Cultivating Green Public Spaces and Backyard Gardens Amid COVID-19: An Anthropological Study of Metro-Orlando Gardeners

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CULTIVATING GREEN PUBLIC SPACES AND BACKYARD GARDENS AMID COVID-19: AN ANTHROPOLOGICAL STUDY OF METRO-ORLANDO GARDENERS

by

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ABSTRACT

This dissertation critically analyzes home and community gardens within Metro-Orlando by considering the ways that the COVID-19 pandemic impacts residents’ garden participation and access to green public spaces. The study utilizes an ethnographic approach to produce informed understandings of participants’ experiences within local gardens, alternative food networks, and community supported agriculture analyzed using Marxian theoretical frameworks. Findings are primarily grounded in qualitative information derived from interviews, participant observation, and photovoice. Data were collected both prior to the global COVID-19 outbreak and over subsequent months of lockdown and public health mitigation measures. Primarily focusing on local community garden organizers, community garden members, and home gardeners, this dissertation documents many of the emotional, dietary, and physiological benefits of Metro-Orlando’s local gardens through analysis of food and garden access factors that serve to constrain or enhance local garden participation: (1) seasonality; (2) effective garden maintenance; (3) garden’s management and social organization, and (4) transportation and resource costs. These considerations are significant as most respondents report their gardens function as supplemental food security resources, serve as a locus of self-care, and provide respite from daily stressors. Lack of convenience remains the most widely reported access challenge among my study participants while cost is the least reported challenge. Findings also demonstrate the ways local gardens foster resilience through support networks and mutual aid, promote resistance and survival through community food security, and provide escape from pandemic-related stressors.
Keywords: alternative food networks, community gardens, COVID-19, cultural anthropology, green public spaces, well-being.
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INTRODUCTION: THE GREAT ESCAPE

As the ill-effects of the COVID-19 global pandemic began to be felt in the U.S. around March 2020 – having already inflicted considerable havoc in terms of human fatalities and economic disruption across Asia, Europe, and elsewhere – it became readily apparent that Americans of various backgrounds were about to confront all sorts of physical, mental, and financial challenges. As the days and weeks passed and the isolation and uncertainties caused by COVID-19 adversely affected individual and household well-being, the importance of coping mechanisms came to the fore, especially those like birdwatching (Randler et al. 2020), hiking, and other outdoor activities that embrace the natural world (Fraiman 2020; Mejia et al. 2020; Mullins et al. 2021).

Gardening is one of the activities that experienced a resurgence in popularity during COVID-19 (Chenarides et al. 2021; Mejia et al. 2020). Gardening served as an important pandemic activity as practitioners could maintain social distancing as well as supplement food stability and enhance nutritional intake during times of financial uncertainty and hardship. Gardens not only serve as places of escape, agency, and knowledge-sharing (Cumbers et al. 2018, 135), they also function as important sites for place-making (Hite et al. 2017). As a development strategy used by urban and suburban communities to reclaim and circumvent “hegemonic governance structures” that often alienate everyday folks from actively participating in their lived and built environments (Hite et al. 2017, 58), place-making can “transform people's sense of space” in unexpected ways (Hite et al. 2017, 64).

In this dissertation, I offer qualitative and geospatial insight into the ways local gardens mitigate pandemic-related stressors such as supply chain disruptions and loss of daily routines,
reinforcing the importance of local food sovereignty and participation in community activities. Food sovereignty is an attempt to restore community-managed food production through strategies that reconnect “residents to their food in tangible ways” and optimize unproductive land allotments (Furness 2015, 1-2). One way this is done is through community supported agriculture (CSA), which refers to “localized food production and consumption” networks that work to strengthen community relationships through establishing sustainable food systems, and providing public educational opportunities (Galt et al. 2016, 492). CSA also entails agricultural land management where local food producers have direct monetary and emotional stakes in cultivation (Galt et al. 2016, 492). In both profound and subtle ways, CSA sites also have the potential to transform how participants perceive urban spaces and land management. According to anthropologist Laura DeLind (2003, 1), CSA decreases tensions intrinsic to conventional producer and consumer relationships, giving “way to a sense of mutual trust and a concern for commonwealth.”

Through research on local gardens during a global pandemic, I seek to advance CSA discourse through mixed methods that consider garden access barriers, the effects of gardens on well-being, and the impacts of COVID-19 on garden participation. I ethnographically analyze home and community gardens within Metro-Orlando’s urban agricultural scene using qualitative and geospatial data collected both prior to and during COVID-19. Community gardens function as open spaces distinct from backyard gardens as they are locally managed by garden members unrelated to one another (Guitart, Pickering, and Byrne 2012). Moreover, in this dissertation I elucidate the emotional, physiological, and dietary impacts associated with local gardening in
Metro-Orlando while also examining garden accessibility, identifying obstacles to garden development and maintenance.

These considerations are important since gardens frequently serve as sites of food justice, community building, and emotional fulfillment (Chan, Pennisi, and Francis 2016; Guitart, Pickering, and Byrne 2012; Pearsall et al. 2018; Pollard et al. 2018; Reese 2018; Thompson 2011; Wakefield et al. 2007). Some local gardens also fulfill roles associated with “alternative food networks” (AFNs) which are usually embedded within informal economies (Charmes 2012) built on a shared sense of trust (Abiral & Atalan-Helicke 2021, 227). Like CSA, AFNs are characterized by direct connections between food producers and consumers, often operating in opposition to conventional foodways (Galt et al. 2016, 491-92). AFNs essentially affirm the versatility of edible gardens as spaces that promote food sovereignty and public engagement with their natural surroundings. Beyond AFNs, other open-space natural environments remain significant to urban dwellers. Green public spaces, sometimes referred to as green city spaces, are essential components to everyday life in most major U.S. and global cities. Green public spaces refer to the urban natural environments comprised of local gardens, public parks, and other natural landscapes (Lin, Meyers, and Barnett 2015, 952).

However, nature exists outside of dedicated spaces. The built environment concept expands on humanity’s conception of naturalness (Crews 2022). Built environments are any outdoor setting that people inhabit and reshape, including the street-level fabric of cities and suburban neighborhoods not excluding the “cracks of a … sidewalk” or the greenery that ensnarls the landscape of vacant lots and abandoned buildings (Cronon 1996, 25). Arguably, people have more interaction with these everyday settings than the “complex cultural
construction called wilderness” (Cronon 1996, 17), places where people engage ideas of conservation and environmentalism whether in the form of state and national parks or other sites of outdoor recreation (Cronon 1996). These past environmental approaches create further distance between everyday Americans and the environment, becoming chasms amid COVID-19 related travel bans, physical distancing, remote work, and closing of other economic and social sectors as tourism and domestic travel declines (Bilbao 2021; Jamaludin et al. 2020).

Environmental historians (Cronon 1996; Drennig 2013) contend that the Global North needs to abandon notions of an abstract wilderness and instead focus on the built environments that humans experience every day.

Green public spaces can also be approached as “open” areas consisting of vegetation, water, and other attractive natural features that are available for formal, informal, and mixed public use (Van Herzele & Wiedemann 2003, 110). This alternate conceptualization elucidates the adaptability associated with local gardens and other forms of CSA whose benefits prove especially significant during a global health crisis like COVID-19.

Concerns about collective psychological well-being become increasingly significant as millions navigate their “new normal” and the stress and anxieties associated with pandemic isolation (Jamaludin et al. 2020, 165). Amid a failure of federal and state government agencies to effectively manage “basic infection control” during this public health emergency (Schismenos et al. 2021, 43), and access to mental health resources hard to come by, many U.S. residents suffered under the prolonged stress of COVID-19 (Twenge & Joiner 2020, 2174-75).

The adversities engendered by COVID isolation are evident in my conversations with Josie, a longtime member of the Dean Road Community Garden, who I met prior to the start of
my 2020 fieldwork (see Figure 1). Josie is a retired university professor who remains dedicated to the more labor-intensive aspects of community gardening such as pulling weeds, hauling compost, and seasonally reorganizing garden beds.

On a pleasant Florida winter afternoon, Josie and I are meeting to discuss her local gardening experiences and unique perspectives about the social and organizational complexities inherent to CSA. Before our interview, we quickly water our garden plots as the preceding days were dry. Following COVID-19 protocols, Josie and I maintain a safe six-foot distance.

Josie says, “it [the Dean Road Community Garden] has really helped me survive the pandemic in so many ways.” However, no CSA site is without its challenges. She later explains, “most of the other people come in and do their gardening and leave. Which is fine, but you know we need that community spirit … we need to do more too, but we need some form of leadership.” Her statements epitomize the significance of local gardens and green public spaces as sanctuaries for many urban inhabitants while also conveying a general erosion of collaborative participation. The pandemic continues to sow uncertainty and stress among Floridians, impacting lives in ways that few could ever imagine. The continual loss of life, cancelation or postponement of public events and social gatherings, and global supply chain disruptions become a collective reality for millions the world over (Jamaludin et al. 2020).

Against a backdrop of COVID-19, Josie views places like the Dean Road Community Garden as sites for individuals to relax, feel secure, and nurture themselves at a time when socializing in crowded gathering places is complicated by public fears of contracting coronavirus. I come to interpret her statements as reflective of how gardens provide a place for healing and escape. By escape, I mean reprieve not just from everyday stressors such as work,
childcare, and school. Josie and my other participants view these local gardens as retreats from a reality that seems more polarizing and unpredictable every day. She explains how the garden offers her solace, physical activity, and stress relief throughout the pandemic, but laments the loss of community participation.

Josie’s perspective is emblematic of my observations during my months-long fieldwork, as I become increasingly interested in the ways gardens intersect with practice theory (Bourdieu et al. 1990) and concepts such as mental health, emotional well-being, resilience, and “praxis” (Chatterton & Pusey 2020, 28; Foucault 2007). Among other things, praxis entails the ways thoughts and feelings become intentionality and actions, emphasizing the convergence of theory and practice (Chatterton & Pusey 2020). In essence, praxis reinforces ideas of mutual aid and reciprocity and recentralizes civic life through sustainable land management strategies involving local communities. In addition to praxis, I consider the impacts of socialization and enculturation using the concept of habitus (Bourdieu et al. 1990). Habitus refers to our thoughts, attitudes, and predispositions (Bourdieu et al. 1990). Through fieldwork and periods of participant observation, I see CSA, AFNs, and their members as fulfilling these ideas since gardeners often autonomously produce food to share with friends and family in informal contexts. Participants also embody praxis through their “… efforts to overcome distance and alienation in agro-food economics” (Mincyte & Dobernig 2016, 1769). As Josie’s comments tentatively suggest, CSAs and AFNs offer contexts for ethnographic inquiry, as participants encounter challenges and find strength through praxis enhanced by real health benefits.
Figure 1: Photograph of Dean Road Community Garden
Formulation of Research Questions

Cultural, proxemical, and social considerations are reflected in my four primary research questions. Information presented over subsequent chapters strive to address the following questions related to local Metro-Orlando gardens: (1) how does the spatial arrangement of city gardens, distances separating them, and access to them affect local participation and individual health and well-being during COVID-19?; (2) how are Metro-Orlando community and home gardens socially and structurally organized?; (3) what challenges do local garden participants experience amid a global pandemic?; and (4) how do community and home gardeners construct meals? Considered altogether, these questions provide a useful framework for guiding my dissertation research as I expound on the various complexities that inform this basic mode of food production and the social and emotional significance of local garden accessibility during a global pandemic.

Cultural anthropologists can contribute much to public understanding of the challenges faced by local gardeners (Flachs 2013; Reese 2019). Through studying observable cultural, social, spatial, and political processes, anthropologists are well-positioned to holistically examine the nuances of home and community garden management as well as those factors influencing material design and garden membership. Moreover, cultural anthropologists are well-situated to reflexively analyze how gardeners negotiate the socioeconomic complexities presented by COVID stressors including unanticipated layoffs, underemployment, reduced pay, and working from home adjustments (Jamaludin et al. 2020; Twenge & Joiner 2020). Accordingly, I hypothesize if gardeners frequently participate in CSA sites and AFNs then they will report improved physical and mental health with garden access during COVID-19.
I define “well-being” as a general feeling of “satisfaction with life” and as consisting of specific attitudes and behaviors such as “autonomy, environmental mastery, personal growth, positive relationships with others, purpose in life, and self-acceptance” (Sheu 2014, 62). Well-being is often associated with improved physical health and prolonged life (Hernandez et al. 2018) just as physical activity is frequently linked to improved emotional well-being (Penedo & Dahn 2005, 191). My research participants describe well-being both in terms of personal satisfaction, recreational activities, and finding purpose.

Resistance, food security, access, and praxis narratives figure prominently in the development of my study’s epistemological foundations and trajectory. According to Baaz et al. (2016, 142), resistance is “(i) an act (ii) performed by someone upholding a subaltern position or acting on behalf of and/or in solidarity with someone in a subaltern position and (iii) (most often) responding to power.” I relate this approach to novel and everyday food acquisition strategies used by my participants in the months prior to and following the global pandemic. Many of my participants engage in non-commodified food systems that reflect aspects of subaltern approaches to improve food security. The Food and Agriculture Organization (FAO) recognizes the importance of food security and defines this concept using food access, availability, utility, and availability as guiding principles (Heeringa et al. 2019). The FAO suggests that food security is achieved through “resilient food systems,” supplying affordable, nutritious, and appropriate foods to individuals and communities (Heeringa et al. 2019, 124).

During fieldwork, I observe that access is not a strictly one-dimensional concept. As such, access patterns are dynamic since “people and institutions are positioned differently in relation to resources at various historical moments and geographical scales” (Ribot & Peluso
I examine my research participants’ varied experiences with food and garden access challenges that include (1) seasonality, (2) effective site maintenance, (3) gardens’ management and social organization, and (4) transportation and resource costs.

Structural violence as revealed by the impact of COVID-19 challenges food and garden access (Holmes & Ramirez-Lopez 2023). Structural violence refers to a form of violence that prevents communities from meeting their basic needs (Holmes & Ramirez-Lopez 2023). My research sample primarily experiences structural violence in the form of rising food and housing costs, supply chain interruptions, and institutional failures in government and healthcare amid COVID-19 (Schismenos et al. 2021).

Implications for Research

While recent studies (Alaimo et al. 2008; Guitart, Pickering, and Byrne 2012) highlight the benefits of urban gardens, anthropological scholarship features ongoing debate over the function, reception, and ultimate impacts of garden projects on participants (Bellemare & Dusoroth 2020; Mullins et al. 2021). Questions also persist about the interplay between individual and household CSA participation and local community gardening goals (Pearsall et al. 2018; Pollard et al. 2018; Okvat & Zautra 2011).

Against this backdrop, any AFN and CSA study is incomplete without consideration of the obstacles impacting regional garden success, including housing, public versus privately owned gardens, and garden management. My study is situated within a wider body of scholarly work on the localization of food production during times of crisis such as the food and supply chain disruptions experienced throughout the COVID-19 pandemic. Within these frameworks, I
examine self-management of green public spaces including community and home gardens. Self-management of CSA locations refers to their autonomous organization and maintenance. However, my field sites operate under the purview of municipal city planning that involves the collective efforts of a broad range of planners and social actors.

Unplugging from the Food Matrix

Over time, food industrialization brought about major shifts in global production systems including significant reductions in the number of small-scale or independent food producers’ operations (Jacques & Jacques 2012, 2972). Prior to technological advances in the mid-twentieth century like improved irrigation and high yielding crop varieties, most of the food consumed in the U.S. came from family-owned farms and other small-scale agricultural operations (Lawson 2005, Pozzetta & Kersey 1976).

Today, millions of Americans remain uninformed about issues concerning food production and the benefits of growing local fruits and vegetables in community or household settings (Diaz et al. 2018). The mid-twentieth century’s Green Revolution emphasized high-yielding crops through intensification of technology, irrigation, and pesticide use that mainly impacted agricultural systems in the Global South. The Green Revolution’s changes in how food is both produced and consumed have affected everyday life in ways both subtle and significant. A reduction in small-scale farms and a shift towards large-scale industrial operations overseen by agribusiness giants such as Dupont de Nemours, Monsanto, and others proves problematic as these latter entities effectively remove local communities from food production, obscuring from public view agricultural operations’ environmental impacts and resource mismanagement.
Analysis of pre-industrial carbon levels before the nineteenth century indicates food producing activities had a largely negligible impact on climatic cycles and local environments successfully recovered from human impacts (Rockström et al. 2009). In contrast, conventional agricultural methods and inputs associated with the Green Revolution no longer appear feasible since large-scale industrial farms depend on biogeochemical inputs such as fossil fuels and synthetic fertilizers for production; in other words, the global food production system serves to exacerbate the growing climate crisis (Lal 2004).

Synthetic fertilizers consisting of nitrogen, phosphate, and potash are detrimental to natural ecological cycles as they accelerate climactic impacts through eutrophication of waterways, ocean acidification, and extensive use of non-renewable energy sources (Cribb 2010, 73). Long-term water and land availability proves no less concerning as large-scale farms strive to satisfy growing urban populations’ increasing agricultural and nutritional demands (Rockström, Lannerstad, and Falkenmark 2007). Fertilizer runoff from industrial agriculture adversely impacts coastal wildlife and contaminates groundwater (Cribb 2010). Contamination from industrial pollutants contributes to land degradation such as loss of soil fertility and desertification (Cribb 2010).

Besides contributing to resource scarcity and environmental degradation, agribusiness hides many aspects of contemporary food production from public view. Everyday food consumers remain largely unaware of how many miles food has traveled to get to market, the ill-effects of factory farms, and the quality of the products themselves (Armelagos 2010; DeLind 2006, 123). Food recalls due to incidents of foodborne disease such as *E. coli* and salmonella and/or other disruptions to food production systems are recurring themes in news reports from
major media outlets (DeLind 2006, 122). Foodborne pathogens in the U.S. cause “approximately 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths” each year, yet over 60% of modern shoppers are unconcerned with food safety issues at major grocery retailers (Armelagos 2010, 165). These outbreaks leave both urban and rural populations vulnerable to major health risks and shifts in food supply chains. Food costs and nutrition also prove problematic as consumers increasingly desire greater access to affordable and healthy food choices (Alakaam et al. 2015; Bridle-Fitzpatrick 2015).

Dependence on intensive agriculture also reduces biodiversity and negatively impacts human health. Agribusiness primarily focuses on producing resource intensive cash crops such as grains, cereals, and sugar, all of which are widely used in processed foods such as high-fructose corn syrup and aspartame. Similarly, entrenched cultural preferences for meat, cereals, processed foods, and dairy contribute to increased greenhouse gas emissions (Armelagos 2010; McMichael et al. 2007). On a global scale, changes to human food production and consumption have exacerbated obesity and other diet-related diseases such as diabetes, stroke, and hypertension (McMichael et al. 2007, 1256). Considered altogether, these factors inflict real social and public health costs which may also exacerbate communities’ susceptibility to both communicable illnesses such as salmonella and non-communicable diseases like dental caries, cancer, and atherosclerosis (Armelagos 2010; Lopez & Jacobs 2018).

Rehumanizing Local Food Production

While the consequences of today’s hegemonic food system can be dire, not all individuals, households, and communities have endured them passively. Over the past two decades, interest
in sustainable, organic, and local food production has gained newfound attention in public discourse and popular media across North America, Europe, and elsewhere (Nonini 2013, 269). Partly in reaction to the factors mentioned above, various efforts at rehumanizing the food production process have been implemented. I conceptualize rehumanizing foodways as consisting of active individual- and community-level engagement with environmental and agricultural stewardship such as those accomplished through local garden and CSA participation.

Rehumanizing food systems primarily focuses on the re-panelling of local food production and deintensification of agricultural inputs like synthetic fertilizers and pesticides. Hendrikx et al. (2017, 47-48) find that notable among these is the Slow Food movement which emerged in Italy three decades ago in response to a proliferation of fast-food eateries and unhealthy convenience cuisines. This grassroots organization aims to enhance and sustain traditional food cultures worldwide (Hendrikx et al. 2017, 48). With local chapters currently operating in over 150 countries, Slow Food activities focus on education, restoring biodiversity, and establishing interpersonal communication between food producers (Hendrikx et al. 2017).

Slow Food and other efforts at localizing food production often emphasize the development of home and community gardens. Urban science researchers (Pollard et al. 2018) characterize home gardens as food and plant production systems that incorporate an array of physical and socioeconomic components on a plot of land around an individual’s residence. By contrast, individually and/or communally managed plots are “used for growing food by people from different families, typically urban dwellers with limited access to their own land” (Okvat & Zautra 2011, 374).
The American Community Gardening Association (ACGA 2014) reports that there are approximately 18,000 community gardens operating in North America. A recent study (Algert et al. 2016, 77-8) also finds that over 40 million Americans participate in community and/or home gardens. There are also notable distinctions between home and community gardening approaches in terms of scale, organization, and land tenure.

Intersections of power and gender dynamics also emerge within CSA and urban gardening contexts (Bilston 2008; Niñez 1984). The association between femininity and gardens emerged in the Victorian era (1837-1901). Specifically, it saw the “rise of the woman gardener” in public and private contexts (Bilston 2008, 1). Victorian writers perceived gardening as an appropriate activity for young middle-class women, suggesting that they were instinctively attracted to gardens due to their natural feminine instinct for mothering and nurturing (Bilston 2008, 2). Such erroneous assertions notwithstanding, contemporary feminist critics argue that gardening challenged dominant Victorian cultural norms about domesticity as women were allowed to participate in wider public life via public and city gardens. (2008, 2-3).

To various extents, the reproduction of and resistance to traditional gendered ideologies applies to modern community gardens (Parry, Glover, and Shinew 2005, 188). Although my study does not focus extensively on sex and gender, I acknowledge how gender relations and norms may not only impact the CSA site division of labor but also garden participants’ social and exchange networks. Gardens offer a unique context for understanding how traditional gender roles both are reproduced and resisted (Parry, Glover, and Shinew 2005).

Gardening activities often adhered to a traditional gender-based division of labor. For example, shoveling, tilling, and heavy lifting tend to be readily associated with men while garden
design is viewed more the domain of women (Parry, Glover, and Shinew 2004, 185-86). One recreational and leisure study (Parry, Glover, and Shinew 2005, 188) suggests that gardening empowers women and assist them in resisting traditional gender norms since gardens “were not automatically divided based on gender.” The ways traditional gendered expectations and norms influence CSA and home gardening in Greater Orlando is something I consider at various points in the dissertation.


Self-Reflection: Gardens Sustaining the Body and Mind
My background and participation in food accessibility and community gardening lead me to this research topic. As an active member of the Dean Road Community Garden, I maintain relationships with eight of the interviewees that predate the start of my 2020 fieldwork. The scope of my study and engagement durée with individuals residing in my immediate community
stems from a desire to experience the phenomena impacting my neighbors, friends, and fellow gardeners during COVID-19, a time of great peril and collective angst. During this time, I witness friends and family become reclusive and fearful of simply going outside in public areas, dining out, or shopping for groceries.

The Dean Road Community Garden sustains me through these months. My time at the local garden remains inexpensive and uncommodified, unlike so many other facets of Western life. Going to bars, music clubs, and restaurants requires too much money for low-income Americans such as myself to participate. In my experience, contemporary urban living tends to monetize hobbies and interests. Fun becomes commodified. Fortunately, my community garden is exempt from such considerations, I feel no pressure to turn the garden into a “side hustle” or profit-making scheme. Although I pay plot rental fees, these amount to approximately $8 per month which is affordable considering my modest earnings. The rental fees also assist with the costs of maintaining facility upkeep. I come to see gardening as providing me and others with agency through a reclamation of traditional ecological knowledge and stewardship of the land (Cumbers et al. 2018, 135).

Local gardening newcomers seem to share such sentiments. As first-time gardeners who started their plots during the pandemic, they mostly view gardening as a recreational activity that ameliorates the minutiae of self-isolation. That, or they aim to grow fruits, vegetables, and herbs for household consumption. Other participants are more experienced gardeners who report the pandemic reinforces their commitment to local gardens as sites of safe outdoor activities during COVID-19.
The Rent Eats First

A convergence of transportation, emotional, and financial stressors converged on me during this doctoral work. In October 2021, I was broke, eating mostly ramen and rice and having no access to a grocery store. The one near to my residence closed for renovation months ago. I ate two small 400 calorie meals a day, all that I could afford. I allocated most of my income to pay bills. I spend almost half of my income on rent and insurance as the cost of housing in Orlando steadily increases. For many working Americans, the old adage the “rent eats first” is all too true (Airgood-Obrycki, Hermann, and Wedeen 2022, 1).

Housing, educational, and incidental costs consume a substantial portion of my household budget with little left over for food and other necessities. To save money, I skipped eating breakfast altogether. Coffee was often a meal-substitute. Sometimes I would hit up local food donation centers or treat myself to an inexpensive McDonald’s kid’s meal. Yet, I was far from happy. Because of my familiarity with U.S. agricultural systems, obesogenic environments, and food production, I know that eating these types of unhealthy foods will increase my chances of developing chronic conditions even as they temporarily meet my physical needs for food (Armelagos 2010). Fieldwork and data collection took substantial focus and self-discipline to complete. After all, it is difficult to focus on research and stay motivated amid rampant conditions of hunger and food insecurity.

I was rapidly losing weight and felt malnourished. While I never have considered myself to be a vain person, I cringed when my hair fell out in clumps from compounding stressors. I wore sweaters in public to hide my shrinking frame. While the garden yields supplemented my diet, they were still not enough to maintain a muscular frame and healthy body. I was severely
lacking in protein. My graduate cohort and friends privately told me I appeared gaunt and pale. One close acquaintance could feel all my ribs when she hugged me. Their honesty felt like a betrayal. A betrayal of my identity and the person who I thought I was. I normally maintain a healthy weight and active lifestyle, working out three times a week and eating five small meals a day. But this was no longer the case. My mental and physical health deteriorated. My strength waned as did my desire for outdoor activity. I became withdrawn from friends and family.

I felt demoralized, embarrassed, and beaten by my circumstances. I was teaching full-time and assisting professors with their courses six days a week. After my car broke down, I quickly depleted my savings to pay for repairs. I could no longer afford fresh meat, fruits, or vegetables as the rent always ate first. It was a horrifying realization knowing that my rent devours almost half of my bi-weekly paycheck. There was little I could do to change my circumstances, especially during COVID-19.

Without reliable transportation, I initially shopped at a local chain pharmacy and convenience store where I purchased milk, dried fruit, rice and beans, and canned vegetables. During this time, men would sometimes catcall from their cars or try to follow me home, causing me to walk circles around my neighborhood to confuse potential stalkers. After a few such unpleasant encounters, I started walking to the store less frequently, often carrying a hammer in my bag for protection. I eventually visited local food pantries to acquire bread, breakfast cereals, and other non-perishable items. Fortunately, the food bank employees were always nice to me and offered advice on how to stretch my budget.

My plight is like that of other working-class Americans. Food and financial insecurity are similarly stifling and generate an overwhelming sense of persistent powerlessness. Skipping
meals and eating less to save money becomes normalized. It was difficult to imagine what life lay beyond these circumstances. The normalization of poverty is often silent (Okin 2003). I chalked it up as a normative experience for graduate students as we are often at risk for burn out and higher rates of depression and anxiety compared to other U.S. demographic groups (Bernanke et al. 2017, 57-58). Furthermore, “more than one out of four U.S. adults in late April 2020, during the COVID-19 pandemic fit the criteria for serious mental distress, eight times more than in a demographically similar sample in 2018” (Twenge & Joiner 2020, 2174).

Despite these obstacles, local gardens provide comfort, a sense of agency, and function as an AFN. That is, the Dean Road Community Garden gave me a range of tools and resources to assuage some of my psychological and material stressors. It became a source of mutual aid and strength when I was at my lowest. While the garden could not prevent dramatic weight loss, it kept me alive and motivated. I was lucky to have an established community garden within walking distance to my home.

My experiences speak to the role of green public spaces as community food security resources that mitigate household food costs (Lawson 2005, 264). Fresh mustard greens, peanuts, onions, peas, and garden beans become dietary staples. They tasted delicious compared to the supermarkets’ canned and dried varieties to which I had become begrudgingly accustomed. My garden provided some control over food insecurity and an escape from an increasingly hopeless situation.
Cultivating Epistemology: Gardens as Anti-capitalist Praxis

My research interests and theoretical orientations developed out of my high school and college years and later experiences while residing in Greater Orlando. For me, the connection with nature and ability to produce food compels my participation in local community gardens. I was always interested in how fresh produce was created. My firsthand experiences in Florida’s K-12 public school system indicate traditional ecological knowledge is largely absent from the curriculum. It was a gap in knowledge which I sought to fill through my postsecondary academic studies.

For more than a century my paternal family managed multiple farms, grew crops, and kept livestock and gardens in both the U.S. Midwest and Southeast. Having grown up in an agricultural family, my paternal grandmother and her siblings exhibited a passion for food production, animal husbandry, and soil cultivation. I recall spending summers on my Mamaw’s property where I learned much about when, where, and how food was produced. In much the same way, I participated in various community-oriented gardening projects over the years, both in my hometown in Palm Beach County and my current residence in Orlando.

I attended the University of Central Florida (UCF) as both an undergraduate and a graduate student, receiving a Bachelor of Arts (2012) and Master of Arts (2017) in Anthropology. Prior to my acceptance into UCF’s Integrative Anthropological Sciences program, I found myself reflecting on community food production and limited availability dedicated to green public spaces. My college experiences and master’s thesis research made me realize there is a significant density of high-calorie food eateries in and around campus. Thus, during my master’s program I rented a plot with three friends at the local Dean Road Community
Garden in 2016, about three miles from the UCF campus and near my off-campus residence. Here, I grow supplemental foodstuff and enjoy reprieve from the daily stresses of graduate school, living under late-stage capitalism, and working three part-time jobs.

The garden was also one of the few places where my labor and hobbies were not excessively commodified. As my familiarity with Marxist scholarship grew, so did my appreciation of AFNs and CSA. I began viewing gardening as a form of anti-capitalist praxis, one that differs from a large-scale agribusiness rife with waste and inefficiency (Chatterton & Pusev 2020). One book that strongly influenced my perspective is *The Coming Famine*, where climate researcher Julian Cribb (2010, 192-201) documents how neoliberal approaches to agriculture perpetuate skewed resource management and food legislation while facilitating the exportation of unsustainable Anglo-Western Northern dietary trends to the Global South.

American neoliberalism is an ideology that “defines rational agency in terms of market relations and seeks to transform, theoretically and politically, all social relations into market relations” (Tiisala 2021, 23-24). Cribb suggests that these factors underpin our global food system’s fragility and rising healthcare costs.

While conducting fieldwork for this dissertation throughout 2019 and 2020, I observe that gardeners typically produce, share, and eat their own produce. I never witness participants trying to sell their fruits and vegetables to other gardeners. Furthermore, even though they are vastly different in terms of scale, gardeners appear to function as more empathetic stewards of the environment through upcycling of wastes like crop residue and incorporation of compost bins when compared to larger corporate food producers such as Dupont de Nemours and Cargill Incorporated. Upcycling is a technique to reduce agricultural and household waste and transform...
unwanted crop residues and by-products into usable materials (Cribb 2010, 82-83). Composting also upcycles carbon, preserves soil health, and produces sustainable fertilizers (Cribb 2010, 82-83). While this may seem idyllic, gardening is not effortless. Finding a conveniently located garden presents challenges. Unlike my own initial experience, community gardens are not always accessible for assorted reasons including obscured roadside visibility, limited plot availability, disagreements, and certain residential, municipal, or Homeowner’s Association (HOA) requirements.

With this research, I contribute to anthropological sciences in numerous ways. I utilize a holistic framework that combines qualitative and geospatial data to examine land use patterns, access to local green public spaces, and reported health outcomes resulting from human interactions and gardening community members with their living environments during the COVID-19 pandemic. Despite the variable length of my participants’ individual CSA involvement, they report favorable impressions of gardening activities throughout the pandemic. Like Josie, participation in CSA and AFNs may offer an outlet amid such drastic adjustments.

I demonstrate that gardening and participating in community gardens offers an outlet for folks to relieve stress, shore up household food production, and engage in adaptive strategies during a global health crisis. I argue that gardening is an enduring mechanism for survival during COVID-19. I reflect upon this wave of gardening as embodied practice of anti-capitalism to show how it fosters communal land management and sustainable stewardship of local environments and promotes approaches to improve urban and suburban food acquisition strategies.
Dissertation Overview

I organize this dissertation into seven distinct chapters. In Chapter One, I introduce my methodological approach that includes interviews, participant observation, and QGIS. In Chapter Two, I historicize gardening practices by focusing on pre-contact Indigenous subsistence strategies, colonial gardens, an overview of Florida’s agricultural development, and Florida’s contemporary green public spaces. I also examine existing literature on CSA and AFNs, different garden types, and challenges to local food systems. In Chapter Three, I supply ethnographic narratives and analysis highlighting access challenges impacting local gardens. I similarly provide an overview of my study’s research context.

In Chapter Four, I present my qualitative findings, ethnographic narratives, and theme analysis of resistance and COVID-19-era survival strategies. In Chapter Five, I address the theme of resilience. I examine local gardens as places of increased household food production, pedagogical dissemination and transmission, and social engagement. In Chapter Six, I provide ethnographic narratives and thematic analysis of social and institutional power dynamics inherent to local garden formation and maintenance. In the Conclusion, I revisit my argument regarding gardening as anti-capitalist praxis using the major themes as my supporting evidence, explore how my theoretical and analytical directions changed during the research primarily because of COVID-19, and the significance and implications on research after my fieldwork concluded.
CHAPTER ONE: METHODOLOGY

Methodology

The outset of the global pandemic presented various challenges for me in terms of conducting fieldwork. Despite some initial difficulties in recruiting participants, I ended up employing traditional ethnographic techniques such as semi-structured interviews and participant observation as well as auto-ethnographic approaches (Davis & Craven 2016). I also relied on various data visualization techniques such as digital anthropology, Qualitative Geographic Information Systems (QGIS), and photo-ethnography (Botticello, Fisher, and Woodward 2016; Sitter 2017). Throughout this dissertation, I argue that green public spaces represent a form of anti-capitalist praxis (Chatterton & Pusey 2020) which rejects dominant logics of commodification and privatization that exploit and disenfranchise workers (Latham 2020, 8-10).

Interviews

Most of my findings are grounded in information collected through semi-structured and informal interviews. I rely on nonprobability sampling such as convenience and snowball techniques to recruit respondents at various stages of the research process. Several are individuals who predate my current doctoral research while others are people I know through either taking garden photographs or via introduction through mutual acquaintances. To protect participant anonymity, I assign them pseudonyms, eliminating any major identifying factors. Respondents are compensated $5 per interview and/or photovoice session, though many decline to accept remuneration. While most interviewees are community gardeners, some of whom also maintain
home gardens. I also include several backyard gardeners as interview subjects, garden organizers, one city official, and a Knights Pantry\(^1\) associate.

