



# Growing Methods

## Developing a Methodology for Identifying Plant Agency and Vegetal Politics in the City

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**Abstract** A methodology for plant qualitative research is at an early stage of development. While conducting a multispecies ethnography of gardeners and the plants they grow for food in a neighborhood in transition from social housing to a mixed-income community in Toronto, the author wondered, How to account for plants and their agency? What is evidence of vegetal politics? What is a multispecies ethnographer doing when decentering the human in relation to garden plants, beyond what is *un-done* ontologically? This article situates itself in the plant turn and proposes a methodology to account for plant agency in gardens and to identify vegetal politics. The author builds on the methodological work of other scholars of human-plant relations and posthumanist notions of relational agency to develop a three-step method: (1) recognize plant time, (2) participate with plants, and (3) scale up. Central to the methodology—and a key contribution the author puts forward—is a shift away from the researcher considering plants as individuals and instead understanding plant communities as the unit of analysis. This shift in scale, while recognizing plant time and the relational agency of plants, permits the identification of vegetal politics and has allowed the author to theorize plants as political actors in cities that support health.

**Keywords** human-plant relations, multispecies ethnography, methodology, vegetal politics, plants, gardens

Human-plant entanglements, while never free from the weight of history, can afford new possibilities for imagining the future.

—Besky and Padwe, “Placing Plants in Territory,” 19

Plants, although sessile and quiet, participate in highly political and even violent acts such as colonizing territory. Entanglements, as Besky and Padwe note, are key to understanding how plants are involved in such acts: plant politics arise out of the entanglements between species. While conducting multispecies fieldwork in vegetable gardens, I wanted to explore vegetal politics, a concept first articulated by Head

et al.<sup>1</sup> that speaks to the often overlooked role of plants in the Anthropocene. My methodology and research design, rooted in a flat ontology, led me to include plants as participants alongside the human gardener. But how was I to account for plants and their agency? What might count as evidence of vegetal politics?

A methodology for multispecies inquiry is being wrestled with by many—but as Locke and Keil write, the “research practice does not yet match our theoretical conviction.”<sup>2</sup> Pacini-Ketchabaw, Taylor, and Blaise observe that even though posthumanist theories have been articulated widely, “the doings of them are fraught with impasses.”<sup>3</sup> Animal studies scholars are working through methodologies to account for animals in their work while methodologies for plant qualitative research are at an earlier stage of development.<sup>4</sup> Vegetal politics, too, are only just being wrestled with, often by emerging scholars.<sup>5</sup> This is testimony to the newness of what is called the *plant turn*, qualitative plant research into the often overlooked lives of plants and the disparate people-plant relationships that shape society.<sup>6</sup>

A focus in qualitative plant research has been to understand plant agency: How do plants exert influence on the social world of humans? Do plants do anything more than “elicit wonder,” as Archambault concludes?<sup>7</sup> What meaning is created through interactions between plants and people?<sup>8</sup> Research findings reveal complexity in the relationships between people and plants in terms of agency. Humans are not in control of plants, even when they cultivate them in what might appear to be spaces produced by humans, such as gardens and farms.<sup>9</sup> Rather, as Power writes of the garden, there is a “dynamic engagement” between humans and nonhumans, an entanglement of agencies with disparate outcomes.<sup>10</sup> This is what Head et al. call *vegetal politics*, defined as the “collaborative and conflictual relations between humans, plants and others.”<sup>11</sup> The

1. Head et al., “Vegetal Politics.”

2. Locke and Keil, “Multispecies Methodologies and Human-Elephant Relations,” paragraph 2.

3. Pacini-Ketchabaw, Taylor, and Blaise, “Decentering the Human in Multispecies Ethnographies,” 150; see also Hitchings and Jones, “Living with Plants and the Exploration of Botanical Encounter within Human Geographic Research Practice”; Dowling, Lloyd, and Suchet-Pearson 2017.

4. Buller, “Animal Geographies II”; Hovorka, “Animal Geographies II”; Hovorka, “Animal Geographies III”; Locke and Keil, “Multispecies Methodologies and Human-Elephant Relations”; Swanson, “Methods for Multispecies Anthropology”; Pitt, “On Showing and Being Shown Plants.”

5. See Brice, “Attending to Grape Vines”; Chao, “Seed Care in the Palm Oil Sector”; Fleming, “Toward Vegetal Political Ecology”; and Patrick, “Matter of Displacement.”

6. Chao, “In the Shadow of the Palm”; Chao, “Seed Care in the Palm Oil Sector”; Goldstein, “Ethnobotanics of Refusal”; Myers, “Conversations on Plant Sensing”; Sheridan, “Boundary Plants, the Social Production of Space, and Vegetative Agency in Agrarian Societies,” 39.

