



Cultivating Community:

Gardening as a Vehicle

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May 2014

This project was submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Graduate Liberal Studies Program in the Graduate School of Duke University.

Abstract

This paper explores the question of whether and how a community garden, i.e. a piece of land cultivated by a group of individuals, fosters relationships and skills in the garden that can be put to use outside the immediate context of the garden. A brief history of community gardening in the United States and a survey of recent community gardening activity in the Research Triangle area of North Carolina sets the context for the community gardens studied. Interviews were conducted with garden organizers and people who simply enjoyed working in or volunteering for the specific community gardens observed to understand the perceived benefits and challenges to belonging to the community garden. Gardens were visited to observe the physical space used for the garden and the interactions between the gardeners.

"let us cultivate our garden."

--Voltaire's *Candide*

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by

Solveig Viste

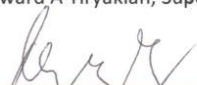
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A project submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
in the Graduate Liberal Studies Program
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Duke University

2014

Preface	5
Introduction	8
History of Community Gardens in the United States	9
Pre World War I Gardens	10
World War and Depression Era Gardens	10
Post World War II Gardens	11
Twenty-first Century Gardens	15
State of Community Gardens in the Triangle.....	16
Benefits of Community Gardens	21
Challenges for Community Gardens	24
Food systems	26
Global Food	28
Local Food	29
Ethical Food.....	31
Organic Cultivation Methods	33
Summary	35
Empirical Research.....	37
Methods.....	37
Findings	39
Perceived Gardening Benefits.....	40
Community and Environmental Health	45
Challenges to Garden Leaders	49
Designing space for use	51
Hypotheses	53
Conclusion.....	56
Appendix A – Gardener Questions.....	58
Appendix B – Leader Questions	60
Appendix C – Subject Garden Pictures.....	62
REFERENCES.....	65

Preface

Like many people who garden, my first memories are from childhood: growing corn with my mother on land set aside for college faculty to grow their own vegetables. I remember another faculty member disappearing to his waist while double digging his plot, and I remember hauling five gallon jugs with my mother to water the seedlings when the rain did not come. The drought and the lack of water at the garden site were part of my mother's decision to discontinue gardening at the campus location. Much later, in the early years of our marriage, my husband and I tried backyard gardening, but the thrill of hiking the Columbia Gorge proved greater than the pleasure of digging potatoes from our back yard. The shady scene that meets my eye now as I write this paper is better suited to feeding birds than to growing vegetables. Nevertheless, each spring and fall when the temperature is moderate I yield to the temptation of getting my hands dirty by planting something pretty for me or tasty for the birds that will do well on my wooded lot.

The way food gets to my table has been something I take for granted even though I know something about the process. I saw the vegetable garden and the pasture on childhood visits to my grandparents' farm. I heard stories of cute calves growing into steak on the hoof which went into the freezer when hay stocks were low. I saw the bins of apples and the jars of carrots, beans and pickled beets lining the basement walls. At home my mother canned and froze the cheap, plentiful fruits and vegetables during the summer which she then served us during the winter, but I have not followed her example, preferring to sample the year round parade of fresh produce gathered from the ends of the earth.

Then I entered Duke's liberal studies program and read Jonathan Foer's *Eating Animals*. His research shows that animal agriculture is the most significant single cause of global warming.¹ The lives of the animals raised on my grandparents' farm bears little resemblance to that of the animals on "factory farms." The latter are production units manipulated to minimize input and maximize output, resulting in cheaper eggs and meat at the expense of animal

¹ Jonathan Foer, *Eating Animals* (New York: Little Brown and Company, 2009), 58.

suffering.² Foer raises the question, how one could claim to be ethically or environmentally aware and eat meat produced in this manner.

Foer was the first of several authors who demonstrated the myriad ways in which my convenience adversely affects others' lives. Michael Pollan in his *Omnivore's Dilemma* traces the natural history of four meals: a fast-food meal, an organic meal with products from large scale organic farms, a meal from a family farm and one which the author hunted and gathered himself. I remember being surprised at the length of the industrial food chain and puzzled that a process involving so many steps could deliver cheaper food than unprocessed food. While Pollan regards his hunted and gathered meal as a journey of self-discovery, he clearly sees Joel Salatin's integrated, largely self-sustaining family farm catering to a local customer base as a realistic alternative to large agribusiness oriented to the globalized marketplace. Food from such farms would reduce the ethical concern about contributing to suffering because animals on such farms are allowed to live the life of a domestic animal even while they produce milk, eggs and meat. However, relatively few such farms exist.

These books among others got me thinking about my relatives' farms. The challenge of growing one's own food has become an increasingly less common experience. As more people move to the city, less of the population understands the connection of food to the land. The conventional wisdom suggests it is more advisable to get an education and a desk job away from the elements than to stay on the farm and learn its lessons. In *The Unsettling of America*, Wendell Berry blames an exploitative relationship to land for many societal ills, including the current disconnection of people from the land. The search for ever expanding markets breeds a revolution turning all of us into consumers who are dependent on others for the common necessities of life.³ Berry's agrarian perspective is much different than the predominant one, which praises agribusiness for feeding society more efficiently and thereby freeing people to follow more specialized and rewarding careers. But does freedom from gathering food translate into a more meaningful life?

² Jonathan Foer 2009: 60.

³ Wendell Berry, *The Unsettling of America: culture & agriculture* (San Francisco: Sierra Club Books, 1977), 5-6.

The agrarian perspective was very much in evidence at a September 2012 Duke Divinity School-hosted event called the Reconcilers Weekend which focused on reconciliation with creation. There, I heard testimonials from people in small rural communities about how a garden brought them together, providing common ground not only for growing food but also for recreation and relaxation. Experiences in the garden also produced skills for tackling other issues in their town. Most dramatic among the garden stories was the one about Anathoth community garden with a murder and a vision preceding its inception. Anathoth attracted people from diverse backgrounds and partially healed the racial division running through the small town of Cedar Grove, NC. By following Voltaire's famous dictum, "we must cultivate our garden," its members were able to confront problems within themselves and the town. Former garden director Fred Bahnson told of a drastically different way of living born of his experiences at Anathoth, a way of living rooted in place. Bahnson's description of farming is more of a communion than a business. Tending the earth, in Bahnson's view, is humankind's first and most important job.

After hearing stories of the positive impact community gardens were making in communities around North Carolina, I discovered and joined a small group within my own church who was interested in starting a community garden as an outreach ministry. In the first three seasons, gardeners have grown and donated nearly two hundred pounds of fresh produce to persons in need, and the garden organizers are becoming acquainted with many fellow parishioners they might not have crossed paths with otherwise and are developing a sense of what it takes to cultivate members as well as plants.

Cultivation of the soil has many contexts. Is it a meaningful vocation? Is it simply hard manual labor whose necessity has been happily consigned to other times and people or is it still the cornerstone of a local food system? Is it a healthy hobby or a statement of self-sufficiency? My journey to the garden gate has been born of compassion, a desire for justice, a romantic connection with land, and simply biophilia - a love of nature. It has been encouraged by the passion of the people I've met in chance encounters, people who enthusiastically invite me to

visit this garden or that, each of which is the genuine article. Who would I find beyond those gates and what would I learn about their purpose for gardening in community?

Introduction

Local food from farmer's markets to niche restaurants is in the news. Farmer's market customers make the process of purchasing produce a social one. Buying local products is praised for keeping more money in the local economy. Suburbanites prefer hand-made artisanal bread; Wonder Bread clad in balloon-decorated plastic is the poster child for a myriad of ills associated with mass production. Community gardens are local, customized spaces where people know one another and can control how their food gets to their table.

This paper explores the question of whether and how a community garden, i.e. a piece of land cultivated by a group of individuals, builds community. The garden itself is a community in the sense of a small social group with some commonly-held values or purpose, but it also belongs to a wider community of individuals and organizations who are affected by the garden. Members of this wider community are sometimes called stakeholders.

To answer this question, several methods were employed: literature review, garden visits and garden member interviews. The ideal subject gardens would be heterogeneous with respect to purpose; that purpose might or might not be informed by faith, and it might be classified as idealistic or utilitarian. In reality, the gardens of the leaders who agreed to participate in the study did not adequately represent both dichotomies leaving gaps in the data which prevented some proposed comparisons. However, the interviews did provide information regarding perceived benefits of their gardens by the garden members on personal as well as group levels. These benefits spoke to both utilitarian and idealistic purposes.