I conducted 32 interviews with individuals who reported having some local gardening experience (see Tables 2, 3, and 6). I recruited 20 individuals who identify as White, eight who identify as Latino(a), two interlocutors identify as Black, and two participants identify as South Asian. I posit a correlation between garden accessibility and convenience and my sample’s overall emotional health. I characterize emotional health as participants discovering renewed purpose through gardens and their accounts of feeling relaxation, control, and empowerment. I test my hypothesis using evidence derived from traditional ethnographic methods alongside other data collected through additional sources (see Table 1).

Table 1: Number of Participants and Type of Interview

<table>
<thead>
<tr>
<th>Type of Interview</th>
<th>Number of Participants and Reported Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded Semi-Structured</td>
<td>3 (1 man, 2 women)</td>
</tr>
<tr>
<td>Unrecorded Semi-Structured</td>
<td>12 (2 men, 10 women)</td>
</tr>
<tr>
<td>Photovoice</td>
<td>2 (2 women)</td>
</tr>
<tr>
<td>Informal</td>
<td>17 (7 men, 10 women)</td>
</tr>
</tbody>
</table>

---

\(^1\) Knights Pantry is a UCF food pantry that assists food insecure students, selected to better understand the impacts of targeted food security program during the COVID-19 pandemic.
Table 2: Semi-Structured Interviewed Gardeners’ Demographic Data and Length of Garden Participation

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>Occupation</th>
<th>Length of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie</td>
<td>25-34</td>
<td>Man</td>
<td>White</td>
<td>Professional</td>
<td>6 months, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 months, residential</td>
</tr>
<tr>
<td>Beth</td>
<td>35-44</td>
<td>Woman</td>
<td>White</td>
<td>Non-professional</td>
<td>3.5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 years, residential</td>
</tr>
<tr>
<td>Josie</td>
<td>65-74</td>
<td>Woman</td>
<td>South Asian</td>
<td>Retired</td>
<td>5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 years, residential</td>
</tr>
<tr>
<td>Veronica</td>
<td>25-34</td>
<td>Woman</td>
<td>Latina</td>
<td>Professional</td>
<td>5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 months, residential</td>
</tr>
<tr>
<td>Amy</td>
<td>35-44</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 year, residential</td>
</tr>
<tr>
<td>Daisy</td>
<td>55-64</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>8 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50+ years, residential</td>
</tr>
<tr>
<td>Kay</td>
<td>25-34</td>
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<td>White</td>
<td>Professional</td>
<td>5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 years, residential</td>
</tr>
<tr>
<td>Zee</td>
<td>45-54</td>
<td>Man</td>
<td>Black</td>
<td>Professional</td>
<td>1 year, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 year, residential</td>
</tr>
<tr>
<td>Vic</td>
<td>65-74</td>
<td>Woman</td>
<td>White</td>
<td>Semi-retired</td>
<td>6 months, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 years, residential</td>
</tr>
<tr>
<td>Sarah</td>
<td>25-34</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>2 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 years, residential</td>
</tr>
<tr>
<td>Jay</td>
<td>45-54</td>
<td>Woman</td>
<td>Latina</td>
<td>Professional</td>
<td>1 year, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50 years, residential</td>
</tr>
<tr>
<td>Dana</td>
<td>65-74</td>
<td>Woman</td>
<td>White</td>
<td>Retired</td>
<td>4 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 years, residential</td>
</tr>
<tr>
<td>Jill</td>
<td>18-24</td>
<td>Woman</td>
<td>Latina</td>
<td>Non-professional</td>
<td>1.5 years, community</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 years, residential</td>
</tr>
</tbody>
</table>

*Kay excluded from statistical analysis*
Table 3: Informal Interviewee’s Demographic Information and Community Garden Affiliation

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>Occupation</th>
<th>Community Garden Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amanda</td>
<td>35-44</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>Lake Eola Heights</td>
</tr>
<tr>
<td>Chris</td>
<td>45-54</td>
<td>Man</td>
<td>White</td>
<td>Professional</td>
<td>Festival Park</td>
</tr>
<tr>
<td>Daniel</td>
<td>65-74</td>
<td>Man</td>
<td>White</td>
<td>Retired</td>
<td>Lake Eola Heights</td>
</tr>
<tr>
<td>Deandra</td>
<td>65-74</td>
<td>Woman</td>
<td>White</td>
<td>Retired</td>
<td>Lake Eola Heights</td>
</tr>
<tr>
<td>Dee</td>
<td>45-54</td>
<td>Woman</td>
<td>White</td>
<td>Unknown</td>
<td>Lake Eola Heights</td>
</tr>
<tr>
<td>Donald</td>
<td>55-64</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Edward</td>
<td>25-34</td>
<td>Man</td>
<td>Latino</td>
<td>Professional</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Elle</td>
<td>45-54</td>
<td>Woman</td>
<td>Latina</td>
<td>Non-professional</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Janie</td>
<td>45-54</td>
<td>Woman</td>
<td>White</td>
<td>Unknown</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Jim</td>
<td>35-44</td>
<td>Man</td>
<td>White</td>
<td>Professional</td>
<td>Lake Eola Heights</td>
</tr>
<tr>
<td>Leticia</td>
<td>25-34</td>
<td>Woman</td>
<td>Black</td>
<td>Professional</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Marie</td>
<td>55-64</td>
<td>Woman</td>
<td>White</td>
<td>Retired</td>
<td>Festival Park</td>
</tr>
<tr>
<td>Michelle</td>
<td>25-34</td>
<td>Woman</td>
<td>Latina</td>
<td>Unknown</td>
<td>Festival Park</td>
</tr>
<tr>
<td>Peter</td>
<td>55-64</td>
<td>Man</td>
<td>White</td>
<td>Retired</td>
<td>Festival Park</td>
</tr>
<tr>
<td>Simon</td>
<td>65-74</td>
<td>Man</td>
<td>South Asian</td>
<td>Retired</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Suzette</td>
<td>35-44</td>
<td>Woman</td>
<td>Latina</td>
<td>Unknown</td>
<td>Dean Road</td>
</tr>
<tr>
<td>Tracie</td>
<td>35-44</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>Lake Eola Heights</td>
</tr>
</tbody>
</table>
Since gardeners typically approach me as I photograph and examine individual plots, I also include data from fieldnotes and describe informal interactions (see Table 3) with individuals not included in my recorded and unrecorded semi-structured interview samples (see Table 2). I use interviews to gain insights into gardeners’ perceptions, potential obstacles to garden success, material conditions, transportation implications, garden structure, and specific challenges related to space acquisition.

Due to persistent COVID-19 concerns throughout 2020 and 2021, I provide interviewees the option to participate in face-to-face or digital interviews using Zoom or Skype. I record interviews on both an audio recording device and laptop computer. Data and interview transcripts are stored in password protected files. To analyze the semi-structured interviews, I transcribe them, spending about two hours on each 30-minute recorded interview.

Participant Observation

Participant observation is a critical component of my doctoral research. This method allows me to collect descriptive data, with the perceptions and activities of local gardeners. My study is characterized by long-term fieldwork because participant observation occurred over four years between 2018 and 2022, drawing on autoethnographic experiences with community gardening since 2016 (Ellis, Adams, and Bochner 2016).

Social researchers practicing in the fields of anthropology (Flachs 2013) and urban sciences (Pollard et al. 2018) recommend ethnographers develop a more reflexive understanding of urban agriculture by volunteering as gardeners and directly engaging with their examined communities. I have built rapport with Dean Road Community Garden participants for over three
years. For two years, I visited five additional field sites where I collected ethnographic data, engaged with garden participants, and took photographs (see Figures 2-5 below). I also maintained plots alongside my interlocutors, integrating myself with their organizers which led to strong relationships and richer periods of observation. My consistent presence at the Dean Road location expedited gardener and organizer interactions as they were already familiar with me.

Figure 2: Photograph of UCF Arboretum Vegetable Garden
Figure 3: Photograph of Festival Park Community Garden
Figure 4: Photograph of Lake Eola Heights Community Garden
Besides documenting garden locations and their structural features, I also noted what was growing plots in different plots, the number of unmaintained plots, and general garden information such as membership tallies or new resources and provisions. Unlike maintained plots which are weeded and free of debris, unmaintained plots consist of vacant or abandoned gardens that remain undeveloped. I also registered which plots are pollinator gardens that mostly contain flowers that produce nectar and other food sources for insects like bees and butterflies (Halbritter et al. 2015). Throughout my fieldwork, I engaged in active listening for detection and assessment.
of “key events” during informal conversations (DeWalt & DeWalt 2011, 183). This allowed me to record gardener perspectives on green public spaces and how satisfied they felt about their AFN and CSA participation.

Finally, I engaged in critical reflexive processes to identify patterns in my written materials throughout the research process. This included journaling or note-taking about my daily experiences in the field. I wrote memos before and after interviews to reflect on important quotes, theoretical and analytical directions, and even moments of temporary embarrassment or tension (McQueeny & Lavelle 2017, 82-84).

Photovoice

I employed photovoice to collect a richer body of data on home garden participation. Photovoice methods supplement interviews and participant observation. Photovoice is a Participatory Action Research (PAR) method that is ideal for reflexive anthropological fieldwork (Sitter 2017). Because home gardens often have low outsider visibility from public sidewalks, participant generated photographs more intimately capture backyard gardeners’ experiences with household food production (Pollard et al. 2018, 96).

The method also aids in the co-construction of knowledge and generating data on participants’ home gardening experiences. A photovoice approach helps situate subjective knowledge claims using illustrative materials. Participants express themselves through disposable cameras and document their daily gardening routines. As a PAR method, photovoice assists in balancing power dynamics, empowering study respondents to participate in the research process (Ponterotto 2005). Two participants, Kay and Beth, incorporate photovoice into
their home gardening routines. I distribute disposable cameras to capture photos of their backyards, front yards, and any area they use for plant production. I do not provide participants with formalized instructions other than to take photographs of their gardening activities.

Visualizing Field Sites Through QGIS
Emergent technologies make it possible to document our spatial realities. QGIS is an approach that privileges my participants’ knowledge claims and organizes my self-selected field sites into georeferenced categories that enhance the legibility of social environments (Botticello, Fisher, and Woodward 2016; Randall, Churchill, and Baetz 2003). I employ QGIS during fieldwork since this method is useful for garden and transportation studies (Knigge & Cope 2016; Marshall et al. 2017; Randall, Churchill, and Baetz 2003). I utilize ArcGIS, ArcMap, and the geographic database OpenStreetMap (OSM 2020) to analyze topographical features and create several map products that document the physical location and spatial arrangement of my garden sites.

These digital tools allow me to reify my participants’ perspectives on space and place and supplement ethnographic findings from interviews, participant observation, and photovoice. I not only incorporate aspects QGIS to assist in the digital visualization of my field sites (Botticello, Fisher, and Woodward 2016; Knigge & Cope 2016; Marshall et al. 2017), but it also guides my understanding of preferred transportation networks and place-making (Austin et al. 2005; Hite et al. 2017).

I color code the various field sites to distinguish community and home garden locations. Community gardens feature a red color code, green for backyard gardens, and blue refers to
Knights Pantry (see Figure 6). I also use QGIS to reflexively document my experiences with place-making (Hite et al. 2017) and place attachment strategies (Petrovic et al. 2019).

Figure 6: OSM (2020) Map of Self-Selected Garden Sites
Orange County Demographics and Field Site Selection

My selected field sites are located in Orange County, Florida, a region primarily known for theme parks, shopping outlets, and strip malls. I focus on community and home gardens situated in the northeastern part of the county including neighborhoods and districts such as Union Park and Lake Eola Heights. According to U.S. Census data (2019), over 1.3 million people live in Orange County and over 287,000 reside in the city of Orlando. The data also show 60.7% of Orlando’s population identify themselves as Caucasian or White, 25.4% identify as Black or African American, 4.3% identify as Asian, 31.1% identify as Hispanic or Latino, and 21.2% identify as foreign born.

The average household income-level for Orlando is $57,757 and approximately 17.2% of residents report living in poverty conditions (United States Census Bureau 2019), while the national poverty rate is 11.4% (United States Census Bureau 2020). In the U.S., the average median household is $67,521, about $10,000 more than those living in Orlando (United States Census Bureau 2020). Furthermore, Central Florida’s rental and housing market have “exhibited rampant inflation” from 2015 to 2022 (Linger, Singer, and Tatos 2022, 1-2). This is largely due to investment firms and real estate developers owning 15 percent of Orlando’s single-family rental properties (Linger, Singer, and Tatos 2022, 4).

These data suggest Orlando residents experience greater economic hardship, higher reported levels of impoverishment, and increasing food insecurity. The global pandemic had compounding effects on national poverty levels. The U.S. Census Bureau (2020) reports the median household income fell 2.4%, a significant decline in economic mobility not seen since 2011. The period reflects a time when the impacts of 2008’s Great Recession were still being felt
by middle-income and working-class Americans. The U.S. Census Bureau (2020) also report a 1% increase in the overall poverty rate after five years of relatively stable declines.

The pandemic’s impact on Orlando residents is particularly significant since many communities rely on full- and part-time hospitality and service industry jobs. According to the *Orlando Business Journal* (Bilbao 2021), 35% of Floridians work in service industry positions. Workers in the hospitality sector were also severely impacted by COVID-19. International travelers to the state decreased throughout 2020. Domestic tourist traffic also significantly dropped, making it difficult for local businesses to recoup losses wrought by the global pandemic (Bilbao 2021). Additionally, more individuals navigate financial challenges by opting for “platform-based gig employment” where compensation is dependent on employees’ production and/or performance. These include ride-share, delivery, and administrative positions that frequently do not include benefits like paid time off, maternity/paternity leave, or health insurance (Davis & Hoyt 2020, 2).

A new public health study (Twenge & Joiner 2020, 2174) indicates that 18–29-year-olds are more likely to encounter unemployment and symptoms of mental distress in comparison to adults over the age of 60. These younger adults also face increasing job insecurity and experience negative mental and physical health consequences as “piece rate pay” becomes more and more prominent as a form of compensation and the availability of salaried work dries up (Davis & Hoyt 2020, 5). The long-term costs of the pandemic remain unclear but statistical analyses illuminate some of the material consequences. A recent fiscal study (Watcher 2020, 550-1) suggests that loss of potential lifetime earnings for labor market initiates such as recent high school and university graduates yields serious financial limitations. Thus, these groups are
especially vulnerable in a region already exposed to disproportionate impacts resulting from the pandemic-era lockdowns and travel restrictions.

Furthermore, the growing income disparity between rich and poor Americans, increasing food prices, and rising costs of living are becoming more evident. Everyday folks lack the tools, resources, and power to influence food prices, inflation, and transportation costs. According to the U.S. Department of Agriculture’s Economic Research Service (USDA 2022) website:

In 2022, food price increases are expected to be above the increases in 2020 and 2021. In 2022, all food prices are predicted to increase between 9.0 and 10.0 percent, food-at-home prices are predicted to increase between 10.5 and 11.5 percent, and food-away-from-home prices are predicted to increase between 6.5 and 7.5 percent.

**Limitations and COVID-19 Impact on Fieldwork**

COVID-19’s impact on researchers’ abilities to carry out social scientific fieldwork cannot be understated. Since anthropological research involves human participants, our subjects of investigations become potential vectors of disease during a global pandemic. Because of this, the scope of my study is necessarily limited.

First, I consider the effects of pandemic restrictions. I document how the global pandemic impacted recruitment of potential respondents. Due to persistent COVID-19 concerns, I exclude resident-only community gardens since recruitment was not viable. As a result, I relied on convenience and snowball sampling at open access gardens to recruit participants, possibly limiting my pool of Black, Latino(a), and Asian respondents and my field sites. One consequence is that my study focuses on more participants identifying as female than male. I also visited Lake Davis/Greenwood and Festival Park locations several times without encountering garden members. I saw infrequent garden participation at the Lake Eola Community Garden.
Three months into fieldwork, I must forgo the study’s original survey and transportation diary components due to limited participant availability during the height of the COVID-19 pandemic.

Garden participation waned in the first several months of the pandemic. Quarantine and lockdown procedures were established around the time I received IRB approval. To alleviate some concerns, I conduct interviews in diverse modalities that include face-to-face, Zoom, telephone, and email correspondence, wholly cognizant ethnographic context is lost during online interview formats. Conducting a digital interview is safer and more convenient for maintaining participants’ safety. Taken as a whole, these factors limit recruitment and my study’s sample size.

Second, since I focus on local gardens in Orlando and rely on convenience sampling methods, my results may have limited generalizability beyond the Central Florida research setting. Although I include multiple field sites, I do not include local gardens outside the greater Orlando area. Garden sites were self-selected based on their proximity to my personal residence and university. I also do not include perspectives of Indigenous populations due to lack of participant availability. Thus, I may unintentionally exclude cultural, Indigenous, and regional populations residing in North America.

Third, I record food choice and individual mealtimes which are necessary for discerning respondents’ meal compositions. Nevertheless, I recognize minor errors and omissions may occur as nutritional data are self-reported. For instance, my participants may inaccurately recall their daily consumption habits and meal frequency. Moreover, any significant dietary changes may be relatively recent modifications resulting from changes wrought by COVID-19. Despite my limited sample, findings remain significant as they identify garden access challenges and
analyze the ways gardens impact individual nutrition, emotional and physical well-being, and the ability to adapt to pandemic-era stressors.
CHAPTER TWO: HISTORY OF FOOD PRODUCTION IN NORTH AMERICA AND FLORIDA

Historicizing Gardens in North America

It is important to understand the sociohistorical contexts in which North American gardening occurs. Prior to European colonization of the Americas, Indigenous groups relied on communal gardens and food forests to satisfy their need for fresh and accessible produce (Bukowski & Munsell 2018; Larios et al. 2020). A food forest is a sustainable form of land management that imitates natural ecosystems and incorporates a wide variety of fruit, vegetable, herb, and nut varieties (Bukowski & Munsell 2018, 20-23). These community-managed gardens and forests incorporated seasonal varieties, fallow periods, and considerable biodiversity, allowing Indigenous communities to live in relative harmony with the natural world. Indigenous gardens and food forests relied on minimal horticultural inputs like rain, manure, and hand tools.

Like CSA sites and AFNs, Indigenous foodways and traditional ecological knowledge (TEK) emphasize balanced reciprocity with the landscape and community-led environmental stewardship (Merchant 1989). Indigenous groups such as the Abenaki and Iroquois managed sustainable food systems through three-field crop-rotation, extended fallow periods, pasturing livestock, and “polyculture” using the Three Sisters corn, bean, and squash method of planting (Merchant 1989, 79).

Since the seventeenth century, gardening has supplemented European’s food production in North America (Demos 1970; Ulrich 1991). According to historian Carolyn Merchant (1989), European colonists depleted natural resources through agricultural intensification and
widespread animal husbandry. European colonists utilized gardens to recreate meals from their countries of origin and provide fresh and accessible produce. By the nineteenth century, an increasing trend towards mercantilism, industrialization of food systems, and capitalist market economy resulted in overexploitation and degradation of the soil.

Economic historian Gavin Wright (2003, 529) examines the impacts of African enslavement and colonialism on eighteenth and nineteenth century U.S. farming systems. The South’s burgeoning capitalist market economy reflected an increasing dependence on slavery and Black enterprise which radically transformed the Anglo-American agricultural and labor sectors that formerly relied on indentured servants and “free family farming” (Wright 2003, 543-44). “Slave farms grew a diverse mixture of crops, including tobacco, corn, oats, hemp, and … commercial wheat” (2003, 535). Enslaved communities worked year-round and participated in a variety of onerous tasks including milling, sowing, harvesting, and cleaning, among others. Slavery became a considerable source of capital investment and the dominant labor system in the Deep South (2003, 536).

Overall, ethnohistoric data comprised of diaries, newspaper articles, and court records offer a glimpse into how both men and women sustained localized informal economies, food production, and social structures using gardens (Demos 1970; Ulrich 1991). Some scholars incorporate a Marxian analysis and expand on corresponding land use and production changes, like Merchant’s (1989, 261) categorization of three distinct food production periods.

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2 Colonial home gardens were less environmentally destructive and featured more biodiversity than subsequent large-scale monocrop farming systems and intensive animal husbandry operations.
Merchant (1989) also discusses three ecological periods in U.S. history when landscapes underwent dramatic transformations. The “Colonial Ecological Revolution” (1600-1675) introduced new types of plants, animals, and technologies whereas the “Capitalist Ecological Revolution” (1775-1860) saw changes in transportation, markets, and distribution networks resulting from steam powered technology (Merchant 1989, 261-62). The land, labor, monetary inputs, competition, and control required to maintain these systems validated colonial domination over natural landscapes. Intensifying animal husbandry practices led to the conversion of forests to pasture lands as well as construction of additional waterways to support surplus crop production for market and fodder. Consequently, the food system gradually industrialized.

The “Global Capitalist Ecological Revolution” (1860-present) represents the current era of food production during which the expansion of exploitative global capitalism has exacerbated humanity’s dependence on profit-driven incentives, monoculture, industrialized crops, livestock production such as factory farming and large-scale fish farms, and artificial ecosystems (Merchant 1989, 262). Current agricultural policies to food production both amplify carbon emissions and increase atmospheric greenhouse gasses, increasing the temperature of the earth and destabilizing the global climate conditions (Armelagos 2010; Cribb 2010; Merchant 1989; Pimentel 2011; Rockström et al. 2009).

Nevertheless, gardens remained prevalent in U.S. residences to sustain household food production and material independence. In 2005’s City Bountiful: A Century of Community Gardening in America, Laura J. Lawson investigates the historical rise of community gardens in North America. Archival data from the late 1890s to 1917 indicate that the end of the nineteenth
century was marked by early gardening initiatives. Women’s organizations of the Progressive Era (1896-1916) framed gardens as green spaces meant for public enjoyment. Differing from traditional uses, these public gardens emphasized aesthetic beauty rather than household food production. In the 1910s, federally funded school garden campaigns became more prevalent and gardening projects regained popularity in public discourse. By the 1930s, however, dwindling employment opportunities wrought by the Great Depression forced families to apply for subsistence garden plots to bolster household food production (Lawson 2005, 1-2). Various presidential administrations also incentivized national urban gardening campaigns during World War I and victory gardens during World War II (Lawson 2014).

Gardens have a history of creating stability, offering relief, and supplementing domestic food supplies during times of conflict or upheaval (Barthel, Parker, and Ernstson 2015; Chan, Pennisi, and Francis 2016; Lawson 2005; Mincyte & Dobernig 2016). World War II victory gardens promoted the creation of neighborhood gardens to address food insecurity and boost national morale (Chan, Pennisi, and Francis 2016, 842). As U.S. involvement in both the European and Pacific theaters escalated, local, state, and federal agencies distributed written and audio materials about gardening techniques to communities at public events and through newspapers, magazines, and other popular media sources. According to Lawson (2014), funding was allocated for households, and the U.S. government designated vacant and unproductive public land for garden development and food production. Victory garden and “kitchen garden” campaigns ultimately proved successful, meeting with overwhelming public reception and participation (Cardona & Markwick 2019, 47-8; Lawson 2014).
While victory gardens waned as soldiers and others returned to their daily routines, they effectively became prototypes for contemporary urban and community gardens. In fact, some larger victory gardens have been reconstituted as community gardens (Lawson 2014). Nevertheless, the rise of national grocery retailers and mass-produced food brands in the 1950s and 1960s served to undermine national and local gardening initiatives. By the middle of the twentieth century, “few consumers had any memories of farms or pastures, but commodity chains in this period were increasingly national and even global in scale” (Haydu 2011, 467).

While convenience cuisines, TV dinners, and ready-to-eat meals became staples of U.S. domestic units, local food production did not entirely disappear from American households. In the 1970s, “a rebirth of interest” in gardening facilitated the resurgence of community gardens, AFNs, and other forms of urban agriculture (Lawson 2005, 2). Popular environmental publications like *Mother Earth News* (Jacob 2010) and gardening programs such as the Green Gorillas and ACGA emerged in response to “changes in urban conditions, changes to attitudes about open space and the environment; and new concerns about health and nutrition” (Birky & Strom 2013, 1196). By the 1970s, the U.S. organic farming movements became associated with counterculture, environmental activism, vegetarianism, and local food production (Jacob 2010; O’Sullivan 2015, 2-4). Also, during this time, “ecology-minded, peace-and-love flower children chose to eat organic, natural, whole foods” in response to increasingly industrialized food systems and agricultural practices (O’Sullivan 2015, 72). Other urban agricultural organizations led to the creation of guerilla gardens focusing on feeding the public and the subversion of landscape norms (McClintock 2014, 150). The USDA created a renewed interest in federally funded urban gardening initiatives such as the Urban Garden Program (Rivera 2013, 389).
Today, many types of garden organizations exist, addressing the various social, economic, and nutritional needs of different communities.

**Historicizing Florida Gardens**

To best understand Central Florida gardens today, it is essential to historicize the socioeconomic contexts in which local gardening in the state emerged. By 1845, the new state of Florida’s agricultural sector flourished. Colonial plantations invested in citrus, sugar, and other agricultural commodities with cattle raising also dominated the state’s economy (Rivera 2013, 395). After the Civil War (1861-1865), small-scale and subsistence farming supported low-income communities. Taming Florida’s marshlands and constructing irrigation systems was largely accomplished through the work of marginalized communities. In the late-nineteenth century, contracted laborers formed agricultural communities and they were responsible for the construction of canals, land clearing, and management of agricultural production (Pozzetta & Kersey 1976).

Michael Gannon’s *The New History of Florida* (1996) describes Florida’s agricultural development during World War II. By the 1940s, Florida was considered a “cornucopia” for land developers who projected “dramatic gains” in the agricultural sector as the state economically expanded (Gannon 1996, 328-29). As U.S. war efforts sought to shore up domestic food production, Florida’s cash crops including citrus, cotton, and sugar were produced in abundance. The end of World War II set the stage for the Green Revolution which entailed widespread technological advancements in agriculture, irrigation, and pest control mainly in the Global South. Consequently, commercial dichloro-diphenyl-trichloroethane (DDT) usage dramatically
increased across Central and South Florida’s marshlands, pastures, and swamps. It later became evident that DDT exposure is toxic to both humans and animals, causing various negative health impacts such as reproductive and developmental issues (Rivera 2013, 401-02).

There is a “longstanding history of African Americans depending on self and community to address structural inequalities” (Reese 2018, 421). Cameryn Rivera (2013) details the socioeconomic implications of Florida’s failed agricultural policies on predominantly Black farming communities in Lake Apopka, 15 miles northwest of Orlando. She includes testimonies from Florida residents to illustrate the longstanding effects of the state’s discriminatory agricultural policies. For these underserved communities, gardens may symbolize hope and stability for disenfranchised Black tenant farmers.

Geraldine Matthew, a longtime Lake Apopka resident states “‘that garden was the hope we needed to get through those times’” (Rivera 2013, 401). Lake Apopka’s Black communities reflect on the impacts of agricultural intensification and DDT usage on their local environment and on farmworkers. While Matthew’s statements recount a once fertile and productive agricultural area, today Lake Apopka is one the state’s most polluted waterways (Rivera 2013, 402), as agricultural runoff results in soil contamination and water eutrophication while mismanagement of levees and water flows ultimately disrupt soil fertility and crop production.

As a child, I went with my mother on day trips to nearby Lake Okeechobee in South Florida. I remember the lake’s grotesque sludge-like blackness and awful stench that permeated the air. Toxic algae blooms caused by farming runoff created noxious odors evoking smells of sulfur, rot, and things sickeningly sweet. Lake Okeechobee’s distressing condition is a poignant example of the impacts that agribusinesses can wreak on local ecosystems. While Environmental
Protection Agency (EPA) reforms of the 1970s such as the prohibition of DDT and Clean Water Act (CWA) modestly stymied agricultural pollution, a multitude of community and urban gardens have arisen in Florida that attempt to reinvigorate local stewardship of the natural landscape and waterways (Rivera 2013, 396-402).

**Types of Community Gardens**

While no two community garden organizations in North America are identical, Drake and Lawson (2015, 245) identify three basic types—small, medium, and large—based on scale and scope. In this context, organizations refer to regulatory bodies that support community gardening such as nongovernmental organizations (NGOs), government agencies, and grassroots programs. Garden organizers, usually volunteer master gardeners who receive university training and certification, may allocate specific plots within the space to individual members. Apart from one city commissioner, all organizational positions remain unpaid. Luke Drake and Laura J. Lawson (2015, 242-43) further differentiate gardens in terms of their activity, organizer and member roles, and division of labor (see Table 4).
Table 4: Drake & Lawson (2015) Garden Classifications

<table>
<thead>
<tr>
<th>Scale</th>
<th>Division of Labor (Types 1-3)</th>
<th>Organizer and Member Roles</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small: 1 garden organization</td>
<td>Type 1: features individual plot cultivation of in-ground beds or raised gardens</td>
<td>Type 1: Organizers assign individual plots</td>
<td>Individual maintenance of shared spaces such as pathways, tools, and rest areas</td>
</tr>
<tr>
<td>Medium: 2-3 garden organizations</td>
<td>Type 2: features no individually assigned plots and communal cultivation</td>
<td>Type 2: Organizers delegate what is grown, how, and where</td>
<td>Collective maintenance of shared spaces such as pathways, tools, and rest areas</td>
</tr>
<tr>
<td>Large: 31 or more garden organizations</td>
<td>Type 3: features shared and individually worked plots</td>
<td>Type 3: Combination of individual and assigned plots</td>
<td>Individual and collective maintenance of shared spaces such as pathways, tools, and rest areas</td>
</tr>
</tbody>
</table>

Regardless of size and organizational scale, all community gardens are communally managed with members expected to maintain shared spaces such as pathways, tools, and rest areas (Drake & Lawson 2015, 242-43). Other researchers (Mullins et al. 2021, 3) categorize gardens based on participants’ motivational factors, including leisure or recreational gardens, gardens that increase food security, and crisis gardens that emerge during times of socioeconomic upheaval such as 2008’s Great Recession. Sustainability scholars (Lawson 2005; Mincyte & Dobernig 2016) classify gardens and/or urban farming according to their socioeconomic role or applied usage. For instance, one study (Lawson 2005, 264) indicates that
the U.S. features four main garden varieties, including K-12 school gardens, residential or neighborhood gardens, “community food security source garden(s),” and professional-training and “entrepreneurial” gardens. I focus on both neighborhood and community food security garden varieties as my field sites often simultaneously fulfill multiple roles.

**Food Security: Intersections of Race, Gardening, and Accessibility**

While I do not solely focus on race and food security in this dissertation, it is significant to note the contributions of race-based frameworks within food access (Usher 2015) and gardening studies (Hite et al. 2017; Reese 2018, 2019). Kareem Usher (2015, 110) explores the impacts of access inequality associated with U.S. “race-based residential segregation” which prevents Black and low-income neighborhoods from acquiring fresh, healthy, and affordable foods. Usher’s (2015) research further develops the access concept and explores the various social, material, and structural challenges that inhibit community food security.

Other food access research expands on access and U.S. community gardening discourse by examining the intersections of racism, class, and unequal urban food access (Reese 2018, 2019). Analysis of Black and low-income neighborhood gardens demonstrate how they variously work to promote community-building, self-reliance, and Black liberation in food deserts and redlining areas (Reese 2019, 2018, 411-13). Food deserts are characterized as unequal access to grocery stores and supermarkets whereby food cannot be easily acquired by residents in a particular area or boundary (Reese 2018, 409). Historic redlining is a prejudicial practice that “refers to lending (or insurance) discrimination that bases credit decisions on the location of a property to the exclusion of characteristics of the borrower or property” (Hillier 2003, 395).
Anthropologist Ashanté Reese (2018, 412) defines self-reliance refers to a framework for navigating inequality in racially segregated neighborhoods, suggesting that urban community gardens help mitigate deeply embedded structural inequalities and food insecurity stemming from centuries of racial discrimination and segregation. She also demonstrates that site upkeep and maintaining community mobilization remain persistent challenges for members (Reese 2018, 421). Despite these obstacles, her findings indicate that urban CSA sites assist marginalized communities in navigating urban food access issues through local agency, communalism, and skill-building opportunities among residents (Reese 2018). While Reese’s (2018, 2019) ethnographic research focuses on Black and low-income residents in Washington D.C., I find that her concepts are useful for analyzing the significance of place-making during a time of crisis.

Another anthropological study (Hite et al. 2017, 10) analyzes the complex interplay between space, race, and place among North Florida community gardeners. Study findings show that local gardens not only produce different shared meanings among CSA participants but also empower Black residents differently than White participants who do not experience systemic racism and historical unequal food access (Hite et al. 2017, 9-10). Notwithstanding, findings do suggest that gardens have potential to transcend some social differences, moderately mitigate food insecurity, and alter food and race perceptions through participants’ shared sense of purpose, “active learning experiences,” and other activities promoting commensality (2017, 12).
Garden Motivation

Motivations for urban, peri-urban, and suburban residents to participate in CSA are often deeply individualized. Recent studies (Chenarides et al. 2021; Lal 2020) indicate that urban gardeners who participate in city farms and community gardens desire strategies to decrease food insecurity and access to fresh produce. The available urban agriculture literature (Pearsall et al. 2018; Marshall et al. 2017; Von Glasenapp & Thornton 2011) suggests that gardens may increase commensality and resilience to culturally normative Western ideas about diet and nutrition.

Additional AFN scholarship (Baker 2004; Pearsall et al. 2018; Pollard et al. 2018; Reese 2018; Shinew, Glover, and Parry 2004) suggests that local gardens not only help satisfy emotional, economic, and physiological needs, but also meet individual and social needs such as recreation, nutrition, education, community development, and financial stability. Another study (Petrovic et al. 2019, 481) examines the significance of “positive emotional bonds” using the framework of “place attachment” associated with garden participation and public green space accessibility. The researchers (Petrovic et al. 2019) indicate that participants exhibit considerable affective attachment to their plots, noting that gardens facilitate significant community pride as well as a preference for locally produced fruits and vegetables. Some garden studies (Okvat & Zautra 2011, 376-80) suggest positive cognitive impacts, community health, social support networks, and environmental conservation.

Other studies (Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012; Mincyte & Dobernig 2016) address community gardening’s rising popularity, focusing on urban agriculture’s environmental impacts and benefits. Researchers (Guitart, Pickering, and Byrne
2012, 364-65) also explore topics related to biodiversity, land use, and gardener motivations in participating in community programs, suggesting that urban agriculture has important social implications related to community building and community education (Guitart, Pickering, and Byrne 2012; Thompson 2011). Furthermore, enhanced health, fresh food access, and money saving are secondary benefits (Guitart, Pickering, and Byrne 2012, 367; Thompson 2018).