7. Archambault, “Taking Love Seriously in Human-Plant Relations in Mozambique.”

8. Sheridan, “Boundary Plants, the Social Production of Space, and Vegetative Agency in Agrarian Societies.”

9. Power, “Human-Nature Relations in Suburban Gardens”; Brice, “Attending to Grape Vines”; Chao, “Seed Care in the Palm Oil Sector.”

10. Power, “Human-Nature Relations in Suburban Gardens,” 51.

11. Head et al., “Vegetal Politics,” 866.

term offers a shorthand for the imbrication of politics in people-plant relations and helps theorize plant agency. For example, in his study of human-plant relationships in walnut forests in Kyrgyzstan, Fleming suggests that to consider vegetal politics is to consider how the “‘plantiness’—the set of characteristics and capacities specific to plants—shapes political landscapes and transforms political identities.”<sup>12</sup> Identifying plant agency makes visible what has long been ignored by much of Euro-Western society that has been afflicted with *plant blindness*, a lack of awareness of these ubiquitous beings, which qualitative plant research aims to correct.<sup>13</sup> In creating a methodology for studying human-plant relations in the garden, an important part of countering plant blindness’s influence on the research process is to grapple with agency.

The methods that other researchers studying human-plant relations have employed to understand the common worlds of humans and plants provide practical guidance in developing a methodology to identify vegetal politics. These methods aim to de-center the researcher and involve the plants in the research process. For example, Hitchings and Jones suggest conducting an interview in the garden because they say that talking about plants away from the garden is not as effective. They write that holding the interview in the garden afforded “plants more power to visibly contest or prompt what was to be said about them.”<sup>14</sup> In this way, they allow for the research to be not only *about* the plants but also *with* the plants. Pitt describes how three techniques she used in her garden interviews allowed her to understand the plants’ role in what she describes as the community life of the garden because they allowed the plant to show her things.<sup>15</sup> She uses photography to witness changes over time. Gardeners also showed Ginn their gardens, including describing “the lives and deaths of particular plants.”<sup>16</sup> Gibson, in her research with plants in the Cape region of South Africa, describes a research method focussed on observing plants intently: “We became alert to the individual plant surfaces, their different textures and gradations of colour as well as varying morphologies in different contexts.”<sup>17</sup> This method of intimate observation, she writes, allowed her to see plant agency: “By showing, watching, strolling among, discussing, doing, picturing and being guided by plants, we can come to appreciate their agency.”<sup>18</sup> All of these approaches provide techniques for people to see plants as beings. Furthermore, these methods make space for individual plants to exert their agency in the research process by allowing for interaction between the species. These methods promote plants from backdrop foliage to individuals of consequence.

12. Fleming, “Toward Vegetal Political Ecology,” 27.

13. Wandersee and Schussler, “Toward a Theory of Plant Blindness.”

14. Hitchings and Jones, “Living with Plants and the Exploration of Botanical Encounter within Human Geographic Research Practice,” 9.

15. Pitt, “On Showing and Being Shown Plants.”

16. Ginn, *Domestic Wild*, 10.

17. Gibson, “Towards Plant-Centred Methodologies in Anthropology,” 94.

18. Gibson, 96.

My study is a multispecies ethnography of people and food-producing plants, part of a mixed-methods doctoral study of human-plant relations in the context of health and food systems. I attempted existing methods of observing, talking with people and asking them to show me their garden, and looking at the plants and their movement while also working alongside the participants. I took pictures. I weeded and watered. I watched the plants, thought about the plants, and attempted to see and make sense of what the plants were doing, be attentive to them and understand their authority, as van Dooren advises the multispecies scholar.<sup>19</sup> I tried to find the meaning of the agency of the pea plant that stretched its curling tendril toward the tomato plant, seeming to prefer this other plant's green stem to the bamboo stake provided to it. While observing these small acts put me one step closer to understanding plant agency, I still struggled with the question, What does decentering the human vis-à-vis plants do in the garden beyond what it *undoes* ontologically? Soon after I began fieldwork, I identified a chasm between what was happening at the macroscale of the neighborhood and city and the microscale of the garden where I was weeding, watering, and observing gardeners and plants. Thus, to answer my questions, I first had to work through posthumanist theories to develop a way to account for nonhuman actors in the Toronto vegetable gardens of my study.

This article puts forward the methodology I developed to account for the agency of plants and to explore vegetal politics in urban vegetable gardens. I describe the setting and context of my research in Toronto, Canada, before outlining the three-step method I developed and implemented in my multispecies ethnography, which builds on the methodological work of other scholars of human-plant relations such as Pitt and is inspired by the historical perspective provided by Besky and Padwe.<sup>20</sup> The three steps of my methodology are: (1) recognize plant time, (2) participate with plants, (3) and scale up. Central to my methodology—and a key contribution that I put forward—is a shift away from the researcher considering plants as individuals and instead taking plant communities as the unit of analysis. This engagement with scale, in combination with steps 1 and 2, allowed me to identify vegetal politics in my field study and to theorize plants as actors in the city.<sup>21</sup> It allowed me to find evidence of vegetal politics and it contributes to an understanding of how these plant politics manifest.

