Manifesto: Liberties and Commons for All* (Berkeley: University of California Press, 2008), p. 3
[85] Chelsea Teale, "The Introduction and Naturalization of Exotic Ornamental Plants in New York' s Hudson River Valley," 2011, 183–94.

New York as a "series of naturalistic pictures" intending to present nature as a source of aesthetic appreciation and passive recreation for urban residents.[86] He felt strongly that many New York residents would be ignorant of the intended purpose of the space, and called for people to be "trained to the proper use of it and restrained in the abuse of it."[87] Interestingly, Jefferson Park, which Beacon Food Forest is situated on, was developed by Frederick Law Olmstead's sons in the late nineteenth century to be "an escape from the busy downtown and an oasis of tranquility with stunning views."[88] The sculpting of urban nature for aesthetic and recreation purposes continues today, which Gobster terms as the "museumification" of nature.[89]

In the twentieth century, scientists began to recognize the importance of ecosystem services and native species in natural environments. Though the conservation and preservation movements conflicted over the best way to "protect" nature, both furthered the notion that natural spaces were meant to be looked at but not touched. The practice of ecological restoration in the 1920s and 1930s led to the emergence of ecological parks in urban areas, which sought to utilize native plants and sustainable materials to restore ecological plant communities and wildlife.[90] In the name of aesthetic appeal or environmental protection, laws and regulations were implemented to police everyday engagement with urban nature. Today, foraging is illegal in most national parks, state parks, and public city parks. According to the Code of Federal Regulations section on preservation of natural, cultural, and archeological resources, "possessing, destroying, injuring, defacing, removing, digging, or disturbing" wildlife and plants

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[86] Paul H. Gobster, "Urban Park Restoration and the Museumification of Nature," *Nature and Culture* 2, no. 2 (September 1, 2007): 95–114, https://doi.org/10.3167/nc.2007.020201. p. 96
[87] Gobster, "Urban Park Restoration and the Museumification of Nature."
[88] Bukowski and Munsell, *The Community Food Forest Handbook*.
[89] Gobster, "Urban Park Restoration and the Museumification of Nature."
[90] Ibid

and taking them from park areas is illegal.[91] Section 18.12.070 of the City of Seattle Municipal Code states that "it is unlawful for any person except a duly authorized Department of Parks and Recreation or other City employee in the performance of his or her duties, or other person duly authorized , to remove, destroy, mutilate, or deface any … shrub, tree, plant, or flower… in any park. [...] Violators are subject to fine of up to $5000 or imprisonment of up to one year or both."[92] While it is reasonable to prevent significant destruction from occurring in public parks, this violent, accusatory language creates a distinctly negative connotation of foraging, revealing the racist and oppressive history that undergirds these modern policies. To note, some national parks have different policies that allow for specific quantities of specific species to be used or consumed.[93] However, the general governmental sentiment deems foraging an illegitimate way to engage with greenspace and participate in ecological stewardship. This is the sociopolitical landscape that modern foragers navigate.

Modern-Day Importance of Foraging

Modern foragers should be understood as a community of practice rather than a certain type of people. Studies on foragers in London, New England, and Seattle concur that there is no typical forager; foragers comprise a diverse range of ages, socioeconomic statuses, races, ethnicities, genders, occupations, and countries of origin.[94] Foragers may be long-time residents or recent immigrants, equipped with a range of prior foraging knowledge and experience. Many urban foragers have sophisticated knowledge of the local ecosystem, including species

[91] "National Parks, Preservation of Natural, Cultural, and Archaeological Resource," *Code of Federal Regulations*, Title 36, Chapter 1, Part 2, https://www.ecfr.gov/current/title-36/chapter-I/part-2/section-2.1.
[92] "Section 18.12.070, No-Tresspassing Areas—Removal or Destruction of Property," *Parks and Recreation, Seattle Municipal Code*, https://library.municode.com/wa/seattle/codes/municipal_code/305817?nodeId=TIT18PARE
[93] Forage Culture, "Foraging Laws," Forage Culture, Accessed April 23, 2023, https://www.forageculture.com/foraging-laws.
[94] Nyman, Poe et al, Robbins et al.

identification skills, knowledge of subtle seasonal changes, and understandings of how temporal variations alter species composition, distribution, and abundance.[95] Foraging becomes a community of practice as gatherers share knowledge and foraged items, creating a dialogue between strangers or strengthening familial or friendship bonds. These shared experiences protect the longevity of foraging traditions.[96]

In applying a food justice and sovereignty lens to wild harvesting in urban space, Poe et. al. present the urban forest justice framework, which "recognizes the rights of urban people to have control over their own culturally appropriate wild food and health systems, including access to natural resources and to the decision-making processes affecting them." This framework recognizes "the fundamental ways that diverse cultural identities and social relations are embedded in gathering practices."[97] Protecting the right to gather wild foods and medicines is important because many of these species are not available in commercial markets. Furthermore, the intricate, multi-sensory knowledge that foragers possess cannot be standardized and industrially scaled-up.

Wild plants are used to address the health and nutritional needs of different communities, and to protect connections to traditional food systems and healing practices. This is especially important for Indigenous communities that have historically relied on locally available food systems but are becoming increasingly reliant on industrially produced food products, which do not have the same cultural significance or nutritional value.[98] Wild-growing foods are typically

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[95] Poe et al., "Urban Foraging and the Relational Ecologies of Belonging."
[96] Paul Robbins, Marla Emery, and Jennifer L. Rice, "Gathering in Thoreau's Backyard: Nontimber Forest Product Harvesting as Practice," *Area* 40, no. 2 (2008): 265–77.
[97] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City."
[98] Philip A. Loring and S. C. Gerlach, "Food, Culture, and Human Health in Alaska: An Integrative Health Approach to Food Security," *Environmental Science & Policy*, Special Issue: Food Security and Environmental Change, 12, no. 4 (June 1, 2009): 466–78, https://doi.org/10.1016/j.envsci.2008.10.006.

highly nutritious. For example, wild-growing fruits such as blueberries, huckleberries, gooseberries, blackberries, plums, grapes, cherries, and apples provide many necessary micronutrients and vitamins, including ascorbic acid, calcium, vitamin A, and folic acid.[99]

Wild foods can also have cultural edibility—the same matter may be perceived as food to some and toxic to others. A Seattle forager who serves as an identifier for the Seattle Mycological Society noted that while he considers *Lactarius* mushrooms to be inedible, he often comes across Eastern European foragers picking them. These foragers have inherited a tolerance through generations of people in their culture eating these mushrooms, and they have ways of processing the mushrooms to make them more palatable.[100] Additionally, different edible species are prioritized by different groups based on their cultural backgrounds. In a study on Seattle foragers, Poe et. al. found that Coast Salish communities preferred salmonberry and nettle; Korean, Hmong, Vietnamese, and Cambodian gatherers prioritized chestnuts, watercress, pennywort, and plantain; Eastern Europeans gathered hawthorn fruit; and Russian gatherers valued plums and mushrooms.[101] As Dina Gilio-Whitaker and Chery Bryce noted, health is deeply entangled with social relations, land, and cultural identity. For cultures that traditionally depend on wild-growing food and medicine, foraging is a means of realizing one's right to holistic health.

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[99] Harriet V. Kuhnlein, Nancy J. Turner, and Professor of Environmental Studies Nancy J. Turner, *Traditional Plant Foods of Canadian Indigenous Peoples: Nutrition, Botany, and Use* (Taylor & Francis, 1991).
[100] Poe et al., "Urban Foraging and the Relational Ecologies of Belonging."
[101] Ibid p. 414

Boundary Blurring in Urban Foraging

There is a dynamism to foraging that allows conceptions of food to evolve, enabling "thinking beyond edibleness."[102] Bennett poses food as "a form of becoming" rather than a fixed material. She explains that "it is precisely through entanglement with such facets of individual and collective, human and nonhuman life that matter finds expression as food."[103] In urban foraging, "food" is not clearly defined. Rather, the individual selects edible plants based on a complex web of personal knowledge and cultural background, blurring the lines between "edible" and "inedible". Food takes on its own identity that is unique to each forager and is dependent on different cultural understandings.

Conceptions of where "food" should be and where it should be produced are renegotiated through the process of urban foraging. Urban foraging is deeply relational, because it encourages people to reconsider what it means to inhabit urban space and what urban space may look like. Due to the "cultural and psychological association of the city with disorder, dirt, and pollution," foraging sites and areas of urban food production may be viewed as "matter out of place."[104] Foraging unattended and unintended plants and fungi in the city "disrupts received, linear conceptions of where and how food is produced, supplied and consumed, while generating alternative moments through which food gathers meaning."[105] In the process of foraging, individuals transgress spatial boundaries in a "performative politics of resistance." [106] Not only does this practice push against the racist history of foraging restrictions, but it also enables a

[102] Nyman, "Food, Meaning-Making and Ontological Uncertainty."
[103] Jane Bennett, "Edible Matter," *New Left Review* 45, (2007), 133–145. p. 135
[104] Nyman, "Food, Meaning-Making and Ontological Uncertainty," p. 177
[105] Ibid p. 170
[106] Ibid

reconsideration of what is often deemed "unproductive," to realize the diverse array of flora and fauna that can be found in cities.