**Theoretical Perspectives: Applying Marxian Scholarship to Home and Community Gardens**

Many scholars have analyzed the work of Karl Marx (1818-1883), reminding me of the value of these theorists for thinking about gardens. The contributions of Marxist scholars elucidate the interrelatedness of food systems conflict and political ecology (Jacques & Jacques 2012; Purcell & Tyman 2015). Through materialist analyses, they identify the ways sociopolitical processes and discourse supporting industrial agricultural operations exacerbate class disparities and erode sociocultural identities. Julian Cribb (2010) suggests current policies and infrastructure nearly remove consumers from the means of food production. Correspondingly, these policies may suppress the dissemination of valuable gardening skills and cultural knowledge.

Marx’s (2013) conflict theory is useful for understanding aspects of local AFNs and CSA since he sees society as existing in a perpetual state of conflict and inequality over access to material resources (Campbell 2021). Marx (2013, 6) argues social tensions arise from “…the existing conflict between social productive sources and the relations of production.” Marx’s conflict theory is applicable to local gardens as they can potentially reduce the power of dominant structures and institutions through development of informal economies and reciprocal exchanges that remain untaxed and unregulated. Sociologist Bradley Campbell (2021) suggests
that capitalist systems have observable impacts on social organization and foodways, sometimes creating clashes between public and private interests. Intensive agriculture emphasizes material aspects of food production such as land, labor, capital, and technology. Under current systems, maximization strategies relying on mechanized and chemical inputs are utilized, reducing the need for human labor, leaving a small number of decisionmakers in charge of feeding billions of people. Galt et al. (2016, 492-3) find that CSA sites and AFNs are both social spaces and sites of domestic food production and knowledge sharing that operate within dominant neoliberal frameworks.

Echoing Campbell (2021), sociologist Charlotte Glennie (2020) explores ruptures between landowners and green public spaces. City managers and private developers can also exert influence over local communities and the environment (Glennie 2020), since CSAs and AFNs are still subject to the political and economic issues prevalent in conventional food systems (Galt et al. 2016, 492). In the case of CSA, garden members are often volunteers who construct gardens in neighborhoods or community-led projects. These volunteers have little control over the approval of new community garden locations and authorization of land lease agreements which may lead to a state of conflict. Glennie (2020, 729) indicates that community gardens remain contested public spaces since residents must continually resist development by city-planners and landowners who privilege “market exchange value” over mixed-public use.

Yet, food system researchers Katie Butterfield and Susana Ramirez (2021) find that CSA sites and AFNs are not completely divorced from capitalist logic inherent in modern U.S. food systems. This necessarily requires a more nuanced understanding of urban agricultural movements and practices (McClintock 2014, 148).
The Marxian concept of “spatial autogestion” is relevant to community gardens (Purcell & Tyman 2015, 1136). It refers to the self-management of ecological and green public spaces by workers, communities, and individuals who often operate in opposition to elites such as city officials and commercial developers who are otherwise disconnected from everyday community needs and desires (Lefebvre 1996; Purcell & Tyman 2015). Likewise, Marx’s concept of praxis as applied to local gardens is significant since it offers ways to put theoretical and conceptual frameworks into practice. As such, I contend gardening embodies aspects of anti-capitalist praxis through communal management of foodways, reciprocity, and offers tangible alternatives to conventional food systems and distribution networks that are particularly relevant amid a global pandemic (Chatterton & Pusev 2020, 28).

How Do Local Gardens Succeed?
Materialist and postpositivist paradigms are significant in analyzing challenges unique to local gardens. Community engagement scholars (Marshall et al. 2017) discuss why Florida’s local gardening initiatives are often unsuccessful. Additional research suggests CSA participants face significant challenges in creating operational and sustainable gardens (Baker 2004; Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012; Marshall et al. 2017; Randall, Churchill, and Baetz 2003).

Community garden organizers face challenges presented by landowners, resource prices, and poor garden management. Bureaucratic and administrative issues associated with city planning further complicate community garden efforts (Barthel, Parker, and Ernstson 2015). Insecure land tenure inhibits community garden operations as organizers may negotiate short-
term leases (Okvat & Zautra 2011, 374). Similarly, soil contamination and lack of consistent funding also inhibit the formation of new community garden spaces (Wakefield et al. 2007, 93).

For some members, local gardens foster both resistance and resilience. Resilience primarily draws its epistemological influences from ecological frameworks, referring to individual adaptive capacities in the wake of environmental stressors (Dousset & Nayral 2020, 7). Previous local garden studies (Chan, Pennisi, and Francis 2016; Marshall et al. 2017; Pearsall et al. 2018; von Glasenapp & Thornton 2011) indicate that these operations may exhibit aspects of resilience through mutual aid and sharing of garden resources. Resistance, a concept typically concerned with counter-hegemonic activities (Hite et al. 2017; Jacob 2010; O’Sullivan 2015; McClintock 2014), is embodied in the form of localized and communally managed food production (Bridle-Fitzpatrick 2015; Guitart, Pickering, and Byrne 2012). In this way, local gardeners and food producers may evoke both resistance narratives through support networks, sharing resources, and participation in CSA and AFNs, and survival strategies through fruit and vegetable cultivation during a global pandemic when traditional grocery supply chains are disrupted (Abiral & Atalan-Helicke 2021; Bender et al. 2022).

COVID-19 Garden Scholarship

More recent scholarship conducted by anthropologists (Abiral & Atalan-Helicke 2021), sociologists (Mejia et al. 2020), economists (Bellemare & Dusoroth 2020), food policy researchers (Chenarides et al. 2021), agricultural and environmental science (Lal 2020), and urban development and sustainability researchers (Joshi & Wende 2022; Mullins et al. 2021)
considers the varied effects of lockdowns and quarantine protocols on local gardening, drawing inconsistent conclusions regarding the efficacy local gardens during times of crisis.

Spatial researchers (Lefebvre 1996; Purcell & Tyman 2015, 1137) describe the ways green public space self-management allows local food producers to “reappropriate” urban areas and maintain some autonomy over food production. Anthropological and environmental science researchers (Abiral & Atalan-Helicke 2021, 235) similarly suggest that neighborhood AFNs like farmers’ markets offer more reliability than conventional foodways and strengthen the “mechanisms of trust” between food producers and consumers. Situated within these theoretical and methodological frameworks, I now present findings regarding the challenges of managing community gardens and other urban agricultural efforts in Metro-Orlando.
CHAPTER THREE: LOCAL GARDEN ACCESS

Local gardeners navigate various access issues that accompany green public spaces in dynamic and complex ways. These efforts include sensible transportation, plant and seed storage, and land management strategies. Using an auto-ethnographic framework (Davis & Craven 2016; McQueeny & Lavelle 2017, 82-84), I compare my respondents’ approaches to gardening during COVID-19 while also experiencing my own gains and setbacks implementing effective food sovereignty strategies. In the following subsections, I reflexively address the impacts of emotional labor while conducting ethnographic research on local CSA sites and AFNs.

Overview: Food and Garden Access Barriers
I observe access challenges across different social groups and Orlando’s AFNs and CSA sites. I consider the ways these issues impact individual well-being, which is often associated with positive relationships, a sense of purpose, and personal growth (Sheu 2014, 64). My qualitative and geospatial data indicate gardeners’ experiences with access are diverse, varying in terms of convenience, individual motivation, and transportation and resource costs.

My personal experience walking to the Dean Road Community Garden was initially positive. The Dean Road site remained open throughout the pandemic. I do not encounter signage or social media announcements that indicate closure to the public. Nowadays, frequent road construction, high traffic, and unwanted catcalls from passing cars are among the reasons that I now prefer to drive there.
Grounded Visualization

Transportation habits, too, are significant to document because I consider participants like Beth and Paula who report different predilections compared to the rest of my interview sample (see Table 2). Paula, who has been involved in CSA for over 15 years, oversees several community gardens including Lake Davis Community Garden, Festival Park Community Garden, Colonial Town Community Garden, Lake Eola Heights Community Garden, Broadway Methodist Church Community Garden, and Lake Druid Community Garden. Beth and Paula prefer to travel on foot or ride their bicycles to various local garden locations.

Besides auto-ethnography (Davis & Craven 2016), I approach the data through grounded visualization techniques (Knigge & Cope 2016) that illustrate the everyday built environments experienced by both me and my research participants. I document visual elements such as spatial development, perimeter fences (see Figure 7), community garden signage (see Figures 8 and 9), and proximity to major highways and roads. Most of my CSA field sites feature garden boxplots that follow a consistent 4 x 12-foot pattern, some feature raised troughs which tend to vary in size.

Admittedly, there are many other community gardens in the Metro-Orlando area but not all of them remain accessible to non-residents or have consistent plot availability. In 2021, a quick web search reveals that the community gardens located in Laureate Park and Citrus Square remain closed to non-residents. These CSA sites correspond to defined neighborhood boundaries which can limit wider public participation and access to green public spaces. According to the City of Orlando’s government website (“Community Gardens” 2023), 17 active community gardens operate within city limits. Of those 17, I include three in my research study.
Sometimes traveling to my other field sites proves frustrating. The traffic congestion and air quality are almost always irritating on this stretch of road. Opening the car windows on a lovely day is out of the question if there is a traffic jam. There are many times where I want to turn around out of frustration. For example, heavy congestion from afternoon traffic on East Colonial Drive increases travel time from Dean Road Community Garden to Lake Eola Heights Community Garden by several minutes. Sometimes it takes about ten minutes to move a mile on Colonial Drive or Dead Road. Choosing major highways such as the FL-408 and FL-417 may save a few minutes, but tradeoffs remain problematic due to financial constraints.

Tolls remain a financial barrier for individuals like me who do not possess an electronic toll transponder or extra income to afford driving on these roads. From personal experience, the transponders are also notoriously unreliable and malfunction on a regular basis. Even when I use spare change as payment, underserviced coin counting machines eat coins, leaving me and others greatly irritated. Based on my experiences, I consider toll payments to align with focused codes related to transportation costs and garden access.

Although my field sites are self-selected, I feel it is significant to document road conditions and transportation networks utilized by my participants such as Paula and Beth who travel to more than one CSA included in my study. During my 2021 interview with Jill, a former student volunteer at the UCF Arboretum vegetable garden, she illuminates the shortcomings of Orlando’s public transit infrastructure and her oftentimes frustrating experiences while using these services and facilities.
Figure 7: Photograph of UCF Arboretum Vegetable Garden’s Perimeter Fence
Figure 8: Photograph of Lake Davis Community Garden Signage
Orlando’s lack of reliable public transportation is another mitigating factor when it comes to accessibility. A recent Orlando Sentinel article (Russon 2019) provides insights into issues that plague mass transit infrastructure. Challenges include fare affordability, stagnant wages, and too few buses and route options for many commuters (Russon 2019). I view these limitations as access barriers for participants such as Jill who lack private vehicles and/or members like Beth.
and Paula who have multiple community garden memberships. These observations correspond with my focused codes relating to convenience, costs, and mobility. Considering travel time and seasonally variable heat and humidity, I consider less than two miles to be a comfortable walking distance for everyday folks. Interviews and informal conversations with Josie, Jill, Prairie, Veronica, and Zee corroborate these findings.

Garden Access

Although I only include data on open access gardens, my ethnographic data suggest that participants’ experiences with garden accessibility varied in terms of transportation costs, motivation, and convenience. Participant desire for secure garden sites, safe transportation, and convenience remains one of my findings’ prevalent themes. Some participants drive farther than others. This may be stating the obvious, but most prefer gardens close to work or home. Based on informal discussions with gardeners and interviews with Josie, Zee, and Sarah, those who do not live or work within three miles of a community garden are less likely to participate in gardening activities compared to those residing nearby. Metro-Orlando’s public infrastructure arguably needs more development in terms of walkability and safety. For example, Josie drives approximately three miles to her Dean Road Garden site.

The following interview exchange reflects Josie’s aversion to walking to the garden:

CD: How far is your residence from your community garden?
Josie: About three miles.
CD: About three miles. Three miles, good…okay, and what modes of transportation, so think about car bike, walking, what do you prefer when traveling to your community garden site?
Josie: Mostly we—we drive here.
CD: Okay mostly, driving. I figured as much
Josie: Mmhmm. Yeah, it is too far to walk, and two-way, you know, it is too far.
CD: Oh yeah three miles.
Josie: Yeah, three and three. You almost always have to carry something with you.
CD: Mmhmm
Josie: Because you are doing work there.
CD: Or then you have your waste bag with you.
Josie: Yeah, I never walked. I never walked. It is not possible.
CD: I have.
Josie: These roads are so horrible now.

Zee, originally from Zimbabwe, also prefers to drive to the Dean Road location. He indicates that Oviedo, a city in Seminole County, lacks the same variety in community garden locations. Zee mentions, “I live in Oviedo so that was the nearest location nearer to my home.” Despite the traffic congestion, Zee manages to visit his plots multiple times a week.

We discuss his transportation preferences during our interview:

CD: About how far away is this community garden, or our community garden away from your residence?
Zee: I would say like 15 minutes.
CD: Mmhmm.
Zee: Yeah, 15 minutes to drive.
CD: About a 15-minute drive, and that brings me to my next question. So, what modes of transportation do you utilize when you are coming to the garden? …
Zee: I drive.
CD: So, what would that be about, three miles away?
Zee: Hmmm yeah, about 3.5 miles.
CD: Okay about 3.5 miles.

After our interview I discover that Oviedo features only one CSA site. The Community Garden of Oviedo is situated in a suburban area next to St. Alban’s Anglican Cathedral, state road 426, and an apartment complex. Perhaps Zee was unaware of the site’s existence or maybe not enough information was available online for Zee to decide. A routine web search reveals extraordinarily little about this site and its plot availability.
Besides Josie and Zee, convenience remains an issue for several other study participants. I connected with Aaron, a staff member with Knights Pantry who I met early on in my research (see Table 6), and Sarah, a former community gardener (see Table 2). Aaron and I exchanged emails for over a year before scheduling a formal interview. His employment with Knights Pantry began approximately three years ago. He manages the “cross-platform” social media pages associated with UCF and Knights Pantry, using Facebook and Instagram to promote the Arboretum Garden and student food security programs. I met Sarah prior to the outset of my 2020 fieldwork. They both independently discuss the ways limited access adversely affects their participation.

Sarah’s activities at the Dean Road Community Garden ceased once she moved away from Union Park. She relocated “a good ten miles” away from her previous community garden. Her experience suggests that lengthy commutes and transportation costs impede community garden access. She mentions, “after I moved, it was a lot harder for me to fit it [community gardening] in my schedule. My work schedule … and the transportation and it just didn’t work out.” Since moving, she cannot find another CSA near her new residence, wistfully noting, “I no longer participate in the community garden … when I was living next to the community garden—when it was less than a mile away—it was more convenient for me to spend time there and do more work on it.”

Aaron also reflects on mobility and transportation issues. The fact that he lives approximately 20 miles from the UCF main campus where he oversees the Knights Pantry makes weekend volunteering there difficult. Yet, during the workweek, Aaron can access the Arboretum Community Garden (see Figure 7). Considering the short distance between Knights
Pantry and the Arboretum, his situation aligns with focused codes relating to convenience and accessibility increasing garden access.

Geospatial and Ethnographic Visualizations

Some community gardeners face challenges when it comes to accessing their rented garden plots. Several of those interviewed feel that their gardens are only accessible by car since getting other modes of transportation may prove difficult. Findings suggest that gardener experience with convenience varies depending on the location of their respective gardens and local road/traffic conditions. For example, Jill is a university student who remembers it taking upwards of 90 minutes to reach the UCF Arboretum when traveling by foot. From her apartment, the garden was inaccessible since she lived off-campus and lacked a parking permit. To reach the site, Jill utilizes UCF’s public transportation which she considers faster and more advantageous than walking. That said, UCF buses sometimes break down or experience delays which can impact how students and others get around the university.

Josie explains that since she lives some three miles from the Dean Road Community Garden, she prefers driving because the six-mile round trip is too far to walk, saying, “these roads are so horrible now,” meaning things like construction debris, unmaintained sidewalks, smelly sewer upgrades, and distracted drivers.

Unlike Josie, Beth regularly walks or rides her bike to her garden sites, reporting no hazardous road conditions impacting her transportation preferences. Both the Festival Park and Lake Eola Heights gardens feature much less traffic congestion and safer bike lanes and sidewalks than what Josie encounters along Dean Road. For Sarah, “it [the home garden] is
easier for me to access during my free time.” She emphasizes convenience as being a major factor in pursuing backyard gardening. Since she resides more than 10 miles away from all the examined community garden sites, home gardening is her best option (see Figure 6).

Other interviewees such as Paula, Veronica, and Daisy discuss transportation networks and how they access their respective garden sites. Veronica, Daisy, and Paula all work in professional settings, enjoy growing their own food, and report that their garden sites remain accessible. Sarah notes that access to community gardens is primarily constrained by traffic and limited accessibility to local CSA sites, while Paula estimates that it takes her approximately five minutes from her current Colonialtown residence to reach all the community gardens that she oversees in greater Orlando. Although she primarily drives to her different community garden sites, Paula will occasionally walk to the Colonial Park Community Garden. Beth prefers walking to her Lake Eola Heights and Festival Park Community Gardens sites as she enjoys the outdoor exercise. Prairie, who lives “less than five minutes” away from the Dean Road Community Garden, prefers driving since walking there is more physically taxing.

For Veronica, the Dean Road Community Garden is “only ten minutes away” from her home office and residence, making going there quite convenient. Such convenience notwithstanding, a few months after our 2021 interview, I observe that Veronica’s plot is now abandoned. Some gardeners opt to leave without ever saying goodbye, while others may resume activities when the Florida weather is less harsh. It took about two weeks for me to notice her absence. Although Veronica is no longer here, I occasionally water her plot just in case she decides to return soon.
Amy enjoys low-impact physical activity, sunlight, and fresh air, so she regularly visits her Lake Eola Community Garden site because it is only approximately one mile away from her house. Like Beth, Amy prefers walking over other modes of transportation due to her community garden’s proximity and desire to be outdoors.

Daisy enjoys the convenient location of her Lake Davis community garden that is only accessible to neighborhood residents. She calculates that her garden site is about “five blocks” away from her house, a walk that takes around five minutes or so. She visits the garden multiple times each week despite working a full-time job at a state university. The short trip allows Daisy to dedicate more time to her Lake Davis plot. In the following subsections, I address each field site in more detail.

Unlike other gardening sites considered in this dissertation, the Dean Road Community Garden operates as a private garden whereby members pay rental fees to support site upkeep and maintenance. Dana, a former Dean Road gardener, explains that a local church donated some private land for garden development in 2016. She describes how Dean Road organizers accommodate garden members by making tools, water, and a community shed readily accessible. I began renting the first of my two Dean Road Community Garden plots the same year. Over the years, I regularly engage with garden members, maintain communal areas, share garden products and advice, and harvest yields with fellow gardeners. Some of my research participants were recruited while we pulled weeds, collected cuttings, or pruned plants alongside each other. Early on in my fieldwork, I met Jay, whose actions are emblematic of how some gardeners share their expertise, donate tools and surplus harvests, and dispense seeds and cuttings.
Dean Road During COVID-19

On a late April 2020 afternoon when the sun and heat index are at their peak, I hastily stock my backpack with all my fieldwork essentials, a small composition notebook, pens, sunglasses, smartphone, and camera. I arrive at my field site after a short commute from my residence. As I suspect, I do not see anybody at the site which is understandable considering many Central Florida residents are sheltering in place during the first wave of the pandemic. Likewise, my absence from the Dean Road Community Garden over the past two weeks stems from state and nationwide lockdown protocols to mitigate the spread of COVID-19.

In previous years, I would typically encounter members tilling raised beds or watering plants. The lack of people has an almost eerie effect, but I suppose this is the new reality with so many businesses, restaurants, and schools shutting down. While I initially expected to see more individuals tending their plots, it appears that other members are staying indoors. The isolation in a once vibrant community setting is a constant reminder of the enormous sense of loss that I feel these last two months.

As I observe my surroundings, I notice that someone has planted blueberry bushes on the garden’s right side, organizing them in rows outside the walkways next to the gopher tortoise habitat. The enormous plants look healthy and brighten up the site’s aesthetic. This development provides evidence that someone is here and actively working to improve the garden’s weathered condition. The new bushes look nice considering that prior to 2016 the Dean Road site consisted of a weedy lot with little infrastructure to support a community garden. At least that is what Donald, a former Dean Road organizer, told me the last time I conversed with him back in 2018.
Coincidentally, Donald helped me pick out my first garden plot when I joined the Dean Road Community Garden with my friends back in 2016. Donald is tall and appears to be in his mid-50s or early-60s. His hands are tan and calloused, indicating a passion for the outdoors and hard work. I would frequently encounter him shoveling compost into available plots or pulling weeds from overgrown areas when he was active in the garden. He made the open garden allotments look appealing for newcomers and existing members. Although Donald moved several months ago and no longer oversees our CSA site, he occasionally visits to see how things are faring.

When I return the next day, I am once again greeted by an empty site. After an hour, a figure finally emerges from behind the Dean Road Community Garden sign near the front of the complex. She is carrying some gardening tools and potting soil, heading towards the newly planted bushes. The woman confirms that she transplanted the blueberries after I ask about them. At last, I identify who is planting the blueberries! To my surprise, it is a fellow gardener who donated the blueberry bushes, not one of the organizers I usually encounter. I quickly unpack my smartphone, notebook, and writing instruments from my bag to jot down any crucial details from the conversation.

The woman’s name is Jay. We exchange introductions as I water my finicky tomato plants and she unloads more supplies from her vehicle. I ask if she knows Donald or Josie and how she heard about the Dean Road Community Garden. After chatting for a few minutes, I find out that Jay is an avid gardener and works part-time at a local plant nursery. Her small frame and tan skin suggest she spends a lot of time outdoors. She calls me over to the back of her car and
shows me some cuttings and seedlings. I hurry over and make sure that I maintain a safe physical distance of six feet.

Jay has a friendly smile and outgoing demeanor. She seems excited to meet another person who enjoys the outdoors. We both remark on the steady decline in membership and garden participation over the past few weeks. Jay and I agree that our plots are a safe distance from one another and that we can continue talking without much worry. We remain mostly unconcerned with potential viral transmission in the open-air garden set up, though, I am a bit more cautious when I am indoors or in crowded public spaces. Jay is deeply knowledgeable about gardening and offers me some advice on maintaining my difficult tomato plants.

After briefly chatting, Jay insists that I take some plants from the trunk. I happily accept her offerings of lettuce, sage, and other herbs. In my past experiences with CSA and AFNs, some gardeners find that they have too many fruits or vegetables to manage and will occasionally donate extra cuttings or entire plants to other members. Full plots, seasonal abundance, and food sharing facilitate a sense of reciprocity that unites CSA and AFN members in their respective communities.

Based on my observations, I classify the Dean Road Community Garden as a “working-class” garden because most of its members supplement their groceries using garden products, work full-time, and informally report income consistent with non-affluent households. For example, Jay is a single mother who works part-time at a plant nursery. Despite low wages and minimal benefits including paid-time-off or sick leave, she still finds her work to be meaningful. Similarly, Josie and Dana live on a fixed income, using retirement savings to pay bills or purchase necessities. Zee is another Dean Road member who I build rapport with while
conducting fieldwork. Although Zee is several years older than me, we immediately find that we have common interests like traveling, going to the beach, and gardening. I often encounter him in the evening after work. Like Jay, he enjoys gardening and sharing advice. He holds an Information Technology (IT) position with a local firm, drawing a salary to support himself and his teenage daughter.

St. Matthew’s Episcopal Church owns the Dean Road Garden’s private land allotment. It consists of over 30 individual plots with several remaining vacant at various times throughout the year. Annual plot rental fees are $50. Membership varies from 10-20 individuals depending on the season. Summer membership declines as temperatures rise and thunderstorms become more common in the mornings and afternoons. St. Matthew’s Episcopal Church leadership is not involved with the garden itself and does not recruit existing garden members for their congregation. Unlike some other Metro-Orlando gardens, the Dean Road site is not enclosed by a fence and remains open to churchgoers, visitors, and fauna whose habitat is nearby. While the garden’s sign is visible from the main road, the facility itself remains hidden. Church parking sites include paved lots situated close to the chapel. The closest parking for those seeking access to community gardeners is an unpaved dirt lot (see Figure 10).

Given that the garden has unproductive sandy soil, plots require significant labor input to restore soil health from erosion, heat, and moisture loss. I know that it takes considerable amounts of time, nutrients, water, and sweat to create soil healthy enough to support both endemic and non-native plant species. I observe how several non-native species such as English peas, radishes, heirloom tomatoes, and Boston lettuce face challenges unique to Central Florida’s warm climate. They are not well-suited for the region’s ecological challenges such as extreme
heat, humidity, and pests. As previously noted, this is one of the limitations for individuals seeking to supplement household food production and/or those who desire access to fruit and vegetable varieties consistent with their region/country of origin.

Since the Dean Road site lacks dedicated grant writers and community workdays, it falls to members’ plot rental fees to support things such as upkeep and water usage. For example, it lacks a perimeter fence and readily available building materials like bricks, wood, and cinderblocks. The absence of a fenced enclosure gives my Dean Road location a more open and inviting community-centered atmosphere distinct from private and members-only CSA sites like Lake Davis, Festival Park, and the Arboretum vegetable garden. The structure of the Dean Road Garden embodies an anti-capitalist design that does not readily alienate the general public from participating in green city spaces.

Dean Road gardeners must provide their own materials or rely on existing garden beds constructed by previous tenants. Differing from other sites, garden walkways consist of simple black tarps that are secured by rocks and miscellaneous pieces of concrete and wood. Sweeping the tarps and pulling weeds has been the responsibility of individual gardeners since Donald’s departure from the site several months ago. By 2022, two new garden members made improvements by maintaining abandoned plots and other garden areas. They pull countless weeds to improve soil quality and prepare the plot for fall planting.
Figure 10: Photograph of Dean Road Community Garden
UCF Arboretum Vegetable Garden: A Garden for Students and Faculty

When I was a master’s student in 2014, I became acquainted with the Arboretum vegetable garden. It is located on UCF’s main campus near the Student Health Center and Garage C. A black perimeter fence surrounds the garden to protect crops from local wildlife. However, the Arboretum garden’s two main gates can be opened by anyone since they do not require a key or passcode to enter. Working on campus at this time, I would sometimes chat with student volunteers. The facility is well-maintained and benefits from a CSA approach where all volunteers are responsible for garden maintenance. In 2019, I developed my ethnographic relationship with the Arboretum and Knights Pantry through a UCF staff member, James, who still works closely with vegetable garden organizers.

In 2020, I coincidentally ran into him one afternoon after leaving the library. After a few pleasantries, I asked James if he knew anyone volunteering at the UCF Arboretum. He gave me contact information for one of the Arboretum’s main organizers. Later, after an email chat, the organizer, Green Turtle, agreed to meet me in person to discuss my research. In September 2020, I had a 20-minute meeting with her to find out about her local land management, food production, CSA, and the Arboretum’s student volunteers. Prior to the COVID-19 pandemic, the Arboretum vegetable garden was open to both UCF student volunteers and the general public. The community vegetable garden began in 2009 through student-based efforts. Green Turtle discusses how the Arboretum sustainably grows various plant species including seasonal fruits, vegetables, and pollinators. The Arboretum vegetable garden flourishes despite restrictions caused by the ongoing COVID-19 pandemic and limited volunteer base at the time of my fieldwork.
Figure 11: Photograph of UCF Arboretum Vegetable Garden
The UCF Arboretum’s (see Figure 11) existing relationship with Knights Pantry provides full-time staff and student volunteers access to donated produce. My familiarity with Knights Pantry stems from experiencing food insecurity during graduate school. Despite working three part-time jobs in 2016, I could barely afford groceries or hygiene necessities. Even though I felt shame accessing this facility, the friendly staff always made me feel unjudged and welcome. Knights Pantry assists chronically and intermittently food insecure students in accessing both nonperishable and fresh foods. They also stock essential items like razors, dental floss, deodorant, and haircare products.

Like the Arboretum, Knights Pantry has been operational for over a decade. Its central office is located in Ferrell Commons near the UCF Student Union which is a convenient five-minute walk from the UCF Arboretum vegetable garden. Green Turtle and Aaron work together to assist food insecure students. During my interview with Aaron, we discuss Knights Pantry’s food donation program and Aaron’s organizational skills. His job responsibilities primarily entail “touring the garden, learning [plant] names and communicating those with students and raising social media awareness.” He subsequently reveals that “learning the importance of nutrition” is another major component of the position that he initially did not have much experience in.

According to Aaron, surplus items such as vegetables, fruit, and herbs cultivated in the Arboretum vegetable garden are distributed to Knights Pantry and student volunteers. Apparently, student demand for fresh produce and non-perishable food items remains high, especially during the COVID-19 pandemic. Aaron explains how the UCF Arboretum Garden donates food items to thousands of food insecure individuals and sells surplus produce to raise
money for UCF’s educational initiatives such as Fresh U, a program focused on sustainability and student food security.

Festival Park Community Garden: The “Hip” Garden

Festival Park is a community garden located near downtown in the Milk District, which Orlando Weekly (Moyer 2021) calls the city’s leading culture, fashion, and arts center. In the garden’s immediate vicinity is a public park, small airport, gas station, volleyball court, several bars, and local businesses. Festival Park’s central location makes it highly visible to park visitors and passersby. The garden also features a paved public parking lot. Over the past decade, the Milk District was revitalized by commercial developers ostensibly to attract more university students, new residents, and young professionals.

With some 30 individual plots, garden facilities opened to the public in spring 2010. Apparently, there is considerable local interest in CSA sites, requiring the garden to maintain a “three to six month” waiting list. I periodically visit the Festival Park Community Garden to photograph the various plots. The garden is typically well-maintained and includes various amenities like chairs, construction materials, shaded areas, and accessible gardening tools.

In 2018, I met with Chris, one of Festival Park’s main organizers responsible for assigning individual plots and “managing the site’s sign-up sheet.” He appears to be in his late 30s or early 40s. During our conversation, Chris reveals that he also maintains a personal plot in the garden. After I provide a brief overview of my study, he grants his permission to recruit community garden members and utilize the site for my research. I occasionally come across Chris later while conducting fieldwork, but he is usually too busy with organizational duties to
engage in lengthy conversations with me. I find him chatting with other members and, at times, rearranging the small seedling planters available for use by all Festival Park gardeners. Chris never reveals the keycode to enter the garden, and I am unable to access the site unless I am accompanied by an existing member.

Unlike Dean Road Community Garden, Festival Park maintains a key-coded locked perimeter fence, meaning individuals can only visit as an existing member’s guest. New members receive their keycode upon finalizing their first payment. Such measures enhance security, helping thwart potential produce theft, vandalism, and destruction from local wildlife. The lock and fenced perimeter give the garden an exclusionary atmosphere that may inhibit wider public engagement such as park visitors and the unhoused individuals that frequent the area. The garden features a mixture of crops like cucumbers, yellow squash, watermelon, tomatoes, eggplants, and various peppers. Leafy greens like kale, spinach, and mustard greens alongside basil, thyme, and other herbs are also grown (see Figure 12). Pollinator plants such as milkweed and Bidens alba line the perimeter of the garden and are a favorite for local bee and butterfly populations.

Relative to other local public gardens, Festival Park’s high visibility and capitalized facilities seemingly influence public interest. The site’s convenient location is also appealing as it offers a range of public resources such as a recreational complex, water fountains, public restrooms, well-maintained sidewalks, dog park, and ample parking with dedicated handicapped spaces. According to an article by Orlando Weekly (Galbraith 2022), the park hosts public events like Central Florida’s Veg Fest, a vegan food festival that draws hundreds of annual attendees. The event’s organizers provide guest speakers, food trucks, live music, and food demonstrations
at no cost to visitors. These factors combined may contribute to Festival Park’s overall desirability and bolster local community interest. With its idyllic setting and high curb appeal, the site attracts a different demographic and sense of community compared to the Dean Road site.

Figure 12: Photograph of Festival Park Community Garden Plot
Lake Eola Heights Community Garden: A Public and Neighborhood Garden

In 2020, a Dean Road member suggest that I consider Lake Eola Heights Community Garden as a potential field site. The garden, located in the Historic Lake Eola Heights District, is open to the public, and situated in a quiet residential neighborhood within walking distance of downtown Orlando. Although the garden has public access, it is situated on fenced property, and it is recommended that visitors are accompanied by an existing member. The brick paved streets, well-maintained sidewalks, and large overhanging oak trees add to the garden’s ambience.

Although the pandemic keeps me from recruiting participants here for several months, a chance encounter with several garden members while I was there taking photographs provides my long sought after break. At their suggestion, I join the Lake Eola Heights Facebook group, making me privy to recent updates and announcements. Organizers eventually allow me to sit in on a Zoom meeting in November 2020, which, in turn, reinforces my rapport with potential participants. I introduce myself to garden members and speak with garden organizers Jim and Tracie, who suggest I post my recruitment invitation to their social media page.

Jim and Tracie are the site’s main contact points with their responsibilities including communicating with potential recruits, hosting Zoom meetings, and organizing community workdays. Jim appears in his early to mid-40s while Tracie appears to be in her late-30s or early-40s. Jim introduces me to the other garden members, saying “everyone, this is Chelsea, a researcher affiliated with the UCF Department of Anthropology.” I give a brief introduction regarding my doctoral research and inform the audience that I am recruiting participants. Jim and Tracie also say I am welcome “anytime “at the Lake Eola Community Garden.
Like the Dean Road and Festival Park gardens, I record the number of plots and types of produce cultivated at Lake Eola Heights. The site consists of 36 well-maintained, raised garden plots (see Figure 13). Additionally, it features a three-bin compost area for upcycling garden waste. A white picket fence surrounds the garden, and a small bench sits within a shaded communal resting area. The garden gate can be opened by lifting a small metal latch and does not require a keycode to enter. I find that the Lake Eola Heights Community Garden’s infrastructure embodies a more appealing and inviting built environment distinct from enclosed sites like Festival Park. The perimeter of the garden is weeded and well-maintained. I spot some building materials such as bricks and stone blocks to reinforce garden beds. Assorted flowers and other pollinator varieties like milkweed and pentas line the white fence. A “Little Library” structure greets visitors as they enter the garden.