### **A Methodology for Studying Human-Plant Relations in Toronto's Regent Park**

Toronto is Canada's largest city and, like other global cities, is growing quickly.<sup>22</sup> Real estate prices are soaring and there is much debate about land use including in Regent Park, a Second World War-era public housing community where I conducted my

19. van Dooren, "Storied Places in a Multispecies City."

20. Pitt, "On Showing and Being Shown Plants.," Besky and Padwe, "Placing Plants in Territory."

21. Elton, "Posthumanist Study of Health and the Food System."

22. Government of Ontario, "Ontario Population Projections, 2018–2046."

multispecies ethnography. At the time of my study, work in the area had been ongoing for more than a decade to transform the sixty-nine acres into a mixed-income area with new public amenities such as an indoor swimming pool complex, an arts center, and a cricket field. The redevelopment also provided for private investments that had not been made in the area previously such as condos, a supermarket, a bank, and the kinds of cafes associated with gentrification. The Toronto Community Housing Corporation, the second largest public housing provider in North America, entered into a public-private partnership with a developer, an arrangement that funded the construction of new social housing with the developer receiving land to build and sell new condos in Regent Park.<sup>23</sup> In the reconceived neighborhood, privately owned condos would outnumber public housing units.<sup>24</sup> The housing agency sought extensive community input to support “social inclusion,” with a view to ensure that existing residents’ “needs and priorities” were valued.<sup>25</sup> One outcome of these consultations was official recognition that community gardening is fundamental to the residents of Regent Park (see figs. 1 and 2). Support for community gardens is detailed under recommendations 5 and 6 of 75 recommendations in the Social Development Plan published by Toronto Community Housing.<sup>26</sup>

I spent the growing season of 2018 in the neighborhood, conducting participant observation research in the community gardens overseen by the nonprofit organization, the Regent Park Community Food Centre. I gardened as a volunteer in their vegetable beds, spending time with plants and people. I conducted interviews with gardeners and community workers, attended neighborhood meetings and events, and researched the history of the area and the practice of gardening there. I walked and cycled to better understand the place. I also plotted out the gardens on a rudimentary neighborhood map, a decision that unexpectedly helped me to articulate my methodology. Since the redevelopment was only partly complete, in the north end of the neighborhood there remained the original red brick low-rise buildings. While some long-term residents had moved into new social housing buildings to the south, others remained in the old walk-ups. Around the perimeter of some of the old buildings that summer, scraggly patches of lawn were replaced with food-producing plants. The people who planted in these liminal spaces between building and walkway did not receive permission from the Toronto Community Housing Corporation to do so. Thus, these spaces were dubbed the “Guerrilla Gardens” by residents and community workers alike (see fig. 3). By August, the Guerrilla Gardens were well established, with squash vines growing up to second story windows. The origin of the gardens, however, remained contested. I was told conflicting stories about who planted them. Only once did I see someone in a perimeter

23. Micallef, “Regent Park.”

24. Lorinc, “Final Phases of Regent Park Redevelopment to Be Open to Tender.”

25. Toronto Community Housing, “Regent Park Social Development Plan,” 5.

26. Toronto Community Housing, “Regent Park Social Development Plan.”

garden and when I approached this woman picking amaranth leaves, she told me she was visiting a friend. But the name and context for these impromptu plantings rendered them political acts, silent statements by people growing food in an area where access to land was diminishing. This rich scenario, where people and plants intermingled in a changing neighborhood, provided me with the empirical context to develop my three-step method to guide my fieldwork, identify vegetable politics, and account for food-producing plants as actors in Regent Park.<sup>27</sup>

My method of data analysis was integral to the development of the methodology. To integrate the posthumanist theory with the research method and develop my methodology, I implemented what Jackson and Mazzei call *thinking with theory*.<sup>28</sup> This analytical process, they write, rests on the assumption that “data is partial, incomplete, and is always in a process of a retelling and remembering” and that by plugging theory and data together, they co-constitute each other.<sup>29</sup> So Mazzei proposes a *diffractive reading* of the data, a method inspired by Karen Barad’s work.<sup>30</sup> A diffractive reading is a process of encountering the data while holding on to theoretical concepts. Mazzei describes how this way of reading has an effect on the material that is similar to what happens when “ocean waves pass through an opening or obstruction and are spread differently than they would be otherwise.”<sup>31</sup> With the “plugging of data into theory into data,” the authors hold that new knowledge can be created.<sup>32</sup> Implementing this technique allowed me to engage with theory during fieldwork, which in turn helped me to identify the vegetal politics I had been searching for. I approached data generation and analysis with the view that the agency I was to look for in the garden was relational—something that takes places in relationships between beings and things. So I plugged the concepts of nonhuman agency and vegetal politics into my data and revisited the gardens.