The first section of this paper establishes the historical context of US community gardens and describes community gardens in North Carolina. The second section characterizes benefits available to individuals through membership in a community garden and the challenges garden organizers face in keeping the land secure and the stakeholders interested.

The literature uses the concept of social capitalⁱ to explore the ability of community gardens to build community as well as to characterize the relationships formed in the garden. The third section places community gardens in the context of the local food system, which is an alternative to the industrial food system. The final section examines community gardens in the Research Triangle area of North Carolina who agreed to share their gardening experiences.

History of Community Gardens in the United States

The history of community gardens in the United States seems to be one of crisis management; that is, of gardening as a remedy for some national or social problem. This was true for the Victory Gardens and Liberty Gardens which sprang up as part of the war effort as well as for the relief gardens which fed and engaged unemployed workers during the boom and bust cycles common from the 1890s to the Great Depression just before World War II. Immigration, which peaked in 1907, brought with it social turmoil. Lady Liberty might have welcomed the huddled masses, but many American citizens scorned or feared them. T.J. Basset understands the School Garden Movement of the early twentieth century as a reaction of middle and upper class citizens to waves of immigrants whose poverty was taken as a sign of sloth.⁴

In *City Bountiful*, Laura Lawson divides her history of community gardens into three periods: (1890s -1917) (1917-1945) and (1945-2005). Briefly, at the end of the nineteenth century, community gardens were introduced into low class urban neighborhoods by local civic organizations to relieve abject conditions. During World War I the effort was nationalized; federal resources and expertise gave a uniform mission. The civic organizations themselves grew into national organizations with local chapters. Cities became involved in community gardening as part of the larger effort. However, once the crises of the World Wars had passed, the federal interest shifted and the garden movement was reduced to a recreational pastime for the better part of two decades. Finally, the 1970s Oil Shock and Environmental Movement

⁴ Basset, 1979 cited in Meredith Michaels "The Therapeutic Benefits of Community Gardening: An Exploration of the Impact of Community Gardens through the Lens of Community" (PhD Diss. Alliant International University, Los Angeles, 2013), 18-19. ProQuest UMI Dissertation Publishing UMI 3567663.

brought renewed interest in community gardening as an expression of self-reliance and earth friendliness.

Pre World War I Gardens

The early period (1890s-1917) was marked by changing ideas about rural and urban life. The Industrial Revolution brought people to the city, but economic booms and busts resulted in unstable employment as shown by the depressions of 1893-1897, 1907-1908 and 1915-1917. The cityscape itself was changing. In 1850 a city resident's daily routines rarely brought him farther than he could walk. However, forty years later, home and office were separate from one another with workplaces in the city center and homes situated in garden-like suburbs segregated by religion, class and race. Middle class workers commuted daily to work; only the poor, many of whom had recently moved from the country to the city, resided in the inner city.

The turn of the twentieth century was a time of accelerated change. More human control over the environment was accompanied by the hope that the changes would bring the good life. Regulation of housing and labor practices were put in place to that end. The Progressive Movement, full of faith in the efficacy of empirical knowledge to strengthen society, looked to changing the physical environment as a panacea for social ills. The experimentation with garden programs from 1891 to 1914 constituted one more attempt to reform society by enhancing physical conditions. In schools gardens became education vehicles;⁵ in decayed neighborhoods they transformed vacant lots into self-help programs and civic forums.⁶ Progressives tried to cure urban blight by reintroducing nature to the neighborhood and restoring the urban poor to a more agrarian lifestyle. In a sense this was an early attempt at planned community development.

World War and Depression Era Gardens

The middle period (1917-1945) was marked by three crises: the two World Wars and the Great Depression. These emergencies galvanized the nation and nationalized the community garden. Leadership shifted from civic organizations to governmental agencies. The civic

⁵ Laura Lawson, *City Bountiful: A Century of Community Gardening in America* (Berkeley: University of California Press, 2005), 53-54.

⁶ Laura Lawson 2005: 54-55.

organizations became middle management, and their purview expanded from single cities to state- or nation-wide networks of local chapters. The local volunteer gardeners were considered unskilled labor; the experts were in the federal government.

In World War I the emphasis was on self-sacrifice for the sake of the war effort. The US Bureau of Education, the US Food Administration and the Council of National Defense provided the expertise. In World War II the pattern was similar, but the stress was on agricultural efficiency; backyard gardening with its focus on nutrition and family recreation together with price controls allowed the farmer to contribute more to the war effort. During the Great Depression, two types of gardens – subsistence kitchen gardens and work relief gardens – filled hungry mouths with food and empty hours with work before Roosevelt made his New Deal.

In each case, as the predicament was resolved, national governmental support ended, resulting in the unraveling of the program due to lack of local leadership and expertise. Recreation replaced duty as a reason to garden, and the movement slowed for the next two decades.

Post World War II Gardens

The third period (1945-2005) was initially marked by a narrowed interest in gardening as simply a hobby. It could be argued that the 1950s, remembered as a period of relative peace and prosperity, did not need gardens to solve problems, but the 1960s was marked by the Vietnam War, social turbulence and political assassinations. Why did the crises of the 1960s spark no interest in gardens? Conceivably fear of nuclear war made fallout shelters stocked with canned food seem more practical than community gardens. Maybe the rise of a welfare state suppressed the self-reliance of a local organization. Perhaps the pursuit of civil rights was more dramatic than the plodding path to harvest. The 50s and 60s seem to be lost decades in the history of community gardening in the US.

In the 1970s, however, interest in community gardening picked up as a reaction to the energy crisis, rising food costs and environmental awareness.⁷ Stagflation, a consequence of the 1973 oil crisis, showed the government to be less capable of controlling the economy than

⁷ Laura Lawson 2005: 205.

expected; self-reliance in the form of gardening seemed an answer. Growing food could counter inflation and deal with problems of systematic waste and of pesticide use.⁸ In this case, the environmental spirit focused on cultivated rather than wild land. For some, gardening offered an avenue for individuals to feel rooted in a society with weak norms; for others, gardening afforded a feeling of competence. A backyard garden could be a hedge against inflation or a benefit to the environment.

The use of a vacant lot for a garden raised the question of permanence. In poor economic times cities might be supportive of the garden by hauling away trash or bringing compost,⁹ but when the economic opportunity arose, they were often ready to develop the land over the objections of the gardeners. An insecure hold on the land remains a major reason why a garden dies.

Unlike the wartime Victory Gardens which answered the clarion call of the nation, the community gardens of the 70s supported the desires of the local community. For the first time, garden leadership was local, and these local leaders decided to acquire land, build a garden and devise educational programs.¹⁰ Community gardens became places of activism, reclaiming neighborhoods from urban decay and race-based violence. Lawson quotes Charlotte Kahn, who founded Boston Urban gardens in a time of racial conflict: “the gardens were a symbol of... the possibility for a better city and a real centered community, an expression of people getting along together.”¹¹ Neighborhood renewal rippled through the city and wider society, lending resiliency to infrastructure via social networks based on the garden. The local management of community gardens of the 70s became much more proactive, but the expertise was still outside the neighborhood. In response to this change in how community gardens were managed, external experts made fewer of the primary decisions. Instead they provided their advice to garden managers or their sponsors upon request and within a framework negotiated with local garden management.

⁸ Laura Lawson 2005: 215-216.

⁹ Laura Lawson 2005: 220.

¹⁰ Laura Lawson 2005: 206, 207.

¹¹ Laura Lawson 2005: 213.

As a result of these changes, gardeners themselves had to surmount a variety of problems. For example, repurposing a lot went unexamined in the Potato Patches of the early years, but in the more environmentally-conscious 70s it raised the question of what toxic trash might be left behind. Soil testing often revealed lead, which was mitigated through monitoring pH levels, increasing organic matter in soil and washing of vegetables grown there.¹² Vandalism and theft were also problems; a common solution was the employment of would-be trouble makers as guards.¹³ In the 70s and 80s several books giving advice on how to organize community gardens were published, notably one by Boston Urban Gardeners, entitled *A Handbook of Community Gardening*.¹⁴ Coalitions sprang up to streamline the procurement of tools, water, and electricity.¹⁵ The activities in the garden expanded from simply tending the plants to include artistic events. By the late 70s and into the 80s hospitals and corporations¹⁶ had joined the ranks of garden sponsors.