Lake Eola Heights is supported by membership fees and a city grant, featuring donated supplies like brick and cinderblocks. Instead of sourcing bricks and cinderblocks on their own, newcomers and existing gardeners have the option to reinforce their box plots with these free materials. Members have access to organic fertilizer and a variety of watering tools including communal hoses and spigots. Gardeners cultivate an assortment of root crops (potatoes, sweet potatoes, and carrots), green vegetables (romaine, Swiss chard, and spinach), onions, heirloom tomatoes, peppers, squash, cantaloupe, pineapple, watermelon, and various flowers.
Lake Davis/Greenwood Cemetery Community Garden

The pandemic complicates my recruitment at the Lake Davis/Greenwood Cemetery Community Garden. Compared with my previous experiences at other sites, cultivating ties with organizers here proves a lengthy process due to its new leadership. After months of unanswered emails, I eventually speak to a local neighborhood board delegate, Daisy, who was tending her garden bed while I was taking pictures of the garden’s perimeter fence. She appears to be in her early 50s.

Information pertaining to the mayor city matching grant hangs on display along with the names of local businesses and residents who donate to the Lake Davis Community Garden (see
When I enter the garden, I am immediately struck by its small size relative to my other field sites. It contains 16 individual plots and two raised troughs. The plots follow a similar 4 x 12-foot pattern which is consistent with Festival Park, Lake Eola Heights, and Dean Road Community Garden sites. Daisy says that members pool resources by sharing seeds, horticultural books, and advice. They have a storage cupboard dedicated to seed exchange and gardening literature.

This garden is tucked within a neighborhood near the Greenwood Cemetery, adjacent to a local park and wetland area. The two-way neighborhood road leading to Lake Davis Community Garden appears secluded from the busy main intersections and Highway 417, barely visible from the public sidewalk running parallel to the streets. Giant live oaks, river otters, and herons abound here. Members at Lake Davis grow a mix of produce including watermelon and lettuce, and herbs such as thyme and rosemary, and milkweed and other active pollinators (see Figure 14).

The garden is not open to the public like Lake Eola Heights and Dean Road. As with Festival Park, this site requires a keycode for entrance. A large black perimeter fence surrounds the site to prevent potential theft and keep wildlife from eating garden products. However, the locked fence may exclude residents and visitors from more meaningful engagement with the garden. Consistent with Nathan McClintock (2014), I recognize that the location’s design features may reflect capitalist ideologies about private commodified space.

In 2021, the city built a parking lot, improving garden access. The neighborhood was subject to a lengthy period of construction, making it difficult for non-neighborhood residents to access the garden. Despite Lake Davis being my smallest CSA site, it buzzes with life. Different
bee species and monarch butterflies are abundant, a sign of a healthy organic garden. Lake Davis also attracts the attention of dog-walkers, park-goers, and neighborhood residents that sometimes photograph the garden. Although I do not encounter many gardeners here, most of the plots appear actively maintained. The site features a different demographic compared to the Festival Park and Dean Road community gardens. I suspect that most Lake Davis members either maintain full-time employment or are retired since I do not observe them at times when community gardens are typically active.
Figure 14: Photograph of Lake Davis Community Herb Garden
Photovoice and Metro-Orlando Home Gardens

Home gardens offer insights into local food production as they serve as sites for both sharing garden produce and knowledge. Findings in this subsection are enhanced through photovoice. Unlike most community gardens, approaching and critically analyzing home gardens proves challenging for a few reasons. Their “low physical accessibility and visibility” in private yards (Pollard et al. 2018, 97) made accessing them difficult, especially during COVID-19 when social distancing was the norm. Since gathering visual evidence during the COVID-19 pandemic is more difficult, photovoice proves an effective method for accessing individual households and backyards. By documenting their gardens with disposable cameras, Kay and Beth supply images useful to my research. I also interview Jay, Sarah, Dana, and Jill since each have some experience with home and community gardens but left their CSA location for various reasons (see Tables 2 and 3). Except for Beth, these participants report their backyards as their main cultivation sites.

Kay

After hearing about my research from a mutual friend, Kay - a local elementary school behaviorist - agrees to participate in my study (see Table 2). Married and currently renting, she photographs her backyard garden in her Lake Como Circle home for one week. It contains various potted plants and hanging ceramic containers. Apparently, Kay prefers to grow succulents such as jade bonsai and mother-of-thousands, elephant ears, and aloe plants for landscaping purposes rather than food (see Figures 15 and 16). In this way, she approaches gardening as a recreational and healthy activity. She also uses her backyard garden as an
enrichment space for her two rescue dogs. She expresses some of the limitations of home gardening as a renter. Namely, she is unable to modify the landscape to the same extent as other home gardeners since she cannot plant trees or shrubs without the permission of the rental company and/or property owner, and both parties must comply with local HOA rules and regulations.

This may explain her interest in renting a plot at the Festival Park Community Garden. The “three to six month” waiting lists described by Chris are no longer observed. This is likely due to the rising seasonal temperatures. Kay describes signing up as relatively easy as Festival Park organizers assigned her quickly. Kay receives a gate code from Chris and he tells her that she is welcome to use planters and tools provided at the garden. She had maintained an individual plot at Festival Park for four months, growing serrano peppers, tomatoes, onions, and beans. She reports that other Festival Park gardeners are mostly cordial except for another member who keeps mistakenly taking her starter plants from the designated community table. In a follow-up conversation, Kay says she left the Festival Park location after moving to her current residence in the nearby Colonialtown neighborhood.

Out of all the home garden participants I interviewed, Kay lives closest to Lake Eola Community Garden, Lake Davis Community Garden, and Festival Park Community Garden. Despite living within proximity to three community gardens, she initially prefers the convenience and privacy of her backyard garden. Yet, when I spoke with her in 2021, she had acquired a plot at Festival Park Community Garden. During our last interaction, Kay explains that she rented a personal plot for six months because she wanted to socialize with other gardeners in an outdoor setting where COVID-19 risks remain lower. The pandemic’s emotional
costs and official calls for self-isolating activities motivate Kay to join a nearby AFN. While Kay does not travel to the garden on foot, she regularly drives to the site which takes approximately five minutes.

Figure 15: Photograph of Kay’s Home Garden
I met Beth shortly after my November Zoom meeting with Lake Eola Heights organizers Jim and Tracie. She is a homemaker and married to another Lake Eola Heights Garden member. She moved to Lake Eola Heights Historic District about four years ago although she has been home gardening for approximately ten years. Besides her home garden, she maintains plots at both Lake Eola Heights and Festival Park. Beth shares her affinity for walking or riding her bike to her favorite CSA sites. During a December 2020 interview, Beth describes what she grows at home and the various tasks involved in maintaining this private garden space. She likes to grow...
pollinators, trim trees, “build soil [health],” and harvest her fruit trees to donate to her neighbors and fellow community gardeners.

She got serious about gardening three years ago, stating “I didn’t know how to start [gardening].” In my experience, this is an attitude shared by many newcomers. She moved to the Lake Eola Heights Historic District almost four years ago. Beth’s photographs offer a glimpse into an established home garden and organic food forest (see Figures 17 and 18). The food forest (Bukowski & Munsell 2018) and xeriscaping\(^3\) approach that Beth applies mimics nature to create self-sustaining edible gardens.

Differing from Kay, Beth is a homeowner and can modify her residential property as she pleases. But her residence’s land use is subject to City of Orlando oversights. In a follow-up conversation, she admits that these ambiguous city ordinances are still “poorly understood” by even longtime residents. She is unsure what is allowed and what is prohibited since this information is not readily accessible. In my personal experience, the municipal library website containing information on city ordinances is difficult to navigate.

The implementation of these ordinances appears somewhat random, but she guesses that her neighbors invoke code enforcement if they deem certain residences and their yards unsightly. Code enforcers usually inspect a property within 48 hours of a filed complaint and then reinspect the residence later, causing tensions between concerned neighbors and affected home gardeners. This represents another challenge to neighborhood gardeners incorporating environmentally friendly land management strategies, techniques Beth refers to as “regenerative designs.”

\(^3\) Xeriscaping refers to cultivating drought-resistant plant varieties. They are often accompanied by fruit and nut bearing trees, perennials, and other companion plants.
indicates that regenerative designs include allowing her lawn to return to a more natural state to attract more helpful pollinating insects like honeybees and butterflies. One entomological study (Halbritter et al. 2015, 1091) shows that these land management strategies can have positive impacts on Florida’s butterfly and floral populations in residential areas with high-traffic volume.

Consequently, Beth encounters access issues implementing regenerative designs in her front yard since she supports “No Mow” movements that increase floral diversity and pollinator species dispersal in urban and suburban areas by letting yards go fallow (Colchester 2021). This fiercely debated environmental movement initially gained traction in England but not all British citizens readily embrace fuller lawns, longer grasses, and wild varieties of flora and fauna (Colchester 2021). While the environmental campaign is attracting supporters in North America, participants like Beth often receive community pushback. Beth suspects that her neighbors reported her for participating in 2022’s “No Mow May” movement. Her husband reluctantly mowed the grass in the front yard to accommodate the city’s request to maintain the lawn through traditional maintenance methods.

Beth’s backyard garden has low street visibility and no code enforcement issues. She allows her dogs (see Figure 18), tortoises, and box turtles (see Figure 17) to roam freely here. Although they sometimes uproot soil, the tortoises and box turtles offer a convenient method to upcycle food waste. Beth feeds them leftover rinds, overripe fruit, and other surplus material produced in the household and food forest. She also enjoys “gifting plants, sharing seeds, and saving cuttings” for neighbors and members of the Lake Eola Heights and Festival Park gardens. Her home garden features numerous fruit trees producing things like peaches, figs, avocados,
bananas, mulberries, cherries, persimmons, and various citrus fruit. Beth focuses on soil health now that she has become more knowledgeable and familiar with various gardening techniques and strategies.

Figure 17: Photograph of Beth's Home Garden and Tortoises

Overall, Beth’s backyard garden remains one of the most extensively developed of my four home garden participants. She cultivates several food boxes, container gardens, and various trees onsite. The ability to modify her backyard is possible through home ownership and privacy
fences installed in the backyard. However, restrictive city and neighborhood ordinances may constrain ecological diversification. Her garden provides access to seasonal fresh fruits and vegetables that her household regularly consumes at mealtimes. Beth also participates in community gardening for both the social and physiological benefits associated with interacting with other garden members as well as walking or riding her bike to either the Lake Eola Heights or Festival Park sites.

In comparing the two photovoice home gardens, I identify several distinctions between their two approaches. This shows the ability of gardeners to add their individualized tastes to their backyard spaces. For instance, Kay’s home garden contains mostly potted plants and hanging plants (see Figures 15 and 16). Unlike Beth, she tends to follow simple ways of cultivating plants, avoiding techniques like companion planting and xeriscaping. That said, Beth is not the only home gardener who likes to grow edible plant varieties at her personal residence. Paula is another participant that has a backyard garden with fruit trees, using xeriscaping techniques to maximize soil health. Paula is also a city commissioner with over 20 years of experience serving Orlando’s neighborhoods and residents. Aside from her work in the public sector, she also enjoys growing fruits and vegetables at home.

Admittedly, it is hard to draw significant conclusions based on only two individual cases, but I find richness in participants’ narratives on place-making and place attachment. Those who identify as home gardeners often task themselves with innovating new ways to manage soil, yields, and local wildlife without formal training or certifications.
Seasonality

I provide an assessment of access challenges and relate them to seasonality, my own term generated during multiple rounds of initial and focused coding. Seasonality refers to gardeners’ ability to predictably grow food throughout the year. I emphasize the role that seasonal change and land use play in garden production and the ability to capture garden output and benefits. In Central Florida, seasonality is characterized by variability in heat and humidity, sunlight, rainfall, and pests. By themselves and together, these factors can pose seasonal deterrents to garden participation. Most of my interview respondents reported seasonality as a major gardening
challenge. Limited community workdays exacerbate issues of garden maintenance in warmer months. Community garden protocols and residency status (i.e., local, transplant, international) add complexity to how gardeners negotiate plot maintenance.

Heat

In March 2021, I speak to Amy about a few of her gardening challenges. She describes some of the weather-related obstacles she experiences at Lake Eola Heights, stating that her “inexperience in planting [too close or too far apart] and time constraints to water daily” are among the biggest challenges she faces. Moreover, she explains “…during the hot summer months, I never made it over daily and the garden suffered in the heat.” Beyond time constraints and inexperience, Amy and some of my other participants find Central Florida’s tropical weather inhibits their gardens’ success, especially during warmer summer months of July, August, and September.

While Central Florida presents unique challenges for all gardeners, it can be particularly daunting for those like Zee hailing from more temperate regions, states, or countries. Zee states that “… for the community, I think the challenge is when I started last summer [2020], it was too hot. Most plants did not do good. I can’t remember what I…I had some shallots, onions, they all died.” This is another case where seasonality constraining garden access is applicable since he lacks cultural knowledge of and is not accustomed to Florida’s tropical climate. Based on my observations, I suggest that it typically takes newcomers around six months to adjust to local watering and planting conditions.
Pests

Zee finds that besides inhospitable weather pests and other insects adversely affect his gardening efforts. He maintains a garden at the Dean Road site. He and I often discuss improving soil health and new gardening techniques whenever we cross paths. As plot neighbors, we experience similar pests including fire ants, stink bugs, and cabbage flies. At his suggestion, I incorporate ashes into my plot maintenance routine to prevent formation of fire ant colonies.

Arboretum organizer Green Turtle also reports problems with ants, aphids, spider mites, and other pests adversely impacting the organic Arboretum vegetable garden. She explains that the pests routinely eat and destroy crops during the summer, affecting yields and food donations. Pests also plague Green Turtle’s home garden. She has difficulty managing both her home and workplace gardens. Ant infestations are a common occurrence, proving hard to combat without chemical insecticides. Jill shares how organic farming is more labor intensive at the Arboretum since volunteer gardeners do not rely on harsh chemicals. Fire ants, stink bugs, and eastern lubber grasshoppers are a particularly difficult pest to remove due to the site’s ban on inorganic and chemical pesticides.

Fire ants are also a problem for Veronica, especially during the summer months. As a founding Dean Road Garden member, Veronica has insider knowledge about CSA operations and past leadership efforts, reporting that she was a part of the “planting and planning” at Dean Road back in 2016. For her, the best approach to fire ants is “letting nature run its course” since these hands-off measures do not involve chemical pesticides and weed killers like Round Up. Organic gardeners like her usually remove locusts, stinkbugs, and other pests by hand. That, or they spray their gardens with organic products like neem oil.
Shade

Besides pests, issues of shade also prove challenging to Orlando’s home and community gardeners. Paula, who has a small front yard garden plot, notes that her “shady” yard makes it unsuitable for intensive garden production. As an experienced urban gardener, she knows that certain plant varieties like tropical hibiscus and milkweed require full sun while others do not. Similarly, Daisy indicates that the numerous shade trees on her property limit the amount of natural sunlight her plants receive; thereby, making garden cultivation tricky.

As a way of dealing with this problem, Paula uses “container gardens” where she grows heirloom tomatoes and citrus in ceramic pots. The container gardens are both portable and adjustable to seasonal conditions. This flexibility allows her to enjoy growing lemon and mango trees, star fruit, limes, and papayas for future transplantation. After 2017’s Hurricane Irma damaged many of her trees, Paula modified her property and rebuilt her garden. Besides gardening, she also raises three chickens, something that would be quite difficult without home ownership and designated backyard space.

Overall, shade, heat, and pests are among the most frequently reported challenges related to seasonality and land availability. Consequently, participants must negotiate seasonal changes through inventive pest control approaches and strategic planning of garden plots. These experiences highlight the challenges that inform year-round gardening. Community site regulations prohibiting conventional pesticide use and garden leadership’s emphasis on organic gardening also generate stress for community gardeners trying to follow garden rules and protocols. For example, all the field sites included in this study are strictly organic and prohibit the use of inorganic chemical pesticides. Gardeners who prefer natural pest and insect
interventions may experience decreased output since removing pests by hand is time consuming and tedious.

**Effective Garden Maintenance**

Effective site maintenance involves gardeners’ ability to attend their CSA locations during operational hours. Perceptions of convenience also impact gardeners’ abilities to successfully tend to their plots. Nearly half of my research sample shows time constraints and inflexible schedules as major gardening challenges for participants. For example, Prairie’s full-time corporate job prevents him from consistently maintaining his plot to organizers’ aesthetic standards. His gardening activities include “weeding, watering, planting, and recovery,” which means “inheriting” an unmaintained plot and the extensive labor inputs required to rehabilitate it.

For him, “time constraints” and weather conditions are among the biggest challenges to local gardening. At Dean Road, the process for remitting payment is also a bit antiquated and disorganized. He indicates that plot rental payments should be made through an electronic source rather than cash or personal check. Mailing a personal check comes with the extra cost of stamps and the risk of exposing important bank routing and account information.

I recollect my own difficulties contacting Donald, a former garden organizer, to submit payment for my 2020 plot rental. Donald was always a familiar face at Dean Road prior to Josie assuming responsibility for the garden’s maintenance. He maintained a garden plot for several years and even helped establish the garden along with Veronica, Josie, and Sam. His main responsibilities included signing up new garden members, assigning land allotments, and collecting plot rental fees.
To my knowledge, no formal ledger system was ever implemented when he was in charge. Before Josie took over the site in early 2020, most of the responsibility fell on individual CSA participants to remember their payments deadlines. I recall stuffing envelopes with cash and leaving them in random hiding places such as in the community shed or under a ceramic pot for Donald to eventually find. Currently, Josie submits email reminders to garden members to mail personal checks and address them to St. Matthew’s Episcopal Church. I see how this can be discouraging for younger CSA participants that prefer more secure and convenient payment methods through banking applications such as Venmo and Zelle.

I occasionally volunteer alongside Prairie. Eventually he tells me that he no longer wants to care for his garden, asking me to take it over. I agree to his request despite knowing all the work that will go into rehabilitating a plot riddled with prickly weeds, biting insects, and bleached soil.

Rejuvenating Prairie’s plot is a tedious process as he experienced so much difficulty in maintaining it. After a couple of weeks and generous applications of cow manure, I am able to resurrect the soil from its degraded state. Unmaintained plots at the Dean Road Community Garden like his require extensive weeding and pruning. Compost and fertilizer applications are vital to soil health. Applying compost is labor-intensive, often involving hours of shoveling organic material onto the freshly weeded garden plots. Among the sites I examine, such intensive work is pretty much limited to the Dean Road site as the other gardens rely on designated community workdays for vacant plot maintenance. Festival Park and Lake Eola Heights organizers remain vigilant about members fulfilling their community workday obligations.
Gardeners at all my field sites are required to regularly weed the areas in and around their garden plots or face eviction which entails relinquishing their plots to a waitlisted gardener. However, enforcement of shared responsibilities varies from site-to-site. Garden organizers typically post workday announcements on social media platforms like Facebook, giving members ample notice when these events are planned. They also try to schedule community events on the weekends to bolster participation. Prior to COVID-19, these items were either discussed at formal meetings or via social media.

Multiple evictions occur at the Dean Road location during my time there. By spring 2022, three plots rented by a local church organization are left vacant, decimated by weeds and ant infestations. Josie informs me that the church group I used to see is no longer considered an active member, having been formally evicted. Most Dean Road members are never formally notified of such measures. Someone removed the church group sign a couple of weeks after my chat with Josie.

Sign removal indicates that plots are now available for new renters. When this happens, any remaining salvageable crops are either distributed among gardeners or left to rot. Policy enforcement of this type varies from garden to garden when it comes to evictions. Site leaders like Josie, Jim, and Tracie typically use social media and monthly garden meetings to address aesthetic and maintenance issues that such evictions produce. When I interview Josie about such concerns, she says, “Simon and I, we do help people out, and we sign them up. We answer their questions, we encourage them, and send them emails. Like, if I don’t see this guy in [plot] 8.”

Sarah remarks that limited daylight hours affect her ability to garden and maintain her plot. Like Prairie, her job makes it difficult to maintain her former personal plot at the Dean
Road Community Garden during weekday daytime hours. Similarly, Green Turtle notes that time constraints prove an ongoing challenge for her and her Arboretum volunteers. Like Sarah, she explains that garden maintenance can be “difficult” because of unpredictable Florida weather. She also observes that UCF’s COVID-19 protocols limited gardener participation. At the time of my fieldwork, Arboretum volunteers are restricted to 12 individuals, making site maintenance very labor intensive with a reduced labor force.

**Gardens’ Management and Social Organization**

Relationships among organizers and garden members sometimes involve conflicting attitudes and minor disagreements, especially regarding pesticide use and unapproved plant varieties. Developing new gardens also proves onerous. City commissioner Paula identifies various legal and organizational challenges associated with neighborhood planning and establishing new community gardens in her district. To wit, Lake Davis Community Garden leaders face difficulties enforcing protocols related to the application of carcinogenic weed and insect killers. Paula reports that several Lake Davis Garden members fail to follow community garden guidelines which I consider to be a constraint to garden access. According to her, a community garden’s success is largely predicated on a “strong” board of directors to guide leaders and enforce garden protocols.

Dean Road gardener Jay, who works part-time and has a lifelong enthusiasm for horticulture, describes how social and emotional tensions can sometimes arise at community garden sites. Her garden community occasionally becomes politicized, and things can get tense. She describes an instance where some of her shrubs, bushes, and other plants had to be removed.
as they violated garden guidelines. Although Jay spent weeks building a community area that highlighted her various herbs, flowers, and vegetable plants, Josie informed her that they were “too tall” and provided “too much shade” to nearby areas.

Jay begrudgingly removes multiple plants, noting that the Dean Road Garden does not post its rules, causing confusion as to what members can and cannot plant. Like McClintock (2014) and Butterfield and Ramírez (2021), I observe the ways dominant capitalist logic and inequality are reinforced in community gardening leadership and organization. I view Josie’s behaviors as a reflection of deeply embedded neoliberal ideologies about private ownership, adding another layer of complexity to the dueling motivations, ambitions, and goals of individual Dean Road members.

This negative experience does not wholly sour Jay’s perception of AFNs and CSA, stating that “overall my experience was great!” Yet, her encounter with Josie demonstrates that garden participants need to “focus on communication” to ensure that rules are clear to all. Echoing Josie’s statements in the Introduction, Jay finds that the garden requires more formal leadership for it to function optimally, noting that members really “have to love gardening” to participate in CSA over the long-term.

Prairie also reports communication issues with Dean Road organizers, noting that it was a “challenge to get the plot that I wanted.” According to him, inconsistent communication, and lack of help in plot preparation with new members dampens potential gardeners’ enthusiasm for joining up. The amount of time and labor new gardeners devote to their start-up plots can prove a great inconvenience. Prairie also views the lack of formal organizational structure and plot
maintenance at the Dean Road site as “big issues,” especially in terms of aesthetics, voicing frustration that new his plot was not mowed or weeded prior to him taking it over.

Unlike Prairie, Dana feels that garden conditions are very appealing for newcomers, pointing out to me the “availability of land through church donation, availability of installed water … privacy and accessibility and parking.” She also reports that the Dean Road Garden location is appealing because it offers amenities that other community gardens may lack such as free water and parking.

According to Daisy, “building a community” at a place like Lake Davis can be challenging, especially when it comes to the delegation of responsibilities. Without strong leadership, problems can ensue. Josie expresses similar frustrations, noting that during the pandemic most members ceased participating in community workdays. As a committee, she and other members have little influence in compelling others to maintain their plots during a global health crisis.

Considered altogether, participants desire better communication between members and organizers as well as more engaged formal leadership. Gardeners also collectively express a desire to regain a sense of community that was greatly reduced during the COVID-19 pandemic. These sentiments are not exclusive to individual garden members. Similarly, organizers like Daisy, Paula, and Josie yearn for effective delegation and communication to revitalize CSA membership amidst the pandemic.
**Transportation and Resource Costs**

I also approach the material realities that underpin access. Applied to CSA, I view the cost of garden equipment and transportation, and gardener income as financial obstacles. Some Orlando community gardens receive municipal grants for garden upkeep. Many are supported through plot rental fees which range anywhere from $5 to $15 per month. Although plot rental fees may seem nominal, I recognize that these payments represent aspects of capitalist logic and may act as an economic barrier for new and existing members.

Unforeseen changes to income and employment status would potentially impact future participation in community gardens if a member could not make their monthly payment. From personal experiences, I recall begging Josie to delay my plot rental payment so I could continue my 2021 fieldwork. I was over three months behind on my rent due to financial hardship after my car needed to be replaced. She only agreed after I promised to pay the annual fee in one lump sum via a personal check. Daisy says Lake Davis Community Garden features a dedicated grant writer and access to what she refers to as a “mayor city matching grant” – grants supply neighborhood organizations like the Lake Davis site with financial assistance for public works and other projects designed to benefit the whole community. I view adequate grant funding as a material dimension that increases CSA access.

Green Turtle, a UCF-affiliated organizer, explains that the UCF Arboretum vegetable garden relies on university funds and committed volunteers to continue their operations. Organizers elsewhere sometimes use the monthly plot rental fees along with city grants to pay for gardens’ operational costs. Monthly plot fees remain affordable to most of my study participants as less than 15% of them report costs as a gardening challenge. For Aaron, the
“expenses” required to maintain operations is another “hurdle” for effective garden management. According to him, the purchasing of fertilizer, organic soil, and other resources is one of the “biggest” obstacles to keep the Arboretum up and running.

Like their community gardener counterparts, home gardeners also contend with operational costs and affordability. With regards to operational costs, Sarah states that “whatever we did get out of the garden was enjoyable though. It just was not, I did not feel like it was worth it … continuing. I don’t know. For me, it was not worth the time and money output … now if I had the chance to at home have my own garden plot and be able to do a lot more because I have more space and I would not have to pay for the land …” She elaborates, stating that residential status affects the function and organization of home gardens, “I would enjoy that [home gardening] a lot more but I am a renter and I do not own my home so I can’t really cultivate the land as I see fit.” Moreover, according to her, while home gardening is convenient, it is not cost-free, especially for renters who cannot alter the landscape, noting, “the cost of potting—new pots—can get very expensive as they get bigger, especially [higher] quality pots.”

I continue to approach these themes during a 2021 interview with Vic, one of the leaders at my Lake Eola Heights field site. I meet Vic through Amanda, a four-year Lake Eola Heights member, who sometimes visits the site with her dog. She let me know that one of the garden’s founders, Vic, may be interested in my research. One day, Amanda signals for Vic to come over. I hear that Vic assisted in the organization of the Lake Eola Heights Community Garden with the help of a nearby church. As a retiree, Vic wanted to start a community garden on some unproductive land. According to her, the Lake Eola Heights Garden is “completely organic.” No
one uses pesticides or harmful chemicals that may destroy the garden’s biodiversity and “helpful” bugs.

I coordinate a meet up on a humid June afternoon after other garden members urged me to speak with her about my doctoral research. As both a member of the church’s congregation and the garden, she often acts as a liaison between the ministry and other Lake Eola Heights organizers. I also discover Vic has insider knowledge about the site’s early development. She discusses the significance of accessing resources during the initial Lake Eola Heights Community Garden construction. She mentions that one leader assumed responsibility for finding and securing municipal grant support, adding that organizers eventually acquired a mayor city matching grant for new garden construction. These funds were used for purchasing building materials such as bricks, lumber, irrigation, and soil.

Access Revisited: Broadening Existing Scholarship
According to Drake and Lawson (2015), the function and organization of community gardens can be subdivided into three types: individual plot cultivation, communally managed plots, and both shared and individual plots. Accordingly, four out of the five gardens that I examine are best characterized as traditional community gardens with individual plot cultivation (see Table 4). The Arboretum vegetable garden is exclusively communally managed with no one person having responsibility for an individual plot allotment. Instead, volunteers manage garden maintenance in scheduled shifts at various times during the week.

Various access-related themes emerge during my research including resource and transportation costs, gardener motivation, time constraints, social networks, seasonality, and
convenience. These access dimensions variously constrain participants’ engagement in local AFNs and CSA activities. As noted in the semi-structured interviews, local gardeners identify seasonality (93.3%), convenience (80%), and gardens’ management and social organization (53.3%) as the most prevalent gardening challenges. Participants navigate obstacles associated with inclement weather, heat, pests, and even minor issues like having too much shade. Restrictive rental agreements and HOAs, ruptures in communication, and ambiguous city ordinances represent various obstacles to individual well-being and cementing positive individual and community relationships. Gardeners’ fluctuating incentives to continue their CSA involvement are influenced by concurrent responsibilities like academic and professional obligations and childcare.

Consistent with Mullins et al. (2021, 8), I observe “the rise of container and pot gardening” among a few participants during the pandemic. Home gardeners Sarah, Paula, Kay grow various herbs in repurposed containers, demonstrating how housing and space limitations are negotiated either through participation in community and/or backyard gardens. Sarah uses her outside patio and indoor bathtub to house dozens of herbs, and non-native and tropical flora species. For instance, the wash basin is home to an enormous elephant ear plant that is over four feet tall. She fondly regards her plants as low-stakes pets. Paula prefers the convenience of container gardens since they can be easily moved when severe weather impacts Central Florida. Kay favors large clay pots and hanging planters around her residence. They also prevent her two dogs from eating plants like mother-of-thousands that are known to be toxic to animals. Portability is also desirable to adjust plants based on seasonal availability of shade and sunlight.
Plants can be conveniently relocated when lease agreements expire, and tenants move to a new rental property.

My ethnographic data demonstrate factors such as effective garden maintenance (46.7%) and resource and transportation costs (13.3%) as additional challenges. Despite some economic barriers such as resource and plot rental costs, the data reveal that most participants report they can afford the basic gardening materials and plot rental fees associated with garden membership or home garden cultivation. Most community gardens provide communal resources such as tools, soil, and tomato cages to new and existing members.

Garden participants experience different access challenges compared to those fulfilling leadership roles like city officials and garden organizers. According to Paula, city officials are responsible for drafting laws and ordinances, overseeing local development projects, and communicating with residents about existing and future land use policies. Most garden members are unaware of the legal and sociopolitical dimensions of access underpinning green public spaces.

My findings echo existing scholarship identifying various access challenges (Baker 2004; Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012; Joshi & Wende 2022; Marshall et al. 2017; Ribot & Peluso 2003; Randall, Churchill, and Baetz 2003). I find significant thematic overlap related to structural barriers, organizational challenges, and social conflicts. Consistent with food justice approaches (Porter 2018; Reese 2018), healthy foods include fresh fruits and vegetables that are accessible to residents.

Although my findings also coincide with conclusions drawn by previous research studies on various access challenges as they relate to green public spaces (Baker 2004; Barthel, Parker,
and Ernstson 2015; Diaz et al. 2018; Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012; Marshall et al. 2017; Okvat & Zautra 2011; Petrovic et al. 2019; Wakefield et al. 2007), they do not address these factors during a worldwide health crisis. I also investigate barriers to garden viability including lack of committed volunteers (Diaz et al. 2018, Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012), issues with city-planning and land tenure (Baker 2004; Barthel, Parker, and Ernstson 2015; Okvat & Zautra 2011), and soil health issues (Wakefield et al. 2007) during the ongoing COVID-19 pandemic.

Various issues inform participant access including time constraints, pests/insects, weather, garden location, and relations among garden members, and between garden members and organizers. Like Chenarides et al. (2021, 154) and Joshi and Wende (2022, 7), I identify several pandemic-era gardening challenges that impact individual well-being such as limited access to resources, restricted site usage, cancellation of group events/activities, and community garden “waitlists.” The COVID-19 pandemic exacerbates such issues, especially limiting volunteer community workdays and events. Moreover, social distancing protocols make individual plot maintenance difficult since some members worry about their own personal health. My research participants express fears of contracting coronavirus in public settings that may deter them from more frequent engagement with CSA.

As expected, issues of convenience, effective garden maintenance, and seasonality stand out among my study participants as particularly notable since most gardeners balance full-time employment with the time and labor inputs required to cultivate new and existent plots during warmer months. CSA newcomers may also encounter waitlists for plots that dissuade potential gardeners from participating in green public spaces.
Although I initially expected resource costs to figure more prominently among study participants, my collected findings suggest that local garden organizers appear more financially secure with regards to plot rentals and grant support. These findings challenge previous studies that suggest costs as a major challenge to local garden success (Purcell & Tyman 2015; Wakefield et al. 2007). While cost issues like grant support do not necessarily translate into garden success, they are significant in the formation of new community garden locations that “often have to compete for space and resources against the pressures of neoliberal urban agendas” (Joshi & Wende 2022, 7). I consider access to social capital and financial support as factors that influence successful construction of new CSA and AFN sites. For instance, procuring labor and materials for building fences, box plots, and water infrastructure are expensive and time-consuming projects. In the past, I recall conversations about Veronica’s cost-saving strategies while serving on the 2016 Dean Road planning committee. She and other garden volunteers manually dug out the irrigation for around 30 plots. She was a member of the garden’s design committee, overseeing some of the garden’s initial construction and planning alongside Donald and Josie. According to her, most of the building materials were donated by the St. Matthew’s Episcopal Church.

My findings echo the existing scholarship that examines motivational and relational challenges (Diaz et al. 2018). Like Diaz et al. (2018, 201), findings indicate unmotivated community garden members, time constraints, and inadequate leadership that adversely impacts garden viability. I did not initially anticipate access issues pertaining to social relationships to be so widely represented within my study sample. Prior to the outset of my fieldwork, my limited
interactions with CSA and AFN organizers did not reveal the conflicts and tensions that often underlay community gardening initiatives.

Based on my collected data, I suggest the varied organizational approaches of different community organizers influence participation and members’ well-being a great deal more than financial challenges. For example, participants such as Jay and Prairie identify challenges stemming from an absence of formal leadership among garden organizers. Notably, the Dean Road Community Garden does not have mandatory community workdays, nor does it have the volunteer sheet that other garden operations provide. Instead, members weed and mow walkways and surrounding perimeters on their own, leading to inconsistent results. Prairie notes that it took several weeks to rehabilitate the plot that he transferred after being unable to commit to his plot rental, a circumstance that could be mitigated with better management which would, in turn, foster and support new members.

Prairie’s frustration with the Dean Road organizers demonstrates the ways garden leadership’s inconsistent communication may impact individual well-being. There is no formal process to facilitate plot rental beyond contacting organizers on the local garden’s Facebook group. The reply times are erratic after Donald’s departure from his role as an organizer. Josie reflects on Donald’s exit from the Dean Road site, “we kind of lost our leadership there, you know.”

Also, Jay’s experiences of conflict with one of the Dean Road community organizers related to the fact the operation lacks formal rules about what plants can be grown there. Jay eventually left the Dean Road Community Garden to focus on her home gardening projects where she can plant and cultivate as she chooses.
Establishing strong individual and community relationships is one of the biggest organizational challenges to garden viability. Vic, Paula, and Daisy report that generating and maintaining community consensus is highly problematic. Both Paula and Daisy broach the difficulties of launching community gardens and how member responsibility delegation can be accomplished. Daisy indicates the ways these factors, like unanimous consensus and grassroots recruitment, adversely affect member participation and garden maintenance prior to and during the COVID-19 pandemic. Paula substantiates Daisy’s concerns and mentions the various challenges in securing formal permits and establishing public agreement and strong community leadership to guide CSAs. Municipal officials provide some organizational tools such as local ordinances and site protocols, which also hold members and organizers accountable for compliance.