In his study on London Foragers, Nyman argues that urban foraging takes place within the ruins of capitalist urbanization.[107] Anna Tsing's notion of third nature—what lives despite capitalism—comes into literal view through the act of searching for plants and fungi within the city. Through the rise of industrialization and the relegation of agricultural sites to rural areas, our laws and language attempt to create binaries between "nature" and "society." Urban foraging helps to deconstruct this imaginary. Robbins et al. articulate that the "casual daily use of wild plants subverts any clean partitions" between natural and social spaces.[108]

Foraging is an ongoing exploration of the non-linear hierarchies and polyphonic rhythms that inform human and non-human lives. An essential practice in foraging is to listen to the plants and fungi, using environmental cues to determine what to forage and to determine sustainable limits.[109] The intimate, tactile nature of foraging involves "climbing, crouching, and stretching; scratching, digging, and pulling," which has the effect of "blurring the lines between collection and consumption."[110] This multi-sensory practice makes visible the process of contamination that is obscured in capitalistic food chains, transforming plants and fungi into beings rather than alienated commodities. This allows foragers to situate themselves within nature in a non-hierarchical way, which contrasts with the domination of nature mindset that is exercised in industrialized agriculture. Furthermore, the selection of plants and fungi in foraging runs counter to how food is selected by both producers and consumers in our industrial food

[107] Ibid
[108] Robbins, Emery, and Rice, "Gathering in Thoreau's Backyard."
[109] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City."
[110] Nyman, "Food, Meaning-Making and Ontological Uncertainty," p. 177.

system, in which the most standard-looking food object is sought after, and "irregular" foods are discarded. Foraging allows for the recognition of the naturalness of irregularity.

Foraging in the Urban Food Forest

What does it mean to forage in an urban community food forest if the land is being cultivated for the intent of being gathered from? For one, the food forest is not a project of ecological control; non-human species have agency over shaping the ecosystem. Anna Tsing observes that humans can add disturbance to landscapes in the hope that their actions will stimulate an "eruption of shared assembly," but there is no way to know what exactly will be produced.[111] The recognition of ecological agency is a key aspect of La Via Campesina's food sovereignty movement, and a key way to address the metabolic rift.[112] Using "foraging" to describe how individuals harvest in the Beacon Food Forest is important because it acknowledges that human and non-human beings are co-creators in the environment. This blurs the distinction between "cultivated" and "uncultivated." In comparison to commercial agriculture, which aims to "segregate a single crop and work towards its simultaneous ripening for a coordinated harvest,"[113] the Beacon Food Forest produces food in an ecosystem of multiple temporal rhythms. As a space where people can consistently come and forage, the seasonal growing patterns of different edible and medicinal plants are made visible.

At the Beacon Food Forest, visitors come to the space for a multitude of reasons. Results from the survey that Beacon Food Forest conducted in January 2023 indicated that the primary reason for visiting the food forest was to garden or harvest, though people were also drawn for

[111] Tsing, *The Mushroom at the End of the World*.
[112] Wittman, "Reworking the Metabolic Rift."
[113] Tsing, *The Mushroom at the End of the World*, p. 24.

the atmosphere, education, and socializing.[114] Urban community food forests like BFF are quite unique in that they allow for free, open harvest in city-owned land, which presents a new way to engage with urban greenspace. I argue that BFF enables the multiplicity of everyday foraging practices to be made visible and legitimate in public space. This provides a means of promoting urban forest justice, as part of larger food justice and food sovereignty goals.

Beacon Food Forest also functions as an important educational tool. Since they cannot operate at a scale to sustain an entire community, they create a broader impact by introducing newcomers to foraging and sustainable agriculture practices that they can take with them outside of the food forest. Thus, BFF is both a space for foraging and a place where people can become foragers. BFF Site and Program Director Khalil Griffith, who is originally from Arkansas, remarked that when he first came to the food forest, he didn't recognize most of the plants. However, through spending time volunteering, conversing, and observing the plant-identification signage, he learned to be familiar with the flora of the Pacific Northwest. Anna Tsing uses the notion of a "polyphonic assemblage" to describe the "gathering of different rhythms as they result from world-making projects, both human and non human." At Beacon Food Forest, visitors of the space may take on the dual roles of foragers and volunteers, which presents multiple avenues for noticing the polyphonic assemblages they are participating in. Creating an urban green space that people are encouraged to touch, smell, taste, and grow in helps connect people back to their metabolic roots in nature.

Foraging in the urban food forest provides more than food as matter. Wild edible and medicinal species help maintain important relationships between people, land, and culture. Valerie Segrest, coordinator of the Muckleshoot Food Sovereignty Project, explains that

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[114] Food Forest Collective, "Beacon Food Forest Survey Janurary 2023."

"traditional wild foods are living links with our land and our legacy, helping us to remember who we are and where we come from."[115] Creating tangible connections between humans, plants, and fungi rejects the alienation between urban consumers and food commodities that characterizes our industrial food system. However, foraging in cities is often inhibited by governmental policies or private land ownership, thus foragers are not always able to realize their rights to "culturally appropriate wild food and health systems."[116] Beacon Food Forest makes a diverse array of foraging practices that occur in Seattle visible and legitimate, and they create a space for promoting urban forest justice as a component of food justice. In the next chapter, I explore how foraging is practiced sustainably in a commons such as BFF.

[115] Gilio-Whitaker, *As Long as Grass Grows*.
[116] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City."

CHAPTER 3: The Economy of the Urban Food Forest

Though I am exploring the food forest by myself, there are many visual clues that make the presence of others felt. Signage (images 3, 4, and 5) is used to mark which areas are open for public harvest and which are P-Patches—spaces allotted out to individuals to privately tend and pick from. These signs are respectful rather than threatening (e.g. "Private Plot, Please Don't Pick"), which adds to the friendly ambiance of the space. Along the paths, other signs provide information about specific species, spaces, and guidelines to follow (e.g. "Native Plant Guilds" and "Please Stay on Paths"). One sign about conscientious harvest that I find especially notable reads "Hello! Thank you for visiting. Kindly enjoy our flowers & other plants! Allow us all to continue to enjoy the garden by leaving roots intact. Thanks!" In another example, the words "Always Leave Some for Others" are carved into a sign on a wood shelter in the gathering plaza. These signs echo the broader sentiment of the space, which is that respecting the plants, fungi, and other people visiting is crucial to the proliferation of the Beacon Food Forest.

Image 3, 4, 5: Signage at the Beacon Food Forest

In the previous chapter, I explored the individual interspecific relationships that are formed and (re)negotiated in foraging. In this chapter, I situate the forager within the material flows of the larger community food forest system, considering how Beacon Food Forest operates as a community economy within a capitalist economy. I investigate the communal ethics that underpin this community economy to call attention to different modes of being which contrast with the expectations of "rational consumers" in neoclassical economics. Specifically, I focus on open harvest as a mechanism for the self-regulatory distribution of food at BFF. I discuss the way that Garrett Hardin's "Tragedy of The Commons" argument has been wielded against urban community food forests, and I offer the gift economy as a framework through which to view sustainable open harvest in the food forest economy. My discussion helps illustrate the possibilities for communities to survive well together outside of market or state regulatory forces.

Defining Economy and Community Economies

In *Take Back The Economy,* J.K. Gibson-Graham explains that the basic function of an economy involves decisions around "how to care for and share a commons, what to produce for survival, how to encounter others in the process of surviving well together, how much surplus to produce, how to distribute it, and how to invest it for the future."[117] Under this definition, economies take on many forms beyond the neo-capitalist market economy that dominates our society's economic conversations. Gibson-Graham argues that when "economy" is conflated with "capitalism" our understanding of economic activity is warped. This disregards the multiplicity of economic systems that exist, pushing them to the margins and centering

[117] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*, p. xvii

capitalism as a hegemonic economic system. The monolith of "the economy"—meaning the industrial neo-capitalist market economy—is commonly analogized to a machine in which everyday people are cogs, powerless to its churning force. Gibson-Graham argues for reframing the economy as "the day-to-day processes that we all engage in as we go about securing what we need to materially function," which shows how the economy is not a machine that must be obeyed but rather a system created by the actions we take. This reframing allows us to be empowered to create economies centered around ethical decision-making, which they call "community economies."[118]

Gibson-Graham spells out the considerations required of a community economy: "surviving together well and equitably; distributing surplus to enrich social and environmental health; encountering others in ways that support their well-being as well as ours; consuming sustainably; caring for—maintaining, replenishing, and growing—our natural and cultural commons; and investing our wealth in future generations so that they can live well." A community economy is an ongoing negotiation of our interdependence with other human, non-human beings, and the environment. It is not a fixed system. Individuals can have multiple roles and areas of influence.[119]

While Gibson-Graham advocates for paying attention to the diversity of economic practices that exist beyond capitalistic economic exchange,[120] Anna Tsing further problematizes conceptualizations of "capitalism," calling attention to "the non-capitalist elements on which capitalism depends."[121] Beacon Food Forest is a community economy that functions alongside

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[118] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*, p. 7.
[119] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*, p. xix
[120] J. K. Gibson-Graham, "Diverse Economies: Performative Practices for `other Worlds'," *Progress in Human Geography* 32, no. 5 (October 2008): 613–32, https://doi.org/10.1177/0309132508090821.
[121] Tsing, *The Mushroom at the End of the World*, p. 66.

larger capitalistic food-acquisition systems. As evidenced before, people do not use BFF as a comprehensive alternative food source; the space does not have the production capacity or nutritional breadth to sustain the entire Beacon Hill community. Instead, it offers a means of procuring fresh local foods in a system of non-capitalist exchange to supplement commercially produced food acquired in capitalistic exchange.