By 1976, the USDA Cooperative Extension inaugurated an Urban Garden Program which encouraged nonprofit organizations to liaison with community gardens, complementing local leadership with external expertise.¹⁷ The program expanded until 1985, during which time large cities in different states were selected to receive federal assistance for education in the form of 4H type projects. By 1993, after its sponsor, Congressman James Whitten, gave up leadership of the House Appropriations Committee the program lost funding.¹⁸ Composting, recycling and renewable energy all had the feel of environmental conservation. An anti-consumerism vein also inspired some gardeners to join community gardens. In 1979 a nonprofit organization, the American Community Gardening Association (ACGA,) was formed to assist gardeners with expertise and networking, and to support the purposes of justice, hunger elimination, health and nutrition.

¹² Laura Lawson 2005: 221.

¹³ Laura Lawson 2005: 221.

¹⁴ Laura Lawson 2005: 223-4.

¹⁵ Laura Lawson 2005: 224.

¹⁶ Laura Lawson 2005: 233.

¹⁷ Laura Lawson 2005: 225-229.

¹⁸ Laura Lawson 2005: 228.

In the 1980s a new use for gardens, as vehicles for job training,¹⁹ sprang up, serving the economic needs of vacant lot gardeners in a new way. At about the same time, New Yorkers began to value public open space in the city; playgrounds, mini-parks and community gardens were typical examples of the open space.²⁰ The appeal of these open spaces depended on the political and economic conditions of the cities to which the spaces belonged; while New Yorkers were forming coalitions to protect them, Boston was erecting public housing on its open space.²¹ This variability alerted garden organizers to the need to secure the land they tilled.

In the 1990s horticulture therapy, the manipulation of plants to transform the human condition, found its way into community gardening.²² Harvard biologist E.O. Wilson provides a possible mechanism for the effectiveness of such therapy by calling the tie between plants and people biophilia. A 1985 article in the “ACGA Community Greening Review” speaks of the healing effects of plants not just on individuals but also on groups of people at a cultural and social level by providing a benevolent setting inspiring confidence and showing a larger pattern of life.²³ The discipline of community psychology recognizes the role environment plays in shaping individual behavior. In her dissertation, “Therapeutic Benefits of Community Gardening,” Meredith Michaels looks through the lens of community psychology and advocates for the utilization of community gardens as a tool for individual and community health.²⁴

In the 1990s the influence of the environmental movement on community gardening continued to grow. The ACGA calls it “greening”— making one’s space and activities environmentally friendly – and credits it for everything from growing leaders and civic engagement, to improving health and teaching skills and character.²⁵ A University of Washington website describes the value of green space to social bonding and cohesiveness.²⁶ In brief, vegetation makes a space more appealing for individual and group activity; shared space

¹⁹ Laura Lawson 2005: 235.

²⁰ Laura Lawson 2005: 235.

²¹ Laura Lawson 2005: 237.

²² Laura Lawson 2005: 238.

²³ http://communitygarden.org/docs/learn/articles/hort_as_human_therapy.pdf accessed 11/2013.

²⁴ Meredith Michaels 2013: 97-125.

²⁵ http://communitygarden.org/docs/learn/articles/14good_reasons_for_cgs.pdf accessed 11/2013.

²⁶ http://depts.washington.edu/hhwb/Thm_Community.html accessed 11/2013.

and shared activity promote feelings of unity and trust and discourage antisocial behavior. The Furman Center at the New York School of Law looked into anecdotal claims that community gardens improve property values. Building on existing research about the impact of green spaces on adjacent properties, they found that community gardens in New York City do have a statistically significant positive influence on properties within 1000 feet of the garden.

Activities and skills identified in a 1990 ACGA survey shown in the table below continued to play a common role in the community gardens of the first decades during the twenty-first century.

Table 1: Purposes of Community Garden

Core Activities	Additional Activities	Common Skills
community organizing	business development	horticulture
land	job training	community organizing
horticultural aid	lobbying	educational
education	horticultural therapy	landscape architecture
garden design		

The ACGA has developed a set of precepts for using the community garden as a vehicle for community building

1. There are many ways to start or manage a garden.
2. Sustainability requires attention to local conditions and reliance on local community's strengths, needs, and desires.
3. Diverse participation and leadership are strengths.
4. Each member is a resource.
5. Gardens are at once communities and members of wider communities.

Twenty-first Century Gardens

In the first decade of the twenty-first century, Lawson reports, community gardening continues to be influenced by the region in which the garden is located and the socioeconomic status of its participants. The garden purposes of beautification, food and/or education which remained popular during the whole history of community gardens²⁷ continue their prevalence in the community gardens of the first decades during the twenty-first century.

²⁷ Laura Lawson 2005: 206.

The theme of transformation through community gardens finds expression in the common roles of community gardens as school and neighborhood assets, as sources of community food security and as sources of job training or entrepreneurial incubators. As community development tools, they can provide 1) land for food, 2) cultural sensitivity for education, 3) skills and therapy for income and health enhancement, and 4) inspiration, diversity and inclusivity for activism and volunteerism. Prospective garden organizers need to avoid past paternalistic tendencies and a blind faith in the unadulterated good of gardening.

State of Community Gardens in the Triangle

Through the historical lens of gardening as a crisis management tool, the 2008 establishment of the NC Community Garden Partnership (NCCGP) (nccgp.org) might be seen as a sign of the times. The state-wide mission of this organization is to increase food security and develop communities capable of meeting their own needs through strong, sustainable community gardens. Advocates for Health in Action (AHA) (advocatesforhealthinaction.org) also provides resources for community gardens within a broader mission to “support community efforts to make healthy eating and physical activity the way of life in Wake County.”²⁸

Both the NCCGP and AHA keep directories of community gardens across the Triangle area of North Carolina. The NCCGP lists twenty-three community gardens in the Durham, Orange and Wake counties. The AHA lists an additional thirty-two Wake County community gardens which do not appear on the NCCGP directory. These directories show gardens at schools and churches, offices, neighborhoods and public parks for purposes as diverse as food donation and skills transfer, cultural celebration and social outreach.

Triangle community gardens make the news and appear in websites. In separate stories last summer, the Raleigh News and Observer (N&O) reported new gardens at Neil Middle School in Durham created by several Girl Scouts²⁹ and at Raleigh Charter High School built as an

²⁸ Advocates for Health in Action, <http://www.advocatesforhealthinaction.org/home/about-aha/>. accessed 2/28/14,

²⁹ “Scouts at Neal middle School create community garden,” *News & Observer*, September 15, 2013, www.newsobserver.com.

Eagle Scout project.³⁰ These school-based gardens stand within the history of community gardening in America as laboratories for various disciplines from nutrition and environment to character-building and entrepreneurship. At the university level, Duke University's Duke Farm is an environmental science laboratory, an experiment in local food inspired by a class on food and energy. (www.farm.duke.edu) Students and staff at UNC Chapel Hill work with two gardens as a form of social outreach, providing vegetables and solidarity to food service staff while seeking social justice. Hope Garden aims to raise awareness of homelessness by providing common ground for allotment plot renters to work side by side with homeless people growing food to sell locally;³¹ the Carolina Campus Community Garden grows vegetables to ensure that all university employees have access to fresh produce. (uncgarden.web.unc.edu) These UNC gardens are examples of reaching out to marginalized populations, another historic use of community gardens.

Community gardens are not just in schools; they are in neighborhoods as well sometimes sponsored by philanthropic organizations like John Rex Endowment,³² which is interested in supporting environments where people can live healthy lives, and Inter-Faith Food Shuttle,³³ an innovator in battling hunger. A short notice in an April 2013 issue of the N&O announced just such a partnership in the form of an \$81,789 grant from the John Rex Endowment to Inter-Faith Food Shuttle meant to assist residents of Southeast Raleigh, an area with few grocery stores, to get more healthy and affordable foods by growing and preparing their own fruits and vegetables. And cash-strapped people are so eager for fresh vegetables that they are willing to endure an hour long line for produce delivered to elementary schools in Fuquay-Varina elementary schools in a mobile market.³⁴

In addition to food security, there is another side to gardening together: community. Karen-speaking Burmese refugees belonging to Transplanting Traditions community farm³⁵

³⁰ Hugh Waddell Stephens, "Scout builds garden beds at school," *News & Observer*, 18 Sept 2013, newsobserver.com.

³¹ Mark Schultz, "Sowing seeds of hope," *News & Observer*, February 25, 2010, www.newsobserver.com.