### Step 1: Recognize Plant Time

I draw the notion of plant time from one of my participants, Danette, who observed that when she is in the garden, she is on “plant time.” She described the feeling she gets when she is with the plants—she is relaxed when she enters the world of the plants, beings that grow slowly and experience the world in a different time frame than the capitalist schedule that organizes life in Toronto. Her off-the-cuff expression not only captured for me the different world of plants where time appears to move more slowly

27. This study only considered food-producing plants; however, with this focus I do not intend to disregard other plants. For a deeper look at the agency of trees see Jones and Cloke, *Tree Cultures*.

28. Jackson and Mazzei, “Plugging One Text into Another.”

29. Jackson and Mazzei, “Plugging One Text into Another,” 262.

30. Mazzei, “Beyond an Easy Sense,” 742. See St. Pierre and Jackson, “Qualitative Data Analysis after Coding,” a special issue of *Qualitative Analysis*, for examples of how other scholars employ this and other strategies for approaching data.

31. Mazzei, “Beyond an Easy Sense.”

32. Jackson and Mazzei, “Plugging One Text into Another,” 266.



Figure 1. Squash plants in a Guerrilla Garden growing up the side of a 1940s-era building. Photograph by Sarah Elton.

for the most part but also led me to consider how perception of time in the garden during people-plant research shapes the research and can be employed in a methodology. The idea that plants exist on their own clock is one that has been identified as being important for qualitative plant researchers to consider closely. Besky and Padwe highlight the slowness of plants and hold that attention to this slow pace is key to understanding their role since lack of speed can render their movement and impact harder to discern.<sup>33</sup> Brice uses the term *planty time* to characterize the plant clock and makes it central to his conception of plant agency. He observes that plants operate in their own time frame and proposes that attending to plant time allows the researcher to better understand the agency of agricultural plants.<sup>34</sup> The plants' schedule is impervious to the needs of the humans who plant them; humans are not in control.

33. Besky and Padwe, "Placing Plants in Territory," 21.

34. Brice, "Attending to Grape Vines."





Figure 2. A community garden in the last remaining area of the old Regent Park. Photograph by Sarah Elton.

I define plant time to mean the time frame that plants work on that does not have the same tempo as the twenty-four-hour clock running on Greenwich Mean Time like my smartphone. When I, as a human, conceive of plant time, it is important to note that it is my experience of plant time that I am describing. I cannot know how plants perceive time. For the most part, plant time is a slower time frame that, in the short term, is often invisible to humans without the aid of time-lapse photography that some researchers have used to capture it.<sup>35</sup> But in conceiving plant time, I must consider that plants are not always slow. They can also demand a timely response—to water a seedling, for example, before it dies or to pick a zucchini before it grows so large it becomes spongy on the inside. Plants can get people to move quickly because they do not stop. While their movement might appear to be slow in comparison to, say, the motion of animals, plant time is unceasing. Human perception of it shifts depending on circumstance. Plant time is fungible.

Plant time changes speed because it takes shape in the relationship between human and plant. It was not only Danette but also other gardeners too who described

35. Pitt, "On Showing and Being Shown Plants"; Hitchings and Jones, "Living with Plants and the Exploration of Botanical Encounter within Human Geographic Research Practice."





*Figure 3.* Photo of newly built apartment towers and a long-standing community garden taken from a condo rooftop garden. Photograph by Sarah Elton.

experiencing plant time as a feeling. As one gardener, Shathee, described of her interactions with plants, “It creates peace and I feel it.” The time spent with plants offered a deceleration from the pace of daily life because plants grow slowly, and also because growing food requires patience. Plant a seed, or even a seedling, and there are many weeks, if not months, during which the plant unfurls and develops before it is time to harvest. Another participant, Raji, described for me her relationship with plants. She said, “At five or five thirty, sunrise, I go to the garden. I am alone—I feel alone. But my friends [the plants] are around me. Day to day they are growing. They grow green, then they flower and fruit [and produce] long beans. I focus my mind and I am really happy.” Over the course of the summer, the plants in her garden start as green shoots, they flower and then produce vegetables, such as the long beans that she harvests. Plant time in these circumstances is slow because it is measured, as Raji’s quote captures, in the stages of plant development: leafing out, flowering, fruiting, then harvest. The gardeners experience plant time as slow because they wait and watch. The velocity of the

plants' growth is experienced in the interspecies relationship by humans as peace and tranquility. Thus in many cases, from the human point of view, plant time is slow and tranquil.