In the following, I outline how BFF operates as a community economy. Beacon Food Forest relies on a collection of volunteers to care for the natural and social commons of the food forest. They host monthly work parties during which volunteers help sustain the ecosystem through mulching, creating soil and compost, regraveling pathways, weeding, planting, watering, pruning, and constructing new areas of the food forest.[122] BFF also has auxiliary work committees who focus on specialized or one-time projects. In the summer they host Sunset Lab, which functions as a weekly informal work party and open space to ask questions and share knowledge.[123]

The BFF organization is overseen by a non-profit board, and has two paid staff members who serve as the Community Outreach Coordinator and Site and Program Developer. Additionally, they have a collection of volunteer committees that collaborate with the board and staff to make decisions about how to support the well-being of human and nonhuman participants, how to distribute surplus, how to promote equity, and how to invest in the future of the food forest. Currently, these committees are: Site Development, Education, Community Development, Pollinators, Grant Writing and Fundraising, Plants and Pruning, and Native Guilds.[124] Previous to COVID-19, BFF also had a Nutrition Team that prepared healthy meals

[122] Beacon Food Forest, "Beacon Food Forest Annual Report 2020."
[123] Beacon Food Forest, "Beacon Food Forest Annual Report 2021," (2021), https://drive.google.com/file/d/1TtZ1LtNYDrbP2Nk5gBlUFSFpyIjRS_Rq/view.
[124] Beacon Food Forest, "About Us."

sourced locally and from the food forest to nourish volunteers after work parties.[125] These committees are open to anyone to join, which gives the economic actors in BFF multiple areas of influence.

This assemblage of volunteer committees, board members, and staff confer to determine how surplus should be distributed to enrich the social and environmental health of the broader Beacon Hill community. In 2020, the number of residents in Washington state seeking food assistance doubled due to the COVID-19 pandemic. In response, BFF redirected their surplus distribution towards where it was needed most: they expanded their vegetable production beyond the open harvest areas and donated 200 lbs. of food to the Rainier Valley Food Bank located a few miles down the road. They also installed a Little Free Pantry stocked with personal hygiene items and staple foods.[126] The above discussion illustrates how the BFF community economy works towards surviving well together on the meso-level. However, the primary mechanism for produce distribution is open harvest—individual foragers dictating their own needs in autonomous non-capitalist exchange. There is no explicit surveillance or monitoring of open harvest. Instead, BFF trusts in the "radical" notion that individuals will buy into the community ethics of "leave some for others" and respect boundaries without being policed. In the rest of this chapter, I investigate how the success of open harvest at BFF undermines the tragedy of the commons argument.

[125] Beacon Food Forest, "Beacon Food Forest Annual Report 2019," (2019), https://drive.google.com/file/d/1sVLROWUGpqR8zBjXTE0WIfI3PFIhsJXx/view.

[126] Beacon Food Forest, "Beacon Food Forest Annual Report 2020."

The Tragedy of The Commons Argument

Concern for "tragedy of the commons" is a frequently raised argument against open harvest in community food forests. In fact, in the process of writing this thesis, multiple people unfamiliar with CFFs posited that very argument to me. The term "the tragedy of the commons" was first introduced by ecologist Garett Hardin in 1968. He argued that "some participants in communal endeavors act in their own self-interest even if it is contrary to and at the expense of the common good. The combined impact results in the depletion of the community resources and ultimately the failure of the community as a whole."[127] Hardin reasoned that when people use a common resource, they will act to maximize their personal benefit without regard for others because individuals receive all the positive utility from personal use of the commons while the negative utility is distributed among all users. Thus, the perceived benefits outweigh the costs, driving people to consume resources as if they were infinite.[128] This argument has been refuted by a significant body of research, which prompted Hardin to qualify his original statement in 1991 to say that the tragedy of the commons only occurs in unmanaged commons—those "managed by no powers other than those of herdsmen acting individually."[129] However, the original idea of the tragedy of the commons has stuck around. As Gibson-Graham articulates, "this phrase has been used ever since to legitimize privatization and the ideology that resources are best placed in the hands of private owners who will manage them wisely so the owners can reap the rewards."[130] I turn to Elinor Ostrom to refute the now popularized concern over Hardin's original argument.

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[127] Bukowski and Munsell, *The Community Food Forest Handbook*, p. 78.
[128] Garrett Hardin, "The Tragedy of the Commons," *Science* 162, no. 3859 (1968): 1243–48.
[129] Garrett Hardin, "The Tragedy of the Unmanaged Commons," *Trends in Ecology & Evolution* 9, no. 5 (May 1994): 199, https://doi.org/10.1016/0169-5347(94)90097-3.
[130] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*, p. 131

In her seminal work, *Governing the Commons: The Evolution of Institutions for Collective Action*, Elinor Ostrom argues that the use of common resources will not inevitably devolve into the tragedy of the commons. She problematizes three popular theoretical frameworks used to discuss common pool resource use: Garrett Hardin's "Tragedy of the Commons," the prisoner's dilemma, and Mancur Olson's *The Logic of Collective Action*. Each validates governance of the commons by the state or market by positing that rational actors will inevitably harm themselves by behaving in self-interest. Ostrom points out that the conditions of these logical frameworks can only be applied empirically when they reflect the conditions of real-world situations. However, the real world is often more complicated. Ostrom counters that the commons can be managed by self-governing institutions, not just the state or the market. She employs a variety of documented examples of self-governance of the commons from Kenya, Guatemala, Nepal, Turkey, and Los Angeles to support her argument.[131] Ostrom's work profoundly changed understanding of economic development, winning her a Nobel Prize in Economics in 2009.[132]

In *Governing the Commons*, Ostrom outlines eight core principles for effective self-governance of common pool resources:

1. The common pool resource has defined boundaries
2. The rules governing the use of the commons reflect local needs and conditions
3. The individuals who are affected by the rules can also modify the rules
4. The commons are monitored to make sure individuals follow the rules
5. Violators of the rules receive graduated sanctions based on the level of offense

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[131] Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, The Political Economy of Institutions and Decisions (Cambridge ; New York: Cambridge University Press, 1990).
[132] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*.

6. Accessible, low-cost means for conflict resolution are available

7. External authorities recognize the right to self-governance

8. Larger commons are built from smaller, nested commons systems.[133]

The Beacon Food Forest organization is a self-governing institution—they are not controlled by the state or the market. Governance of the commons at BFF comes in the form of rules for harvesting and rules for growing posted throughout the space. In applying Ostrom's framework, I argue that BFF fulfills some, but not all the criteria:

1. Yes: The physical boundaries of the food forest are clearly defined.

2. Yes: consideration for the local community is at the forefront of BFF operations.

3. Yes: anyone can participate in decision-making processes at BFF, the organization is run as a sociocracy.

4. Yes and no: BFF is consistently managed by humans and non-humans, but the nature of open-access means visitors are not actively monitored while they use the space.

5. No: BFF does not use punitive measures to address "rule-breaking"

6. Yes: Conflict mediation can occur through multiple avenues: during work parties, committee meetings, board meetings, or via the contact page on the BFF website.

7: Yes: BFF is situated on city land, and Seattle officials permit harvesting and cultivating despite it being illegal in other city parks.

8. I pause on addressing this because it applies to much larger common pool resources.

[133] Ostrom, *Governing the Commons.*

Interestingly, Khalil Griffith, BFF Site and Program Director, and Lucy Brown, BFF intern 2021, both observed that common pool resource depletion has not been a problem at BFF. Thus, the food forest operates successfully as a commons despite not fulfilling all of Ostrom's requirements. This inevitably raises the question: What enables sustainable common pool resource use at BFF without the governance structure of rule enforcement through surveillance or disciplinary action?

Khalil expressed that in regards to the food forest, he doesn't really believe in "the tragedy of the commons." He explains, "we only take what we need. Everybody adopts the same mentality. If there was the off chance that someone took more than they needed, well how are we to decide what they needed? If they took it they probably needed it and if we run out then we can get more. That's the only way to approach it."[134] His observation highlights that people can practice community ethics without being policed. The tragedy of the commons rhetoric is underpinned by neoclassical economic assumptions of individualism, which poses everyone as competitors, thus discouraging collaborative survival.[135] By comparison, the ethical paradigm of the food forest encourages collaborative survival. Khalil points out that if resources are depleted, we can't make assumptions about whether people acted out of selfishness or necessity. BFF responds with trust rather than skepticism. Instead of exacting punishment, they adapt to needs. Collective survival is prioritized.

When I inquired further about why this system works, Khalil attributed it to "the energy that the food forest radiates." He said "when you present things in an open way, when people know something is there for them in the community, they'll treat it with respect. It becomes a

[134] Griffith, Interview with Beacon Food Forest Site and Program Director.
[135] Tsing, *The Mushroom at the End of the World*.

fight only when you close the door and take the access away."[136] Khalil speaks to the role of implicit messaging in different spaces of exchange. In economies organized around scarcity, competition fuels individual survival. By comparison, BFF's economy is organized around shared abundance. I use abundance in this context not to refer to the absence of scarcity, but rather the notion of "knowing you have what you need."[137] I use the term "shared abundance" to describe how the consideration of others' needs is woven into the way individuals define their own needs. Community members work together with the plants, fungi, and the Earth to produce food for everyone. In this sense, shared abundance is the opposite of resource competition in a fight for individual survival.

The ethos of being considerate for others is manifested in the physical design of the food forest. As I noted in my walk, gentle signage, such as the wooden plaque carved with "always leave some for others," encourages people to consume sustainably. Signage is also used to remind visitors to respect private P-Patch plots and to stay on paths to avoid harming the lives of the non-human inhabitants. One feature of the food forest is the Helix garden, which is "formed in the shape of a double DNA Helix, representing the unity of all living things." The 2018 annual report described the Helix garden as "a demonstration that shared abundance rather than competitive scarcity can be part of the global movement for a regenerative agriculture and economics."[138] This powerful metaphor directly challenges the way DNA is conceptualized in population genetics: as the molecular make-up of discrete genetic units, which are passed down

[136] Griffith, Interview with Beacon Food Forest Site and Program Director.
[137] Robin Wall Kimmerer, *Braiding Sweetgrass*, First edition (Minneapolis, Minnesota: Milkweed Editions, 2013).
[138] Beacon Food Forest, "Beacon Food Forest Annual Report 2018," p. 6.

to offspring in a competitive quest for individual survival.[139] Need I point out the parallels to neoclassical economics?