³² www.rexendowment.org

³³ www.foodshuttle.org

³⁴ Aliana Ramos, "Mobile market offers free, fresh produce to community." *The Cary News*, June 12, 2013.

³⁵ transplantingtraditions.com

receive quite a bit of attention in the local press. These refugees have been able to connect to their new land through their traditional foods at Triangle Land Conservancy's Irvin Learning Farm & Nature Center near Chapel Hill. Beyond growing food together, Transplanting Traditions has reached out to like-minded groups. They were one stop on the 2012 Piedmont Farm tour, an event showcasing local agriculture.³⁶ During fall 2012 they organized a fundraising dinner³⁷ featuring Burmese cuisine, and the following spring they had a stall at the Carrboro Farmer's Market³⁸. Transplanting Traditions has attracted the attention of WUNC radio as well. Frank Stasio covered the story of the community farm at the farmer's market on "the State of Things" aired June 27, 2013,³⁹ and an article in the business section of the WUNC website⁴⁰ covered not only the business angle but also the sense of purpose and pride that cultivating traditional crops brings the members of Transplanting Traditions. The multifaceted nature of the garden tradition – growing bonds and business skills along with food – is particularly visible in this local community farm.

This combination of economic and social capital, which seems such a boon in the context of refugee resettlement, can get controversial. Consider the Well Fed Community Garden, whose recent request for a zoning exception was headlined "Irregardless Cafe owner's garden OK'd" in the October 16, 2013 News and Observer. Critics argue that it is a business exploiting volunteers' good will, or worse, their susceptibility to the mystique of organic food and promise of connection to neighbors and land. A commitment that 20% of the produce will go to charity still leaves the bulk of the produce for commercial use in a residential neighborhood which already is well served by existing community gardens. Another organization that straddles the line between hobby and business, Raleigh City Farm, did not

³⁶ Andrea Weigl, Karen refugees grow tastes of home." *News & Observer*, April 25, 2012, www.newsobserver.com.

³⁷ Cheney Gardner, "Vimala's hosts a fundraiser for Transplanting Traditions farm," *The Daily Tar Heel*, October 13, 2012, www.dailytarheel.com.

³⁸ Madison Mundy, "Farm for local refugees hosts first market," *The Daily Tar Heel*, May 27, 2013, www.dailytarheel.com.

³⁹ Isaac-Davy Aronson interview by Frank Stasio. "Refugees Tend Their Own Farm in Orange County," WUNC, 27 Jun 2013, wunc.org.

⁴⁰ Isaac-Davy Aronson, "Burmese Crops Sprout In Orange County." WUNC, October 29, 2013. wunc.org.

spark the same antagonistic chord in an October 23, 2012 piece in the Midtown Raleigh news⁴¹ which holds up the urban farm, established by civic-minded entrepreneurs, as a magnet for volunteers seeking to get rooted in the land and get their hands dirty growing food and downplays the urban farm's funding source: Raleigh-based locavore restaurants. The mission of Raleigh City Farm – “to transform vacant spaces into nourishing farmland”⁴² – puts it in the local food movement. The organization uses the unexpected – rows of vegetables growing in a block in downtown Raleigh – to make people think about the industrial food system and local alternatives. The transformation of vacant lots into food baskets illustrates another pattern of community gardens that has deep historic roots.

Community gardens are many things to many people: laboratories, food baskets, cultural refuges, business incubators and also spiritual ministries. In many Triangle congregations, there is a groundswell of support for faith-based community gardens. Here, the garden is seen as common ground for a new kind of ministry feeding body and soul. These congregations use a garden as a way to reach out not only to congregation members but also to the wider community. This is true for Gracious Harvest, which, according to an August 2013 Cary Citizen story, shares a bounteous harvest with neighbors in need, the congregation and outreach ministries.⁴³ Although each garden is unique, one typical goal is often to donate the produce from the garden to people in need either directly or through partner organizations.⁴⁴ Another prevalent goal is to educate youth about a healthy lifestyle and how to grow food.⁴⁵ Ideally, the pursuit of these concrete goals also serves as a vehicle to reach more intangible ones of putting people in touch with one another and the Earth in meaningful relationships. A Gracious Harvest garden member puts it well: “Community gardens are unique because they

⁴¹ Janice Marchok, “Raleigh City Farm pulls people to soil,” *Midtown Raleigh News*, October 23, 2012, newsobserver.com.

⁴² raleighcityfarm.com/mission/ accessed 22 Feb 2014.

⁴³ “Gracious Harvest Grows Food in Downtown Cary,” *Cary Citizen*, August 8, 2013, carycitizen.com.

⁴⁴ Martin Ray, “Community gardeners want to branch out.” *News & Observer*, July 12, 2010, newsobserver.com.

⁴⁵ “Organizing Faith-based Urban and Rural Community Gardens” panel at Nurturing Sustainable Garden Workshop 9 Nov 2013.

bring together people who share a love of growing things in a way that allows them to share the responsibility of maintenance.”⁴⁶

These examples show that community gardening in the Triangle is continuing in the tradition of community gardening for social improvement. That is, gardening in community chips away at problems of ignorance, health and social disconnection. The most important aspect of a community garden is its relevance to the group of people cultivating the soil.

Community gardening is a very local phenomenon, but gardens need not exist in isolation. The NCCG and AHA organize periodic conferences which allow people from different gardens to get together and exchange ideas. Events like Dig In (March 2013, sponsored by AHA) and Nurturing Sustainable Community Gardens (Nov 9, 2013, sponsored by NCCGP) draw people from across the Triangle and across the state for one or two days of presentations and workshops. These events exhibit a familiar pattern of neighborhood involvement assisted by a wider network of expertise.

Community gardens have caught the attention of municipal governments like Raleigh, Durham and Cary which see them as assets in their roles of providing green spaces and local food. Durham-based SEEDS (www.seedsnc.org) – at twenty, one of the oldest gardens in the Triangle – partners with Durham Central Park.⁴⁷ The Cary Senior Community Garden is one of several community gardens which Cary recognizes as part of a “remarkable community,”⁴⁸ and the town has provided ground in Bond Park for Cary residents over fifty-five since 2002. In 2011, during a time of intense local interest in community gardening, the City of Raleigh put out a report on Urban Agriculture and Community Gardens.⁴⁹ The Raleigh report recognizes urban agriculture which includes community gardens as a way of supporting both economic growth and environmental stewardship. A community-oriented food policy would address the issue of

⁴⁶ “Gracious Harvest Grows Food in Downtown Cary,” Cary Citizen, August 8, 2013, carycitizen.com.

⁴⁷ Ann Alexander, letter to the editor, The Durham News, May 18, 2014, thedurhamnews.com.

⁴⁸ Town of Cary Parks Department. Town of Cary.

http://www.townofcary.org/Departments/Parks_Recreation_Cultural_Resources/Sports/Sports_Events_and_Tournaments/communitygardens.htm accessed February 23, 2014.

⁴⁹ Dept. of City Planning, *Urban Agriculture and Community Gardens in the City of Raleigh*, City of Raleigh.

<http://www.raleighnc.gov/content/AdminServSustain/Documents/FINALUrbanCommGardenReportOPT.pdf> accessed February 2014.

food deserts like the one in Southeast Raleigh. The work group recommended altering zoning to permit community gardens as primary use for properties in residential districts, and making vacant lots available to community gardeners. This decision helped pave the way for The Well Fed Community Garden last fall. These examples demonstrate how public policy has a role to play in supporting community gardens.

In conclusion, community gardens are alive and well in the Triangle. They follow in many of the traditions of American community gardens since the Civil War, providing not only a remedy for social ills but also a solution to crises and a tool for socioeconomic development. They spring up in many of the same places as their more famous exemplars – in public green spaces like Seattle’s P-Patch, in vacant lots like Philadelphia Vacant Lot Cultivation Association Gardens, in schools like Berkley’s Edible School Yard – and bear many of the hallmarks of community gardens throughout the country. Most importantly, they fill the various needs of their members for secure access to food, charitable action, work relief, health and activism.