Vic similarly expands on the significance of social networks in expediting initial garden construction, explaining that the Lake Eola Heights Community Garden construction required “people with [social] connections,” approval from city officials, church leaders where the garden is located, and the neighborhood residents living in the historic district. Purchasing lumber, compost, and soil involves grant support. Dedicated grant writers/organizers secure city permits and funding for Lake Eola Heights gardeners. Conversely, operations like Dean Road Community Garden’s wield less social and monetary capital, lacking the same type of resources enjoyed by relatively affluent gardens.

Aligning with recent urban development research (Joshi & Wende 2022, 8), participants like Daisy, Amy, and Josie value gardens for providing social resilience, “positive social impacts” and temporary escape from an array of pandemic-related and personal stressors. Joshi
and Wende (2022, 7-8) also highlight how CSA organizers’ efforts and dedication are critical factors contributing to successful operation of garden sites during COVID-19. Dean Road leaders encountered difficulties instituting community workdays and other volunteer-based efforts both before and after pandemic-era lockdown. Garden leadership faces unique obstacles, but individual field sites subjectively negotiate how COVID-19 issues are approached. The continued efforts of Festival Park and Lake Eola Heights organizers prove fruitful in maintaining the social events and community workdays.

Amy speaks of place attachment or a deeper emotional connection to her community garden. For her, the garden is more than just a plot of land as it symbolizes hope when tragedy arises, providing both familiarity and comfort during a period of deep sadness. Amy’s experiences also align with other researchers’ (Chan, Pennisi, and Francis 2016, 848) framing of “biocultural refugia” or the ways green public spaces bolster resilience to negative impacts of urban life (see Chapter 5). Green public spaces facilitate the creation of biocultural refugia (Chan, Pennisi, and Francis 2016, 843). That is, places that not only shelter relict species but also contain a diversity of human knowledge, experiences, values, and skills.

Finding the ideal garden is often a profoundly subjective experience. Some general guidelines to consider when selecting a community site or even starting a home garden are as follows. First, picking AFN and CSA sites that are affordable and located close to your home or work is recommended. All too often, community garden newcomers underestimate the amount of time and resources it takes to set up and care for a box plot. The labor and time can easily become overwhelming if the distance to a CSA site is too far away. Second, it is imperative for home gardeners to check with their respective rental companies, landlords, and/or HOAs to see if
starting a garden is permissible. If approved, a backyard or patio space that is conducive to plant growth without too much shade is essential. Third, it is important to choose a CSA location that fosters feelings of safety, happiness, and acceptance. Interacting with other members, swapping advice, and sharing stories remain rewarding aspects of CSA.
CHAPTER FOUR: FROM RESISTANCE TO SURVIVAL: GARDENS AS LOCAL FOOD SECURITY RESOURCES

Overview: Transforming Gardens

My findings suggest that access to green public spaces increases participants’ desire to consume locally produced fruits, herbs, and vegetables. Gardeners’ pragmatic responses to anticipated COVID-19 supply chain issues and undersupply of preferred foods represents urban household survival strategies (Schismenos et al. 2021, 43). Institutional failures in government and healthcare to control rates of viral transmission suggest a type of structural violence. This type of violence can take many forms such as prevalence of infectious disease, chronic hunger/food insecurity, and sexual assault (Holmes & Ramirez-Lopez 2023).

Gardening also demonstrates everyday opposition to neoliberalism’s unequal food access (Barthel, Parker, and Ernstson 2015; Tiisala 2021, 23-24). Coexisting alongside the sentiments of anti-capitalism of my research participants are feelings of ownership over land allotments. The paradoxical manner in which my participants resist capitalist ideologies but also hold neoliberal ideas about personal space cannot be ignored.

As my 2020 fieldwork progressed, COVID-19 laid bare the fragility of the global and U.S. food systems and limitations wrought by intensive agricultural production. It marks a time when eggs, toilet paper, and milk are scarce, and people avoid public spaces. Many households wipe down their groceries with disinfectants or pay for grocery delivery services like Instacart and UberEATs. I witnessed local Metro-Orlando gardens undergo a conceptual metamorphosis during the outset of the pandemic.
In many ways, the cultural and economic changes caused by COVID-19 transform my CSA sites and AFNs from resistance and recreation gardens (Chan, Pennisi, and Francis 2016; Hite et al. 2017; McClintock 2014; Shinew, Glover, and Parry 2004) to those more aligned with crisis gardens (Barthel, Parker, and Ernstson 2015; Mullins et al. 2021). Resistance gardening typically emphasizes counter-hegemonic land management strategies to delink from modern capitalist food regimes (Hite et al. 2017; Jacob 2010; O’Sullivan 2015; McClintock 2014) whereas crisis gardens emerge in response to disasters and/or periods of duress (Mullins et al. 2021, 3). I find that community gardens exhibit a mosaic of these qualities at various points during the fieldwork period (2018-2022). Food ethnographers (Abiral & Atalan-Helicke 2021; Reese 2019) discuss informal networks and AFNs as essential when traditional markets and distribution networks fail marginalized communities and neighborhoods.

Some of my interviewees suggest that gardening gives them an increased sense of agency in how they negotiate an increasingly globalized food system where food scares (Armelagos 2010) and unsustainable agricultural practices and resource mismanagement are rampant (McMichael et al. 2007). I associate the above perceptions as aligning with modern counter-hegemonic food movements (Hendrikx et al. 2017). Yet, my participants’ utilization of gardens became reshaped during the first few months of COVID-19. I observe CSA members growing both commodity and non-commodity crops for household consumption and engaging in ethical eco-management of green public spaces. I view pandemic-era gardening (2020-2022) as a survival tactic to offset pandemic-related supply disruptions. In this sense, I propose that my participants’ diversification of food production strategies and community-led gardening initiatives are emblematic of informal mechanisms for urban household survival. Consequently,
consumption of non-commercial crops produced in gardens may diversify participants’ meal compositions, their ecological knowledge, and feelings of personal satisfaction and well-being.

As Baaz et al. (2016, 142) suggest, resistance is a response to power and is “an act performed by someone upholding a subaltern position.” I contend that many of my participants began to embody aspects of a subaltern positionality since most are impacted by the hardships wrought by the pandemic and those like Josie and Dana who operate on a fixed income or those such as Jill who lack a private vehicle and financial security, and those like Jay who maintain a single-parent household on part-time wages. However, I recognize that the structural violence experienced by more than half of my participants is short-term compared to the enduring systemic, racial, and sociocultural constraints withstood by low-income and minority neighborhoods discussed by Reese (2018, 2019) and Usher (2015).

The majority of my study’s sample identifies as White and their experiences with food insecurity differs from impoverished Black communities confronting historical divestment (Hite et al. 2017; Reese 2018; Usher 2015). These participants “are able to climb into more protective conditions” when compared to other minority groups (Blacksher & Valles, S52). White privilege insulates many fair-skinned individuals of European descent from the material and social oppressions experienced by historically marginalized communities (McIntosh 1989).

Notwithstanding, it is significant to analyze how different groups of people respond to and discursively negotiate COVID-19-era structural violence, food access, and food insecurity.

Furthermore, “repertoires of resistance” are embodied by community-centered food production that are distinct from traditional intensive farming practices (Baaz et al. 2016, 145). I operationalize resistance as community-led gardening activities that promote local cultivation
and distribution of favored crops and other desirable foodstuffs through participant-initiated supply networks generated prior to the 2020 pandemic. I operationalize survival as outliving social and materials conditions resulting from structural violence through local food production strategies during COVID-19. Throughout my fieldwork, all my participants report donating surplus garden output with no expectation that anyone returns the favor. The point was to selflessly give what one could when the opportunity arose.

Local gardens offer participants both predictability and opportunities to consume fresh foods cheaply in urban and suburban environments (Chan, Pennisi, and Francis 2016, 851-52). I also suggest that access to AFNs such as gardens assists my research participants in withstanding economic stressors, surviving pandemic-related stressors, and negotiating urban foodscapes that are at times limited in healthy and fresh options. This supports my main argument for this chapter, in which I demonstrate that some of these attitudes, behaviors, and informal systems underpin aspects of anti-capitalist praxis and argue that my participants are intentionally exercising agency in their management of local food systems to endure pandemic-era structural violence (Holmes & Ramirez-Lopez 2023). I contend that mechanisms of resistance transform into informal strategies for survival as material conditions worsen throughout 2020 and 2021. In this chapter, I focus on four types/forms of resistance and survival strategies demonstrated by my participants both prior to and during COVID-19: delinking from industrial food regimes, choosing environmentally friendly options, prioritizing health and nutrition through whole foods rather than industrial products, and rejecting capitalist logics of commodification through free exchange of advice, plants, and gardening supplies.
Resisting Hunger Before and During the Era of COVID-19

Combating Student Food Insecurity

As I mention in Chapter 3, the Arboretum is involved with community outreach programs and combating student food insecurity. The Arboretum organizer Green Turtle sees herself as being part of a “food justice” movement, particularly in addressing student food insecurity, noting that volunteers really “depend on that food [grown in the garden] a lot.” Prior to and during COVID-19, Knights Pantry and the Arboretum garden embody repertoires of resistance by providing formally organized community-centered food security distinct from the highly commodified industrial food system (Baaz et al. 2016). Green Turtle explains that the garden remains beneficial and accessible for students despite funding concerns, pandemic-related staffing issues, and other organizational hurdles. According to *UCF News* (2021), “the [Knights] pantry never closed for service during the pandemic, even when the university went remote. From March 2020 to July 2021, the pantry distributed nearly 50,000 pounds of food to over more than 6,500 student visits.” Clearly, such demand demonstrates a dire need for the services provided by the Arboretum and the Knights Pantry in helping students survive food insecurity both prior to and during the pandemic.

The UCF vegetable garden functions as a “community food security source,” producing and distributing food through a need-based approach (Lawson 2005, 264). Compared to my other field sites, the Arboretum best embodies resistance and the political ideology of anti-capitalism through formal organizational efforts to combat student hunger. I observe a link between student food insecurity and volunteers who receive donations from the Arboretum vegetable garden. Green Turtle confirms that the Knights Pantry accepts Arboretum donations to assist “food
insecure students” like myself who cannot meet nutritional requirements on their own. The student-led organization privileges access to fresh and locally produced foods which is distinct from other Central Florida food pantries I have frequented in the past. Moreover, as someone who has previously utilized their services, I can personally speak to Knights Pantry’s significant contributions in combating student hunger, especially as the cost of student dining services steadily increases year after year.

Jill is one of my participants who volunteered at the Arboretum back in 2019. She remembers taking home surplus fruits and vegetables after her volunteer shifts at the site were over. Reliance on the Arboretum vegetable garden is partly due to her financial insecurity resulting from her migration from Puerto Rico to Florida after Hurricane Maria. Consequently, UCF students like Jill have access to healthier options like fresh fruits and vegetables that may promote resistance to eating premade convenience foods typical of on-campus dining. Although UCF’s on-campus dining eateries feature some healthy options such as apples, bananas, melons, oranges, leafy greens, and other vegetables, they do not always have fruits stocked and most cooked vegetable fare is slathered in excessive amounts of oil, salt, and pepper. In my experience as a master’s and doctoral student, UCF’s food prices have steadily increased over the past five years.

Like Green Turtle, Aaron views the Arboretum as a crucial resource in providing food insecure students access to healthy, fresh, and nutritious foods both before and during the pandemic. According to him, new undergraduates are particularly vulnerable to this problem because of cost, access, and transportation issues. Aaron notes that on-campus students often lack cars or other forms of reliable transportation. Expensive parking passes can exacerbate
matters. Unlike other universities, UCF requires all faculty, students, and staff to pay for parking, now greatly reduced in summer 2023. These passes are not included in the cost of tuition. For those commuters that purchase daily permits, less expensive morning and afternoon passes remain unavailable.

Gardens Providing Familiar, Organic, and Healthy Foods
Like Aaron and Green Turtle, other research participants describe the benefits of local gardens. Zee and Josie use some of the vegetables they produce from their Dean Road plots to assemble cuisine from their countries of origin. Their experiences recreating tastes of home also highlight the ways gardening can provide opposition to Anglo-Western dietary trends that may contain high amounts of processed foods and refined sugars. Participants such as Amy from Lake Eola Heights (see Figure 19), and Marie and Peter from Festival Park (see Figure 22) use their gardens to grow favored crops and disseminate gardening knowledge to their loved ones.
Josie mostly grows “vegetables for consumption and sharing” with her husband Simon and friends at her Dean Road plot, while her home garden is dedicated to various sorts of fruits, melons, and gourds. Josie also uses her smaller backyard garden as a nursery for less mature
plants. It is common for gardeners to grow from seed and start plants at home and later transport them to their community garden. She prefers to cultivate “squashes, and I grow bitter melon. I grow the usual—you know—cucumbers, tomatoes, peppers, and cauliflower.” She mostly grows South Asian vegetables in her community garden and fruits in her backyard garden because Florida’s climate is similar to her home country India, noting that the “Indian vegetables grow well in the heat and humidity of Central Florida.” The tropical climate and selected plant varieties allow her to grow and consume vegetables like those in her country of origin (see Figure 20).
Like Josie, Zee also grows vegetables from his home country including Zimbabwean collard, cabbage, and mustard greens. He often incorporates them into homemade chicken and pork curries. Zee states that his interest in community gardens stems from growing up on a small farm where growing his own fruits and vegetables was the norm. While in the field, I typically

Figure 20: Photograph of Josie's Dean Road Garden Plots
chat with Zee about gardening, currents events, and cuisine. He frequently visits the garden to water, weed, and turn the soil. Upon later reflection, I realize that our regular interactions offered constancy in uncertain times. Our casual talks and advice swapping are things that I look forward to, comforted by seeing a familiar face while everything seems in flux.

Over several months, Zee and I discuss his family’s traditional farming techniques and favorite dishes. Based on these conversations, I come to see Zee’s practices and attitudes as emblematic of Bourdieu’s practice theory, more specifically habitus (Bourdieu et al. 1990), as the garden offers Zee a way to recreate the values enculturated by his Zimbabwean upbringing. Habitus and culture influence our thoughts, attitudes, and predispositions. Bourdieu’s theory presupposes that humans construct and are constructed by the world around them. A practice-based approach is consistent with current scholarship regarding epistemological understandings of resistance (Tiisala 2021, 23-25).

Through practice, Zee exhibits agency by way of food production strategies learned during his formative years in Zimbabwe which I view as consistent with Bourdieu’s concept of habitus. When he recreates aspects of his home country and grows crops using techniques that he is most familiar with, I interpret this as an unintended act of resistance to dominant Western cultural values and delinking from capitalism on a microlevel scale. I also view Zee’s current gardening experiences and interactions with other members as satisfying his emotional needs and my participant feeling a greater sense of well-being.

Later that month, I give Zee some kale and pepper seeds. He asks, “what is your secret to better soil?” I suggest growing peanuts, collards, and okra. He says that my okra “looks good” and he may eventually plant some. Such informal exchanges are useful, especially for novice
gardeners or those new to Central Florida. Over subsequent months, I offer him vegetables and seasonal fruit including blackberries. With surplus produce, we sometimes exchange fruits and vegetables, an efficient way to avoid food waste.

Figure 21: Photograph of Zee’s Plot at Dean Road Community Garden
Additionally, some gardeners discover opportunities to expand both their palate and horticultural horizons. As I mentioned above, Zee samples new fruit and vegetable varieties introduced by other members. In addition to the okra, I introduce Zee to white peanut and tell him to try San Marzano tomatoes during the next season. I elaborate that okra is not only nutritious, but also heat-resistant. Moreover, this warm weather crop typically produces after two months, a relatively short amount of time until fruiting. On a different occasion, another Dean Road gardener provides me with detailed advice on how to use netting to successfully grow vining plants in Central Florida’s climate. A couple weeks later, I relay this information to Zee and explain that mesh nets affixed to posts assist vegetables such as cucumbers and squash with fruiting and support their ascent.

Paula primarily gardens for household consumption, saying that she is a “firm believer in xeriscaping.” Her heat and drought-tolerant plants can better withstand Florida’s unpredictable weather. Xeriscaping is an approach that centralizes endemic biodiversity, emphasizing minimal inputs such as land, water, and labor. Paula’s urban agriculture and urban chicken advocacy spans her 20-year career as a city commissioner. She raises backyard poultry, converting chicken waste into natural fertilizer. Homemade fertilizers like chicken manure that are rich in nitrogen and phosphorous offer a convenient way to upcycle otherwise discarded substances and reduce reliance on storebought varieties. Before COVID-19, she utilized her chickens as a sustainable and cost-saving measure to offset increasing egg prices. At the start of the pandemic when supermarkets seemed unsafe, she donated eggs to neighbors and fellow garden members. The surplus of eggs from three chickens was far too numerous feasibly eat on her own. I suspect backyard chicken coops to gain popularity as food costs rise (USDA 2022) and supply chain
issues become more prevalent due to climate change, drought, and increasing levels of atmospheric carbon dioxide (Ledvinka et al. 2022).

My ethnographic findings suggest some gardens function as an everyday form of resistance both prior to and during the pandemic even as participants are bombarded with American dietary trends and negotiate relocation to new environments. My findings also suggest gardening is a survival strategy to shore up urban household food production and offset supply line shortages caused by COVID-19 disruptions. Paula discusses the value of CSA in supplementing household groceries, community-building, and upcycling animal waste. Zee and Josie also reflect on how the garden helps them recreate tastes of home, maintain their cultural identities, providing familiarity and increasing feelings of contentment.
In October 2020, I encountered Marie and her husband Peter at the Festival Park Community Garden. She sees me taking photographs and asks if I would like to come over while he waters two garden plots. Marie appears to be in her late 50s or early 60s. We mostly talk about the Festival Park Garden and the types of plant varieties she enjoys growing.
Marie and Peter currently maintain two well-kept plots. Their side-by-side beds are close to the front fence, near the communal herb garden. Marie’s garden is abundant with vegetables and herbs including leafy greens, peppers, tomatoes, collard greens, and basil. They grow an incredible diversity of fruits and vegetables in a relatively small area. Peter’s features a large trellis to maximize space for vining vegetables and fruits. He grows Boston lettuce, collard greens, romaine lettuce, green onion, and spearmint. She says both garden plots supplement her and Peter’s weekly groceries.
Marie and Peter are longtime garden enthusiasts. Marie mentions that while growing up in Yugoslavia (now Serbia and Montenegro) her experiences with food scarcity meant that gardening was a necessity and not a “luxury good” (Bellemare & Dusoroth 2020, 432) as she grew vegetables for subsistence. She gets excited when I mention growing okra, exclaiming “we
grew those back home [Yugoslavia]. You can make them last longer by drying them [okra] out and saving them. They will rehydrate when placed in a stew.” I immediately jot down her suggestion. I relish these moments where recipes and advice are freely exchanged. Marie tells me that her grandchildren “like to garden” and occasionally accompany her to Festival Park. She believes that children should acquire gardening knowledge and skills from an early age. Amy similarly utilizes her Lake Eola Heights and residential garden produce for vegetarian dinners and other household consumption, noting that she is “mostly successful with kale, mint, cabbage, (and) collards.” Like Marie, Amy’s husband and two small children often accompany her to the community garden.

Marie’s upbringing influences her current attitudes and predispositions towards food production. The Soviet Union oversaw the creation of kitchen gardens between 1941 and 1945 to bolster food supplies during World War II (Cardona & Markwick 2019, 47-8). These gardens eventually “helped millions survive the collapse of the Soviet Union in the 1990s” (Cardona & Markwick 2019, 48). Like Zee, Marie’s formative experiences and the ways they impact her current gardening activities align with practice theory and habitus (Bourdieu et al. 1990). Marie grows diverse plant varieties that are both familiar and nutritious. She says that her garden harvests supplement household groceries as a cost saving measure both prior to and during COVID-19. Whether they realize it or not, Marie and Peter regularly participate in environmental management and other practices that operate in resistance to capitalist and dominant industrial food systems.

In November 2020, I met Elle at the Dean Road Garden for the first time. Besides me, she has only met Josie’s husband Simon. She says that I am the “first person” she has seen
working in the garden. We briefly observe each other’s plots. I tell Elle her garden looks lush and productive (see Figure 24). Her row planting style and mulch application help with nutrient uptake, topsoil retention, and promote carbon sequestration (Lal 2004). Elle mostly grows all sorts of edible plant varieties like tomatoes, peppers, lettuce, and greens that other group members typically take home to their family and friends. Later on, I met Elle’s son who occasionally donates surplus seeds and cuttings to other Dean Road Garden members. I notice that they do not use chemical pesticides or insecticides in their plot. Her mustard is a great cover crop to plant during Florida’s fall season since it has some resistance to frost and colder temperatures.

Through my interactions with Amy, Elle, and Marie, I also highlight the ways gender dynamics permeate gardening roles, relationships, and activities. Like Niñez (1984), I encounter predominately home gardeners who identify as women. As with Parry, Glover, and Shinew (2005, 188), I observe some of my participants both resisting and reproducing traditional gender roles through the division of labor and roles at my field sites. Based on my field observations and informal conversations, community gardeners who are women are more likely to share gardening knowledge and skills with other family members and younger relatives. Amy and Marie reflect on the importance of teaching their children and grandchildren about the health and nutritional benefits of local gardening, a tendency I did not observe as frequently among the men included in my study.

For example, Zee’s teenage daughter does not accompany him to the Dean Road site, and he does not mention sharing his gardening expertise or skills with her. The desire to educate youths appears more prevalent among the women in my sample. My garden participants who are
men usually volunteer to mow the grass surrounding each CSA site which I view as a reproduction of men’s traditional gender roles. I witnessed women gardeners participate in labor intensive activities such as tilling, weeding, and shoveling compost which I interpret as a microlevel resistance to traditional gender roles that frame non-men as weak and frail (Bilston 2008; Parry, Glover, and Shinew 2005). My CSA participants are generally friendly and polite to one another. I note a few instances where participants project white privilege (McIntosh 1989).

While I did not collect data on the impact of race and ethnicity on food sovereignty, I work alongside several interlocutors of different racial and socioeconomic backgrounds. We share seeds, advice, resources, and stories. The perspectives of Black (Leticia and Zee), South Asian (Josie and Simon), and Latino(a) gardeners (Aaron, Edward, Elle, Jay, Jill, Veronica, Suzette, and Michelle) inform my analysis of Metro-Orlando gardens since they elucidate the ways AFNs and CSA sites function as racially integrated spaces amid the pandemic. My findings confirm prior recreational health research (Shinew, Glover, and Parry 2004, 336) showing that urban community gardens may encourage positive interracial relationships through gardening activities that promote equitable engagement and a sense of belonging in shared public spaces.
Public health researchers (Saelens et al. 2012, e63) consider the impacts of obesogenic environments that exacerbate consumption of unhealthy convenience foods such as prepackaged entrees and snack items containing copious quantities of sugar, fat, and salt. One preventative medicine study (Saelens et al. 2012, e63-64) suggests that neighborhoods featuring higher
densities of fast-food eateries and fewer supermarkets and public parks feature a higher prevalence of obesity among adults and children.

To better understand the interplay among CSA participation, place-making, and consumption patterns, I examine meal composition among both community and backyard gardeners, questioning each interviewee about what they typically eat for breakfast, lunch, dinner, and snacks (see Table 5). I self-select local gardeners who consent to participate in either recorded or unrecorded interviews to address daily meal compositions. I also record whether my participants incorporate locally produced organic fresh fruits and vegetables into their diets during the pandemic. I designate meal compositions as healthy or unhealthy and note if meals are eaten at consistent times throughout the day. More specifically, meals are considered unhealthy if they contain excessive amounts of sugar, fat, and ultra-processed animal products (Coveney 2000; Gram & Grønhøj 2015). Consistent with previous studies (Alakaam et al. 2015; Gram & Grønhøj 2015), meals are considered healthy if they contain adequate servings of fruits, vegetables, and lean animal protein.
Table 5: Backyard and Community Gardener’s Meal Compositions

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Structured or Unstructured Meal Composition</th>
<th>Healthy or Unhealthy Meal Composition</th>
<th>Self-reported Preparation of Ethnic National Cuisines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie</td>
<td>Man</td>
<td>Unstructured</td>
<td>Unhealthy</td>
<td>No</td>
</tr>
<tr>
<td>Veronica</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
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</tr>
<tr>
<td>Jill</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
<td>Yes</td>
</tr>
<tr>
<td>Amy</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
<td>No</td>
</tr>
<tr>
<td>Vic</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
<td>No</td>
</tr>
<tr>
<td>Beth</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
<td>No</td>
</tr>
<tr>
<td>Paula</td>
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<td>Structured</td>
<td>Healthy</td>
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</tr>
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<td>Daisy</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
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</tr>
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<td>Healthy</td>
<td>Yes</td>
</tr>
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<td>Structured</td>
<td>Healthy</td>
<td>Yes</td>
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<tr>
<td>Sarah</td>
<td>Woman</td>
<td>Structured</td>
<td>Healthy</td>
<td>No</td>
</tr>
</tbody>
</table>

While some respondents go into rich detail about their typical meals, others have difficulty remembering what they ate the day before. I include over a dozen respondent perspectives across my five field sites. I select my sample based on participant availability and willingness to partake in my study. Although I rely on a self-selected sample and self-reported data that limits the generalizability of my findings, the interviews provide insight into the dietary
habits of my study participants and whether they regularly integrate their garden products into daily meals and snacks.

Dean Road gardener Prairie’s breakfast on the weekends regularly consists of eggs, bacon, and pancakes. His lunch typically includes ready to eat meals, convenience cuisines, and fast foods. He does not bring lunch to work and eats at places close to his job. His dinner consists of meals from fast foods joints, frozen pizza, or the occasional pasta dish topped with an entire bag of pizza rolls. He frequently snacks on pre-cooked pasta. He says, “I don’t have energy to prepare meals after working all day.” He regularly skips meals and rarely eats whole grains, fruits and vegetables, and other high-fiber foods. Rather, he indicates that regularly growing his own food is a minor concern. Prairie appears to find the outdoor, aesthetic, and recreational aspects of gardening more rewarding than incorporating homegrown fruits and vegetables into his diet.

Unlike Prairie, Dean Road gardener Veronica indicates her preference for various ethnic foods, structured meals, and healthier plant-based alternatives to American-style convenience foods. She says, “I love cooking Asian food [for lunch and dinner]. Like pad Thai, or stir fry, and Italian dishes. A lot of my weekly dishes prepared at home would include some chicken and plant-based meals. My international travels have influenced my cooking and what I eat.” She also regularly adds garden vegetables such as bell peppers, tomatoes, bok choy, carrots, bunching onions, broccoli, and kale to her homecooked meals. Veronica’s experiences gardening and traveling abroad inspired her to modify her dietary habitus (Bourdieu et al. 1990) and learn “more about healthy alternatives” distinct from Anglo-Western consumption patterns.
Other participants like Jill also report eating more structured and nutritious meals. As a vegetarian, she avoids poultry, beef, pork, and fish, rarely skipping meals, eating at consistent times of day, and avoiding snacks high in sugar and fats. Her breakfast normally consists of eggs, toast, and oatmeal. Lunch is generally small meals featuring peanut butter, apples, and protein shakes. Garbanzo and rice bowls, pasta dishes with vegetables and starches like potatoes and sweet potatoes are her typical dinner choices. She tends to avoid products containing processed meat alternatives and moderates her intake of complex carbohydrates. Jill’s balanced vegetarian diet is indicative of focused codes addressing a healthy and structured dietary habitus (Bourdieu et al. 1990). Jill also adds that she finds gardening generally to be very “therapeutic” and good for her mental health and general sense of well-being.

Like Jill, Amy describes preparing nutritious meals and eating at structured intervals. She primarily cooks at home and eats a mostly plant-based diet. For breakfast, Amy eats casseroles, fresh greens, eggs, and stuffed sweet potatoes, stating “... over the last year we have switched to a mainly vegetarian diet.” According to her, “… lunch daily is usually mainly from the garden.” That is, Amy typically eats a salad with “greens, garlic chives, nasturtium, radishes, but sometimes a green papaya salad, virgin mint mojitos, lots of kale chips, sauteed greens, collards, and cabbage,” and she adds kale to smoothies, soups, and other dishes. Amy’s home garden and Lake Eola Heights Community Garden plot supplement her household groceries and reinforce a structured dietary habitus that includes fresh fruits and vegetables (Bourdieu et al. 1990).

Vic maintains structured meal compositions and minimizes snacking on processed and convenience foods. For breakfast, she eats oatmeal, pecans, and fruit. Lunch is a fruit smoothie or Greek yogurt with granola. For dinner, Vic usually eats foods like roasted cauliflower,
broccoli, and vegetable casseroles from items grown in the completely organic Lake Eola Heights Community Garden. Her dinner is typically served at the same time each day. Additionally, she eats a small healthy snack in the evening. While regularly consuming casseroles may exceed Vic’s recommended salt and fat intake, Vic embodies a mostly structured dietary habitus since she consistently eats at specific times of the day and typically chooses meal compositions containing fresh fruits and vegetables, moderate amounts of fats, and mostly devoid of processed foods.

Two of my research participants identify as vegans. While vegan and vegetarian diets are traditionally perceived as healthy, meat alternatives and other vegan convenience foods often contain “ultra-processed” ingredients and high amounts of sodium (Gallagher, Hanley, and Lane 2022, 1317). Ultra-processed foods feature food additives, preservatives, and often feature multiple ingredients (Gallagher, Hanley, and Lane 2022). Despite their widespread availability of these items (Gallagher, Hanley, and Lane 2022), my vegan and vegetarian participants still make efforts to eat balanced diets featuring fresh fruits and vegetables and infrequently consume ultra-processed vegan snack foods.

Like Amy and Jill, Beth prefers to maintain a healthy and structured dietary habitus (Bourdieu et al. 1990). Beth cultivates one garden at Lake Eola Heights, another at Festival Park, and one in her backyard. As with my other community garden sites, Festival Park prohibits the use of inorganic pesticides, fungicides, and insecticides. She reports eating meals at consistent times each day. Although she does not typically eat a large breakfast, she prepares a substantial lunch. Lunch consists of a vegan noodle bowl, rice and beans, and all sorts of vegetables grown in her home and community garden plots. For dinner, Beth likes to munch on falafel wraps,
lentils, salads, and several types of pasta. She admits that she “used to eat out a lot” and regularly consumes convenience cuisines high in sodium and fat, noting that “we were Rice-a-Roni people!” However, since adopting a healthier lifestyle with more informed food choices, Beth has modified her meal compositions to include more homecooked meals that feature more fresh vegetables, tubers, and herbs. The convenient proximity of her gardens allows Beth and her husband to regularly integrate garden produce in their cooking and meal preparation.

Paula also indicates her preference for healthy, nutritious, and locally sourced foods. For breakfast, Paula typically eats fresh bread and eggs that she collects from her three hens. Consistent egg production over the years eliminates the need for her to purchase cartons at the supermarket. For lunch, she consumes fresh fruits from her home garden and a purchased premade wrap or sandwich. Her dinner consists of protein and vegetables. While Paula usually relies on store-bought meat and vegetables from a nearby grocery store, she hopes to source more of her food from community gardens and local food producers.

Like Paula, Daisy eats a primarily structured diet that consistently features healthy meal choices. She reports that she eats the “same thing” for breakfast every morning, a two-egg vegetable omelet. For lunch, Daisy likes to eat salad greens that she harvests from her organic plot but indicates that she is starting to shift to mostly fresh fruits and vegetables for her midday meal. Daisy sustains her balanced diet through her biodiverse garden that features quite the selection of edible plants. As for dinner, she enjoys eating spinach and other vegetables, fish, and a small poultry serving. Daisy also describes herself as more a “pescatarian” than a vegetarian or vegan. Pescatarians typically consume fish and refrain from eating other types of meat. My observations are consistent with codes relating to structured dietary habitus as Daisy limits the
amount of high fat and calorie dense foods characteristic of contemporary American diets that feature high amounts of sugar, processed ingredients, and sodium (Alakaam et al. 2015).

Differing from Daisy, Zee enjoys eating dishes featuring more varied animal proteins such as chicken, beef, and pork. He often travels for work and to visit relatives living outside the U.S. Consequently, Zee sometimes negotiates unfamiliar foodscapes both domestically and abroad. He mentions enjoying Caribbean foods as they contain familiar ingredients and are similarly prepared to those in his country of origin. Caribbean foods are typically high in complex carbohydrates and sodium (Sinha & McIntosh 1992, 3-4) which can contribute to an unhealthy dietary habitus (Bourdieu et al. 1990).

Zee is proud of his African heritage. He enjoys Zimbabwe’s national staples such as pork and chicken curries with green vegetables from the community garden, pounded rice or potatoes. On several occasions, I observe Zee harvesting mustard and collard greens. He adds them to stews and curry dishes. He likes to eat a South African snack popular in Zimbabwe called biltong, a type of vinegar-soaked dried meat. In 2023, a quick web search reveals that biltong is low-fat and protein-rich but contains high quantities of sodium and should be eaten in moderation.

Zee also reports eating at specific times of the day. For example, he eats a midday lunch and dinner in the evenings, and occasionally he snacks on jerky or boiled peanuts in between mealtimes. Despite favoring some unhealthy ethnic cuisines, I find that Zee’s meal compositions and his preference for Zimbabwe’s national cuisines recreate elements of his home country and continue to evoke positive emotional responses and reinforce feelings of personal satisfaction.
Preference for national dishes is not exclusive to Zee. Josie also recreates the cuisine of her home country of India by growing South Asian vegetable varieties at the Dean Road location. During our 2021 recorded interview, she explains that she usually eats grains, cereals, oatmeal, and bread for breakfast. Lunch consists of quinoa and sautéed vegetables that she sources from the garden. She also grows European and American domesticates such as cauliflower and broccoli. Dinner features Indian dishes like curries, vegetarian soups, and stews. Her dinner consists of “lentil dahl and then some kind of beans, sautéed with something, like another type of green. We [Indians] eat a lot of greens so peas or pigeon peas, monk beans, all kinds of beans, and then maybe a salad on the side. It’s, I mean the Indian palate it is so tremendous.” The garden facilitates Josie’s access to healthy, familiar, and fresh foods which she adds to her family’s home-cooked meals.

Backyard Gardener Meal Compositions

Other participants report consistently eating structured meals. Backyard gardeners like Jay, Dana, and Sarah prefer healthy food options, typically leafy green salads, vegetables, and limited amounts of processed foods. My participants source their ingredients both from local supermarkets and their backyard gardens.