In addition to the structural signaling that communicates community norms, Lucy suggested that BFF visitors may already possess an ethic of sustainable consumption that they bring with them into the food forest. She posited that "the people who are drawn to BFF are inherently drawn to the natural world, and maybe even if it's subconscious, they have a sense of not wanting to go in and totally rip something up, and instead go in and appreciate it, which goes hand in hand with being conscientious about how much you're taking."[140] BFF visitors and volunteers are likely not a representative population sample. It stands to reason that the food forest would attract people who already have an appreciation for nature and experience with ethical harvesting. Thus, I do not offer my case study as a replicable or scalable solution to large-scale common pool resource degradation. Rather, the success of open harvest at BFF exposes the flaws in the neoclassical economic assumption that individual selfishness is intrinsic to human nature. I use the notion of gift economies to explore this further.

Gift Economy Framework

Gibson-Graham argues that in our day-to-day lives, encounters of care dictate how we survive well together more frequently than monetary exchanges do. These encounters of care, which they also describe as "encounters with others close by" involve two forms of exchange: reciprocal transaction and gift transaction. In both forms of exchange, Gibson-Graham argues that "there is a governing ethic of taking only what we need and contributing or returning what

[139] Tsing, *The Mushroom at the End of the World*.
[140] Lucy Brown, Interview with Beacon Food Forest 2021 Intern, March 11, 2023. *Monique Allen.*

we can."[141] They reason that in encountering others who are satisfying our needs directly, there is a mutual recognition of their needs, which reduces the desire for excessive consumption. They differentiate these terms in explaining that reciprocal transactions involve negotiated equivalences, whereas gift transactions are open-ended and unpredictable.[142] However, Gibson-Graham is quick to qualify that these boundaries are blurred. Gifts are also reciprocal because, as Marcel Mauss articulates, "there is always an expectation that the gift will be repaid (even at some unspecified time in the future)."[143]

Robin Wall Kimmerer, Potawatomi scholar and bryologist, adds an ecological lens to this discussion informed by traditional Indigenous knowledge. Kimmerer argues that when we view plants and fungi as gifts rather than products or commodities, our relationship to them changes in two main ways. Our initial response is gratitude, which creates a sense of abundance—knowing you have what you need. Our second response is reciprocity—considering what one can give to the plants and fungi in return for their generosity. She frames relationships as the currency of this gift economy, which are expressed through gratitude and ongoing cycles of reciprocity. Abundance is the foundational organizing principle of the gift economy.[144]

Gift economies contradict the logic of neoclassical capitalist economies, which may raise skepticism of their praxis. I will use the example of Kula, discussed by Marcel Mauss and Anna Tsing in their explanation of gift economies, to illustrate how gifts take on value in this form of exchange. The exchange of necklaces and arm shells by the Melanesian people was termed the

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[141] Gibson-Graham, Cameron, and Healy, *Take Back the Economy*, p. 135.
[142] Ibid
[143] Marcel Mauss, *The Gift: The Form and Reason for Exchange In Archaic Societies*, Repr, Routledge Classics (London: Routledge, 2004).

[144] Robin Wall Kimmerer, "The Serviceberry: An Economy of Abundance," Emergence Magazine, October 26, 2022, https://emergencemagazine.org/essay/the-serviceberry/.

"kula ring" by Anthropologist Bronislaw Malinowski. In kula, the objects exchanged do not serve a useful purpose, rather their value is derived from the social reputations and relationships tthey establish. In this form of gift exchange, "things and persons are formed together in gifts through which things are extensions of persons and persons are extensions of things."[145] Kula upsets the neoclassical economic logic that objects only have value in their use or commodity exchange. It also highlights a defining feature of gift economies: items exchanged become extensions of the person exchanging them.

Tying this back to nature, Robin Wall-Kimmer quotes Lewis Hyde to explain that in gift exchange, "we tend to respond to nature as a part of ourselves, not a stranger or alien available for exploitation."[146] Through the process of physical interface with the soil, land, plants, and fungi, foragers can recognize themselves as part of the food forest rather than separate from it. The forager must care for the natural environment to sustain their foraging practice, which establishes an ongoing reciprocal relationship between human and non-human beings. As discussed in Chapter 2, this involves a keen sense of noticing. As Poe et. al. observed in their study of Seattle foragers, "listening to plants and mushrooms was a common practice: to assess the being's desire and purpose; to seek signs of whether it wanted to be harvested; and to determine sustainable limits."[147] In BFF, these signals are made visible in the way plants grow. Mint, which grows prolifically and ubiquitously throughout the year, can be harvested more intensely than, say, the kiwiberry, which grows in one small section of the food forest and only ripens in the summer.

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[145] Tsing, *The Mushroom at the End of the World*.
[146] Kimmerer, *Braiding Sweetgrass*, p. 30.
[147] Poe et al., "Urban Forest Justice and the Rights to Wild Foods, Medicines, and Materials in the City," p. 12.

Gift exchange is reciprocal, yet unpredictable. Polyphonic assemblages—open-ended gatherings of human and non-human species influencing each other in the process of foraging—emerge in constant flux across space and time at BFF. The food forests make visible the life rhythms of the seasons. Edible species are not always ripe for the taking in the same way food products are in a grocery store. The gifts of BFF are dynamic, contingent, and unexpected, thus appreciated.

Robin Wall Kimmerer explains how her conceptualization of gifts differs from that of capitalist society. "From the viewpoint of a private property economy, the 'gift' is deemed to be 'free' because we obtain it free of charge, at no cost. But in the gift economy, gifts are not free. [...] In Western thinking, private land is understood to be a 'bundle of rights' whereas a gift economy comes with 'a bundle of responsibilities' attached."[148] In the food forest, the gift economy involves consideration of multiple responsibilities: the visible responsibility between the edible species and the forager to sustain each other, and the implicit responsibility between all users to sustain the commons. Provisions are gathered without monetary payment, yet they are not "free." The ecological growth of the food forest is encouraged through the consistent hard work of many volunteers. The nature of this labor as gift exchange comes through in the absence of negotiated equivalences. Foragers are not required to volunteer at the food forest in order to use it, and volunteers are not promised foraged goods as compensation for their work. I will note one caveat, which is that the system for allocating P-Patch plots is partially dependent on the number of volunteer hours that people have put into the food forest.[149]

[148] Kimmerer, *Braiding Sweetgrass*, p. 58.
[149] Brown, Interview with Beacon Food Forest 2021 Intern.

This gift economy is also sustained by the labor of nonhumans—plants, fungi, and the ecological systems that support them. This calls attention to the agency of non-human beings. In a metabolic state of nature, "social and natural actors affect one another through a series of pathways."[150] In viewing the species in the food forest as gifts, the interdependency between social and natural actors becomes visible. This changes spatial dynamics in addition to conceptual dynamics of edible foods in urban space. Even though BFF may not be able to produce enough food for a community to live off of, they can instill a mindset of ethical consumption that can be transferable to other areas of life. As a demonstration of a community economy, BFF reveals diverse economic possibilities.

Previously, I chose not to address Ostrom's eighth criteria for effective common pool resource management because BFF is a small scale operation. However, I want to acknowledge that on larger scales, the tragedy of the commons is a large problem driving pollution, ecosystem collapse, and climate change. To build large-scale ethical commoning built upon systems of care, we need to start with small scale examples. This is Ostrom's eighth point, and my argument for why the example of BFF is important. At BFF, People govern themselves to take only what they need and leave some for others without being policed, thus the motivation to accumulate surplus just because one wants to take advantage of reaping the maximum personal benefit from the land does not happen. Furthermore, participants in this economy exercise a freedom that is not self-interested, it is rooted in consideration of others. Greed is not an inevitability in the way that we often consider it to be.

In *The Mushroom at the End of the World*, Anna Tsing explores how the scientific paradigm of U.S. natural resource management focuses on combating "greed-based popular

[150] Wittman, "Reworking the Metabolic Rift," p. 12.

destruction." In the matsutake mushroom forests of the Pacific Northwest, conservation efforts fixate on the individual actions of matsutake pickers, who are presumed to be destroying their own resource through "disturbing the forest." The irony is that matsutake are born from disturbance. Tsing explains, "The U.S. asks: how can we preserve matsutake? When we should be asking, how do we sustain oak pine forests for matsutake?"[151] In this chapter, I argue that rather than asking, "how do we protect the food forest from people taking too much?" BFF asks, "how do we sustain the food forest for shared abundance?" This naturally leads us to consider Beacon Food Forest as a convivial space.

[151] Tsing, *The Mushroom at the End of the World*, p. 169.