Benefits of Community Gardens

Draper and Freedman’s 2010 review of the scholarly literature from 1999 to 2010 regarding the benefits, purpose and motivation of community Gardens in United States reveals eleven themes of which four are of interest to this paper:

1. Social interactions/cultivation of relationships (66% of articles)
2. Health benefits (50% of articles)
3. Food source/food security (25% of articles)
4. Community organizing, empowerment, and mobilization (25% of articles)

Jonathan Kingsley examined one community garden in Australia from a sociological and policy perspective. He found that the garden itself, as a green space in an urban landscape, provided the opportunities for people to come together around shared values and goals and also to enjoy mutual support and connectedness.⁵⁰ Joint maintenance provided a shared place,

⁵⁰ Jonathan Kingsley and Mardie Townsend, “Dig In to Social Capital: Community Gardens as Mechanisms for Growing Social Connectedness,” *Urban Policy and Research*, 24.4 (2006): 525.

time and purpose. Located in parkland within a suburb, Kingsley's two-year old subject garden was constructed with building social capital in mind. A recent influx of new people had left the long-time residents disgruntled at the changes in the neighborhood.⁵¹ Garden members reported feeling isolated before joining the garden; time spent in the garden allowed them to get to know their neighbors.⁵² They credited the garden's location in a public park for fostering connections.⁵³ Usually the interpersonal interactions center on gardening, but occasionally garden members reported deeper, more personal support.⁵⁴ The study did not show that the benefits extended beyond the garden, raising questions as to how long it might take for sufficient social capital to accrue.

Community psychologist Meredith Michaels picks up on a community garden's potential social benefits at the individual and community level. The additional green vegetation itself starts a cycle of revitalization, stability and increased property value and launches a positive narrative about even a stressed community. For communities facing food insecurity or economic challenges, community gardens can serve as sources not only of food but also of social capital and civic involvement. That is, gardening can increase a participant's food securityⁱⁱ or teach skills that open entrepreneurial avenues for economic development.

For individuals, the green space provides opportunities for physical exercise and improved nutrition. On the psychological level, Michaels presents studies that suggest nature acts to restore attention, alleviate stress, foster an emotional connection to place and even impact mood at a biological level through the bacteria naturally occurring in the soil. In short, nature supports healthy functioning of individuals. Nature can also be therapeutic. Interactions with nature seem to restore attention to children affected by ADHD. Horticulture therapy is also used as a component in the treatment of substance abuse, depression and anxiety. The therapy may work by increasing self-sufficiency of the recovering addict or by increasing positive emotions in the case of the anxious or depressed person.

⁵¹ Jonathan Kingsley 2006: 528.

⁵² Jonathan Kingsley 2006: 531.

⁵³ Jonathan Kingsley 2006: 532.

⁵⁴ Jonathan Kingsley 2006: 533.

Michaels studies whether and how participation in a community garden, i.e. a natural green space with a particular use, promotes health and wellbeing in the context of a person's wider social and physical environment. She finds the effects are greatest in community gardens which are created and maintained by community members. Most community gardens are, like Kingsley's subject garden, common places for people to meet, develop social networks and share ideas about their garden; evidence for utilization of the social capital to address concerns outside the garden is less clear, though some community gardens are vehicles for community organizing. In any case the garden itself provides ample opportunity to meet and form relationships with people who are unlike themselves. This formation of bridging capitalⁱⁱⁱ across cultures or generations may open up new resources to the participants of the garden in part by exposure to different points of view. Michaels believes such benefits to the community and its members make gardening a potential therapeutic tool.

In her environmental science master's thesis, Lee-Ann Chevette also reports on gardener wellbeing, connectedness to nature and the perception of food security as benefits available to individuals participating in community gardens. Although her study did not find an increase in any of these benefits for her subjects after one growing season, she was able to correlate income-level to perceived food security and education level to both wellbeing and connectedness to nature. In addition, as subjects felt more secure about food, they became less concerned about the food system^{iv} itself. Among her gardening subjects, 99.7% reported sharing produce and 88.1% expressed an intention to return the next growing season. The three main reported motivations were: access to land on which to grow food, increased availability of fresh vegetables, and education about gardening and food production.

Table 2: Gardener Benefits and Challenges

Best part of experience	Greatest challenge
50% access to healthy, fresh local food	40% garden disease
25% opportunity to learn	25% lack of time
17% socializing	12% transportation
17% observing nature	10% theft

Michael's perspective of community psychology is important. People act less as independent rational agents than as inhabitants of an environment; context matters in the perceptions and choices people make. Kingsley reported on the importance of public green space to social interaction. Chevrette and Michaels both write of food insecurity and the role a community garden can play in improving access to food. A community garden may act on several levels at once: as a food source, as a place of beauty, as an opportunity to develop skills. It may provide different things to different people: stress relief to one and social interactions to another.

Chevrette categorizes community gardening as a type of urban agriculture. Although her study was motivated by a desire to show community gardening as a method of improving food security, her study did not provide evidence that gardening improves a sense of food security. Meredith identified community gardens in neighborhoods lacking grocery stores (aka. food deserts) as a source of food and therefore a step toward increased food security.⁵⁵ Community gardens along with farmer's markets and other community supported agriculture are manifestations of an alternative food system to the global industrialized one which is the norm.

Challenges for Community Gardens

Every community garden, no matter its purpose, must surmount two big problems: securing land and sustaining the interest of its members. In the intersection of biological necessity and human desire is an area ready for cultivation. It is difficult to cultivate community without a secure home or human attention.

⁵⁵ Meredith Michaels 2013: 67.

As previously discussed, Americans have historically tended to focus on growing food primarily during a crisis, losing interest when the crisis has passed. Community gardens have been commonly placed on unused land: vacant lots, once farmed fields and sunny lawns. The land owner is happy for gardeners to work the soil until conditions change, at which time the owner may want to put a house on the lot, a mall on the field or a parking lot on the lawn. Unless the garden organization owns the land it cultivates or has a formal agreement with the owner, other uses take precedence over gardening. Established community gardens can secure their land through either direct ownership or formal land use agreements with the owner.

The physical resources of land and water are simpler to secure than the gardeners themselves. The American Community Gardening Association (ACGA) has examined the problem of sustaining the interest of garden stakeholders. These are certainly the garden members, but they may also include people who volunteer in the garden, live in the area or simply visit the garden. The more the stakeholders are aware of and desire the garden and its associated benefits, the more secure the garden's future is. Interest in the garden must be strong enough to trump competing claims on time and obstacles to traveling to the garden. The ACGA has developed training materials designed to support interest in the garden. These materials are based on several principles, three of which were used to formulate questions for members of subject gardens.

1. Engage and empower those affected by the garden at every stage of planning, building, and managing the garden project.
2. Foster relationships among families, neighbors and members of the larger community.
3. Foster environmental, community and personal health and transformation.

The first principle simply states that involving more people in decisions results in more neighborhood commitment and better-fitting decisions than if an outside expert were to build it for neighborhood use. The assumption "If we build it, they will come" does not hold. The second principle recognizes the role of social capital, bonding and bridging and linking, in the long-term life of the garden. Bringing garden members in contact with other points of view and with powerful allies gives them benefits they could not have as individuals. The third principle

expresses concern for the garden at ecological, sociological and individual levels. When a bit of land is cultivated with more than vegetables in mind, following these principles sustains gardener interest and encourages a positive group dynamic. This paper concentrates on gardener interest more than stakeholder interest because the interviews were conducted with garden members, not with volunteers who spent time in the garden or with other beneficiaries of the garden.

With gardener attention and land moderately secure, the garden as a group may pursue goals relate to its common purpose. Purposes considered are education, health and wellness, harvesting and sharing food and fostering relationships. Garden members and stakeholders may enjoy the benefits of a garden tailored to their needs and desires.

Food systems

Over much of America's history, growing food for the family was a common experience. Most people lived in the countryside. (Laura Lawson reports the United States was about 35% urban in 1850.⁵⁶) Only in 1920 did a slight majority (51%) live in the city.⁵⁷ At the turn of the twentieth century, many people migrated to the city looking for better conditions. During this influx into the city, community gardens were used to provide food and skills to the poor.

Since World War II the agricultural sector has become more mechanized, allowing farm operators to enlarge their farms and gain economies of scale. Food has become a commodity generating profits for large corporations oriented to export markets, emphasizing the famous advice of Eisenhower's Secretary of agriculture Ezra Taft Benson to "get big or get out." This sort of agriculture has replaced the small family run farm as conventional agriculture leaving the term *family farm* to nostalgia and dwarfing the backyard garden by comparison. This large scale method of producing and delivering food is called the *global* food system, or sometimes *conventional* or *industrial* food system. The claim is that the application of technology and free market principles to agriculture makes food cheaper, more abundant and more secure. Michael Pollan in his *Omnivore's Dilemma* makes this immense conventional food system intelligible

⁵⁶ Laura Lawson2005: 17.