Dana primarily eats a plant-based diet that contains an assortment of fresh fruits, vegetables, and herbs. She avoids most animal protein and prepares homecooked meals. She says:

I am vegan pretty much. Roots and greens and most other vegetables, fresh fruits, seeds (hemp, pumpkin), legumes occasionally…stick some frozen organic spinach from Aldi’s into some hot red lentils just cooked to cool it off. Oatmeal and grated apple and cinnamon. Baked spaghetti squash with a little jarred sauce and baked purple sweet
potatoes are my favorites. Bok choi and tofu.

The prevalence of fresh produce and healthy plant-based proteins indicate Dana’s preference for low-calorie and balanced meals with high nutritional content.

Sarah is an omnivore and occasionally consumes pork, chicken, and beef. She eats at specific times of day and tries to keep a balanced diet; she avoids “frozen and ready to eat food.” She explains, “I would say—that I am able to prepare—honestly, I prepare all of my own meals every day. Recently, for the past, I would say, two months I have been doing more fresh vegetables and fruits, and proteins and meats. I am not a big pork fan. I typically eat chicken, beef or, well, eggs are chicken. [Laughs] Chicken, beef, or dairy.” She also adds herbs produced in her home garden to the meals she prepares at home. Her recent decision to eat more fruits and vegetables suggests Sarah is currently modifying her meals to include healthier options low in sodium, fat, and sugar.

Jay explains that her breakfast usually consists of cereal or potatoes. At lunch, she typically eats “stir-fry, fresh homemade bread, potatoes done in all sorts of ways, cauliflower, and sometimes pizza.” At dinner, Jay prefers lots of vegetables, chicken, riced cauliflower, and occasionally fast food for convenience. She typically avoids beef and does not consume pork products. Despite eating fast foods high in sodium and fat from time to time, she maintains a healthy diet that includes fresh produce from her garden.

In sum, my backyard garden participants’ meal choices reflect their preference for homecooked options with some locally sourced ingredients that are produced in gardens. Compared to the rest of my sample, Prairie is the only participant who fails to maintain a
balanced diet and regular consumption of fresh fruits and vegetables. Most of my participants eat at consistent times and incorporate an array of fruits and vegetables into their everyday meals.

Preferring Balanced Nutrition and Meal Compositions

Food and health discourses typically emphasize good and bad categorizations of various food (Alakaam et al. 2015; Gram & Grønhøj 2015). My research delves deeper into these considerations through examination of my participants’ food choices during COVID-19. For many, familiar foods and shared meals traditionally provide comfort and constancy (Alakaam et al. 2015). However, during lockdown consumption patterns began to change (Bakaloudi et al. 2022). The relationship between CSA, food choice, and public health is intricate and requires further ethnographic investigation.

One study (Bonow & Normark 2018) indicates that gardeners confront heightened expectations about eating better and avoiding convenience foods. Although I use a self-selected sample, participants’ responses inform my findings on food preferences amid COVID-19 and meal compositions that include items produced in gardens which became increasingly important for participants such as Josie, Beth, Daisy, Paula, Zee, Amy, and myself. My interview data suggest that local gardeners intentionally construct meals that feature fresh ingredients, mostly lean animal proteins, and limited amounts of ultra-processed foods and convenience cuisines.

Aside from Prairie, most of my research participants regularly consume fruits and vegetables, limit intake of fast foods, and prepare home cooked dinners. Differing from a recent publication (Bakaloudi et al. 2022) on COVID-19 impacts, my respondents do not report dramatic increases in snacking or overeating. My ethnographic findings correspond with
previous studies (Alaimo at el. 2008; Blair, Giesecke, and Sherman 1991; Okvat & Zautra 2011) which examine positive impacts of local gardens on participants’ diets. Other researchers (Alaimo et al. 2008, 94) find that community gardeners and their household members typically consume more types of fruits and vegetables compared to non-gardening households. Although I exclude non-gardeners in my study, I similarly suggest local gardens are positively associated with healthier eating habits and food choices. Blair, Giesecke, and Sherman’s (1991, 166) findings similarly suggest that community gardening is positively associated with healthier eating habits, satisfaction, and economic opportunity. These studies are significant as they inform my findings on concepts of individual nutrition and pandemic-era meal compositions.

Fifteen participants report on their dietary choices and meal options. Amy, Josie, and Jill report maintaining vegetarian diets while Dana and Beth prefer vegan diets. Compared to others, Amy, Daisy, Josie, and Beth include the greatest amount of garden products in their everyday meal preparation and cooking. They add vegetables and herbs to salads, plant-based casseroles, and other meals. Beth uses yields from her backyard food forest and two garden plots at Lake Eola Heights and Festival Park Community Garden to supplement her vegan diet. My interview data show all six interviewees limit their intake of convenience cuisines, ultra-processed foods, and fast foods.

Other interviewees report they regularly consume animal products, including red meat, poultry, and fish. Daisy, Jay, Sarah, Paula, and Vic prepare some home-cooked meals using items grown in their gardens. Daisy describes herself as a flexible pescatarian whereas Vic and Paula limit their intake of animal proteins to only a couple of times a week. Mealtimes remain consistent for nine out of my 15 study participants.
Differing from other interviewees, Josie and Zee recreate national cuisines from their respective countries of origin. My findings correspond with previous research (Butterfield & Ramírez 2021; Guitart, Pickering, and Byrne 2012; Mejia et al. 2020) that addresses the role of local gardens in the maintenance of traditional food preparation. Josie and Zee grow vegetable varieties consistent with their home countries. Zee prefers to grow collards and cabbages which he associates with his childhood in Zimbabwe. Josie reports growing Indian vegetable varieties that she associates with her Indian upbringing. She is accustomed to Central Florida’s climate zone since she experienced comparable heat, rainfall, and humidity patterns in her country of origin. Josie mostly prefers preparing Indian dishes like lentil dahls and curries while Zee enjoys cooking Zimbabwe’s national cuisines featuring maizemeal/grits in addition to pork, vegetable, and chicken curries.

The ethnographic data yield unexpected results that cause me to confront my own assumptions regarding gardeners’ diets and meal compositions. I expected all the gardeners to utilize their garden outputs to create healthy nutritious meals. However, Prairie’s, Vic’s, and Zee’s interviews do not support my initial hypothesis where I positively correlate member participation and health with garden accessibility. Zee consumes Caribbean dishes that may be high in sodium and fat (Sinha & McIntosh 1992). Vic’s nightly vegetable casseroles may also contain excess quantities of sodium, fat, and processed ingredients. Although Vic and Zee occasionally consume some foods that feature high amounts of salt and/or fat, they report frequently consuming fresh fruits and vegetables at mealtimes.

Prairie represents an outlier in the data set since he primarily consumes ultra-processed items such as fast food, frozen pizza, toaster strudels, and pasta. Prairie’s erratic mealtimes and
generous portions also reflect an unstructured meal composition. He often eats one large meal a day, sometimes an entire frozen pizza or an entire bag of pizza rolls. While this may exceed Prairie’s daily recommended calorie intake, the ultra-processed foods do not offer much in terms of micronutrients and essential vitamins. Prairie says he would like to eat more balanced nutritional meals but often finds himself unable to dedicate the time necessary to prepare dishes with fruits and vegetables. This is a common issue for many full-time workers who are unable to prepare meals in advance. Prairie’s interview data are inconsistent with other dietary studies (Alaimo et al. 2008; Blair, Giesecke, and Sherman 1991; Okvat & Zautra 2011) that correlate balanced nutrition with garden participation. Nevertheless, most of my research participants report incorporating fresh fruits and vegetables into their diet, minimizing consumption of fast foods, and eating at regular times of the day. Unlike the others, Prairie does not report consuming meals at consistent times of day and he frequently eats frozen and processed food items proven to be high in fat, sodium, and food additives (Fischer et al. 2009, 888).

**Harvesting Resistance, Survival, and Anti-capitalist Gardening Praxis**

Central to my research questions are notions that local gardens contribute to individuals’ perceptions regarding food choice and attitudes towards nutrition and maintenance of a structured diet. I elucidate the ways CSA and AFNs facilitate access to organic fruits and vegetables through cultivation of local gardens and individual- and community-level food sharing initiatives.

American diets are less healthy as they feature excess quantities of processed and convenience foods high in sugar, fat, and sodium compared to other industrialized countries such
as Canada and France (Alakaam et al. 2015; Armelagos 2010; Deforche et al. 2015). Orlando’s high density of fast casual and fast-food eateries present an overabundance of unhealthy meal options. I contend that local gardens provide social and ecological spaces where participants are exposed to diverse varieties of fresh fruits and vegetables otherwise too expensive or unavailable at local supermarket chains during the pandemic.

The transference of environmental knowledge from individual gardeners to each other also provides educational opportunities such as when participants discuss the nutritional values of fruits or vegetables or suggest benefits associated with growing new types of crops. Consistent with recent CSA and AFN studies (Petrovic et al. 2019; Reese 2018; Thompson 2018), I view green public spaces like local gardens as embodying both a COVID-19-era survival strategy and aspects of resistance through knowledge sharing and reconceptualization of the built environments as sources of community and household food output.

Sociocultural factors are also significant as they indicate resistance to Anglo-American dietary trends. Studies indicate migrants and other newcomers to the U.S. may resist racial and cultural homogenization through consumption and recreation of national dishes consistent with their country and/or territory of origin (Alakaam et al. 2015; Thompson 2011). Local gardens and the relationships they foster provide a sense of community and act as an educational resource for their members while also acting as an alternative food security measure. Discrimination along lines of class, ethnicity, and race are historically embedded into U.S. food systems and built environments (Reese 2018, 409), but I suggest that gardens may be significant in assisting Black, Indigenous, People of Color (BIPOC) households in navigating specific food contexts while they reside in North America. While in Central Florida, Jill continues her culture’s long tradition of
gardening and participation in localized food production. Home gardening and informal food supply networks are well-documented in her home country/territory Puerto Rico. These gardens provide important staple foods and fresh produce to communities living on the island (Marrero et al. 2022, 555-56). Conversations with Jill reveal that she feels more connected to her family and culture when she volunteers at the Arboretum vegetable garden. Echoing Jill, both Zee and Josie show that gardens offer food and knowledge-sharing opportunities and continue to preserve their distinct sociocultural identities (Reese 2019; Thompson 2011, 4-6) while also functioning as racially integrated spaces that provide a mutual sense of belonging and shared goals (Hite et al. 2017; Shinew, Glover, and Parry 2004).

I consider local gardeners as “managers of the ecosystem,” acting as environmental stewards overseeing community gardens and other green public spaces vital to local flora and fauna (Cribb 2010, 43). My participants actively avoid applications of harmful pesticides and insecticides that may harm beneficial species and diligently work to restore soil health in abandoned or vacant land allotments. CSA sites and AFNs also promote biodiversity in a relatively small space (Chan, Pennisi, and Francis 2016). One box plot alone can house dozens of different plant species. Over my four years of fieldwork, I observe numerous instances of gardeners modifying and managing individual plots and nearby areas to include native varieties and/or companion plants. This is often accomplished by regulating or removing harmful pests, insects, and invasive species. Some participants even replace weeds with hardy barrier plants to prevent regrowth.

CSA and AFN sites provide high-income and low-income participants opportunities to transform unproductive land into generative spaces through the localization of food and
pollinator production, soil health restoration, weed management, and carbon sequestration at microlevel scales (Lal 2004). Ecomanagement also reduces the distance between food producers and consumers. Some of my CSA sites such as Dean Road, Lake Eola Heights, and the Arboretum embody anti-capitalist praxis more firmly than others. However, all my field sites demonstrate threads of anti-capitalism through community-centered land management strategies that democratize food production through formal (Arboretum) and informal (Dean Road, Lake Eola Heights, Lake Davis, and Festival Park) communal exchange networks. In addition to transforming landscapes, gardens undergo a transformation of their own. During COVID-19, my field sites conceptually metamorphose from resistance gardens (Chan, Pennisi, and Francis 2016; Hite et al. 2017; McClintock 2014; Shinew, Glover, and Parry 2004) to crisis gardens (Barthel, Parker, and Ernstson 2015; Mullins et al. 2021).

These sites also reconnect residents to agricultural systems using practical strategies that further efforts to restore food sovereignty in small but meaningful ways (Furness 2015, 2). Growing and/or sharing fruits and vegetables for free and untaxed is a rejection of the laws of value dictated by capitalist logic. Zee, Paula, Daisy, Amy, Beth, and Josie mitigate a few COVID-related supply disruptions by reclaiming and reconceptualizing CSA sites and AFNs, utilizing local gardens to access familiar foods when items are unavailable or difficult to access in local grocery stores and major supermarket chains.
CHAPTER FIVE: GARDENS FOSTERING RESILIENCE THROUGH MUTUAL AID AND SUPPORT NETWORKS

The COVID-19 pandemic continues to disrupt daily routines. In 2020, public health alerts regarding new variants, mortality rates, and widespread outbreaks constantly circulate on popular news outlets. New vaccines are in development but there is little guarantee when the coronavirus will become endemic. With no end in sight, the need for safe outdoor activities and recreation provided by local gardens becomes even more imperative (Mullins et al. 2021).

According to applied economists (Bellemare & Dusoroth 2020, 441), “it appears that the practice of urban agriculture is a luxury good—a good whose consumption increases with income, but at a rate faster than income. Indeed, urban agriculture seems to mainly attract upper-class respondents …” Unlike Bellemare and Dusoroth (2020), I suggest that local gardens attract regular folks, not merely the socioeconomic elites. Anyone can become a gardener. Green public spaces like AFNs and community gardens remain relevant to people of diverse backgrounds, occupations, and affiliations. I use the framework of place attachment to approach the transformational aspects of gardening and green public spaces (Petrovic et al. 2019; Scannell & Gifford 2017). Place attachment is the idea that individuals form strong emotional connections with their lived environments (Petrovic et al. 2019). I contend that local gardens function as sites of knowledge-sharing, and places for members to interact with likeminded individuals who have similar goals rooted in gardening and social interaction.

Participants such as Amy, Josie, Daisy, Jill, Jay, Veronica, and Zee demonstrate that local green public spaces provide refuge from the pressures and worries inherent in urban
environments and everyday life. Escape can take many forms. Gardening activities may offer a
distraction from rising COVID-19 concerns and Orlando’s unyielding urban development.

Josie indicates her anxieties about indoor environments and crowded public spaces. She
says, “it [Dean Road Community Garden] just gives us an opportunity and something to do and
people appreciate what we know … you know it [the garden] has been, this has been a place I go
… we can learn so much from each other, from other people.” Participation in CSA and AFNs
provides more than just food, it supplies temporary sanctuary for those traumatized by the many
challenges wrought by the COVID-19 pandemic. Most research participants report experiencing
escape from daily life, greater comradery, and mutual aid because of CSA and AFN
participation.

Mutual aid in this context includes distribution of garden tools, both food and seed
sharing, and passing on new skills that may impact an individual’s future food access and general
sense of well-being. My findings show that gardening appeals to retirees, university students,
educators, and service industry workers among others. My research participants embrace green
public spaces as refuges from COVID-19 and other everyday stressors, finding emotional
satisfaction from interactions with other gardeners. CSA locations and AFNs generate lasting
friendships and/or create purpose for members encountering depression, isolation, or anxiety.

While some scholars (Chenarides et al. 2016) suggest that local gardens facilitate
resilience strategies to mitigate impacts of urban life, other social scientists (Chan, Pennisi, and
Francis 2016) acknowledge difficulty in measuring and operationalizing resilience. Consistent
with other researchers (Carpenter et al. 2001, 766), I consider the concepts of resistance and
resilience as complementary to one another. I employ Michael Ungar’s (2008, 225)
conceptualization of resilience as an adaptive response to adversity and hardship. Ungar (2008, 225) defines resistance as “both the capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual’s family, community and culture to provide these health resources and experiences in culturally meaningful ways.” Under this framework, I operationalize resilience as participants’ adaptive capacities such as acquiring additional skills; providing mutual aid and support networks; and sharing resources to persist through socioeconomic, environmental, and everyday stressors with maximal expression during COVID-19. These measures that I note during periods of participant observation include gardeners sharing cuttings, tools, and advice as well as exhibition of new skills and gardening techniques like solarization and companion planting.

**Gardens as Self-Care**

Local gardens are emotionally sustaining spaces amid immense change to local everyday life (Corley et al. 2021; Smidl et al. 2017). In keeping with what several participants report about CSA sites and gardening activities as forms of self-care, I view gardeners’ positive emotional associations with gardening and green public spaces in the era of COVID-19 as synonymous with the concepts of place-making (Hite et al. 2017) and place attachment (Petrovic et al. 2019; Scannell & Gifford 2017). This sort of positioning is supported by the perspectives and experiences of participants like Sarah, who not only uses her homegrown herbs for cooking meals but also to satisfy her “emotional needs.” According to Sarah, growing vegetables and fruits offers a sense of control and fulfillment, especially as the pandemic progresses into the
next wave. She says, “I enjoyed the inside gardening more because it is décor—it is a natural decoration—to my house and I just like keeping something alive.” Keeping something alive during a time of so much loss is meaningful in unexpected ways.

Prairie explains that gardening is a “satisfying” experience with considerable emotional “gratification,” especially in helping others establish and maintain their plots. For him, community gardening serves as both a hobby and a purposeful activity, saying it “gives him a reprieve from general life problems.” For Prairie, community and backyard gardening contribute to a “positive experience,” promoting feelings of contentment and self-growth despite some initial challenges contacting organizers and “recovering” an unmaintained plot.

Prairie “feels more adventurous in the community garden” as his lease rental agreement prevents him from modifying the yard at his residence. Ultimately, Prairie sees his gardenwork as a form of “escape” from everyday life, saying that it is like he is finally exposing himself “to the real world.” For Prairie, the garden is emotionally sustaining, providing him with temporary sanctuary from modern living, aligning with a distinct kind of place attachment.

Although self-care practices are largely subjective, my participants report that generosity, bond-making, and fostering a sense of community are among the activities that fulfil self-care needs. Community building can take various forms. Dana describes some of the Dean Road site’s initial volunteer-driven food security efforts, explaining:

… at first, they were going to grow for the homeless or people in need and we had special plots set aside for this… I think people barely had time to do their own plots and keep them up. It was not a true community garden in so far as having some principal areas where food was grown and then shared with all the members. Everyone shared informally just a bit if they had a bumper crop of something, but this was random.
Members still share among themselves even as COVID-19, poor leadership, and communication issues hamper formal food donation efforts at the Dean Road location. Gardeners facilitate informal food sharing through social media posts, communal herb gardens, food donation boxes, word-of-mouth, or signage reading “Eat Me” or “Take Me” posted on plots (see Figure 25). While these informal distribution networks are not unique to gardens, they still function as meaningful sites of place-making and foster community support through strengthening of social ties via gardener workdays and informal support systems that emphasize mutual aid through resource/food sharing and common goals of neighborhood beautification (Hite et al. 2017).

Figure 25: Photograph of Lake Davis Food Donation Box
Gardeners also exhibit varying sentimental attachments to individual plants. Aside from cooking, Sarah enjoys the natural “décor” that her plants provide, viewing them as akin to “having a pet.” She grows various herbs like basil and cilantro, and non-edible plants like snake plants, aloe, and succulents. She cultivates aloe for medicinal purposes to treat sunburns, rashes,
and other skin irritations. She enjoys taking care of her plants since this emotionally fulfilling “hobby” requires minimal effort.

Paula describes her experiences with community gardening as exceedingly positive. Like Zee, she describes a sense of “commonality” and interconnectedness that she feels when surrounded by other gardeners. Both her professional and personal advocacy work closely align with combating food insecurity and malnutrition among cancer survivors and her constituents. For example, Paula oversees several community gardens including Lake Druid, the home base of “Libby’s Legacy,” a program that helps cancer survivors maintain healthy and balanced diets as they heal. Paula notes that many cancer patients and survivors experience limited access to fresh produce which can increase chronic conditions such as stroke, cardiovascular disease, and diabetes.

Vic also discusses community food resources such as the Society of St. Andrew, a church organization aimed at vulnerable populations residing in Orlando’s marginalized areas like the downtown Paramour area. According to her, the Society of St. Andrew provides local food donations. The Lake Eola Heights Garden members sometimes donate their surplus fruits and vegetables.

Echoing Vic, Daisy notes the benefits of food sharing among community garden participants, highlighting the First Unitarian Church’s relationship with the Lake Davis/Greenwood Cemetery Community Garden. The church receives garden donations from congregation and garden members. She finds the values of the garden and First Unitarian Church mesh well since they share similar goals of community outreach through food donations.
University students also benefit from green public spaces and participation in CSA. Jill did not have access to a car after moving to Florida from Puerto Rico in 2017 following Hurricane Maria. Her transition was initially very difficult, given the culture shock of moving by herself to Central Florida. The UCF Arboretum vegetable garden became a personal refuge of sorts for her as she adjusted to a new home. Jill utilizes the UCF Arboretum Garden as a place to alleviate self-isolation and commune with nature. Her Arboretum work provides opportunities to get moderate exercise, fresh air, and make new friends, establishing social bonds and relationships that may not have been possible without access to a nearby green public space.

The vegetable garden provides a setting for team building and a place where students and volunteers can work toward a common goal. Jill works the morning shift with other student volunteers, participating in communal plot cultivation as well as weeding, clearing walkways, replanting and transporting horticultural products, and general garden maintenance. Her Arboretum experience complements her graduate studies in law and environmental sciences. She enjoys “the vegetable garden because it does not feel like work.”

Like Jill, Green Turtle describes the “group dynamic” and social relationships that exist among Arboretum vegetable garden staff and volunteers. Unlike other field sites, the Arboretum does not assign individual plots to volunteers. Rather, members communally manage the garden, removing pests, rebuilding beds, aerating soil, and adding organic fertilizer and nonsynthetic pesticides. She indicates that the gardeners also incorporate “companion planting” for optimal nutrient uptake and solarization during different volunteer shifts. These activities help affirm social connections and provide foundational knowledge regarding management of local food and ecological systems.
Besides team building, gardening can have an enormous impact on mental health and well-being. This point is particularly salient in my interview with Lake Eola Heights garden member Amy. She enjoys growing herbs, collards, cauliflower, peanuts, tomatoes, beets, carrots, Swiss chard, and beans either for personal consumption or to share with fellow gardeners, coworkers, or her students. Prior to the global pandemic, she grappled with the unforeseen losses of two pregnancies. Amy feels that gardening offers sanctuary from these unexpected traumas that still bring her to tears. She describes mental health struggles exacerbated by the emotional and physical toll of two miscarriages, explaining:

… the community garden has been life changing for me. In spring 2017, I was suffering from anxiety induced depression. The garden provided so much joy, inspiration, healing, and community. Meeting and interacting with others, seeing what they were growing in their plot, sharing harvests, and being outdoors motivated me to go to the plot multiple times a week. I miscarried before successfully carrying two babies to term (2015 and 2018). During my second miscarriage I was extremely comforted by the garden. Even though I could not carry a baby to term, I could grow things in the garden and share with others. The garden was my happy place in my sea of sadness.

For Amy, gardening is a deliberate act of self-care that offers hope in the face of adversity. Amy’s transformational experiences inspire her to one day create and manage her own community garden where she can share her enthusiasm with others.

Simple acts of compassion can be meaningful in unanticipated ways. Amy notes “sometimes I wouldn’t have anything to harvest, but others would share with me. Sometimes I had too much and could share with others. When others shared with me, I would try to return the generosity by weeding their plot or sharing whatever I made from their plot. For example, pesto, or spicy sauces.” Gardens and associated social networks foster reciprocity and kindness between fellow community members which is one of the main aims of both AFNs and CSA (Galt et al. 2016, 492).
Amy is not the only participant to find meaningful connections at the community garden. Zee views his overall community garden experiences as quite positive, explaining, “you get to meet cool people and you get to see what other people are doing. You learn a lot from them, you learn a lot from each other, and just being away from home is a positive thing.” He prefers working at the Dean Road Community Garden to the isolation of home gardening, stating, “[with home gardens] you don’t get to meet other people, you don’t get to see what other people are growing. So, like right now, looking at the garden, a lot of people are growing tomatoes, so I am like, oh I am a little bit behind on tomatoes, let me plant some tomatoes.”
Zee’s Zimbabwean childhood inform his garden experience: “I have been involved in gardening from the time I was born.” His family and home environment are significant reasons why he still gardens. Growing up, Zee’s mother forbade her children from buying vegetables. She tasked her family with growing their own food, only buying meat from the local market. According to Zee, “my mother always made sure that we didn’t have to buy vegetables. The
[family] garden would supply vegetables …” Zee still prefers to consume garden vegetables like mustard greens, parsley, cilantro, eggplant, and various herbs over storebought varieties.

Veronica sees her community gardening experience as enriching, viewing it as both relaxing and beneficial for meeting new people with similar interests: “it [the community garden] helps me meet other people.” She notes that in 2016 and 2017 the garden hosted workshops led by a master gardener. Unfortunately, the pandemic continues to restrict gardening workshops and lessons. Veronica remains hopeful those activities will resume in the future since community gardens provide various social networking and educational opportunities.

In November 2020, I met Janie working at Elle’s garden spot (see Figure 24). She appears to be in her 40s or early 50s. Janie explains that Elle and her husband work with other members of a local church organization to manage local gardens. According to Janie, Elle’s husband is a “master gardener,” serving as a guiding hand to the group. When I see Janie a few weeks later, we chat about our plants, yields, and weekend plans. She asks me to look at some newly planted strawberries. Apparently, she is now taking classes with Elle’s husband. Gardening presents an opportunity to acquire new skills, meet new people, and bring CSA participants closer to nature.

I also inform her that I have been an on-and-off member for several years, emphasizing that garden organizers typically do not manage vacant plots when she asks about them. In my experience, this kind of word-of-mouth is the best way to convey site rules and norms. Before I leave, I offer Janie some mustard greens, but she declines, saying, “I do not enjoy them or know how to cook them.”
Eventually, I encountered Elle’s son, Edward, whose garden plot is located near mine. He appears to be in his late 20s or early 30s. Edward, Elle, and other church members manage three plots in total. Despite his newcomer status, he has a fundamental grasp of gardening techniques because his dad is a master gardener. We discuss topics beyond gardening including politics, space exploration, and the pandemic. He tells me how the garden offers him a place to relax, feel a sense of belonging, and provides learning opportunities by talking to other members and/or passersby. On one occasion, he gives me an entire green onion plant to incorporate into my plot. The green onion flourishes for several months, so much that I regularly incorporate scallions into my weekly staple foods such as ramen and soups.

I met both Leticia and Suzette at the Dean Road site in April 2021. Arriving separately, they both approach me while tending their plots. Suzette is a member of a local church group who rents three adjoining plots at the Dean Road Community Garden location. She manages the plot with several other members. It is not uncommon for religious organizations to rent multiple plots to teach adherents about gardening. She appears to be in her early 40s. Her church organization follows a formal garden watering and maintenance schedule. During our conversation, Suzette impresses me by eating a large jalapeno and several tomatoes she picks from her plot. My eyes widen as she continues to chew the pepper without wincing. The ability to taste fresh fruits and vegetables without traveling to grocery stores or supermarkets or purchasing food items is one of the garden’s simple pleasures.

Other newcomers to gardening in Central Florida need less assistance, as they are familiar with the particulars of gardening at this latitude. Leticia is a new garden member who appears to be in her late 20s with a slim build, renting plots near the site’s entrance. Zee
convinces her to join the Dean Road Community Garden. She just moved to Orlando from New York and her family is originally from Antigua where they always gardened. She tells me that one family member usually accompanies her to Dean Road during one of our initial conversations. She grows pigeon peas, legumes, and other vegetables reflective of her Caribbean heritage. I occasionally see her with the family member to assist her with the more labor-intensive aspects of garden maintenance such as tilling the soil or pulling unruly weeds that accumulate far too quickly during Central Florida’s rainy season which typically lasts from May to October.

One of the benefits of Dean Road is that it remains open to the public without the requirement of a passcode or key. Curious onlookers and ethnographers can come and go as they please, ask questions, or walk through the garden unaccompanied by an affiliated party. The open-air aesthetic cultivates openness distinct from the Festival Park and Lake Davis locations where some gardeners seemingly regard me with suspicion. Sometimes I do not encounter anyone at these two more exclusive field sites, so I bide my time by taking photographs of the plants from behind the garden fences.

A few days after my fruitless day in the field at my other sites, I seize the opportunity to accompany a friend who recently acquired a Festival Park plot. While accompanying my companion in early 2021, I met Michelle who tells me she recently became a member. Her tanned shoulders and sun-kissed hair suggests that she spends a significant amount of time outdoors. She lends me tools for shoveling and offers my friend a Japanese pepper to put in her plot. The next day, I return Michelle’s generosity, giving her an old tomato cage.
and plant sharing are some of the many reciprocal activities that community gardeners engage in to strengthen social bonds and guide others.

Gardening for Physical Activity

Along with nutrition and well-being, physical activity is another recurring factor among my interview sample. Beth, Paula, Daisy, and Amy, for example, live within two miles of their gardens and prefer walking to their gardens to relieve stress or get some exercise. Josie and her husband Sam reportedly spend two hours or more on new projects such as clearing a new plot or turning fallow soil. Prairie also remarks on the laborious undertakings inherent in readying an unmaintained garden bed. Raking, hauling compost, and digging are among the gardening activities that promote aerobic exercise and may improve cardiovascular health (Thompson 2018).

In my personal experience, pulling weeds and shoveling dirt burns lots of calories and work several different muscle groups, including the core, arm, and leg muscles. I often stretch before setting out to tend to my plots. Amy prefers low-impact exercise and frequently walks to the Lake Eola Community Garden with her two children. Veronica, Jill, Zee, Green Turtle, and Simon describe gardening activities that support moderate exercise such as tilling soil, pruning, and building box plots.

In this way, CSA and AFNs also facilitate healthy behaviors, a finding which corroborates previous scholarly research on local gardens (Guitart, Pickering, and Byrne 2012; Thompson 2018; Wakefield et al. 2007). Yet, pedestrian accessibility is constrained by unsafe ambulatory conditions such as construction sites and heavy traffic. According to a recent local
news publication (Green 2021), Orlando is considered one of the most dangerous cities for pedestrians and cyclists. Moreover, car-centric systems dominate in U.S. culture, leaving nonmotorists “at the bottom of the transport food chain” (Freund & Martin 2009, 477). I suspect that the trend of “hyperautomobility” will continue in Central Florida’s suburban areas where urban planning and development privilege private car ownership over infrastructure that supports sustainable public transportation (Freund & Martin 2009, 478).

My participant observation confirms interview data that local gardeners use their sites for domestic food production, physical activity, learning new skills, and social and emotional interactions. Overall, my field sites actively promote mental health, protecting individual well-being (Sheu 2014, 62). All participants report feeling mostly satisfied with their gardening experiences and interactions with others while involved in AFNs and CSA. Clearly, gardening and green public spaces provide a sense of self-empowerment and creates environments that bring people together as they encounter the ups and downs of contemporary life. Such efforts are valuable and necessary as the general public’s interest in gardening increases during the pandemic (Abiral & Atalan-Helicke 2021; Mullins et al. 2021).

Losing It: Local COVID-19 Impacts

The global pandemic impacts trade, markets, and communities unlike anything experienced in recent human memory. During interviews and informal conversations, gardeners often report feeling a sense of personal loss and longing for a return to normalcy. The media’s coverage of the pandemic does little to assuage collective fear. While some individuals mention a loss of identity, others simply miss their loved ones. Several participants lament radical changes to their
daily and professional lives. Most view garden sites and gardening as a positive while the virus continues to disrupt normality. As Dean Road gardeners and I work on our plots, it is not difficult to discuss and collectively recognize the failures of U.S. healthcare systems and political institutions to mitigate the spread of COVID-19 and witness one of the deadliest years in U.S. history (Jacobson & Jokela 2021, 661). A recent study (Jacobson & Jokela 2021, 664) indicates that “a large segment of the population experienced a statistically significant increase in death risk in 2020 compared to 2015 to 2019.”

The increasing burden of the pandemic on healthcare facilities and mental health services is palpable (Jacobson & Jokela 2021; Robinette et al. 2021). COVID-19 mental health impacts include increasing anxiety and depression, financial instability, and feelings of lonesomeness as schools, businesses, and recreational facilities gradually shut down to mitigate viral transmission (Robinette et al. 2021, 1). The isolation from lockdowns and confinement to the home inflicts a real toll on U.S. households. Space and place and time feel collapsible. COVID-19 confinement “shrunk the geographical space in which people carry out their daily lives” (Robinette et al. 2022, 6). U.S. residents are still dealing with the aftermath of prolonged confinement and are only just beginning to understand the pandemic’s cost on mental and physical health. Current studies (Bakaloudi et al. 2022; Sohal et al. 2022) indicate that many Americans, facing the devastating consequences of a global pandemic, seek comfort by increasing their alcohol and unhealthy snack consumption.

In Florida, these institutional failures are even more evident as the state lacks rural healthcare infrastructure and reliable public transportation. Notably, many residents of the Southeastern U.S. face existing vulnerabilities in contrast to other regions. This is likely due to
nearly ubiquitous healthcare access issues in Florida’s rural areas and higher prevalence of elderly individuals with preexisting medical conditions such as heart disease, diabetes, and other chronic conditions (Khan, Odoi, and Odoi 2023, 2).

A recent public health study (Khan, Odoi, and Odoi 2023, 7-10) finds that although the state’s urban dwellers have greater access to COVID-19 testing facilities compared to rural residents, the travel times to sites are dependent on whether residents have access to adequate transportation and/or private vehicles. Participants such as Jill and I utilize public transportation and travel on foot since we do not always have consistent access to personal vehicles. Greater Orlando’s poor public transportation infrastructure and traffic congestion exacerbate these conditions (Russon 2019). The pandemic also continues to disproportionately impact historically marginalized communities in rural areas with insufficient healthcare networks and scarcity of private insurance to cover the costs of treatment and transport of vulnerable residents (Khan, Odoi, and Odoi 2023, 10).

Josie is unable to travel, visit family, or participate in normal everyday activities because of COVID-19. The garden provides an outlet for her and others actively trying to maintain self-isolating behaviors without contracting coronavirus. Most garden members can maintain a safe six- to twelve-foot distance in an open-air environment. That is, the 4 x12-foot box plots provide a convenient metric to determine proximity. Many of them maintain this distance during casual conversations. Josie says, “I know I can always come here [Dean Road Community Garden] and be safe and not have to worry about being indoors and I can continue my gardening.” I observe that gardens provide a space to temporarily assuage the stressors associated with physical and social confinement.
As a Lake Davis Community Garden leader, Daisy can assess trends in garden activity and membership. She describes a loss of neighborhood motivation and effort, noting that COVID-19 negatively impacts community workdays. According to her, the public food box “kind of dried up” when folks probably needed it the most. She raises interesting points about the neighborhood’s privilege, loss, and declining communal engagement during times of crisis. That is, she lives in an affluent community and participates in a garden where members have steady access to disposable income, grant writers, municipal support. Daisy remains hopeful that her garden will return to its pre-COVID-19 activity levels and resume community workdays as vaccination rates increase.