CHAPTER 4: Collaborative Survival: Living Together Through Difference

As I continue walking, I become more attuned to the different growing guilds marked on the map in the gathering plaza. Medicinal herbs cluster together. Native plants inhabit the wetland. Fruit trees grow in staggered rows along with different understory shrubs and grasses. On the farther end of the food forest, a large sign provides information on the BIPOC garden, an area created specifically for Black, Indigenous, and People of Color to make decisions on what to grow in the food forest. The BIPOC garden is one of the newest areas of the food forest and has some of the clearest and most informative signage (image 6). Each plant is labeled with its common English name, Latin name, origin, characteristics, harvest time, nutritional benefits, and cooking and eating tips. Provided is the "Red Dragon Contorted Hazelnut" sign to illustrate:

Image 6: Red Dragon Contorted Hazelnut sign in BIPOC garden

Near the tool shed and the ADA accessible raised beds, I come across two people, one weeding and the other holding a basket. Introducing myself, I learn that the weeder is Khalil Griffith, who I later interview for this thesis. The second person describes herself as a frequent forager and volunteer at the food forest. I chat with them, asking about their experience volunteering, the

different projects the food forest is engaging in, and the importance of the site. Afterwards, I ask to follow along as the basket-holder searches for cooking herbs and flowers. She points out mint, which grows abundantly, and picks several sprigs. We also visit the sage, thyme, and rosemary bushes and I pick a few leaves, excited by the sweet, earthy smell that I hardly notice when I buy packaged herbs in the grocery store.

At the beginning of *The Community Food Forest Handbook*, the authors lay out a narrative to the reader: you stumble upon a public food forest, at first having no idea what it is. Through reading signs and observing what is growing, you walk away having a pleasant experience of picking fruit. When I spoke with Khalil Griffith, BFF Site and Program Director for, he expressed that the ultimate vision of the food forest is "a place where someone can show up and doesn't have to talk to anyone. They can read a sign and figure out how to get involved, what to do, and where they want to go in the food forest."[152] Khalil and the authors of *The Community Food Forest Handbook* speak to a convivial ideal of a community food forest as an autonomously growing, autonomously utilized space. The paradox of the food forest is that it strives to be ecologically self-regulating, yet always requires external human maintenance and input. In this chapter, I use the notion of conviviality to unpack the vision of stumbling in and finding your way. I use the term conviviality to mean living together through difference. I use James Miller's *Living Systems* and Ivan Illich's *Tools For Conviviality* to explore the intertwining notions of ecological and social conviviality. In this chapter I ask, what does it mean to be inclusive in the Beacon Food Forest? What is required to be self-sufficient? How does community grow? I will tie this discussion of conviviality to the food sovereignty movement,

[152] Griffith, Interview with Beacon Food Forest Site and Program Director.

which considers how issues of food access are institutionalized in systemic racism and economic equality, in order to explore the food forest's potential for collaborative survival.[153]

Conviviality and Living Systems Theory

In *Tools For Conviviality,* Ivan Illich defines conviviality as "individual freedom realized in personal interdependence," which involves autonomous and creative interactions between people, and between people and their environment. He contrasts this with "the conditioned response of persons to the demands made upon them by others, and by a man-made environment" in an industrial society.[154] Illich argues that these conditioned responses are created by the radical monopolization of everyday tools by professional elites. He uses the term "tool" broadly to refer to both physical objects and machines, but also productive institutions for tangible and intangible commodities. In contrast to modern industrial tools, Illich presents convivial tools as tools that can be used easily by anyone, whenever they want, for the purpose that they choose. Convivial tools do not require previous certification of the user, and the use by one person does not restrain the use of another person. Convivial society is created through interdependence—caring for one another, working together, and mediating ever-present conflict.[155] In this chapter, I examine foraging as a convivial tool and BFF as a convivial space.

I use James Miller's *Living Systems* to provide an ecological lens onto Illich's discussion of conviviality. Miller's Living Systems Theory contributes to biological explanations for natural life phenomena. Rather than separating each component of a living system into discrete units, his theory emphasizes relational vitality between organisms and their environment. He argues that

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[153] Alison Hope Alkon et al., *Cultivating Food Justice: Race, Class, and Sustainability* (Cambridge, US: MIT Press, 2011), http://ebookcentral.proquest.com/lib/vcl/detail.action?docID=3339335.
[154] Ivan Illich, *Tools for Conviviality*, 2. impression (Glasgow: Fontana/Collins, 1979), p. 10.
[155] Ibid

the systems of life occur at seven, nested levels: the cell, organ, organism, group, organization, society, and supranational systems.[156] In linking biological and social systems, Miller's work reflects a paradigmatic shift away from linear, mechanistic styles of thinking that are characteristic of industrial society.[157] This theoretical framework allows us to explore what conviviality looks like in the interwoven, nested ecological and social systems of Beacon Food Forest.

Convivial Possibilities in Beacon Food Forest

Conviviality requires accessibility. In order for an urban community food forest to be truly open access, everyone must feel welcome in the space. In our interview, Khalil shared that what kept him away from BFF for so long was simply the fact that he couldn't figure out what exactly it was. He expressed that "a barrier not just to the food forest but for any green space is that not many people grew up engaging in the land. To many people, the food forest is an entirely different world, so in order to make them engaged, it requires a lot of informing through signage and talking to people there."[158] The existence of a food forest is simply not sufficient to serve the needs of the community it is situated in. Careful planning is necessary to provide visitors with the know-how to navigate the space. Beacon Food Forest has two large sitemaps. The first map (see image on page 5) marks the location of plant guilds, tool sheds, pathways, private family plots, the seed library, and more. The second map, which is superimposed onto a chalkboard, is regularly updated to show what is growing and what should be harvested, as well

[156] James Grier Miller, *Living Systems* (New York: McGraw-Hill, 1978).
[157] Emily Ballantyne-Brodie, "Designing Convivial Food Systems in Everyday Life," *Linköping University Electronic Press*, (2018), 1032-1048.
[158] Griffith, Interview with Beacon Food Forest Site and Program Director.

as which species need time to grow before harvesting.[159] As I noted in my walk, signage throughout the space helps to identify species and delineate boundaries between public foraging and private P-Patch plots. The food forest also has a series of ceramic murals that explore different ecological topics from urban forestry to decomposition and ecosystem webs: "Why Do We Need Forests in the City?", "Rotting Wood Nurses the Forest", "The Edible Understory", "Food Forests' Living Web." These artistic signs are written in the five languages most commonly used in the Beacon Hill Neighborhood: English, Spanish, Simplified Chinese, Vietnamese, and Somali.[160] However, other information signs throughout the space are written only in English.

While signage is necessary, it is not a comprehensive strategy for making newcomers feel familiar with the space. When I asked Khalil if he thought Beacon Food Forest was actualizing the vision of stumbling in and finding your way, he laughed. "The food forest has so many moving parts. When you are passing through the space, you aren't going to know exactly what is going on. On the one hand, everything looks so established, but on the other hand, everything is brand new, so you don't even know where to hop in."[161] Khalil expressed that a combination of signage, art, audio guides, and conversation is essential for creating the way-finding that enables visitors to use the space autonomously. These multiple modes of communication are important in the construction of convivial tools. Furthermore, it takes time to become familiar with the food forest. Lucy Brown remarked that one of the biggest parts of her internship in 2021 was walking throughout the food forest multiple times a day to familiarize herself with the different species

[159] Brown, Interview with Beacon Food Forest 2021 Intern.
[160] Beacon Food Forest, "Beacon Food Forest Annual Report 2019."
[161] Griffith, Interview with Beacon Food Forest Site and Program Director.

and plant guilds.[162] While in theory the open-access nature of the community food forest enables anyone to visit as frequently as they want, race, class, gender, and physical ability also influence the accessibility of BFF.

In Chapter 2, I discussed how relational ecologies of belonging construct highly heterogeneous, contingent, and dynamic forms of urban foraging practice. Different identities, histories, knowledge-sets, and cultural backgrounds contribute to the way that individuals understand their relationships to other human and non-human species in the places they inhabit. Stepping back from looking specifically at individual relationships in foraging practice, I now consider how identity informs participation in the BFF community. In the language of Miller's Living Systems Theory, I consider how the living organism fits into the larger systems of the organization and the society.

Racism and Classism in Urban Greenspace

To explore the potential for foraging in the food forest to be a convivial tool, we need to interrogate the institutionalized inequalities that shape engagement in the food forest organization. The exclusionary history of urban greenspace influences the way visitors engage with BFF. During her internship, Lucy Brown observed that white people seemed to generally be comfortable taking food from the site, while people of color were more trepidatious about harvesting, which she said was very "built in."[163] The history of anti-foraging laws specifically targeting people of color[164] and the ongoing reality of people of color being disproportionately

[162] Brown, Interview with Beacon Food Forest 2021 Intern.
[163] Brown, Interview with Beacon Food Forest 2021 Intern.
[164] Whitt and Clarke, "Bringing It Home: North American Genocides."

surveilled, policed, and incarcerated impacts their level of comfortability in public greenspace.[165] This is especially true in the context of legal protections over property, which have been weaponized as tools to appropriate land and resources from BIPOC people. Lucy said that she spent a lot of time emphasizing "this is for you" to communicate that BFF was an open-access means of providing fresh, local foods to everyone.[166] Working towards convivial foraging at BFF requires traversing the implicit messaging that has been historically embedded into public urban greenspace.

In Chapter 2, I discussed how urban parks have historically been created for the aesthetic appreciation of nature, or to protect ecosystem services and wildlife. Laws that restrict foraging in public parks reflect this valuation of urban nature. Additionally, urban greenspace is often disproportionately located in neighborhoods of higher socioeconomic status. Nesbitt et. al. report that higher access to urban greenspace across cities in the US is strongly correlated with neighborhoods of higher income and education. They found that Latinx, African American, and Indigenous urban residents have the lowest levels of access to urban greenspace overall.[167] Furthermore, studies have shown that people of color tend to feel unwelcome in public urban green space. In a survey conducted on users of a large public park in Chicago, Gobster found that Black, Latinx, and Asian park users reported higher rates of perceived discrimination from police, park staff, and other park-goers as compared to white park users.[168] Though BFF is located in a diverse neighborhood of Seattle, its usership and volunteer base is less diverse.