⁵⁷ Laura Lawson2005: 17.

when he traces the transformation of corn and cattle into a fast food meal. The system takes advantage of technology and economies of scale to produce a homogenous widely available meal.

While the global food system does produce cheap food, many critics have asked, at what cost to farm workers, to ecology and even to consumers. Oddly, at a time when American farmers are producing more than ever, Americans are experiencing an increase in both obesity and hunger:⁵⁸ Obesity because processed food is so abundant and cheap,⁵⁹ and hunger because of unequal access to food. Grocery stores are based on a mass distribution system⁶⁰ that favors large markets; if volume allows for a discounted unit price, smaller or less affluent neighborhoods with less to spend are charged more for the same produce. People with less means are not as well served as more affluent citizens. Crops are grown where markets indicate rather than where ecology suggests. Consider the tomato. It is grown in Florida not because of the climate – tomatoes prefer hot dry climates and nitrogen rich soil – but because of access to the colder cities of the Midwest, Mid-Atlantic and Northeast.⁶¹ Those who pick the crop are arguably underpaid. Barry Estabrook estimates that tomato pickers can hope to make minimum wage only if picking conditions are perfect. However they are often forced to wait unpaid while waiting for favorable field conditions.⁶² E.F. Schumacher in his classic *Small is Beautiful* disagrees with this economics of the greedy bottom line and the huge scale that dehumanizes people.

There is an alternative to the global food system which is local, civic and ecologically minded. Perhaps some crops are better raised as commodities, but others fit better into regional economies than global ones. This is the argument not only of journalists such as Michael Pollan and Barry Estabrook, whom we have already discussed, but also of academics like sociologist Thomas Lyson and philosopher Norman Wirzba, whom we will discuss later.

⁵⁸ Michael Pollan, *Omnivore's Dilemma: a Natural History of four Meals* (New York: Penguin Press, 2006), 63.

⁵⁹ Michael Pollan 2006: 102.

⁶⁰ Michael Pollan 2006: 13.

⁶¹ Barry Estabrook, *Tomatoland: how modern industrial agriculture destroyed our most alluring fruit* (Kansas City, MO: Andres McMeel Publishing, 2011), 21.

⁶² Barry Estabrook 2011: 99-100.

Community gardens fit into an agricultural model based on small geographic regions. Along with community-supported agriculture and farmer's markets, community gardening re-localizes agriculture and reconnects people. Depending on the location of a community garden, it may also urbanize agriculture. Chevrette places community gardens among the organizations that address the inequity of food access and the health issues that have arisen in the context of conventional agriculture focused on a global marketplace.⁶³ This sort of agriculture is sometimes called "sustainable" or "local." Cornell University sociologist Thomas Lyson calls it "civic" and makes an argument for a form of agriculture supporting a democratic civil society. Much of the following two sections comparing global and local food systems is taken from his 2004 work *Civic Agriculture*.

Global Food

The conventional way of growing food has resulted in a centralized food system based on large-scale, capital-intensive and technologically-sophisticated farms modeled on the industrial factory and oriented to the global marketplace. It is based on neoclassical economics of rational self-interested individuals – problem-solving producers and consumers – finding efficient solutions. Farms and food producers are organized along the lines of a corporation, well-suited to a free market model. The emphasis is on profit, growth and mass production.

Conventional farms are run under a scientific paradigm which reduces crops to a set of traits.⁶⁴ Biotechnologists splice together desirable traits to form a plant or animal production unit. The traits are both product and intellectual property. Natural processes are problems to solve with technology rather than models to imitate.

Farmers are not-so-independent businessmen because their seeds generally come from a small number of companies. Landless farm workers likewise have little power in a system devoted to low food prices and high corporate profit. As one case in point, Estabrook points out that some tomato farm operators in Florida are controlling their costs by marginalizing their

⁶³ Chevrette, "Community Gardening: Exploring motivations, benefits and gardener experience" (Master's Thesis, Northern Environments and Cultures Lakehead University, 2011), 5.

⁶⁴ Thomas Lyson, *Civic Agriculture: reconnecting farm, food, and community* (Medford, Mass: Tufts University Press, 2004), 74.

labor force.⁶⁵ Likewise, consumers are reliant on a relatively small set of highly-technologically-produced foods. In the conventional food system, the middle class sits squarely within the corporate structure limiting its members' ability to act as citizens.⁶⁶

Power is concentrated in a few companies. Lyson argues that conventional agriculture, with its basis on the free-market corporate model does not necessarily benefit from democracy. It just needs capital and consumers whose freedom need not extend into choice of how a product is made.⁶⁷

The Naylor farm in Iowa, which Michael Pollan visited in researching *Omnivore's Dilemma*, is an example of a conventional farm. Naylor grows hybrid corn as he puts it, "for the military-industrial complex."⁶⁸ His farm relies on ammonium nitrate to fertilize the corn fields year after year.⁶⁹ Corn from a farm like Naylor's fed the steer that became the patty that went into Pollan's fast food burger and also formed the high fructose corn sweetener that went into his beverage.

Local Food

The locally-based (or civically-minded) way of growing food relies on smaller-scale farms oriented to local markets and sensitive to local social systems. It is based on "pragmatism," a social theory that looks for solutions that work optimally within a particular historical, cultural and environmental context.⁷⁰ Local considerations are important to fostering civic engagement, which in turn provides the environment for improved individual wellbeing.⁷¹

Farms and food producers are organized based on a community model, in which a group of smaller, locally controlled businesses cooperate to meet needs of local consumers.⁷² The

⁶⁵ Barry Estabrook 2011: xiv.

⁶⁶ Thomas Lyson 2004: 76.

⁶⁷ Thomas Lyson 2004: 77.

⁶⁸ Michael Pollan 2006: 35.

⁶⁹ Michael Pollan 2006: 44.

⁷⁰ Thomas Lyson 2004: 72-2.

⁷¹ Thomas Lyson 2004: 65.

⁷² Thomas Lyson 2004: 75.

focus is on community development: local crafts serving local markets, equality and household welfare.⁷³

Civic farms, inherently more holistic, take an ecological approach to identify an optimal process rather than a maximum yield.⁷⁴ Civic farmers try to improve yields by learning from natural processes.

Within the local food system, farmers are part of an economically independent middle class, fully free to engage in civic activities promoting socioeconomic health of the local community.⁷⁵ Likewise, customers of these farmers belong to the economically independent middle class which, according to Lyson, is the main driver of civic engagement.⁷⁶

Power is distributed among many businesses in a local food system. Civic farmers rely on a democratic environment to solve issues related to food production in a manner suitable to the local realities. Consumers do more than eat food; they are food citizens.⁷⁷ Customers are more informed about and involved in the process that produces their goods.

Polyface Farms in Maryland, which Michael Pollan visited to produce one of his meals, sits squarely within the local food system. Owner Joel Salatin raises a variety of crops and livestock patchworked into 450 acres of forest and identifies himself as a grass farmer.⁷⁸ Grass is the foundation of the food chain on his diversified and largely self-sustaining farm. Indeed, Salatin runs the farm more like an ecosystem than an industrial system. Its efficiencies come from mimicking natural interdependencies.⁷⁹ The farm to fork distance for Salatin's produce is no more than a day's drive; this supports transparency of process and forming of relationships which in Salatin's view guarantee integrity.⁸⁰

⁷³ Thomas Lyson 2004: 70.

⁷⁴ Thomas Lyson 2004: 75.

⁷⁵ Thomas Lyson 2004: 76.

⁷⁶ Thomas Lyson 2004: 66.

⁷⁷ Thomas Lyson 2004: 76-77.

⁷⁸ Michael Pollan 2006: 125.

⁷⁹ Michael Pollan 2006: 215.

⁸⁰ Michael Pollan 2006: 240.