At one point during the pandemic, I encountered a masked Beth at the Lake Eola Heights Garden. She feels frustrated, experiencing “a loss of a sense of community,” indicating that Festival Park organizers currently foster more social engagement among their members than her other community garden locations. Such sentiments starkly contrast with her earlier interview, where she explained that Lake Eola Heights offered commensality and social interaction during the pandemic. This change of heart reflects the varied and dynamic relationships that gardens create within the different communities they operate in.

COVID-19 continues to discourage commencement of community activities at the Dean Road location. While gardening classes and communal workdays were previously held there, the pandemic disrupts such events. Consistent with Josie and Beth, Veronica describes a sense of loss in terms of community engagement as she is unable to participate in normal events like birthday parties and celebrating professional achievements. Yet, the garden furnishes comfort and temporary escape for Veronica, as she still finds it “extremely rewarding.”
Josie’s spouse, Simon, is the alternate garden organizer in charge of collecting rent, ordering soil, mulch, and other supplies, and overseeing garden material delivery. One day, we discuss the garden’s future and what he and other organizers foresee happening as COVID-19 becomes more manageable. He hopes that garden membership increases, and normal activities resume, wanting to reclaim a pre-COVID sense of camaraderie.

While the pandemic presents new community gardening challenges, gardens are still places of emotional solace for Veronica. Daisy, Beth, Josie, and others. Home gardeners also recognize gardening’s importance as this exchange with Sarah suggests:

Sarah: I enjoy it. It is a hobby that I would—if I had more time—I would participate in more.
CD: Mmhmm.
Sarah: [Gardening] makes me feel a little successful. It is something to show from nothing because when you just have a teeny tiny seed and it blooms into a giant tomato plant it is like whoa, look what I can do.
CD: Yeah, well as a gardener myself, I get a certain delight in being able to eat the things I grow despite a few of them being pretty nasty at the outset. It takes time.

I contract COVID in summer 2022 as I was revising this dissertation. While the coronavirus does not result in a hospitalization, it did disrupt every other aspect of my personal and professional life. The fever sets in quickly. I experience chills and body aches. Then came the bouts of brain fog and fatigue. At one point, I am unable to remember my middle name or phone number. I lose count of the days because of the isolation. I remain confined to my bedroom since I am considerate of my housemates’ health. I usually emerge to use the restroom and only venture into the kitchen for food when my roommates leave or are asleep. I force myself to eat even though I have no appetite. Time becomes a meaningless construct, the only thing that matters is staying warm, staving off the chills, and sleeping. When my sense of smell

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eventually returned, the pungent odor of rotting meat replaces it for two weeks. During this time, writing is especially challenging. My mind feels sluggish and soft, sentences and paragraphs blur together in new and frustrating ways. During my dreamy haze-like state, I think of my garden often. Although, I am unable to physically make it out to my community plot, I still have my backyard plants that provide a sense of purpose, self-care, and constancy as I cope with my uncomfortable symptoms and isolation. Fortunately, it rains while I recover. I can rest easy knowing that nature sustains my Dean Road plots.

**Participation in Local Gardens Fosters Resilience**

Prior research demonstrates that “historical collapses in urban food supply lines” popularize local gardens (Barthel, Parker, and Ernstson 2015, 1321). Previous local gardening studies (Chan, Pennisi, and Francis 2016; Hite et al. 2017; Marshall et al. 2017; Mincyte & Dobernig 2016; Pearsall et al. 2018; von Glasenapp & Thornton 2011; Reese 2018) indicate they may function as a form of individual and community resilience through development of new skills, resource and knowledge sharing, and community engagement. Resilience strategies often “emphasize the improvement of a community’s ability to cope with crisis, adapt to hazards, and bounce back with minimal loss and disturbance” (Barrios 2016, 28). Like Carpenter et al. (2001), I find that resilience and resistance are complementary concepts since both fulfill similar functions of mitigating emotional and socioeconomic stressors. I observe the ways my research participants embody these concepts through support networks, acquired skillsets, and deeper connections with nature. These observations corroborate existing U.S. urban farming studies (Abiral &
Atalan-Helicke 2021; Lawson 2005; Mincyte & Dobernig 2016) that highlight the powerful communal experiences attributed to CSA and AFN participation. My findings align with recent studies (Abiral & Atalan-Helicke 2021; Joshi & Wende 2022; Lal 2020; Mejia et al. 2020; Mullins et al. 2021) on local gardens during times of crisis. Mullins et al.’s (2021) findings characterize home gardening as a skill-building social activity, highlighting the ways local gardens increase food security during the COVID-19 pandemic. Commensurate with Mullins et al., I also observe participants’ behavioral differences between new and longtime gardeners, noting how older and more knowledgeable gardeners like Daisy, Jay, Marie, Peter, Simon, and Josie more readily share seeds, tools and advice compared to younger gardeners like Zee, Suzette, and Jill. For newcomers, seeing what others grow is an excellent tool for learning about local gardening conditions and climate. However, a global pandemic presents unique challenges to community garden operations. Like Joshi and Wende (2022, 8), some of my participants describe a “loss of community” that they associate with waning gardener motivation and cancellation of community workdays and events.

Most interviewees report increased emotional satisfaction from meeting new and established gardening members. For those like Amy, the garden is a place of healing after state-mandated lockdowns and a traumatic family event. For Prairie, Sarah, Vic, Zee, and Beth, gardens provide a reprieve from urban living and the ongoing global pandemic. Organizers Aaron and Green Turtle value the Arboretum’s partnership with Knights Pantry to combat food insecurity among university students when they need it most. My interview sample demonstrates the concept of resilience through periodic mutual aid, informal support systems, and engagement with place-making (Hite et al. 2017) and place attachment (Petrovic et al. 2019) to local gardens.
A recent agribusiness study (Chenarides et al. 2021, 151) suggests that home and community garden participation alleviate some concerns about future supply chain disruptions and anxieties about venturing out to stores. In many ways, community and home gardens originally intended for recreation or food production transition into crisis gardens during the pandemic. Unlike other CSA sites, my garden locations remain open during the pandemic, thus addressing gardeners’ intersecting emotional, social, and nutritional needs (Abiral & Atalan-Helicke 2021; Mullins et al. 2021). Home gardeners have the advantage of additional space for gardening and supplementing domestic food stocks, such as how Paula raises hens on her residential property and enjoys sharing eggs with her neighbors to help her community and mitigate some supply chain challenges.

As a cancer survivor with compromised immunity, Beth is unable to physically go grocery shopping out of fear of contracting coronavirus. She relies on her backyard garden to feed her household and nine tortoises. Beth’s AFN and home gardening experiences show that gardening not only addresses physiological and emotional needs (Abiral & Atalan-Helicke 2021; Joshi & Wende 2022; Mullins et al. 2021) but also increases bioavailability and resilient food networks (Lal 2020, 873). Paula, Prairie, Jill, and Zee highlight the ways in which support networks and shared food and knowledge can facilitate resilience to the collective uncertainty surrounding the global health emergency (Mejia et al. 2020).

While some study participants like Beth, Paula, and Daisy are homeowners, others such as Sarah and Kay are renters which can impact the scale and bioavailability of home gardens. Aside from Sarah and Aaron, most do not consider financial hardships as a major motivation for garden participation. Consistent with previous research findings (Chenarides et al. 2021; Joshi &
Wende 2022; Mejia et al. 2020; Mullins et al. 2021), most of my research participants view gardening as a stress relieving activity to cope with both day-to-day and pandemic-related challenges.

Zee, Jill, Kay, Prairie, and Amy prefer community gardens since home gardening is unfeasible. Despite some socioeconomic barriers and time constraints, participants satisfy their gardening needs by cultivating plots at local AFNs and/or CSA locations that provide existing infrastructure, resources, and tools to accommodate their members. Overall, access to AFNs and CSA sites is significant since they provide dedicated spaces for local food production and recreation without a landlord or strict HOA. Still, community gardeners must comply with local ordinances and their garden site’s rules and protocols or risk disciplinary action and, in some cases, even eviction.
CHAPTER SIX: POWER

Organizational and Community Obstacles

It is important to understand the perspectives of those overseeing Orlando’s green public spaces including managers and organizers like Aaron, Green Turtle, Daisy, Vic, and Paula (see Table 6). The power that they variously wield is entangled within municipal policies and procedures, urban design features, garden infrastructure, and access to monetary resources to support new and existing AFNs and CSA sites. Although management of community gardens is autonomous, my field sites operate under the direction of municipal city planning. My participants’ official and unofficial leadership positions inform their gardening experiences and conceptions of AFN and CSA accessibility.

Since CSA is made up of individuals with different goals, aims, and agendas, conflicts among organizers, leaders, and participants can arise. Ethnography aids in understanding many of the power dynamics and organizational approaches to urban agriculture and CSA. Ethnographic research creates a richer representativeness of conflict by describing these issues using participants’ own words as opposed to secondary data sources. My findings suggest effective management of green public spaces requires organizers with strong leadership skills and compassion for the communities that they serve. Gardeners must work to effectively communicate their needs to garden leaders and organizers. Otherwise, criticisms of elites, commercial land developers, and city officials become meaningless if these endeavors remain one-sided (Marx 2013).

Local gardens can serve as grassroots sites of urban activism, ones where members resist largescale hegemonic food systems rife with waste and ecological mismanagement. I
operationalize microlevel resistance as community food donation, autonomous management of local gardens by residents, community problem-solving, food justice efforts, and incorporation of organic and non-commercial crops such as mustard greens, sunflowers, and heirloom tomatoes. City officials and local state actors must similarly engage their communities and seek to mitigate community tensions arising from poor city planning and inconsistent regulation of garden development.
Table 6: Organizers' Demographic Information and Length of Garden Participation

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>Occupation</th>
<th>Affiliation</th>
<th>Length of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>18-24</td>
<td>Man</td>
<td>Latino</td>
<td>Professional</td>
<td>Knights Pantry and UCF Arboretum</td>
<td>3 years, community</td>
</tr>
<tr>
<td>Green Turtle</td>
<td>25-34</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>UCF Arboretum</td>
<td>4.5 years, community 4.5 years, residential</td>
</tr>
<tr>
<td>Paula</td>
<td>55-64</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>Lake Davis Community Garden, Festival Park Community Garden, Colonialtown Community Garden, Lake Eola Heights Community Garden, Broadway Methodist Church Community Garden, and Lake Druid Community Garden</td>
<td>15 years, community 26 years, residential</td>
</tr>
<tr>
<td>Josie</td>
<td>65-74</td>
<td>Woman</td>
<td>South Asian</td>
<td>Retired</td>
<td>Dean Road Community Garden</td>
<td>5 years, community 10 years, residential</td>
</tr>
<tr>
<td>Vic</td>
<td>65-74</td>
<td>Woman</td>
<td>White</td>
<td>Semi-retired</td>
<td>Lake Eola Heights Community Garden</td>
<td>6 months, community 6 years, residential</td>
</tr>
<tr>
<td>Daisy</td>
<td>55-64</td>
<td>Woman</td>
<td>White</td>
<td>Professional</td>
<td>Lake Davis/Greenwood Cemetery Community Garden</td>
<td>8 years, community 50+ years, residential</td>
</tr>
</tbody>
</table>

The UCF organizers include Aaron and Green Turtle. I recruit most organizers through word-of-mouth and personal interactions while in the field. These are instrumental to building
genuine rapport. I gain access to Paula, an Orlando city commissioner, through Daisy who maintains a plot at Lake Davis Community Garden. Other notable leaders include Josie, Daisy, and Vic (see Tables 2 and 6). To clarify, these participants do not receive salaries, nor do they have official organizer designation. I exclude Donald and Simon since I did not have the opportunity to formally interview them during fieldwork. They do, however, perform leadership roles in an informal capacity such as signing up potential members, collecting plot rental fees, and assigning plots.

Josie and the Corn Stalk

My interactions with Josie speak to the complexity, contradictions, and tensions arising in urban gardening initiatives. Josie has concerns about the types of plants grown and pesticides used at the Dean Road Community Garden. For example, she raises the issue of my corn stalks’ height at least three times in 2021. As a renter and food justice advocate, I believe that I should be able to grow what I want without undue interference. I remember a passage from my original plot rental agreement, stating something to the effect of no leader or individual member exclusively authorizes plant selections.

Josie thinks that the corn is “too tall” and may block sunlight from adjacent plots. Height ordinances are not formally enforced but social pressure is often forceful enough. The fact that some garden members police others is variously problematic. Like McClintock (2014), I find that community gardens may reproduce neoliberal values rooted ideologies surrounding privatization. To be honest, I find her approach overbearing if not actually hostile. At Dean
Road, since the rules are not visibly publicized, they are easily forgotten unless renters write them down when signing up.

Later, I come to see Josie’s frustrations are born out of exaggerated feelings of ownership since this is a garden that she helped launch in 2016. At some point, Josie admits her frustration with site upkeep and garden aesthetics. We even lament the various abandoned plots that are becoming more numerous (see Figure 28). I photograph remnants of gardens that were cared for by individuals who took time to construct handmade wooden barriers, dig post holes, and install a trellis. The rotted remains of what I imagine was once a wooden trellis are hidden beneath the thicket of weeds (see Figure 29).
Figure 28: Photograph of Unmaintained Plot at Dean Road

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Josie maintains a strict approach because she cares about the garden and what it provides members, making me feel guilty for silently judging her. She strives to foster a renewed sense of community. The following exchange takes place in January 2021:
CD: Mmhmm, so what types of activities would you say, do you participate in, in your community garden? You can be as specific or as general as you would like.
Josie: Well, we used to have meetings here.
CD: Mmhmm.
Josie: People would join us and, you know, were talking with each other, so that has gone by the wayside.
CD: Mmhmm.
Josie: So, we don’t have meetings anymore. It is pretty much individual gardening. I mean the word “community” means that you will have a community of gardeners, and they, we don’t have that anymore. Not as much as we used to.
CD: I remember when we would have meetings here, and we would utilize the board in the shed.
Josie: I know, and we built this together, we dug the holes, got the water in, and then all that work. I mean, I enjoyed that, and I have good memories of that.
CD: Mmhmm.
Josie: But we don’t have that anymore, which is one of the sad things.
CD: Hopefully, afterwards, when the pandemic is finally declining and dissipating, we can kind of recreate that. Because I have noticed that there is more of an interest in gardening now…with everything going on.
Josie: Yeah, that is.
CD: And I feel like we can reclaim that eventually here, but it is a work in progress.
Josie: Yeah, yeah, yeah. It sure is.
CD: It is easy to just—
Josie: You know people do it at their own convenience.
CD: Mmhmm.
Josie: People come and go. You know what was, you know when you are a part of something from the very get-go?
CD: Mmhmm.
Josie: There is a different type of commitment to it to the big, the purpose. But when you join later on, as an individual gardener, then they don’t have that commitment.
CD: Mmhmm.
Josie: And I think that is probably what is going on here. Hopefully, we can, you know, reclaim it.

The funny thing is that the corn never grew tall enough to cast shade on neighboring plots. Nowadays, I cease viewing Josie as the Dean Road Community Garden’s unofficial “helicopter parent.” I now see her as someone invested in the garden’s success. Josie uses her authority and organizational position to influence garden management. She is one of the few
members who updates the site’s social media page, uploading photographs or posting compliments about other members’ plants.

Under Josie’s and Sam’s leadership, the Dean Road site continues to undergo periodic transformations such as more maintained plots. There is evidence that garden members/volunteers are actively maintaining the garden through regular mowing and weeding, even without regularly scheduled community workdays and/or formal guidance. Despite occasional conflicts of interest, the reward is having a beautiful green public space that brings collective joy and constancy to others.

Conversations with Lake Eola Heights Gardeners
I met Dee at the Lake Eola Heights Community Garden in November 2020. According to her, site organizers emailed members about maintaining and weeding their plots. While such requests are not unusual, something about Dee’s tone suggests annoyance since the pandemic and hot temperatures prevent gardeners from regularly tending their beds. Dee soon leaves, throwing her weeds into a plastic bag to dispose of elsewhere as they are not permitted to go in the compost bins.

On a previous occasion in 2020, Vic introduces me to longtime members, Daniel and Deandra while they diligently work on a nearby plot. Daniel may have more intensive focus and stake in the garden since he heads the Lake Eola Heights HOA. According to Deandra, this causes tension with the other members who interact with Daniel outside of the community garden. In this sense, the hierarchical power dynamics characteristic of HOAs are subtly
reproduced in the relationships between community gardens members who are subject to HOA regulations.

Daisy on Organizational Challenges

Other organizers have different experiences with local garden initiatives. Daisy’s perspective may differ from other garden organizers since she is a salaried professional with some schedule flexibility. She mainly deals with leadership and organizational issues. Her attempts to get a Lake Cherokee community garden approved several years ago were thwarted by the concerns of two neighborhood residents. Since full community consensus was not reached, Daisy’s original city request was denied. Consequently, she began probing the feasibility of launching a similar venture in her own neighborhood. After generating enough residential approval in 2011, she obtained city permission to get Lake Davis/Greenwood Cemetery Community Garden up and running.

Vic on Securing Funding

Organizers like Vic, who also retain garden membership in the sites that they oversee, present their own set of challenges. Formerly occupying “unproductive land” near a church, Vic’s Lake Eola Heights Garden site required municipal support to commence operations (see Figure 30). Secured grant money covered the costs of lumber, compost, soil, mulch, and other materials. Establishing and maintaining social ties with city officials, church leadership, and neighborhood residents proved crucial in implementing garden construction. Vic notes that, “we needed people with connections,” mentioning the garden’s church-adjacent location mitigates some of the challenges associated with developing public land. Arguably, as a white affluent middle-class
woman, Vic is better positioned to access external funding. The fact that a family member was on the district’s neighborhood association board did not hurt either.

Vic hopes to develop more community gardens near downtown Orlando, wanting to assist low-income families and others adversely affected by the pandemic, possibly using some empty lots near schools and churches. After telling her that either the city or private developers likely own the land, Vic explains that walking around “those places” seems unsafe. To clarify, she mentions that the idea of canvassing “those places” around Orlando’s downtown area is a bit intimidating. She urges me to canvass in her place, but I politely decline as I have too many academic and professional responsibilities.

From my perspective, she seems reluctant to venture into low-income and minority neighborhoods. I see this as an example of white privilege (McIntosh 1989). Vic has connections with grant writers and community members that could feasibly assist her in canvassing historically Black neighborhoods such as Washington Shores and/or Paramour, but her personal reservations and privilege may prevent any meaningful engagement with disenfranchised residents and those from different socioeconomic and racial backgrounds.

Paula on the Ups and Downs of Neighborhood Planning
Paula supervises more than five community gardens in and around Orlando through her work as a city commissioner. She also has an extensive background in urban agriculture that makes her well-suited to illuminate the intricacies of community gardens and local environmental management. She presides over neighborhood planning for over 25 communities and continues to act as a CSA advocate through support for urban food production initiatives. While city
officials like her oversee resources such as land, water, plot beds, and perimeter fences, they do not manage a site’s day-to-day activities, noting that “community gardens are autonomous,” primarily run by organizers and individual members.

Paula reveals a significant difference between private and public community gardens, noting that the former is not subject to as much code enforcement. While Paula discloses that the city has the right to shutter “eyesore” gardens, she does not divulge who makes such decisions. For Paula, launching community gardens is notoriously difficult since formal approval requires full community consensus. Her official position means that she is unable to join her neighborhood’s community garden because of a potential conflict of interest. Paula states that neighborhood garden membership would make her municipal job “inescapable.” That is, she feels that her position in local government would overshadow the recreational aspects of community gardening.
Discussion: Positionality and Assemblages of Power

Paula’s conception of major garden obstacles diverges somewhat from that of Prairie, Vic, and Josie, who are all involved in CSA at a more microlevel scale. Municipal officials like Paula are arguably more forthcoming about their access challenges while organizers are more diplomatic in their responses. This conforms with Marx’s (2013) conflict theory, Michel Foucault’s (2007) governmentality, domains of power, and the ways these dynamics find expression at various
administrative levels. The social relationships embedded in community gardens exhibit Foucauldian notions of social discipline and conformity through participants’ adherence to garden rules and local ordinances, agency in the ways they navigate gardening challenges, and techniques of the self through community-led gardening initiatives (Tiisala 2021, 37-38). Garden operators like Paula, Vic, and Daisy are situated within assemblages of power including formally working with the state government (Paula), managing UCF volunteers (Green Turtle and Aaron), or serving on a neighborhood board of directors (Daisy). Vic’s and Josie’s roles entail more ambiguity with indirect and informal responsibilities over their respective garden sites.

My participants’ approaches to community improvement and garden beautification demonstrate notable variety. Individual members and organizers alike frequently mention the condition of community gardens and neighborhoods as among their concerns. This is a source of conflict in some cases. At Dean Road, the absence of efficient leadership leads one member to take improvement matters into her own hands. For instance, Jay feels that the blueberry bushes that she donated are a helpful addition to the garden and that they improve the overall appearance and atmosphere of the Dean Road location.

As I mentioned in Chapter Three, Jay spends hours landscaping the Dean Road Garden’s rear and fills the undeveloped space with fragrant herbs in addition to removing unwanted weeds and refuse. This area of the garden sits on an incline that washes out neighboring plots during major thunderstorms. She says that it is to prevent soil erosion and water runoff from compromising the plots at the base of the small incline. I view Jay’s agency and self-determination as a pragmatic “nature-based solution” to garden improvement (Kabisch et al. 2017, 4). The incorporation of blueberry plants presents a low-cost solution to garden
beautification that has added environmental benefits such as providing a habitat for birds and pollinating insects and increasing biodiversity (Kabisch et al. 2017, 7-8). Yet, Josie indicates the blueberry bushes will invariably ruin another gardener’s potential output by crowding adjacent plots. In some ways, Josie’s management style represents her internalization of capitalist logic and perceived ownership of the garden (McClintock 2014).

What ultimately comprises improvement is highly contestable (Li 2007). Participants negotiate conceptions of advancement which may generate occasional tension between different social actors. Jay and Josie’s disagreement over the aesthetic created by the blueberry bushes and herb garden at the Dean Road field site highlight differences in attitudes, protocols, and vision. In Chapter Three, I also address Paula and Daisy’s encounter with gardeners using Round Up at Lake Davis and the mismatch in expectations of what are “good” or “bad” pesticides. Round Up is prohibited at this site since organizers feel the product is harmful to the environment and other beneficial insects like bees and butterflies that pollinate various fruits, vegetables, and flowers. To organizers’ dismay, some Lake Davis gardeners applied prohibited insecticide to their plots.

Gardens Indicating Inequitable Power Dynamics

Within the context of CSA and AFNs, power emanates from garden managers or municipal officials who largely view city spaces as commodifiable entities for housing development or urban gentrification (Berry 2015, 21-22). Paula’s interview (see Chapter Three) suggests that city officials ultimately have the power to close noncompliant or neglected garden sites. Like Jacques and Jacques (2012), I consider how power filters downward from local government and to CSA and AFN initiatives. Foucault (2007) identifies various governing domains and social actors
through his concept of governmentality. According to Foucault, governmentality is “defined as ‘the conduct of conduct,’ government is the attempt to shape human conduct by calculated means” (Li 2007, 275). This concept of governmentality assists in my analysis of systems in which food production and environmental stakeholders such as local gardeners are categorized, controlled, and managed by the state. Such power relations are useful when examining gardeners’ relationships with one another and organizers. Governmentality occurs in multiscale contexts even as power is subjectively negotiated by local gardeners and organizers. My findings confirm Henri Lefebvre’s (1996) theories on inequality and production of social space and Barthel, Parker, and Ernstson’s (2015) research on bureaucratic and administrative issues involved in city planning and development of green public spaces. Lefebvre’s (1996) work on autonomy and accessibility assists in problematizing autocratic management of urban and suburban environments. Power is inscribed into public infrastructure and becomes manifested through things like vacant lots, cracked sidewalks, and potholes.

Green Turtle, Daisy, Vic, Josie, and Paula reveal inequitable distribution of power with local garden organizations. As an Arboretum organizer, Green Turtle is familiar with UCF’s profit-driven land development policies aimed at increasing student housing and parking garages for visitors and commuters. According to Athletic Business (Steinbach 2019), the lazy river initially called “Recovery Cove” materialized through a million-dollar private donation. Critics of the lazy river claim it is extravagant, wasteful, and potentially alienates most of the UCF study body from accessing Recovery Cove (Steinbach 2019). According to Knight News (Coughlin 2019), student athletes may use this aquatic leisure space for free while their peers must pay membership packages that amount to $2,500 per year.
It remains unclear when the everyday UCF student will be able to access Recovery Cove at a discount and/or affordable rate. In 2021, project managers rebrand Recovery Cove as “McNamara Cove,” and development plans for UCF’s Roth Athletic Center remain underway (Sharon 2021). Alternatively, the Arboretum vegetable garden continues to provide access to students, faculty, staff, and visitors for free.

In 2019, student volunteers moved the Arboretum vegetable garden brick by brick to a new and more permanent location adjacent to a protected wetland area to prevent future ecological interference from the university’s construction projects. Coordinators are working within existing power structures and domains of compliance (Foucault 2007). The Arboretum organizers like Green Turtle strategically selected a new location to minimize crop disruptions and protect green public space from commercial development, preventing interference with yield output.

My participants’ perspectives and approaches to power vary depending on their role and individual idiosyncrasies. Daisy, Josie, and Paula indicate a top-down approach to power. For example, they tend to make major organizational decisions without the wider input or approval of individual garden members. For instance, Paula primarily interacts with other organizers, city officials, or garden leaders. She does not consistently visit garden sites herself due to existing professional responsibilities. While Josie regularly stops by the Dean Road Community Garden to maintain her two plots, she is not always receptive to gardeners’ feedback and their ideas for improvement nor is available to facilitate plot rentals.

Some of the above behaviors and attitudes encompass aspects of capitalist logic either through exaggerated feelings of ownership (Josie) or through participation in gardens overseen
by city planners (Paula and Daisy). A few Dean Road members mention difficulties in contacting Josie to receive their plot assignment and other delays in communication. As aforementioned, Daisy serves as a garden board member and holds a seat on her neighborhood’s board of directors. She expresses frustration over “building community relationship” among Lake Davis gardeners which may be exacerbated by conventional bureaucratic approaches that focus on procedure as opposed to efficiency.

Alternatively, non-organizers such as Jay and Prairie represent bottom-up perspectives on the ways power emanates from garden leaders. Prairie reflects on the various challenges he encounters while signing up for his Dean Road plot. He is unable to tangibly convey this constructive feedback due to a lack of formal leadership. My experience and interview with Jay suggest that she is receptive to other members’ input and ideas and would readily incorporate feedback if given the opportunity and proper tools. Jay’s and others’ self-motivation to improve the garden, readiness to implement change, and openness to constructive feedback align with a bottom-up approach. Nevertheless, she expresses that the Dean Road organizers limit her ability, and therefore agency, to participate in garden expansion and garner support for other AFN and CSA beautification projects.

While city commissioner Paula describes the bureaucratic and administrative challenges in maintaining green public spaces, her home gardener experience provides insight into gardening obstacles like pests, insects, and disease. She explains that city officials wield absolute authority to shut down gardens they do not feel uphold the community’s aesthetic standards. Paula says, “the city [Orlando] reserves the right to shut down gardens if they become an eyesore.” However, this designation may be unfair for underfunded gardens or those having
limited access to outside financial resources through grant assistance. I view this as another scenario where capitalist logic underscores aspects of community gardening.

Most of my field sites operate under the direction of city planners and local government organizations. Daisy demonstrates that neighborhoods have the power to authorize or inhibit development of CSA locations and other forms of city-greening. The municipality requires unanimous community consensus to construct community gardens. She shares her previous failure in establishing a public garden in Lake Cherokee. Her experiences with the first garden prepared her for the organization of the Lake Davis site. Vic notes the importance of grant writing and social connections in the development of community gardens. She attributes the Lake Eola Community Garden’s success to knowing the right people who provide the funding and permission necessary to develop green public spaces on privately owned land.

As for garden members, eight participants report social conflicts as impacting their relationship with organizers and other gardeners. Dean Road participants’ calls for formalized leadership and better organization are recurring. Dissemination of the research participants’ feedback may improve members’ overall experiences with AFN and CSA and prevent ostracization from green public spaces when they arguably need it most.
CHAPTER SEVEN: CONCLUSION

Hypothesis and Research Questions Revisited

In my Introduction, I present four research questions guiding my ethnographic analysis of garden spaces in Metro-Orlando. They are: (1) how does the spatial arrangement of city gardens, distances separating them, and access to them affect local participation and individual health and well-being during COVID-19?; (2) how are Metro-Orlando community and home gardens socially and structurally organized?; (3) what challenges do local garden participants experience amid a global pandemic?; and (4) how do community and home gardeners construct meals?

I approach the questions through a mixed methods approach that include interviews, QGIS, participant observation, and photovoice. I positively correlated member participation and emotional health with garden access. I highlight dimensions of local food and garden access. Under this framework, I predicted respondents who participate in local gardens report increased consumption of fresh fruits and vegetables since they have better access to local produce. I also relate access to nutritious foods, mutual aid, and support networks to the concepts of resistance, resilience, and well-being. Finally, I discuss power dynamics and their influence on the development and maintenance of local garden sites, urban design features, leadership approaches, and participants’ attitudes towards CSA.

The newcomers to gardening in this study express their desire to reconnect with the land to mitigate the complex emotions surrounding the pandemic such as paranoia, hopelessness, apprehensiveness, and other manifestations of fear resulting from dramatic upheavals in U.S. normality. Some of my longtime CSA and AFN participants suggest that community and backyard gardens help them cope with these changes, fulfill some of their social needs, and
temporarily alleviate anxieties as they negotiate the challenges and pressures to acclimate to what the mainstream American media terms the new normal (Jamaludin et al. 2020). These impacts include shifts to digital learning and remote employment, lockdowns, business closures, and supply chain disruptions, among others.

Like my participants, I feel deeply intense manifestations of despair. I experience a state of perpetual uneasiness at the thought of losing family, friends, and colleagues to an invisible agent. COVID-19 is not afraid to take what you treasure. Nothing truly prepares you for sheltering in place, especially while living with someone who is immune comprised. My roommate takes medication that impacts her immune function. I frequently worry about her health and potentially infecting my roommates as I am the only one currently working in a face-to-face setting. I continue teaching undergraduate classes at UCF. I suspect that the push to reopen large state universities like UCF is motivated by economic as opposed to public health interests.

Several of my undergraduate students contracted coronavirus during the fall 2020 semester. Intermittent outbreaks in subsequent semesters prove equally disruptive. Early in the pandemic, the almost weekly exposure to COVID-19 fuels my sense of dread. The Centers for Disease Control (CDC) maps grant the virus some visibility. The familiar blood red tinge depicting areas with high rates of viral transmission are part of my own and many Americans’ new reality. Yet, gardening remains an outlet to assuage my own and my participants’ anxiety and fear as we collectively experience trauma.

My research findings demonstrate that members of Orlando’s local gardening community experience various material, spatial, and social obstacles in accessing green public spaces.
Results correlate garden participation with health benefits including greater access to fresh fruits and vegetables, physical activity, and support networks. I also answer my four research questions using constructivist grounded theory and mixed methodological frameworks to unpack the five dimensions’ intersecting effects on local food producers (Charmaz 2014). I apply these themes to local garden settings to best assess how gardeners subjectively negotiate access challenges. Furthermore, I examine the ways these impacts vary along lines of age, race, sex and gender, residency status, and length of AFN and CSA participation.

By examining factors such as commute times and preferences for convenience, most participants report that accessibility issues constrain local garden access. Research participants also report social acceptance and seasonality as major obstacles to the development and maintenance of green public spaces. Unlike prior studies (Purcell & Tyman 2015; Wakefield et al. 2007), my results do not corroborate prior research that indicates resource costs as a major challenge to local garden viability. Overall, most participants find affordability only to be of minor significance. Time constraints and costs are not as widely reported by the interview sample although one Knights Pantry organizer discusses the importance of financial resources to maintain the UCF Arboretum vegetable garden as a student food security resource. Other garden leaders such as Daisy, Vic, and Paula indicate the significance of financial security in the development of new garden locations.

My findings are not only consistent with other studies (Baker 2004; Barthel, Parker, and Ernstson 2015; Diaz et al. 2018; Drake & Lawson 2015; Guitart, Pickering, and Byrne 2012; Marshall et al. 2017; Okvat & Zautra 2011; Randall, Churchill, and Baetz 2003) that consider access barriers in relation to insecure land tenure, lack of support, bureaucratic issues, time
constraints, transportation factors, gardeners’ variable interests, but they also go further by highlighting such issues within the context of a global pandemic. The works of Foucault (2007), Marx (2013), and Lefebvre (1996) inform my analysis of the various roles and responsibilities at different organizational levels and how these differences can result in tension or social clashes between garden leaders and members, city officials, and landowners.

Despite transportation and seasonality challenges, research participants indicate overall positive garden experiences and continued motivation to participate in green public spaces. Not one of those interviewed reports negative or neutral AFN and/or CSA experiences. For a few participants, the convenient locations of their CSA sites, ability to produce food year-round, and welcoming attitudes of organizers and other members increase household food security and access to local gardens.

One recent socioeconomic study (Bender et al. 2022, 101107) indicates that at the beginning of COVID-19, “large demand surges and empty shelves were observed at grocery stores across the U.S. as a result of consumers stockpiling food” and compounded by supply chain disturbances. I contend gardeners’ efforts to localize food production aid in delinking from food industrialization and provide survival strategies to navigate supply chain disruptions and facilitate resilience to stressors associated with urban living amid a global pandemic. Consistent with prior research (Abiral & Atalan-Helicke 2021; Ulrich 1991), I also suggest that local gardens encourage development of informal economies through reciprocal exchanges of resources like tools, seeds, and expertise.

Like Petrovic et al. (2019) and Hite et al. (2017), I also observe hallmarks of place-making and place attachment among AFN and CSA members. Both my male and female
participants report finding comfort and consistency in local gardens, feeling an emotional connection with green public spaces. As Prairie states, “… [gardening] is exposing myself to the real world.” Local gardeners view gardening activities as a mechanism to relieve stress, connect with the natural world, and produce supplemental food for their households. Like Shinew, Glover, and Parry (2004), I find that local CSA sites foster community-building among community garden members coming from diverse socioeconomic backgrounds. My findings confirm studies across diverse academic disciplines (Chan, Pennisi, and Francis 2016; Guitart, Pickering, and Byrne 2012; Hite et al. 2017; Pearsall et al. 2018; Pollard et al. 2018; Shinew, Glover, and Parry 2004; Thompson 2011; Wakefield et al. 2007) regarding resistance and resilience narratives related to green public spaces and the ways gardens may benefit less affluent participants.