Though it can also speed up—the rush to sow seeds after the risk of frost has passed, the urgency of picking a strawberry before black spot spreads after a rain, and the hurry to pull the weeds before they take over the garden. Plant time in these cases is fast because the plants demand a quick response. Again, the cadence of time is manifested in the relationship between people and plant. Plant time in the Guerilla Gardens also was speeding. It was as if that summer the squash plants grew almost magically across the brick faces of the old buildings that were scheduled to be demolished. I do not recall when I first noticed the Guerrilla Gardens; they simply appear one day in my fieldnotes, fully grown, in a description of the sprawling vines that previously had escaped my gaze. When I asked around about the origin of the gardens, I was told they were planted by people looking for more space to grow food—though I could not confirm who exactly. There had been a reduction in the number of community gardens in the area as condominiums and new social housing had been built where gardens used to be. Community workers described years-long waiting lists for remaining community garden space and also for the rooftop growing plots that had been incorporated into new building design. The plants in the Guerrilla Gardens that stretched across walls in the last of the old neighborhood telegraphed an urgency to stake a claim in the densifying neighborhood—before it was too late. There was a hurriedness in the act of producing food on land that was soon to be built over for the plants in the Guerrilla Gardens and their gardeners. By fall, with the squash vines still clinging to the bricks, the next phase in demolition began. Some of the Guerrilla Gardens were torn down along with the buildings, and before the first snow only rubble remained.

Thus, plant time is fungible—it is slow, or fast, depending on circumstances experienced by the human who is in relationship with the plant(s). I found through analysis of my fieldnotes that tangible evidence of plant time can in fact be detected by the human eye over time, even without a camera. To understand its tempo, I needed to pay attention to what happens cumulatively in the garden. For example, I could not tell you how much the plants had grown between my regular visits. Was the kale taller? The coriander bushier? Had the zucchini reached farther across the garden bed? Probably. But I would not have been able to distinguish Tuesday's leaves from Thursday's. That said, I could tell you how much the plants had grown since the beginning of the season. The zucchini did in fact grow aggressively across the garden bed, intruding on the kale's space. The kale did leaf out despite the zucchini's intrusions, and the coriander eventually went to seed. This growth provides evidence of plant time moving forward. Time passed, sometimes unnoticed, and then suddenly something was bigger, bushier, flowering. Evidence of plant time was also found in the gardeners' actions, which were in response to the stages of development of the plants.

The lesson of plant time meant for me, as a multispecies ethnographer in the garden, that it was not helpful to watch for something to happen. Like Raji, I had to wait, be patient and be present in plant time—observe, be still and embrace the slowness. At the same time, I had to understand that plant time might in fact be speedy. The influence, or agency, of the plants might happen quickly, without me even noticing it, as was the case with the Guerrilla Gardens. This is because plant agency was not something that I could witness in the garden—it was not an act. Plants do not do things in the same way that a human carries out an action such as pulling a weed or picking a tomato. Grappling with plant time allowed me to understand why I had struggled to find meaning in the curling of a pea tendril toward a tomato stalk as opposed to a bamboo pole provided by the gardener for the pea plant to grow up. I was looking for intent as opposed to understanding the nature of a plant's relational agency. By understanding plant time as contextual and fungible, I understood plant agency to be an *effect*. The notion of plant time, dependent on context, is a first plank in the methodology to identify vegetal politics because it opens the door to the relational agency of plants and the second step in this method.

### Step 2: Participate with Plants

Multispecies ethnography asks the researcher to decenter human authority and bring to the fore the beings that have typically been considered merely background to the human plot line in ethnographic research. What this meant to me in the garden was that I had to participate *with* the plants, as opposed to seeing them as the object of human action. Building on my thinking about plant time, I needed to participate with plants and consider the effect of the plants' agency that manifested itself through the human-plant relationship. As Power describes in her study of urban gardening in Australia, a garden is the manifestation of relations between species, a collaboration between nonhuman and human actors.<sup>36</sup> This coproduction was most evident to me one day in Regent Park when I was asked to weed a garden that appeared to have been tended to by inexperienced gardeners. The plants had been planted haphazardly. There were no rows, with marigolds poking through tomato leaves and mint obscuring the plot's borders. I weeded the plot but still the garden did not look like the gardens tended to by more dedicated gardeners whose work results in lush and productive gardens. It was through this experience that I saw for myself material evidence of how humans and plants work together to make a garden. Whereas previously I had been searching for plant agency as an autonomous thing, it took that unkempt garden for me to fundamentally understand relational agency and see how plants and humans work together in the garden on plant time. I saw that they rely on each other's capabilities and actions to coproduce the garden over time. The human provides the conditions for the plants to thrive and the plant then uses this opportunity to grow. I had to work with them to see how they achieve their capabilities and express their plantiness. This meant planting,

36. Power, "Human-Nature Relations in Suburban Gardens."

watering and weeding and looking for pests. For one of the study participants, this collaboration even meant bandaging a broken stem to create the conditions for the plant to mend itself and produce bitter melon. The garden requires both human and nonhuman work.