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[165] Lynne Peeples, "What the Data Say about Police Brutality and Racial Bias — and Which Reforms Might Work," *Nature* 583, no. 7814 (July 2, 2020): 22–24, https://doi.org/10.1038/d41586-020-01846-z.
[166] Brown, Interview with Beacon Food Forest 2021 Intern.
[167] Lorien Nesbitt et al., "Who Has Access to Urban Vegetation? A Spatial Analysis of Distributional Green Equity in 10 US Cities," *Landscape and Urban Planning* 181 (January 2019): 51–79, https://doi.org/10.1016/j.landurbplan.2018.08.007.
[168] Paul H. Gobster, "Managing Urban Parks for a Racially and Ethnically Diverse Clientele," *Leisure Sciences* 24, no. 2 (April 2002): 143–59, https://doi.org/10.1080/01490400252900121.

In a survey conducted by BFF in January 2023, 60% of the respondents identified as white, 10% as Asian, 6% as Latinx, 4% as Black, 4% as Pacific Islander, and 4% as multiracial. Additionally, the overwhelming majority indicated that they spoke English at home, though other languages represented in survey respondents included Chinese, Japanese, Spanish, and Tagalog.[169] According to the 2020 US census, over 70% of Beacon Hill residents identify as Asian, Black, Latinx, Indigenous or Multiracial people of color and only 27% identify as white. Additionally, more than 50% of residents speak a language other than English.[170] Though it is plausible that the BFF survey did not capture a representative sample of food forest visitors and that the response data was skewed towards English speakers because it was conducted in English, the results still suggest that the diversity of the Beacon Hill neighborhood is not reflected in the diversity of the Beacon Food Forest Community. This is corroborated by the BFF 2021 Annual Report, which noted that volunteer committees average 65% white and 35% non-white.[171] The fact that English speakers were likely overrepresented in the survey indicates a shortcoming in BFF's methods of community outreach.

Working towards fostering conviviality in the BFF requires acknowledging the institutional forces that dictate both the physical construction of urban space and the social construction of belonging in urban space. BFF is undertaking many projects to actively engage a larger diversity of people utilizing the food forest. One example, as noted in my walk, is the BIPOC community garden, which was started in 2021 by former outreach coordinator Cherry Liu to fight for local food sovereignty for people of color.[172] Through conversations and surveys,

[169] Food Forest Collective, "Beacon Food Forest Survey January 2023."
[170] Beacon Hill Council Seattle, "Neighborhood Resources," (2019), https://www.beaconhillcouncilseattle.org/welcoming-1.
[171] Beacon Food Forest, "Beacon Food Forest Annual Report 2021."
[172] Ibid

BFF compiles an ongoing list of the culturally relevant foods, plants, and flowers that community members would like to be grown in the BIPOC garden. Additionally, they provide tools and growing space to other POC-led community gardens in the nearby South Seattle region. In considering conviviality, the construction of the tool and the accessibility of the tool go hand in hand. In theory, open harvest and community-led agriculture gives control over food production and consumption back to the community. But to truly promote food justice and food sovereignty, food forests need to actively enable autonomous food cultivation and harvesting.

Problematizing The Permaculture Movement

Thus far, I have discussed how urban greenspace implicitly communicates both inclusion and exclusion. This impacts who is able to access the tools of the food forest—growing and gathering. Now, I turn to the construction of the urban community food forest specifically, looking at the complicated roots of the permaculture movement. As I discussed in Chapter 1, Glenn Herlihy and Jacqueline Cramer were inspired to start the Beacon Food Forest after taking a permaculture design class together in 2009.[173] The 2017 Annual report described Beacon Food Forest as "a permaculture experiment which has yielded not only food but a sense of belonging and shared experience for the people of Seattle and for people around the world."[174] While resonating with an ideal of conviviality, this description remained uncritical of the connotations of "permaculture" and the demographic disparities between the BFF community and the broader Beacon Hill community.

In recent years, BFF has become more critical of the terminology "permaculture" in describing the site. Khalil informed me that Cherry Liu, the 2021 Site Development Coordinator,

[173] Bukowski and Munsell, *The Community Food Forest Handbook*.
[174] Beacon Food Forest, "Beacon Food Forest Annual Report 2017," p. 7.

did not use the term at all because of the history that surrounds it.[175] In the 2021 Annual Report, BFF wrote, "we held a critical eye up to the framework of permaculture which defined our beginnings and realized that it did not adequately address the needs of the BIPOC community that surrounds us. [...] Following the work of Leah Penniman, we understand the racism inherent in the term "permaculture".[176] Living together with difference means acknowledging when harm is caused, and community needs are not served. The growth from 2017 to 2021 reflected in the Annual Reports illustrates that BFF is a constantly evolving organization.

When I asked Khalil how the food forest is currently addressing its permaculture roots, he said "I try my best never to say 'our park' or this is 'my land' or 'my soil'. In my opinion it's about the language that we use and the way we interact with the land."[177] Khalil speaks to the importance of using decolonizing language to present BFF as a commons, rather than a space of "ownership" over soil, food, or knowledge. Leah Penniman explains that "the sustainable techniques that get branded as permaculture are assumed to be ahistorically European, but actually have roots in Black, Indigenous, and other people of color."[178] As discussed in Chapter 1, La Via Campesina's movement for food sovereignty and agroecological transition echoes this sentiment. In her book, *Farming While Black*, Penniman draws attention to the legacy of African and Indigenous farmers who pioneered the agroecological techniques and community ethics that are commonly associated with permaculture today. For example, she credits the use of raised beds to the Ovambo people of Namibia. She names George Washington Carver, an African American agricultural scientist, as one of the first US scientists to use diversified horticulture,

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[175] Griffith, Interview with Beacon Food Forest Site and Program Director.
[176] Beacon Food Forest, "Beacon Food Forest Annual Report 2021," p. 4.
[177] Griffith, Interview with Beacon Food Forest Site and Program Director.
[178] Doug Bierend, "A Conversation with Leah Penniman, Author of the New Book Farming While Black," The Counter, November 8, 2018, https://thecounter.org/food-apartheids-farming-while-black-leah-penniman-soul-fire-farm-interview/.

mulching, and nitrogen-fixing cover crops to recycle soil nutrients. She identifies many examples of Indigenous communities using intercropping to create polycultures pre-colonization, and she credits African American horticulturist Booker T. Whatley with developing the concept of "U-Pick" in the 1960s, a framework for food distribution that underpins modern CSAs and open harvest in the food forest.[179]

As noted in Chapter 1, the term "permaculture" was originally coined in 1978 by two white Australian scientists, Bill Mollison and David Holmgren. Though Mollison acknowledged in *Permaculture: A Designer's Manual* that he drew inspiration for his work from the Indigenous communities he worked with in Tasmania, and he advocated for adopting "a sophisticated aboriginal belief system" to "learn respect for all life," today Mollison is commonly referred to as the "godfather of permaculture," which obscures the contributions of indigenous farmers to the success of his work.[180] In a study conducted on permaculture practice internationally, Ferguson and Lovell reported that the overwhelming majority of practitioners surveyed (96%) were white and middle class, indicating a severe lack of racial diversity in the global permaculture movement.[181]

In the following, I expand upon my discussion of knowledge dissemination in Chapter 1 to highlight how the standardized knowledge of Permaculture Design Courses (PDCs) contrasts with the vernacular knowledge that Illich advocates for in convivial society. Massicotte and Kelly-Bisson argue that the pedagogical structure of PDCs reinforces elements of the colonial

[179] Leah Penniman, *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land* (White River Junction, Vermont: Chelsea Green Publishing, 2018).
[180] Mollison, *Permaculture: A Designer's Manual.*
[181] Ferguson and Lovell, "Grassroots Engagement with Transition to Sustainability."

capitalistic economy, which inhibits diversity in participation.[182] As the permaculture movement expanded, Mollison's PDCs grew increasingly structured and standardized. Though there remains ambiguity in whether completion of a PDC is a legitimate form of permaculture design "certification," these courses still hold a significant amount of informal authority. In *The Politics of Permaculture,* Terry Leahy explains that "the teaching of the PDC informs the permaculture movement and the completion of the PDC confers incontrovertible 'membership'." Among permaculture practitioners, PDCs are seen as "means of ensuring alignment of practices and trainings with Mollison's specific vision of permaculture."[183] This creates "expertise" in permaculture based on a standardized design model which is informed by singular canonical text, *Permaculture: A Designer's Manual*. Illich argues that in industrial society, the need for expertise is created through the standardization of formerly vernacular knowledge. Though Mollison acknowledged the influence of Indigenous ecological knowledge in his permaculture design, his repackaging of these diverse practices into a standard curriculum can be read as an attempt to monopolize the tools of agroecological practice. The structure of PDC dissemination, which relies on a permaculture "expert" imparting a prototypical model unto an unenlightened student, establishes a hierarchical pedagogy that contrasts sharply with the horizontal process of vernacular knowledge co-production observed in grassroots agroecology movements.