Three local gardeners utilize gardens to recreate tastes and flavors consistent with their country of origin. I view their actions as coinciding with the concept of resistance to Western dietary trends featuring high quantities of sugar, sodium, and fat (Alakaam et al. 2015; Deforche et al. 2015). Participants such as Prairie, Jay, Amy, Daisy, Zee, and Beth share the local gardens not only provide sustenance, but also relieve stress, impart comfort, and provide respite from the pressures of urban and suburban living.

Consistent with other social science researchers (Abiral & Atalan-Helicke 2021) and food ethnographers (Hite et al. 2017), AFNs and community gardens function as sites where social relationships form, and knowledge is shared. For participants like Amy and Marie, gardens are also a place for community members to bring their children to generate interest in nature and teach responsibility. Using the framework of place-making and place attachment, I demonstrate
that gardens symbolize deeper and more spiritual and emotional meanings for their respective members. Most participants are less concerned about garden output and are more about the experience itself.

The concept of food justice focuses on the ways institutionalized racism, misogyny, and classism shape and impact foodways (Alkon & Norgaard 2009, 293). Beth, Paula, Daisy, and Josie embody aspects of food justice by sharing garden outputs with their neighbors and friends. Beth furthers this engagement through her activism in the “Food Not Bombs” organization.

Gardens play an active role in the construction of not just identity but also emotional well-being. It continues to stabilize my mental health, encourages my ongoing pursuit of traditional ecological knowledge, and provides familiar and fresh foods. I suggest that AFN and CSA sites and backyard gardens offer participants a way to reclaim their humanity amid a global health crisis.

Most of the participants report eating healthy, nutritious foods at consistent times of the day whereas only one participant reports eating unstructured meal compositions at irregular times of the day. My findings confirm studies (Alaimo et al. 2008; Blair, Giesecke, and Sherman 1991; Guitart, Pickering, and Byrne 2012; Okvat & Zautra 2011; Petrovic et al. 2019) correlating respondents’ garden participation with higher frequencies of fresh fruit and vegetable consumption.

Participants also report maintaining gardens to mitigate food costs and supply seasonal fresh fruits and vegetables throughout the year. Central Florida’s year-round growing season enables participants to grow tropical, heirloom, and non-native varieties. Findings from participant observation and informal conversations with local gardeners corroborate semi-
structured interview data that confirm respondents’ desire to consume more organic and locally grown fruits and vegetables.

Figure 31: Photograph of Personal Garden Plot
Gardening for the Future

Our global food systems are increasingly fragile under neoliberal frameworks pressuring nations to find their niche in an ever-expanding global capitalist free market. Resources like arable land are becoming growingly scarce due to topsoil erosion and the encroachment of urban sprawl (Cribb 2010, 58-59). Our current global food systems are also poised for future international conflict. Furthermore, 2022’s Russia and Ukraine War generates uncertainty as both China and Russia pull exports of fertilizer to foreign nations (Polansek & Mano 2022). This may further imperil global food systems, particularly U.S. agribusinesses that are dependent on imported nitrogen and potash from both countries.

Fertilizer and fossil fuel usage is well-documented in North America. For instance, U.S. fertilizer usage is the highest among the industrialized nations of the world (Cribb 2010, 69-85). The global food regime will likely buckle without access to commercial fertilizers from international sources. This practice will prove detrimental as the world grapples with climate change and combatting what many speculate to be the coming famine. The USDA’s (2022) projections of rising food and housing costs exacerbate U.S. citizens’ existing financial and food security concerns.

Participation in local gardens functions as a form of anti-capitalist praxis where gardeners have agency to grow heirloom and non-commercial plant varieties and share their crop yields using homemade organic fertilizers from upcycled plant wastes and crop residue (Chatterton & Pusey 2020). CSA sites and AFNs are also social spaces with little expectation that participants spend money or partake in traditional market-based systems. Most of the community gardeners I interview indicate that the presence of free materials like compost bins alleviates the need to
purchase fertilizer or other organic inputs. Home gardeners may grow their own fruits and vegetables, freely exchange surpluses, and create their own compost bins to mitigate costs and offset supply shortages.

In summation, local garden studies offer a unique vantage point to understand how average U.S. residents perceive green public spaces and their utility during the uncertainty wrought by COVID-19. The future of CSA, AFNs, and local gardens ultimately involves self-sufficiency, good social and state actors, and effective implementation of traditional ecological knowledge in green public spaces. I view the localization of food production as an everyday intervention that yields potential for meaningful sociocultural and economic change if adopted on a larger scale.

Implication and Significance
If food insecurity is conceived as a “manmade disease” then gardens are a manmade solution to the impending food crisis (Cribb 2010, 4). Altogether, my research on local gardens suggests that gardening may offer members healthy alternatives to urban living and provide respite for urban inhabitants. Nevertheless, I recognize the necessity of further research on ethnicity and racial experiences with green public spaces, AFNs, and local gardening since several of my study’s participants identify as Latino(a) and/or belong to other marginalized racial groups. These considerations would broaden the scope of my analysis, which focuses on structural- and class-based challenges affecting Central Florida gardeners and organizers during a global pandemic.

Local accessibility to alternative forms of food production and fresh fruits and vegetables often remains limited for the average U.S. citizen (Bridle-Fitzpatrick 2015). Furthermore, the
increasing prevalence of obesogenic environments has observed national and global implications for human health (Armelagos 2010). Access to AFNs and built environments that promote health is imperative for community well-being and preventing chronic conditions such as obesity in children and adults (Saelens et al. 2012, e61-63).

In regions like Central Florida, widespread commercial development frequently inhibits development of open-air, noncommodified, mixed-use public spaces (Van Herzele & Wiedemann 2003). Previous studies (Hite et al. 2017; Lin, Meyers, and Barnett 2015, 952-53) also show that private green spaces increase in more affluent areas and public green infrastructure slightly decreases in less privileged communities. Access to community gardens and AFNs should not be limited to privileged populations with ample access to land and capital inputs. Gardening and the social networks that they foster may not eliminate the structural violence wrought by capitalism, but it does give participants “peaceful resistance strategies” to create healthier communities (Hite et al. 2017, 64).

My results are also beneficial in identifying obstacles to local garden participation and assessing how community garden activities influence participants’ proclivity to adopt healthy lifestyle choices such as balanced diet and regular exercise. Through periods of ethnographic data collection, I assess the impacts that local gardens had on participants’ well-being, identities, activity levels, household costs, education, and nutrition. Using Marx’s (2013) conflict theory, I also examine the ways participants navigate assemblages of power and tensions and obstacles inherent to AFNs and CSA sites.

My research findings are significant as they have the potential for informing policy directions aimed at city-greening and promotion of sustainable infrastructure. They also generate
greater transparency in how AFNs distinctively operate in a region like Central Florida. Local city officials and state actors hold considerable influence in the allocation of city funds for the development of green public spaces aimed at establishing community food security. When state actors privilege the interests of private corporations and commercial development firms over the public food security, they perpetuate inequitable access to fresh and nutritious foods among their constituents (Van Herzele & Wiedemann 2003). Local gardens in targeted demographic areas may combat hierarchical treatment of green public spaces that exclude Orlando’s historically marginalized populations and neighborhoods.

Several food system studies (Abiral & Atalan-Helicke 2021; Alkon & Norgaard 2009; Baker 2004; Chan, Pennisi, and Francis 2016; Cribb 2010; DeLind 2003; Hite et al. 2017; Lal 2020; Petrovic et al. 2019; Reese 2018) support increased development of local gardens and AFNs to mitigate impacts of food insecurity and promote engagement with the natural environment. Gardens promote maximization of built human environments through beautification and community development of vacant lots and unproductive land. I believe that CSA provides an effective “nature-based approach” that emphasizes increased biodiversity through incorporation of green urban infrastructure (Kabisch et al. 2017, 4). By including considerations regarding participants’ housing status, organization of public versus privately owned gardens, and quality of garden management, I illuminate nuances in garden maintenance and development throughout the global pandemic. Gardens also answer the calls of scientists (Cribb 2010; Rockström et al. 2009) for greater awareness, education, and behavioral changes related to sustainable management of local environments.
I am grateful for the opportunity to participate in AFNs, CSA, and other green public spaces, especially amid the pandemic. Figure 32 depicts the sense of joy and feelings of completeness that I experience when I go to my garden. For me, CSA, AFNs, and gardening supply a temporary existential relief from the unsettling reality that I face. It is a reality where U.S. residents must continue to participate in the minutiae of everyday life while our cultural and political institutions fail to buffer the impacts of COVID-19. Gardening imparts a sense of stability that I desperately long for. More importantly, I demonstrate how localization of food production during a global calamity can nurture not just the body, but also the soul.
Figure 32: "Selfie" Photograph of Author at Dean Road Community Garden
GARDENING SURVEY 2020-21

Orlando Gardening Survey - 2020

Age (Check only one box):

☐ 18-24 years old
☐ 25-34 years old
☐ 35-44 years old
☐ 45-54 years old
☐ 55-64 years old
☐ 65 or more

Sex: ☐ Male  ☐ Female

Occupation (Check only one box):

☐ Professional
☐ Non-professional
☐ Unemployed
☐ Retired

Answer the following questions as they relate to you. For most answers, check the box that most applies or fill in the blank. You do not have to answer any question you do not wish to answer.

By completing this survey, I acknowledge that I am at least 18 years of age and give my informed consent to participate.

Community and Home Gardens in Orlando

1. How often do you garden per week? (Check only one box)

☐ Never
☐ Once per month or less
☐ 1-2 times per week
☐ 3-5 times per week
☐ At least once a day
☒ Multiple times in a day

2.) Which of the following ethnicities do you identify? (Mark only one choice):

☐ Southeast Asian (Please specify): __________  ☐ African-American  ☐ Hispanic/Latino
☐ East Asian (Please specify): ____________  ☐ Asian-American  ☐ White/Caucasian
☐ Middle Eastern  ☐ Hawaiian/Pacific Islander  ☐ Other: __________

3.) Are you a parent or legal guardian of minor children? ☐ Yes  ☐ No

4.) Where is your garden located? [Leave blank if none]
4.) Where is your garden located? [Leave blank if none]

- UCF Arboretum
- Lake Davis Community Garden
- Festival Park Community Garden
- Dean Rd Community Garden
- Lake Eola Heights Community Garden

5.) Why do you choose to work at this garden site?

6.) Do you garden at home?  □ Yes □ No

7.) Are you a UCF student?  □ Yes □ No

8.) Including yourself, how many members in your household are currently involved in your community garden?

- □ 1 to 2  □ 3 to 4  □ 5 or more

9.) Including yourself, how many members in your household are currently involved in your home garden?

- □ 1 to 2  □ 3 to 4  □ 5 or more

10.) How long have you been involved in home gardening projects?:

(Check only one box)

- □ Less than six months
- □ Six months to a year
- □ One to two years
- □ Two years or more

11.) How long have you been involved in community gardening projects?:

(Check only one box)

- □ Less than six months
- □ Six months to a year
- □ One to two years
- □ Two years or more

12.) How long have you maintained a garden plot at your community garden site?

(Check only one box)

- □ Less than six months
- □ Six months to a year
- □ One to two years
- □ Two years or more

13.) How long have you maintained a garden plot at your residence?

(Check only one box)
14.) What types of plant varieties do you grow?

15.) If you answered question four, how far is your residence from the garden site?

16.) If you answered question four, what modes of transportation (i.e., car, bike, walking, public transportation etc.) do you utilize to access the garden site?

17.) If you answered question for, what types of activities (i.e., individual plot cultivation, communal plot cultivation, etc.) do you participate in at your community garden site?

18.) What is your experience with home and/or community gardens?

19.) What challenges, if any, have you experienced as a gardener?

20.) What types of foods/meals do you prepare in a given week? What are some of the influences in your life that affect what you eat?

21.) Do you see yourself as part of a broader movement such as the food justice movement? Or did you previously?

22.) Has your diet has changed from what you ate prior to garden membership to what you eat now? Why or why not?

23.) Are you a part of any of the gardens' social media pages (i.e., Facebook, Instagram, etc.)?

24.) How would you describe your role in the garden?

25.) Is there something else you think I should know to understand your decisions better?
APPENDIX B: INTERVIEW GUIDE
Interview Guide

Dissertation Interview Guide 2020

1) What is your age?

☐ 18-24 years old

☐ 25-34 years old

☐ 35-44 years old

☐ 45-54 years old

☐ 55-64 years old

☐ 65 or more

2) What is your occupation?

☐ Professional

☐ Non-professional

☐ Unemployed

☐ Retired

3) Are you a parent or legal guardian of minor children?

4) What is your marital status?

5) What is your ethnicity?

☐ African-American  ☐ White Non-Hispanic/Caucasian  ☐ Hispanic/Latinx

☐ Southeast Asian  ☐ East Asian  ☐ Asian-American

☐ Hawaiian/Pacific Islander  ☐ Middle-Eastern  Other (please specify): __________

6) How long have you been involved in community gardening projects?

7) Where is your garden located? Why was this particular garden site selected?
8) Do you garden at home?

9) How long have you been involved in home gardening projects?

10) What types of plant varieties do you grow? (Probe: Mainly for subsistence, pollinators, conservation, xeriscaping, etc.?)

11) Including yourself, how many members in your household are currently involved in your home garden?

12) Including yourself, how many members of your household are currently involved in your garden site?

13) How long have you maintained a plot at your community garden site?

14) How long have you maintained a home garden at your current residence?

15) How far is your residence from your community garden? (Probe: length of commute)

16) What modes of transportation (i.e., car, bike, walking, public transportation etc.) do you utilize to access your community garden site?

17) What types of activities do you participate in at your community garden site? (Probe: individual plot cultivation, communal plot cultivation, etc.)
18) What types of activities do you participate in at your home garden?

19) What is your experience with home and/or community gardens? (Probe: experiences with other members/participants, experiences with growing plants, experiences with other factors, etc.)

20) What challenges, if any, have you experienced as a gardener? (Probe: access to resources, pests, disease, time constraints, etc.)

21) Do you see yourself as part of a broader movement, such as the food justice? Or did you previously?

22) What types of foods/meals do you prepare in a given week? What are some of the influences in your life that affect what you eat?

23) Are you a part of any of the community gardens’ social media pages (i.e., Facebook, Instagram, etc.)?

24) How would you describe your role in the garden? (Probe: Organizer, Master Gardener, New Member, etc.)

25) Is there something else you think I should know to understand your decisions better?
APPENDIX C: RECRUITMENT INVITATION
Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro Orlando Community Gardens

**Recruitment Invitation**

**Principal Investigator (PI):** Chelsea Daws

**Investigational Sites:**
1) The University of Central Florida Arboretum, 2) Knights Pantry, 3) Lake Davis Community Garden, 4) Lake Eola Heights Community Garden, 5) Festival Park Community Garden, and 6) Dean Road Community Garden.

**Criteria of Eligibility:** This is an exciting opportunity for you to take part in a research study which will include 105 people, including students at the University of Central Florida (UCF) and residents living in the greater Metro-Orlando area. In order to be eligible for this research study you must be an 18-75 year who participates in an Orlando-based community garden and/or home garden. You must be 18 years of age or older to be included in the research study.

**The Principal Investigator:** The person conducting this research is Chelsea Daws of the UCF Department of Anthropology. Because the researcher is a PhD Candidate, she is being guided by Dr. Ty Matejowsky, a UCF faculty advisor in the Department of Anthropology.

**What you should know about a research study:**
- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

**Purpose of the research study:** My dissertation ethnographically analyzes community gardening efforts of students and residents within the Metro-Orlando’s wider local food scene. The purpose of this research is to determine if garden locations and participation impact human health. My proposed study investigates one main research question: 1) How does the spatial arrangement of city gardens, distances separating them, and access affect local participation and individual health?

Notably, the COVID-19 public health emergency may exacerbate disruptions in the global food supply chain (M2 Pharma 2020). Similarly, travel and trade restrictions along with consumers’ food safety concerns may impact future food availability (M2 Pharma 2020). Gardens are potential resources to supplement urban food systems during the novel global health crisis (Fraiman 2020). Increasing trends towards sedentary lifestyles and convenience foods high in
sugar and fat result in greater prevalence of obesity and other diet-related diseases. (McMichael et al. 2007, 1256). Community and home gardens may offer members healthy alternatives to urban living (Chan, Pennisi, and Francis 2016; Pollard et al. 2018; Wakefield et al. 2007). However, local accessibility to alternative forms of food production and green city spaces may remain limited in places like Metro-Orlando residents. Overall, this project investigates Metro-Orlando gardeners’ individual health outcomes and transportation networks, access, and their experiences with suburban food production.

**What you will be asked to do in the study:** Recruitment of participants is expected to be completed by early August 2020, and interviews are anticipated to begin in late August 2020 and reach completion in June 2021. The study features four main research components.

**Interviews:** You will decide where interviews take place and whether or not you want to be recorded (with social distancing parameters kept intact). You will be required to sit for one face-to-face or one online interview session and answer questions about your gardening activities. You will interact only with the principal investigator (PI). The hypothesis will be tested through questionnaire surveys, diaries, photographs, unrecorded informal and recorded semi-structured interviews which will ask you about your gardening activities and personal experiences with urban agriculture. Participants will be recruited at various garden locations and in online formats, including social media platforms such as Instagram and Facebook.

**Surveys:** The study implements a questionnaire survey that asks Orlando residents and students where they live relative to the location of their community gardens, and about your experiences with home gardens and/or community garden membership. Specifically, the first section of the survey will include questions about participants’ demographic information; age-range, ethnicity and sex. Other sections document gardeners’ diets, transport, and garden participation.

**Travel diaries:** The PI will provide five participants with food and travel diaries (e.g., composition books) that require participants to record how they prepare meals and modes of transportation to garden sites (if applicable) for a duration of one week. Materials should be returned after seven days.

**Photovoice:** Participants with home gardens who elect to engage in the photovoice component of the project are expected to take photographs of their home gardens using a disposable camera. Approximately five participants will receive disposable cameras and prompted to take pictures of gardens and gardening activities. The PI will collect the disposable camera and develop the photographs for analysis. The data will be analyzed in order to identify any patterns or themes.

You are responsible for showing up to face-to-face and online interview sessions at the agreed upon time and place at a location comfortable for both the researcher and participant. If participating online, respondents are expected to find a quiet, private area and use a secure VPN.

**Audio or video taping:** You will be audio taped during this study. If you do not want to be audio taped, you will be able to be in the study. Discuss this with the researcher or a research
team member. If you are audio taped, the tape will be kept in a locked, safe place. Data will be kept indefinitely for research purposes on a password protected computer file.

**Time required:** We expect that you will be in this research study for no more than 10 to 30 minutes of your time for each session. Recorded interviews will be a maximum of 30 minutes in total. Unrecorded informal interviews will be a maximum of 15 minutes in total. You will need 10 to 30 minutes to complete the online or paper questionnaire survey component of the research endeavor.

Five participants with home gardens will also be expected to document their experiences using a disposable camera and keep a travel and food diary for one week. The five participants who receive disposable cameras will return the materials to the PI after seven days.

**Compensation or payment:** Participants will be compensated $5.00 (US) per interview. Questionnaire surveys are uncompensated.

**Study contact for questions about the study or to report any issues:** If you have questions, concerns, or complaints, or think the research has hurt you, talk to Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology, 4297 Andromeda Loop N, Orlando, FL 32816, HPH 309G, by phone (407) 823-4611 or by email at Ty.Matejowsky@ucf.edu. For any other questions, please contact Chelsea Daws, PhD Candidate, Cultural Anthropology Program, College of Sciences, 4297 Andromeda Loop N, Orlando, FL 32816, Howard Phillips Hall (HPH), Room 309M, by phone (561) 635-9437 or by email chelsead@knights.ucf.edu.

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

Overall this is an exciting opportunity for students and residents to elucidate their gardening experiences!
APPENDIX D: INFORMED CONSENT
Cultivating Green City Spaces: An Anthropological Assessment of Land Use Changes and Residential Experiences in Metro-Orlando’s Community Gardens

EXPLANATION OF RESEARCH

Title of Project: Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro-Orlando Community Gardens

Principal Investigator: Chelsea Daws

Faculty Supervisor: Dr. Ty Matejowsky

You are being invited to take part in a research study. Whether you take part is up to you.

My dissertation ethnographically analyzes community gardening efforts of students and residents within the Metro-Orlando’s wider local gardening scene. The purpose of this research is to determine if garden locations and participation impact human health. My proposed study investigates one main research question: 1) How does the spatial arrangement of city gardens, distances separating them, and access affect local participation and individual health?

You will be asked about your experiences with community and/or home gardens. You will be asked to participate in an anthropological study which requires you to answer questions during informal unrecorded and/or semi structured recorded interviews. Interviews will take place via Skype or in face to face settings (with social distancing parameters kept intact).

We expect that you will be in this research study for no more than 10 to 30 minutes of your time for each interview session. You can participate in up to three interview sessions. Interview sessions will be conducted online (e.g., Skype) or in a face-to-face location to be determined by you and the PI. Online and face-to-face recorded interviews will be a maximum of 30 minutes. Unrecorded informal interviews will be a maximum of 15 minutes in total. You will need 10 to 30 minutes to complete the online or paper questionnaire survey component of the research study.

You will be audio recorded during this study. If you do not want to be recorded, you will be able to be in the study. Discuss this with the researcher or a research team member. If you are recorded, the recording will be kept in a locked, safe place. Per UCF policy, the recording will be kept for a minimum of five years on a password protected computer file.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

To maintain confidentiality, I plan to use pseudonyms that avoid potential identifying factors. Additionally, geospatial data will be anonymized. The PI and Faculty Supervisor will have access to interview and survey data while the study remains open. Only the PI will retain access to identifiable and deidentified data for a minimum of five years upon completion of the research study.
Compensation: Participants will be compensated $5.00 (US) per interview. For face-to-face interviews, monetary compensation will be dispersed in the form of cash. For online interviews, cash will be dispersed via USPS mail upon completion of the interview session OR (when applicable) electronically transferred via a digital payment application (e.g., Venmo, CashApp, etc.). Compensation is only for qualified participants.

You must be between 18-75 years old and a UCF student and/or Metro-Orlando resident who participates in a community garden and/or has access to a home garden to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints: please contact Chelsea Daws, Graduate Student, Department of Anthropology, College of Sciences, 4297 Andromeda Loop N, Orlando, FL 32816, Howard Phillips Hall (HPH), Room 309M, by phone (407) 823-4611 or by email at chelsead@knights.ucf.edu. Contact Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology at 4297 Andromeda Loop N, Orlando, FL 32816, HPH 309G, by phone at (407) 823-2233 or by email at Ty.Matejowsky@ucf.edu.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.
EXPLANATION OF RESEARCH

Title of Project: Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro-Orlando Community Gardens

Principal Investigator: Chelsea Daws

Faculty Supervisor: Dr. Ty Matejowsky

You are being invited to take part in a research study. Whether you take part is up to you. Because you have answered “yes” to being a home gardener you are qualified for the photovoice component of this research study.

My dissertation ethnographically analyzes community gardening efforts of students and residents within the Metro-Orlando’s wider local gardening scene. The purpose of this research is to determine if garden locations and participation impact human health. My proposed study investigates one main research question: 1) How does the spatial arrangement of city gardens, distances separating them, and access affect local participation and individual health?

If you have a home garden, you will also be able to participate in the photovoice component of the study. You will be expected to take photographs of your garden using a disposable camera that will be provided to you by the PI. The five participants who receive disposable camera will return the materials after seven days. The PI will collect the disposable camera and develop the photographs for coding and analysis.

Do you give the PI permission to use your photos for research purposes? □ Yes □ No

We expect that you will be in this research study for no more than one week. You can participate in up to one photovoice submission.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

To maintain confidentiality, I plan to use pseudonyms that avoid potential identifying factors. The PI and Faculty Supervisor will have access to photovoice data while the study remains open. Only the PI will retain access to identifiable and deidentified data for a minimum of five years upon completion of the research study.

Compensation: Participants will be compensated $5.00 (US) for completing the photovoice component of the study. Depending on individual preference compensation will be dispersed via USPS mail upon completion OR electronically transferred via a digital payment application (e.g., Venmo, CashApp, etc.).
You must be between 18-75 years old and a UCF student and/or Metro-Orlando resident who participates in a home garden to take part in this research study.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints: please contact Chelsea Daws, Graduate Student, Department of Anthropology, College of Sciences, 4297 Andromeda Loop N, Orlando, FL 32816, Howard Phillips Hall (HPH), Room 309M, by phone (407) 823-4611 or by email at chelsead@knights.ucf.edu. Contact Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology at 4297 Andromeda Loop N, Orlando, FL 32816, HPH 309G, by phone at (407) 823-2233 or by email at Ty.Matejowsky@ucf.edu.

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EXPLANATION OF RESEARCH

Title of Project: Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro-Orlando Community Gardens

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You are being invited to take part in a research study. Whether you take part is up to you.

My dissertation ethnographically analyzes community gardening efforts of students and residents within the Metro-Orlando’s wider local gardening scene. The purpose of this research is to determine if garden locations and participation impact human health. My proposed study investigates one main research question: 1) How does the spatial arrangement of city gardens, distances separating them, and access affect local participation and individual health?

You will be asked about your experiences with community and/or home gardens. You will be asked to participate in an anthropological study. You will be asked to complete a questionnaire survey that asks where you live relative to the location of your community garden, and about experiences with home gardens and/or community garden membership.

We expect that you will be in this research study for no more than 10 to 30 minutes of your time. We expect the survey to take no more than 30 minutes to complete.

Per UCF policy, the survey will be kept for a minimum of five years on a password protected computer file or in a private, locked, safe place.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

To maintain confidentiality, I plan to use pseudonyms that avoid potential identifying factors. Additionally, geospatial data will be anonymized. The PI and Faculty Supervisor will have access to interview and survey data while the study remains open. Only the PI will retain access to identifiable and deidentified data for a minimum of five years upon completion of the research study.

Compensation: Participants will not be compensated for completion of questionnaire surveys.

You must be between 18-75 years old and a student and/or Metro-Orlando resident who participates in a community garden and/or has access to a home garden to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, or think the research has hurt you, talk to Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology, 4297 Andromeda Loop N, Orlando, FL 32816, HPH 309G, by phone (407) 823-4611 or by email at Ty.Matejowsky@ucf.edu. For any other questions, please contact Chelsea Daws, PhD Candidate, Cultural Anthropology Program, College of Sciences, 4297 Andromeda Loop N.
Orlando, FL 32816, Howard Phillips Hall (HPH), Room 309M, by phone (561) 635-9437 or by email chelsead@knights.ucf.edu.

IRB contact about your rights in this study or to report a complaint:  If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.
EXPLANATION OF RESEARCH

**Title of Project**: Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro-Orlando Community Gardens

**Principal Investigator**: Chelsea Daws

**Faculty Supervisor**: Dr. Ty Matejowsky

You are being invited to take part in a research study. Whether you take part is up to you. Because you answered "yes" to being a home gardener or participant in a community garden you are eligible for the transportation and food diary component of the study.

My dissertation ethnographically analyzes community gardening efforts of students and residents within the Metro-Orlando’s wider local gardening scene. The purpose of this research is to determine if garden locations and participation impact human health. My proposed study investigates one main research question: 1) How does the spatial arrangement of city gardens, distances separating them, and access affect local participation and individual health?

You will be asked to document your travel experiences and meal preparation practices.

Out of the 105 total respondents, five participants will also be asked to keep a travel and food diary for one week. The principal investigator (PI) will provide food and travel diaries for a week (e.g., composition books, notebooks, etc.) that require you to record meal compositions and modes of transportation to garden sites (if applicable). The five participants who receive composition notebooks will return the materials after seven days. The PI will collect the diaries for coding and analysis. The PI may publish direct lines from and images of food and transportation diaries. Due to these factors, please do not include personally identifiable information in the food and travel diaries.

Do you give the PI permission to use your diary for research purposes?  □ Yes  □ No

We expect that you will be in this research study for no more than one week of your time. You can participate in only one food and transportation diary submission.

Per UCF policy, the food and transportation diary will be kept for a minimum of five years in a safe, locked and private location.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

To maintain confidentiality, I plan to use pseudonyms that avoid potential identifying factors. Additionally, geospatial data will be anonymized. The PI and Faculty Supervisor will have access to interview and survey data while the study remains open. Only the PI will retain access to identifiable and deidentified data for a minimum of five years upon completion of the research study.
Compensation: Participants will be compensated $5.00 (US) per food and travel diary submission. Depending on individual preference, cash will be dispersed via USPS mail upon completion of the interview session OR electronically transferred via a digital payment application (e.g., Venmo, CashApp, etc.). Compensation is only for qualified participants.

You must be between 18-75 years old and a UCF student and/or Metro-Orlando resident who participates in a community garden and/or has access to a home garden to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints: please contact Chelsea Daws, Graduate Student, Department of Anthropology, College of Sciences, 4297 Andromeda Loop N, Orlando, FL 32816, Howard Phillips Hall (HPH), Room 309M, by phone (407) 823-4611 or by email at chelsead@knights.ucf.edu. Contact Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology at 4297 Andromeda Loop N, Orlando, FL 32816, HPH 309G, by phone at (407) 823-2233 or by email at Ty.Matejowsky@ucf.edu.

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.
APPENDIX E: IRB APPROVAL LETTER
EXEMPTION DETERMINATION

October 14, 2020

Dear Chelsea Daws:

On 10/14/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

<table>
<thead>
<tr>
<th>Type of Review</th>
<th>Modification / Update</th>
</tr>
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<tbody>
<tr>
<td>Title</td>
<td>Cultivating Green City Spaces: An Anthropological Study of Land Use Changes and Residential Experiences in Metro-Orlando Community Gardens</td>
</tr>
<tr>
<td>Investigator</td>
<td>Chelsea Daws</td>
</tr>
<tr>
<td>IRB ID</td>
<td>MOD00001344</td>
</tr>
<tr>
<td>Funding</td>
<td>Name: UCF/College of Graduate Studies</td>
</tr>
<tr>
<td>Grant ID</td>
<td>None</td>
</tr>
</tbody>
</table>

Documents Reviewed:
- Daws Dissertation Recruitment Invitation REV, Category: Recruitment Materials;
- Daws HRP-254 Explanation of Research Survey, Category: Consent Form;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

Due to current COVID-19 restrictions, in-person research is not permitted to begin unless you are able to follow the COVID-19 Human Subject Research (HSR) Standard Safety Plan with permission from your Dean of Research or submitted your Study-Specific Safety Plan and received IRB and EH&S approval. Be sure to monitor correspondence from the Office of Research, as they will communicate when restrictions are lifted, and all in-person research can resume.
If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

[Signature]

Kamille Birkbeck
Designated Reviewer
REFERENCES

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ACGA.


Alaimo, K., E. Packnett, R. A. Miles, and D. J. Kruger.


Algert, Susan, Lucy Diekmann, Marian Renvall, and Leslie Gray.

Alkon, Alison Hope, and Kari Marie Norgaard.

Armelagos, George J.

Austin, S. B., Melly, S. J., Sanchez, B. N., Patel, A., Buka, S., & Gortmaker, S. L.
Baaz, Mikael, Mona Lilja, Michael Schulz, and Stellan Vinthagen.  

Bakaloudi, Dimitra Rafailia, Dhanushya T. Jeyakumar, Ranil Jayawardena, and Michail Chouridakis.  

Baker, Lauren.  

Barrios, Roberto E.  

Barthel, Stephen, John Parker, and Henrik Ernstson.  

Bellemare, Marc. F., and Dusoruth, Vaneesha.  

Bender, Kathryn E., Aishwarya Badiger, Brian E. Roe, Yiheng Shu, and Danyi Qi.  


Berry, Josephine.  


Bukowski, Catherine, and John Munsell.  

Butterfield, Katie L., and A. Susana Ramírez.  

Campbell, Bradley.  

Cardona, Euridice Charon, and Roger D. Markwick.  


Chan, Joana., Lisa Pennisi., and Charles A. Francis  

Charmaz, Kathy.  

Charmes, Jacques.  

Chatterton, Paul, and Andre Pusey.  

Chenarides, Lauren, Carola Grebitus, Jayson L. Lusk, and Iryna Printezis.  
Colchester, Max.

“Community Gardens.” City of Orlando.


Coughlin, Nicole

Coveney, John.

Crews, Douglas E.

Cribb, Julian.

Cronon, William.

Cumbers, Andrew, Deirdre Shaw, John Crossan, and Robert McMaster.


Drennig, Georg.  

Ellis, Carolyn, Tony E. Adams, and Arthur P. Bochner.  

Fischer, Peter W.F., Michel Vigneault, Rong Huang, Konstantinia Arvaniti, and Paula Roach.  

Flachs, Andrew.  

Foucault, Michel.  

Fraiman, Michael.  

Freund, Peter, and George Martin.  

Furness, Walter William.  

Galbraith, Alex.  

Galt, Ryan E., Katharine Bradley, Libby Christensen, Julia Van Soelen Kim, and Ramiro Lobo.  
Glennie, Charlotte.  

Green, Sean.  

Halbritter, Dale A., Jaret C. Daniels, Douglas C. Whitaker, and Lei Huang.  

Haydu, Jeffrey.  


Hernandez, Rosalba, Sarah M. Bassett, Seth W. Boughton, Stephanie A. Schuette, Eva W. Shiu, and Judith T. Moskowitz.  

Hendrikx, Bas, Stefan Dormans, Arnoud Lagendijk, and Mike Thelwall.  

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Joshi, Neelakshi, and Wolfgang Wende.  

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Khan, Md Marufuzzaman, Agricola Odoi, and Evah W Odoi.  

Knigge, LaDonna, and Meghan Cope.  

Lal, Rattan.  

Lal, Rattan.  

Larios, Carolina, Casas A., Vallejo M., Moreno-Calles I.A., and Blancas J.  

Latham, Robert.  

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Lefebvre, Henri.

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Russon, Gabrielle.


Scannell, Leila, and Robert Gifford.

Schismenos, Spyros, Antoine A. Smith, Garry J. Stevens, and Dimitrios Emmanouiloudis.


Von Glasenapp, Markus., and Thomas F. Thornton. 

Wachter, Till. 

Wakefield, Sarah., Fiona Yeudall, Carolin Taron, Jennifer Reynolds, and Ana Skinner. 

Wright, Gavin. 