A component of participating with the plants was accepting that a plant's perspective was fundamentally unknowable to me as a researcher working in a Euro-Western paradigm. Plants are different from humans. We evidently do not share language or sentience, a nervous system or the same cellular structure. Plants are autotrophs and perform photosynthesis, turning the sun's energy into carbon, absorbing nutrients and water they need from the air and the soil. Plants are sessile. Even human-plant researchers Atchison and Head question how much a person can really know of a plant, seeing as humans and plants are so very different.<sup>37</sup> This is a position held by plant scientists too, as described by Myers in her study of plant scientists. She found that these scientists were deeply reluctant to make parallels to the human experience, with one researcher telling her that we must not interpret the "chain of molecular events" that is the chemical proof of plant sensing as any kind of consciousness.<sup>38</sup>

Yet, the qualities that separate humans from plants are not pertinent to all knowledge systems. Geniusz explains that in her Anishnaabe cosmology, plants not only are known to have agency but are also considered to be kin.<sup>39</sup> She provides the example of the cedar tree, which is known as Grandmother Cedar, a family name that evokes the intimate relationship that is understood between humans and plants. This kinship between the human and cedar stands in stark contrast to the conception of cedars in my Euro-Western world, where they are grown as a commodity and then typically purchased and planted because cedars make a good hedgerow. The fact that what is a commodity to some is known to be a relative in Geniusz's Anishnaabe worldview underlines how ontology shapes perception, understanding and knowledge production—insight relevant to qualitative plant methodologies. Bawaka Country et al., a collaborative of Indigenous and non-Indigenous scholars in Australia, suggest that the researcher must respect different forms of knowledge.<sup>40</sup> Their recognition of nonhuman agency, and the inseparability of humans and the land, informs their work to the point that they give the country where they conduct their research, Bawaka, first authorship in their work. This Indigenous knowledge implies that seeing human-plant differences (cellular structure, nervous system, etc.) as impediments to understanding in a multispecies ethnography is ontological. As a Euro-Western posthumanist scholar, these philosophies remind me of how profoundly ontology shapes the research process, even when I am

37. Atchison and Head, "Eradicating Bodies in Invasive Plant Management."

38. Myers, "Conversations on Plant Sensing," 9.

39. Geniusz, *Plants Have So Much to Give Us, All We Have to Do Is Ask*.

40. Bawaka Country et al. "Co-Becoming Bawaka"; Bawaka Country et al., "Working with and Learning from Country."

working in a posthumanist paradigm.<sup>41</sup> A reflexive awareness of how this shapes my relationship and understanding of plants was key to further letting go long-held ideas about plants and their otherness to me. Participating with plants thus was not only an act in the garden but also an ontological exercise too.

Yet putting steps 1 and 2 together—recognizing plant time and participating with plants—got me only so far in answering the nagging question, What does this posthumanist exercise do beyond challenging a certain ontological view of the garden? To plug posthumanist politics into the garden—to think with theory—I was going to have to amend my approach. I still needed to understand how the plants not only had agency but also had *political* agency.

### Step 3: Scale Up

This next step in my methodology allowed me to understand what a posthumanist approach to considering urban plants might reveal about their agency in the city. What to do was not immediately evident because identifying vegetal politics, while thinking about relational agency on plant time, required a different scale than the one I had been working with in the garden. Like so much of the literature (e.g., Gibson 2018), I had considered the individual plants in the garden—what was that zucchini doing? I also considered what was going on with the groups of plants in the gardens—what together were those zucchinis doing? However, working at this scale was frustrating as it did not allow me to access the politics of the space that had been documented by Besky and Padwe as well as Head et al.<sup>42</sup> The former present a diverse, mostly historical literature that in sum makes the compelling case that plants are political actors and have long been actors and agents in creating territory. One example they provide is of the partnership between the settler state and plantation crops, such as rubber and wheat, that have worked together to claim territory. The agricultural plants have long drawn property lines—boundaries that serve some people while excluding others. The crop plants cause effects, make things happen, and collaborate to keep out, claim, and oppress.<sup>43</sup> Head et al.'s vegetal politics recognizes plant agency and suggests that this agency causes effects that are political—such as in Besky and Padwe's telling of a history of humans and plants where they demonstrate that plants coproduce space and participate in politics.

41. I aim to decolonize my work as a posthumanist scholar who lives and researches in Dish with One Spoon territory, the traditional lands of the Haudenosaunee, the Anishnaabe, and the Mississaugas of the Credit River on Turtle Island (in this case Canada), and participate in what Zoe Todd in her 2016 article in the *Journal of Historical Sociology* calls a *citational rebellion*. In my work I consciously engage with Indigenous thinkers to bring my posthumanist thinking in dialogue with Indigenous perspectives. However, I do not purport to represent the range and complexity of Indigenous thought on this topic.