Ethical Food

There is also an ethical critique of industrialized farming. In an essay published in *A Communion of Subjects*, Gary Valen argues for a return to an interdependent relationship between humans and nature. The history of industrial agriculture is brief, but it has disrupted that relationship, decimating rural communities and their small businesses which support the family-run farms at home and abroad. Estabrook and Pollan show the degree to which ecological realities are ignored in the conventional food system. The efficient economic solution overlooks ecological parameters. Tomatoes and corn are both re-engineered to be able to grow in conditions not natural to them and to survive transport to markets at the expense of nutritional value. While there is value in the export potential of agriculture, agribusiness is narrowly focused on opening markets and overlooks the costs of agribusiness in pollution, unfair farm worker conditions, animal suffering and consumer safety. Furthermore, it relies almost exclusively on technology for any improvements in the process of farming, improvements measured solely by increased profit.⁸¹ Schumacher faults society's blind trust in science and technology. Instead, "Wisdom demands a new orientation of science and technology towards the organic, the gentle, the non-violent, the elegant and beautiful."⁸²

Valen proposes an ethical dialog on agriculture, a dialog which values the health of the farm worker and the land as much as the food and fiber they produce. Ethical farming methods, in Valen's view, would recognize the dignity of labor, the need for an adequate income and the need for a community context in which to live.⁸³ They would value farmer-to-farmer collaboration and farmer-to-customer relationships.⁸⁴ Valen's vision of how food could be more ethically produced resembles civic agriculture as described by Lyson and fits with

⁸¹ Gar Valen, *Agribusiness: Farming Without Culture*, ed. Paul Waldau and Kimberly Patton (New York: Columbia University Press, 2006), 570-571.

⁸² E.F. Schumacher, *Small is Beautiful: economics as if people mattered* (New York: Harper & Row), 1975, 18.

⁸³ Gar Valen 2006: 575.

⁸⁴ Gar Valen 2006: 576.

agrarianism which Norman Wirzba calls “a sustained attempt to live faithfully and responsibly in a world of limits and possibilities.”⁸⁵

Wirzba agrees with Valen that farming should follow a more holistic, locally-informed model and that consumers should get acquainted with local farmers in order to understand better where their food comes from, but he goes further, encouraging people to try their hand at growing some of their own food.⁸⁶ Community gardens can be places to grow nutritious food and to bring neighbors together; in this way, one begins to understand that food has natural, social, cultural and even spiritual aspects.⁸⁷

Wirzba and Valen also share a big tent attitude. All stakeholders should be at the table, discussing issues of cultivation, arguing their points and reaching a consensus that recognizes the needs of all. Economic conditions should encourage the preservation of resources.^{88 89} Wirzba extends the purview of agrarianism to all living spaces, rural or urban. Care for the land protects all cultural endeavors.⁹⁰

The meaning of a life caring for the land becomes clearer when one accepts the “ecological truth” that human beings live in bodies which interact with other bodies.⁹¹ If one lives a life rooted in a beloved place, one gives up the freedom of mobility but gains a depth of knowledge. Knowledge of the Beloved is akin to a gardener’s knowledge in that both are gained through the minute attention to the specific.

In *Making Peace with the Land*, Fred Bahnson asserts that food production should be a way of life.⁹² This way of life is incompatible with the global food system which leads to

⁸⁵ Norman Wirzba, *The Agrarian Reader: the future of culture, community, and the land* (Lexington: University Press of Kentucky, 2003), 5.

⁸⁶ Norman Wirzba 2003: 15.

⁸⁷ Norman Wirzba 2003: 16.

⁸⁸ Gar Valen 2006: 577.

⁸⁹ Norman Wirzba 2003: 5.

⁹⁰ Norman Wirzba 2003: 6.

⁹¹ Norman Wirzba 2003: 86.

⁹² Fred Bahnson and Norman Wirzba, *Making Peace with the Land: God’s Call to Reconcile with Creation* (Downers Grove, IL: Intervarsity Press, 2012), 91.

pollution and unsustainable reliance on petrochemical products.⁹³ In Bahnson's eyes, the industrial way of producing food is making war on the land by creating toxic waste and impoverishing people. In contrast, gardening in community is making peace with the land. In religious terms, it brings the kingdom of God near. A case in point is the Lord's Half Acre. Started by local churches to bring fresh organic produce to local food banks, the community garden is the kind of agriculture that brings abundant life through a combination of trust and labor.⁹⁴ The Lord's Half Acre also brings the Kingdom near because it includes marginalized people.⁹⁵

Bahnson visited the Lord's Half Acre during a recent Eastertide as a sort of pilgrimage cum journalistic fact finding mission for *Soil and Sacrament*. The gardeners offer solace to troubled people along with the produce.⁹⁶ Though it was begun as a Christian ministry, the Lord's Acre has become a civic nonprofit in order to better fill the hunger for food, for company, for beauty.⁹⁷ With no official faith position, the garden may be accessible to more people.⁹⁸ Bahnson uses communities organized around agriculture and natural rhythms to show how care for the soil gives life meaning. For him tending the soil is a calling. One woman involved in the Lord's Acre called food "the physical embodiment of prayer."⁹⁹ Shared food breaks down barriers more effectively than political activism. Life rooted in the soil feeds the spirit as well as the body and, as Isaiah says, "loosens the chains of injustice." (Isaiah 58:6)

Organic Cultivation Methods

Where does organic farming fit into these food systems? At its core, organic practices are informed by natural processes and attention to local conditions. The farming method is ecologically friendly, a product of attention to the soil and reduced use of pesticides. Organic fruits and vegetables are also considered healthier to eat. The organic label gained popularity as

⁹³ Fred Bahnson and Norman Wirzba 2012: 87.

⁹⁴ Fred Bahnson and Norman Wirzba 2012: 92-95.

⁹⁵ Fred Bahnson and Norman Wirzba 2012: 92.

⁹⁶ Fred Bahnson, *Soil and Sacrament: a Spiritual Memoir of Food and Faith* (New York: Simon and Schuster, 2013), 86.

⁹⁷ Fred Bahnson 2013: 91.

⁹⁸ Fred Bahnson 2013: 95.

⁹⁹ Fred Bahnson 2013: 97.

a result of the overuse of chemicals in conventional agriculture.¹⁰⁰ In the beginning the organic movement was an alternative to the industrial food system; it offered a counter cuisine produced within a co-operative business model and an environmentally centered agricultural mode.¹⁰¹

Growing a crop always means dealing with pests and maintaining soil fertility. Conventional and organic farmers take different routes to solve the problems. Conventional farming relies heavily on petrochemicals. However pesticides eliminate the good with the bad and leave behind a residue; chemical fertilizers may run into nearby lakes and streams. Organic farmers prefer to fight insect pests with predator pests and weeds with mulch and to introduce nitrogen using cover crops, which double as pest deterrents, and compost, which reduces soil erosion.¹⁰²

While attention to local conditions tends to place organic agriculture in the local food system, the scale of an organic farm and the means of delivering a crop to market may place it in the context of the global food system. That is, the organic method of agriculture can be adapted to agribusiness as well as to small scale farming. The public's association of organic produce with a healthy diet can be a marketing tool with more flash than substance. The label and its pastoral narrative do not substitute for first hand observation about how one's food is produced and distributed. Large scale organic agribusinesses ships produce across the country just as other large scale farming operations do. Earthbound Farm, which Pollan rated highly, is a large scale organic farm which distribute to grocery stores nationwide. Other organic farms use the same industrial methods as farms using conventional farming methods.

On demonstration farms and in community gardens, the extra labor involved in fighting pests does not matter; work plays a part in teaching or in pursuing a hobby. However, on a large scale, workers on organic farms may be subject to the same cost pressures as on farms employing conventional methodologies.

¹⁰⁰ Pamela C. Ronald and Raoul W. Adamchak, *Tomorrow's Table: Organic Farming, Genetics, and the Future of Food* (New York: Oxford University Press, 2008), 14.

¹⁰¹ Michael Pollan 2006: chapter 9: big organic.

¹⁰² Pamela C. Ronald and Raoul W. Adamchak 2008: 15-21.

Summary

The argument over food systems is not about having an abundant, secure food supply but about the best course to follow to get there. Is food production like any other mass production or is it different because it is so closely tied to the elements: air, earth, water and fire? Reducing food to a commodity rationally chosen by independent self-interested agents loses sight of its appeal at social and cultural levels as well as its biological imperative. Food is not just a rational choice. Food is far more than biological fuel; it is an expression of culture. The table is a metaphor for communal life. Guests at the table are more than consumers; they are unique individuals debating common issues and celebrating joint successes.

Valen argues that food production is different from manufacturing precisely because of its intimate connection to the natural world. Lyson argues that civically oriented agriculture is superior to the current conventional bottom-line-driven model in its holistic concern for communities. There is value in a local economy. More of the consumer dollar stays in the community if it is spent in a local business. Knowing the producer increases transparency of how a product is made. The consumer can more easily assess whether the business practices honor the worker and conserve the land.