Vernacular Knowledge Co-Production

To work through this complex history, we need to decolonize ownership over knowledge practices in the community food forest. In this vein, I consider how the knowledge of growing

[182] Marie-Josée Massicotte and Christopher Kelly-Bisson, "What's Wrong with Permaculture Design Courses? Brazilian Lessons for Agroecological Movement-Building in Canada," *Agriculture and Human Values* 36, no. 3 (September 2019): 581–94, https://doi.org/10.1007/s10460-018-9870-8.
[183] Ibid, p. 584.

and harvesting is learned, diffused, and implemented in The Beacon Food Forest. In my interviews with Lucy and Khalil, I asked if they ever felt like a lack of knowledge was a barrier to participation in BFF. Khalil said he has never felt that. In fact, what motivated him to return after his first day was a message from Cherry Liu: "Don't worry about messing up. Don't worry about whether this is the right decision to make, just trust your gut, trust your instincts, and do what you can. We learn as we go."[184] Khalil said that often the biggest barrier to gardening or permaculture is the fear of failure; You fear your plants might die, or nothing will survive, or you made a bad decision. He says that the way through that is to "grow and go" meaning that you learn from mistakes and then take the next step. This comfort in "learning as we go" contrasts sharply with the highly standardized industrial mode of agricultural scientific praxis.

BFF's utilization of vernacular knowledge empowers conviviality because food forest volunteers are not prescribed to a set way of foraging or cultivating food. Furthermore, this reveals the nature of precarious survival in the food forest. Precarity, which Anna Tsing defines as the condition of being vulnerable to unpredictable encounters, is revealed in the way that plants and fungi exercise agency in the food forest.[185] The food forest is a project of co-construction: neither human nor non-human beings have the exclusive power to dictate how the other will behave. Thus, visitors and volunteers in the food forest are not experts, rather co-collaborators.

At BFF, there is a reciprocal knowledge exchange between the human and non-human inhabitants. Scientific data is gathered through careful and consistent observation of how species change. Khalil reflected that learning how to grow is about constantly being on site. "If you were

[184] Griffith, Interview with Beacon Food Forest Site and Program Director.
[185] Anna Tsing, *The Mushroom at The End of The World.*

to plant a strawberry and you left it for a year and came back, by then it would have grown big and you would have no idea what assisted in its growing. But when you visit every day, you are paying attention. You are going to know the strawberry plant."[186] Robin Wall Kimmerer advocates for viewing plants, animals, and fungi as teachers. She reflects that while western science asks us to "learn about organisms, traditional indigenous knowledge asks us to learn from them."[187] This opportunity for learning in the food forest enables an opening of the "black box" of food production. BFF is not just a means to harvest food, it is also a space to understand how food and community grows.

Knowledge is also facilitated in the everyday interactions between people at the food forest, and through education classes that BFF offers to the public. Lucy and Khalil both noted that learning occurs through hands-on engagement, consistent observation, and conversation. For example, while gardening one day, a volunteer showed Lucy that wild plantain—commonly thought of as a weed—could be used to treat bee stings. A few days later she found herself utilizing this knowledge when a child got stung during one of the day camps. Khalil also reflected upon the fact that everyone has their own take on what certain species can be used for. Mint, for example, is a commonly growing plant that people use in making tea, cooking, or medicinally.[188] The open nature of the food forest allows for a diverse array of knowledge to proliferate, which is important when considering how historical and cultural identities construct foraging as a relational, heterogeneous, and dynamic practice. There is no standard mode of consumption for food gathered in the food forest.

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[186] Griffith, Interview with Beacon Food Forest Site and Program Director.
[187] Kimmerer, *Braiding Sweetgrass*, p. 52.
[188] Griffith, Interview with Beacon Food Forest Site and Program Director.

Volunteer support and community outreach are both essential to the dissemination of knowledge at BFF. During the monthly work parties, hands-on learning is built into the process of helping to sustain the ecosystem. The Education committee plans several classes and workshops throughout the year that are taught by volunteers or paid professionals and are open to the community. For example, in 2019 BFF partnered with urban forager Cheryl Wheeler to offer free summer foraging walks, which gave attendees information about the history, design, and species of the food forest which they could relay to their family, friends, and other visitors.[189] In 2022, BFF offered several classes on foraging and gardening, including: "Regenerating the Soil with Fermented Food Waste", "Foraging and Farming Edible Fungi", and "Backyard Bioremediation."[190]

Prior to the pandemic, BFF had a nutrition team that provided meals for volunteers after each monthly work party and hosted annual harvest meals for the community. These events provided more than just locally grown food; they also involved cooking and preservation demonstrations that taught attendees how to create their own meals with food forest ingredients.[191] In the summer, BFF runs several day camps to teach kids about ecosystem processes and food growing. As an intern, Lucy was responsible for leading campers through tasks like sheet mulching, watering, and weeding, and facilitating discussions about food justice and climate change within the context of the Beacon Food Forest.[192] The individual acts of foraging and gardening for food—relational systems at the organism level—are informed by the communal structures of growing and learning that help sustain both the social and biological

[189] Beacon Food Forest, "Beacon Food Forest Annual Report 2019."
[190] Beacon Food Forest, "Beacon Food Forest Annual Report 2022," p. 16.
[191] Beacon Food Forest, "Beacon Food Forest Annual Report 2017."
[192] Brown, Interview with Beacon Food Forest 2021 Intern.

communities of BFF—relational systems at the organizational level. This highlights the way that conviviality is "individual freedom realized in personal interdependence" at the food forest.

Community at BFF is a product of multiple interwoven, relational assemblages of people and non-human organisms. Conviviality is a dynamic process of decolonizing the historical connotations of urban greenspace, addressing the whitewashing of the permaculture and sustainable food movements, and building self-sustaining biological and social systems through consistent observation, maintenance, and conversation. The three core tenets of BFF, which are displayed on the main page of the website and written throughout the food forest, are: "Caring for the Earth, Caring for People, and Fair Share for All,"[193] which parallels the core ethics of permaculture: Earth Care, People Care, Fair Share.[194] How can BFF, and other urban community food forests, strive for these ethical goals while entangled within their complicated historical roots? This is the ongoing project of living together through difference.

[193] Beacon Food Forest, "About Us."
[194] Holmgren, *Essence of Permaculture.*

CONCLUSION: Making Visible a Latent Food Commons

Once I pass through the BIPOC garden, I come face to face with a grassy expanse—the undeveloped 3.5 acres of the Beacon Food Forest. This marks the end of my walk. Though on the surface it appears that I have returned to the usual green sod of Jefferson Park, a mycorrhizal network of possibilities lies within the soil underneath. Turning back around to view the food forest, I am reminded of what can fruit from a dormant urban landscape.

In its inception, BFF was allotted seven acres of land in Jefferson Park. The initial project, Phase I, developed the first 1.75 acres into the food forest, P-Patch plots, medicinal garden, and helix garden.[195] In 2018, construction began on Phase II, the next 1.75 acres. This phase, completed in 2021, included the addition of more P-Patch plots and food forest space, ADA-accessible pathways and raised beds, community gardens, the BIPOC garden, and a second central gathering plaza.[196] Though right now the next 3.5 acres simply contain possibilities, plans for Phase III are underway. BFF envisions growing more food, strengthening connections with the community, and bringing more art into the site. A group of volunteers is planning on creating a young persons' garden, and BFF is also partnering with a local preschool to start "Food Forest Fridays," where students can plant, harvest, and learn about local food.[197] In 2022, BFF received a $144,000 Food Equity Grant from the Seattle Department of Neighborhoods to put towards the staffing and expansion of the BIPOC garden.[198] As part of this grant, BFF will plant more easily recognizable, staple foods that "people can see and put on their plate for dinner tonight."[199] An essential part of conviviality is meeting people where they are at, and adapting in response to

[195] Beacon Food Forest, "Beacon Food Forest Annual Report 2017."
[196] Beacon Food Forest, "Beacon Food Forest Annual Report 2018."
[197] Griffith, Interview with Beacon Food Forest Site and Program Director.
[198] Beacon Food Forest, "Beacon Food Forest Annual Report 2022."
[199] Griffith, Interview with Beacon Food Forest Site and Program Director.

community needs and desires. This year alone, the BIPOC garden aims to grow at least 1400 lbs of food to be distributed to BFF visitors and community organizations.[200]

Though seven acres is a large expanse of public land for an urban agriculture project, it is not enough to feed the entirety of Beacon Hill, much less all of Seattle. This brings us to the discussion of scalability: How can The Beacon Food Forest create a large-scale impact while operating within seven acres? How can I bring this thesis, centered around one case study, into larger conversations about food justice, food sovereignty, and collaborative survival in capitalistic ruins? I offer Anna Tsing's concept of a "latent commons" in response.

In *The Mushroom at The End of The World,* Anna Tsing argues that the capitalist ideology of progress, which manifests in projects of scalability, is untenable. As illustrated by Marx's discussion of the metabolic rift, fertile soil becomes increasingly depleted as capitalist technologies attempt to scale up the progress of agricultural production. In cities, urban development erodes productive landscapes, rendering urban food production obsolete. As an adaptive strategy, Tsing advocates for noticing "latent commons," which she characterizes as an "eruption of shared assembly." They are "ubiquitous yet undeveloped," and "bubble with unrealized possibilities."[201] I argue that Beacon Food Forest makes visible a latent food commons by turning unproductive soil into a space for communal cultivation. While BFF may not ever physically expand past seven acres, they can inspire other CFFs and urban agriculture projects to take root, building a network of local projects working to further food justice and food sovereignty. I conclude by drawing attention to other projects that are working to reveal latent edible commons in urban space.