42. Gibson, "Towards Plant-Centred Methodologies in Anthropology"; Besky and Padwe, "Placing Plants in Territory"; Head et al., "Vegetal Politics."

43. Besky and Padwe, "Placing Plants in Territory."

Still, I struggled to connect what I knew about the political context of the neighborhood with what I observed to be the calm of the garden, a space where the participants told me they sought things such as quiet and interspecies companionship as well as food. However, I could not assume because it was tranquil and beautiful, that the space was free from politics. This left me flummoxed. Then everything changed one hot sunny day when I headed out on my bicycle to map the gardens in Regent Park. I had decided that I needed to plot all the gardens on a rudimentary map to understand how much space was being cultivated. I cycled down alleys and footpaths, through parking lots and down the side roads to take note of all the garden locations. The bicycle allowed me to travel the territory at a pace that altered my understanding of the neighborhood because it changed my perception of space and the scale of my observations. Walking through the neighborhood had allowed me to notice detail such as the kinds of plants growing by a door stoop, a path worn through the grass, the expressions on the faces of mothers walking with their children. However, on a bicycle, space collapsed. Traveling at a faster speed I was still able to see detail, such as being able to identify food-producing plants. But moving more quickly through the neighborhood than I could on foot allowed me to see the plants and gardens together. By aggregating them into a conceptual unit, the plants in the gardens scattered throughout the neighborhood together became a community. It was in this aggregation as a community of plants across gardens that I was able to identify agency and then vegetal politics.<sup>44</sup>

To conceive of plants as communities, as opposed to plants as individuals, is part of adopting plant ontology. Marder argues that for “vegetal beings, life is de-centered . . . dispersed and disseminated throughout the body of plant communities.” He writes, “Plant in its singularity is a collective being, a loose and disorganized assemblage.”<sup>45</sup> As Sheridan argues, it is as communities that plants contribute to place making.<sup>46</sup> In their study of invasive plant eradication in Australia, Atchison and Head explore how plant bodies—their form—challenge human-centered understandings of a body and underline the importance of considering the relationship between the individual plant body and the collective of plants.<sup>47</sup> To apply this characteristic plant ontology—the individual as inseparable from community—in my fieldwork, I considered all of the plants in all of the gardens in Regent Park to be one community that stretched across the boundaries of the vegetable gardens. Cycling around the area and noting the gardens on a map permitted me to see the food-producing plants in the various gardens as connected, and they came together conceptually as a network. This permitted me to see plants at the neighborhood scale, as opposed to the individual scale, and identify the plant collectives.

44. Elton, “Posthumanist Study of Health and the Food System.”

45. Marder, “Resist like a Plant!” 29.

46. Sheridan, “Boundary Plants, the Social Production of Space, and Vegetative Agency in Agrarian Societies.”

47. Atchison and Head, “Eradicating Bodies in Invasive Plant Management.”



I also looked for material evidence of plant community and found that the connections between gardens were even deeper than the network on my map. I found evidence that the plants in the gardens were in many cases likely kin. Gardeners often saved seeds at the end of the season to plant the next year. Seeds were shared. Also, cuttings to propagate new plants were exchanged. This sharing of seeds and other reproductive materials in the neighborhood would foster kinship relations among plants, across gardens. Also, pollinators played a role in connecting gardens. Based on the fact that bees have been observed to fly more than 600 meters (656 yards) from the hive to feed, I assumed that insects and other pollinators carried pollen and the genetic material it contains between plants in the gardens in Regent Park—another way of perpetuating kinship within species, across space.<sup>48</sup>

So when I plugged the theoretical concept of relational agency into the data and looked for plant politics, I understood that the relationships between people and plants across the neighborhood afforded the plants their agency. The people and plants are entangled in ways that are political. Importantly, their agency emerges from these relationships. The relational agency of plants in human society is the manifestation of a capacity to exert power, through relationships with humans. As Whatmore describes it agency is “spun between social actors rather than a manifestation of unitary intent.”<sup>49</sup> Agency is expressed when something happens because of—or as a result of—relationships, because things and beings are interdependent and in constant interaction.

I thus took as my unit of analysis all food-producing plant species acting together and considered their entanglements with humans. In this way, I understood the political nature of their agency: the plants, through the provisioning relationships they had with gardeners, claimed space to grow. The gardeners depended on the plants for food. Numerous participants told me that the food grown in these gardens provided them access to the kinds of vegetables that they could not otherwise afford or would find a struggle to buy. The plants depended on the gardeners to provide them with the right growing conditions—good soil, access to sunlight, reduced competition from weeds, and ample water. These relationships led community members to advocate for growing space in the redeveloped neighborhood. The gardeners’ claims that food-producing plants are integral to the neighborhood were bolstered by the plant collective, which stretched across the neighborhood. There was power in their aggregation, with the close ties between people and their plants visible in the gardens. These relationships were acknowledged when the *Social Development Plan* produced by the housing commission listed community gardens as a neighborhood priority.<sup>50</sup> In this way, the relationships between people and plants led planners to make space for gardens in the design