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[200] Griffith, Interview with Beacon Food Forest Site and Program Director.
[201] Tsing, *The Mushroom at the End of the World.*

City Fruit: City Fruit is a community gleaning project started in Seattle in 2008. Their mission is to "build community by harvesting and sharing fruit with all, and share knowledge of the stewardship and promise of fruit trees as a sustainable food resource in our community." The organization supports tree owners and community orchardists in growing healthy fruit, and they help harvest and preserve fruit through community gleaning initiatives. Additionally, they promote equitable sharing of fruit and advocate for equitable food policy. City Fruit calls attention to the latent commons of urban fruit trees as a valuable community food resource. Currently they have access to over 7,000 fruit trees and vines across public and private lands in and around Seattle.[202]

Swale: In 2015 artist Mary Mattingly created Swale, a floating food forest in the South Bronx, NYC. The concept was simple: "Rent an empty barge from a marina in Verplanck, N.Y.; load it with soil, gravel and plants; anchor it at locations around the five boroughs; and invite people to harvest unlimited fruits, vegetables and perennials, for free."[203] Although foraging is illegal in NYC public parks, Swale circumvented this law by floating; on water, it's not subject to the same regulations. Though Swale was halted after COVID-19, the project sought to raise awareness to issues of food insecurity and food injustice in the South Bronx, which is one of the largest food deserts in the US. Like BFF, Swale was often subjected to concern for the tragedy of the commons. However, the public program manager noted that Swale actually experienced the opposite—people seemed hesitant to take more than they needed.[204] This echoes my findings

[202] City Fruit, "Who We Are," accessed April 23, 2023, https://www.cityfruit.org/who-we-are/.
[203] Alexandra S. Levine, "A Forest Floats on the Bronx River, With Free Produce," *The New York Times*, July 7, 2017, sec. New York, https://www.nytimes.com/2017/07/07/nyregion/a-forest-floats-on-the-bronx-river-with-free-produce.html.
[204] Ibid

from BFF, which is that people can adopt a shared set of community ethics to use a common pool resource sustainably.

Green Grounds: Ron Finley started the organization Green Grounds in South Central, LA, after noticing a lack of fresh, local foods in the community. Green Grounds plants food forests in the grass strips that border city sidewalks. They practice a form of guerilla gardening—planting edible trees, flowers, and fungi on neglected private or public lands as a form of civil disobedience.[205] Though the municipal government tried to put a stop to the project, Finley petitioned the city and won, and now Green Grounds has been growing for over 10 years. In a TED Talk Finley gave in 2013, he shared that gardening has become a tool of transformation for his community. "To change the community you have to change the composition of the soil. We are the soil."[206] Green Grounds promotes convivial food commoning by teaching South Central community members how to garden and empowering them with the autonomy to grow and harvest their own food.[207]

Community Food Forests across the US: Community Food forests are a budding movement. In 1997, the George Washington Carver Edible Park in Asheville, North Carolina became the first public community food forest in the US. However, in 2012, the extensive media coverage of the Beacon Food Forest catapulted community food forests into the public eye, and the rate of new

[205] M. Hardman and P. Larkham, "The Rise of Guerrilla Gardening: Unearthing the Underground Urban Agricultural Movement.," *Urban Agriculture Magazine*, no. No.31 (2016): 27–28.
[206] Ron Finley, "Ron Finley: A Guerrilla Gardener in South Central LA | TED Talk," accessed April 23, 2023, https://www.ted.com/talks/ron_finley_a_guerrilla_gardener_in_south_central_la.
[207] Green Grounds, "Los Angeles Green Grounds," *Los Angeles Green Grounds*, accessed April 23, 2023, https://www.lagreengrounds.org/.

CFFs began to accelerate. As of 2018, there are over seventy recorded public community food forests in the US.[208] More food forests continue to emerge as awareness spreads.

Digital tracking of food commons: Digital technology can also be a powerful socio-technical tool for making latent food commons visible. Oona Morrow's work on food commoning in New York City discusses digital maps created to share information about the ownership, governance, and status of vacant lots that could become communal food-growing spaces.[209] The authors of *The Community Food Forest Handbook* have created a website that maps the location of public community food forests across the country (image 7). The National Gleaning Project also created a map of nationwide gleaning and food recovery organizations (image 8), to increase public awareness for these practices.

Latent Commons are not a unified, utopian solution to the problems of our capitalist-industrial food system. Creating the Beacon Food Forest involved negotiating with many different stakeholders and navigating the complex histories and overlapping boundaries of agroecology and permaculture. In this thesis, I highlighted how permaculture's pedagogical practice of standardized knowledge dissemination through a decentralized global network differed from La Via Campesina's utilization of peasant-to-peasant horizontal vernacular knowledge transfer in agroecological transition. Within BFF, I explored how vernacular knowledge is disseminated between humans, and between human and non-humans, enabling a scientific praxis of co-production, rather than replication. Urban foraging is a deeply relational,

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[208] Bukowski and Munsell, *The Community Food Forest Handbook*.

[209] Oona Morrow, "Community Self-Organizing and the Urban Food Commons in Berlin and New York," *Sustainability* 11, no. 13 (January 2019): 3641, https://doi.org/10.3390/su11133641.

heterogenous, and culturally contingent process of noticing latent food commons that grow throughout urban space. The mutualistic assemblages formed through foraging, both in and outside the food forest, make visible the interdependency between human and non-human beings, constructing edible species as beings, rather than alienated commodities. This acknowledgement of interdependency is exemplified in the sustained community ethics of open-harvest at BFF. Decolonizing ownership of a commons and ownership of knowledge is essential to creating convivial spaces of food production that promote food sovereignty. Through this thesis process, I realized that Beacon Food Forest is not a case study of a solution to food insecurity, rather it is a project of creating collaborative survival through revealing a third nature—a latent food commons that grows despite the progress of capitalistic urbanization.

Anna Tsing characterizes latent commons through four negative statements:[210]

Latent commons are not exclusive to human enclaves:

In noticing latent commons, interspecies perspective is critical. Foragers converse with the species they gather, creating assemblages born from contingent, diverse mutualistic relationships. Community in the food forest emerges out of these mutualistic entanglements. Meaningful interspecific relationships give rise to productive and sustainable social and biological ecosystems. How does this interdependency translate into spaces beyond the food forest?

Latent commons are not good for everyone:

Edible urban commons do not fit everyone's valuation of urban space and nature, and often conflict with governmental policies or private ownership of land. Food forests will

[210] Tsing, *The Mushroom at the End of the World,* p. 255

always be laden with a complex history. At BFF, convivial ideals differ from convivial realities, thus fostering belonging is an ongoing, imperfect project. Furthermore, might some level of opacity be important to protecting and sustaining the commons?

Latent commons do not institutionalize well:

The communities fostered at BFF will always be diverse and dynamic assemblages. Foragers dance with an embodied knowledge of local species, a unique multi-sensory practice that cannot be industrially scaled-up. Additionally, food commoning projects are successful when they are tailored to local needs and draw upon traditional local agroecological knowledge. What does it mean to "protect" this knowledge? How does this influence scientific praxis in agroecological projects?

Latent commons cannot redeem us:

Latent commons offer alternative futures, not perfect solutions. Food commoning projects emerge and fall apart. Volunteers ebb and flow, and food grows according to seasonal rhythms. Some environments may be more conducive to foraging and food production than others. Latent commons exist in the present, subject to constant change. What will Beacon Food Forest look like in 10 years?

Tsing emphasizes that latent commons are not visions of progress. However, I argue that when made visible, latent commons do offer visions of promise. They reveal possibilities for growing food and community in formerly overlooked spaces. Thus, I end with this:

Use a forager's keen sense of noticing. See what comes into focus.

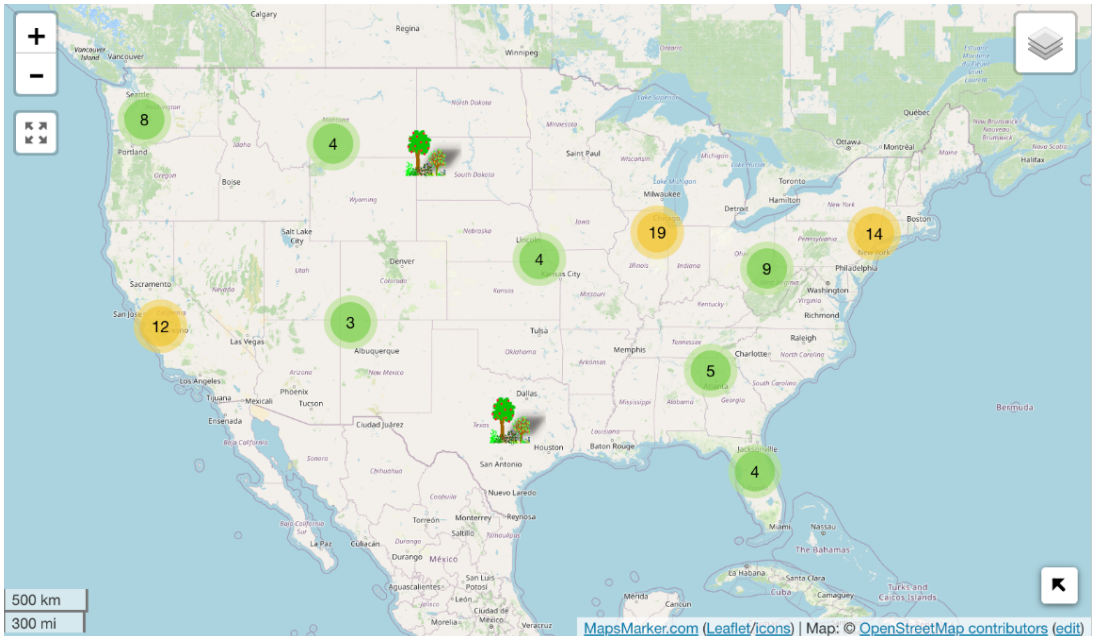

Image 7: Map of Public Community Food Forests across the United States[211]

Image 8: Nationwide Map of Gleaning and Food Recovery Organizations[212]

[211] Source: https://communityfoodforests.com/community-food-forests-map/
[212] Source: https://nationalgleaningproject.org/gleaning-map/

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