48. Greenleaf et al., “Bee Foraging Ranges and Their Relationship to Body Size.”

49. Whatmore, *Hybrid Geographies*, 4.

50. Toronto Community Housing, “Regent Park Social Development Plan.”

of the redeveloped area. They designed rooftop gardens on the new condominium buildings and also incorporated space for residents to grow food on the roofs of the new community housing towers. A community garden was placed prominently in the new municipal park where fruit trees were also planted and space was made for pop-up presentation gardens in a plaza between the arts center and medical offices. And when this space was not satisfactory, then people protested quietly, making the Guerilla Gardens. The plants and the people together claimed territory in the thin strips of land around buildings, soon to be demolished. Plants in these gardens, conceived of as community stretching across the neighborhood, thus could be conceived of as a collective of plants, actors in the neighborhood, participants in the “making of territory”<sup>51</sup>—the remaking of Regent Park.<sup>52</sup>

### Conclusion

These three steps work together, one building on the next, to bring vegetal politics into view in a similar way to how focusing binocular lenses can make clear what appeared blurry and distant. Step 1 allowed me to see how perceptions of time in the garden shapes the research. The slow pace of plants, and the feelings of tranquility often experienced in the garden, has led to a focus in the scholarship on plants as individuals and an understanding of plant agency as something that one can possibly bear witness to.<sup>53</sup> The fungibility of plant time and its production through relationships shows plant agency not to be an act that one can witness in the garden. Rather, plant agency is relational and is manifested *between* people and plants. Plant time helps to understand how plant agency is an effect, recalling Whatmore’s view of agency as “spun between social actors rather than a manifestation of unitary intent.”<sup>54</sup> This makes way for the second step, participating with plants. When the researcher participates with the plants, it further makes visible the relational agency of plants in the garden over time. The research is not about knowing the plants or seeing their perspective but understanding how they exist in relation to other species—which in the case of this study are humans. Then, to scale up and see plants not as individual actors but as a community of actors allows for a view of collective agency. The wider scale permits a view of vegetal politics as something that plants as a collective carry out in coordination with people over the long term. Their influence is in the group. It is in this way that identifying plant time, participating with the plants, and scaling up to see the agency of plants expressed by a community of actors as opposed to by individual plants allowed me to identify vegetal politics in Regent Park.

51. Besky and Padwe, “Placing Plants in Territory,” 10.

52. Elton, “Posthumanist Study of Health and the Food System.”

53. See, e.g., Gibson, “Towards Plant-Centred Methodologies in Anthropology.”

54. Whatmore, *Hybrid Geographies*, 4.

The significance of this method of analysis for qualitative plant studies is to make visible the ways in which plants participate politically in social worlds. Specifically, considering plant communities, as opposed to individual plants, as a unit of analysis contributes to the evolving understanding of plants as political actors.<sup>55</sup> Furthermore, these three steps offer a methodology to dispel plant blindness, not only recognizing that plants live among us humans and support society but also helping to uncover how they *shape* the world we live in together, through multispecies relationships. The methodology provides tools that can be applied to different contexts to understand the various ways in which plants can be more than pretty and calming and instead parse out how these sessile beings can also be violent and rebellious, complicit and normalizing, too.

One limitation of my method is that it is tied to the edibility of the plants and the particular political-economic situation in Regent Park. I describe the political agency of food-producing plants in a situation where residents of social housing work with plants to claim ground and grow food. The gardeners in Regent Park need the plants to eat, because producing food will save them money—Raji told me she rarely visits the store in the summer. The question remains whether plant agency would be different for ornamental plants that do not support food security. Also, there are many other questions this method raises that invite investigation. Future work in qualitative plant studies might investigate whether vegetal politics are manifested solely through relationships with humans. There is much to be explored about whether there is value in plant agency in its own right—do plants have their own goals—or whether plant agency is only important in its influence on human society. There is also a need to put these ideas in dialogue with Indigenous philosophies that have long worked to understand the agency of plants.<sup>56</sup> As a critical food systems scholar, I am intrigued by the possibility of how a recognition of vegetal politics might shape public policy. But there are ample opportunities for scholars to grow methodologies for studying human-plant relations in many contexts. I have described the three methodological steps in the hope that other researchers might find the method useful in investigating all nature of vegetal politics. I have aimed to demonstrate with this work that the agency of humans and nonhumans alike is political and that vegetal politics are something to be considered, and that this makes a difference.

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55. Fleming, "Toward Vegetal Political Ecology"; Patrick, "Matter of Displacement."

56. Rosiek, Snyder, and Pratt, "New Materialisms and Indigenous Theories of Non-Human Agency."

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