While food choices are changed with technology and influenced by culture, Wirzba argues that the set of available choices is not one of the things best left to experts. Knowledge about where food comes from is useful in making intelligent food choices. Following Wirzba's advice and attempting to grow some of what one eats is an effective teaching tool both for growing food and for self-sufficiency – breaking out of the consumer role. There are many places to grow food; one of them is a community garden.

An urban community garden can produce food that does not transport well such as the heirloom varieties of fruits and vegetables that have returned to popularity. It can increase exposure to how food is grown – connecting people to their food. Urban gardens provide green space, making a city more livable.

This concludes the background material of community gardens. We now have a historical framework within which to place community gardens and an understanding of their

potential benefits, including providing an alternative to the global food system and challenges for community gardens to realize those benefits.

Empirical Research

Having gained some context, it is time to put down the books and walk through the garden gates. Would members of local community gardens follow the ACGA principles for keeping stakeholders engaged? What benefits would they notice from their association with the garden? What purpose would they find in their garden experience? In short, what would the interviews reveal about how local gardens build community?

Methods

In order to find out how well implemented and effective these purposes and principles were, community gardens had to be located and recruited. The NC Community Garden Partnership (NCCGP) keeps a directory of community gardens statewide with twenty-three in the Research Triangle, an urban area in central North Carolina including Durham, Orange and Wake counties. Using this directory, local news articles, and community garden websites, a dozen community gardens were characterized as to garden purpose, organization, size and age. Some were associated with churches, others with civic organizations, still others with small business. Some handed responsibility for cultivation of a number of plots to individuals; others worked the land as a group with individuals taking responsibility for particular plants or working at particular times. A heterogeneous sample of community gardens would help to discover different ways in which individuals could achieve the purposes of the garden, connect with one another and learn one another's habits and skills so that they might feel a sense of community and could carry the benefits of membership beyond the garden gate.

Leaders of six gardens were asked to participate and four agreed. The table below shows the profiles of the subject gardens. Three gardens are about the same age, and one a decade old.

Table 3: Garden Profiles

	Garden A	Garden B	Garden C	Garden D
Age	4 years	10 years	5 years	5 years
Size	>50 plots ¼ to 1 acre	30-50 plots < ¼ acre	<30 plots < ¼ acre	n/a ¼ to 1 acre
Membership	>30	>30	10-30	>30
Type	neighborhood	Govt-sponsored	Faith-based	neighborhood
Primary Purpose	relationships	relationships	Food bank	Food bank
Organization	Allotment	Allotment	Communal	Communal

No garden exceeded an acre in size and none fell below ten members, a critical mass for a bright long-term future, according to the ACGA. Two gardens self-identified as neighborhood-centric; the remaining gardens were government-sponsored or faith-based. The government-sponsored garden is situated within a city park, and the faith-based garden sits on church property. One of the neighborhood gardens, Garden A, is situated on government-owned land. It has resources from the county extension, following a traditional pattern of local leadership supported by external expertise. The other neighborhood garden, Garden D, is identified as an outreach program of a local church. Half of the gardens identified their primary purpose as fostering relationships, half as food banking. Other choices of purpose, education and wellness, were not reported as the primary purpose of any of the subject gardens. Likewise, half the gardens choose to cultivate the land in common and half to parcel out plots, sometimes called allotments, for use by individual garden members. The allotment gardens are situated on government-owned land while the communal cultivated gardens have a relationship to a congregation. However, the allotment gardens do cultivate part of the land communally.

Interviews with both garden leaders (i.e. members who actively participate in decisions about how the garden will fulfill its purpose) and garden members along with some previously

recorded videos of Garden A members were used for this qualitative study. Interviews were conducted over the phone, in the subject garden, or in two instances, by email. Interviews typically lasted fifty minutes and took place from the last week of March through the first week of April. Five garden leaders and thirteen garden members participated in these interviews. Of these, twelve were women and six were men. All were returning garden members. Questions pertained to security of land, and the three principles of transparent, inclusive decision making, fostering of friendships, and providing opportunities for health and transformation at individual, community and ecological levels. In addition to interviews, visits to the garden provided information about the physical context for the gardeners' experience.

Three hypotheses influenced the questions for the interviews,

1. An open, inclusive decision process sustains the interest of the garden members.
2. Bridging and bonding social capital accrued in the garden is spent in the wider community in which the garden is situated.
3. Food production and distribution of the community garden follows patterns found in the local food system.

Findings

There are many ways to manage a community garden; the subject gardens were chosen to capture some of that variety. Some gardens can be open only to people of certain ages: youth, or senior citizens. This is true about one subject garden, Garden B. However many are open to anyone with an interest. No subject garden poses a proficiency test to qualify applicants; everyone is a resource just as they come, and diverse participation in the garden is seen as a strength. Each garden is unique in the assets available to it and the needs and desires of its stakeholders. Gardens are at once communities and members of wider communities. These characteristics of the gardens fit the precepts determined by the ACGA to support using the community garden as a vehicle for community building.

The findings place the garden within the previously discussed framework:

1. perceived gardening benefits
2. community and environmental health
3. challenges to garden leaders
4. designing the physical space of the garden with an eye to how it will be used

Perceived Gardening Benefits

Garden members were asked about perceived benefits in four areas

1. social interactions
2. health and wellness
3. access to food
4. community building

Social interactions

Several questions addressed Principle 2, fostering relationships. All garden members reported making at least one friend. Some expressed surprise at the draw fellowship had for them, since they had not joined for that purpose. Most friendships revolved around garden activities: sharing seeds and recipes; a few members reported having interactions with fellow members outside the garden. Several garden members valued intergenerational, interracial or intercultural friendships which a common interest in gardening made possible. Growing and preparing food are accessible common experiences from which more intimate conversation may spring and more personal relationships evolve. The opinions of members with these diverse backgrounds lend extra strength to the garden as a vehicle for community building, according to the ACGA.

The gardens, whether cultivated as allotments or in common, offered a similar range of formal activities to its members and other stakeholders in the garden. These included monthly planning meetings, garden work days, and shared meals. Some gardens offered formal classes or workshops, usually horticultural in nature. These organized activities are key to bringing allotment garden members together at the same time in the garden, cooperating in maintaining common assets in the garden and getting the opportunity to get to know fellow

garden members and possibly volunteers from the larger community. In addition, garden members noted numerous informal interactions from sharing of seeds, harvest and gardening ideas to “sharing of personal joys and griefs.” In fact, one garden leader said the most important thing about the garden was as a place where everyone can feel free to take off their “masks” and share personal concerns.

When asked what ways beyond shared interests and goals that growing food fostered relationships, garden members responded in several ways characterized in the table below. It is interesting to note the difference in response by the leaders and the members. The leaders understand providing a safe space in which to work is vital to forging ties. They may also pay more attention to the benefits of secure access to food than do members who focus more on the pleasures and challenges of growing it. The members responded most often in ways that emphasized opportunities to learn from one another or enjoy fellowship.

Table 4: Relationship Support

	Garden members	Garden leaders
shared space/place	3	0
teaching/learning	3	1
fellowship	5	0
food is accessible to all	1	2
pride of self-reliance	2	0
altruism	2	0
safe space	0	2

As noted before, all gardeners reported making at least one friend in the garden. However, gardeners and their leaders had many ideas about how growing food supported making and maintaining friendships. The diversity of opinion could have to do with the variety of ways in which people form friendships. Interesting further questions might probe how important gardeners hold these aspects in maintaining relationships.

Several garden members indicated that the shared space leads to sharing ideas about how to tend plants or cook food. Sharing these more practical ideas might lead to more extensive

fellowship – the sharing of personal lives. Food is a common jumping off point because it is a shared experience. One garden leader put it well.

You find when you do something this hands-on that people you thought you don't have much in common with, you do, and even those people you don't have much in common with, you have respect for – once you choose to spend time with folks. For one thing it gives you hope that there may be peace in the world some day.

Raising food has been the foundation of civilizations, and it is a way to get introduced to any culture. A few garden members expressed pride, self-reliance or the joy of giving as a common point to share. Several Garden D members described their garden as a safe space during other responses, but did not mention it in response to this question.

When asked about disagreements among garden members, about half of the garden members had experienced them personally. The other half said they had not personally experienced them, either because they avoided such disagreements, leaving it to the garden leadership to sort things out or because they saw their fellow garden members as easy going enough that disagreements were rare. All garden leaders had experienced disagreements. The general guidelines for resolution were to listen, to express views honestly, and to be open to compromise. Garden members were willing to tell of instances of disputes over garden plot neglect, general garden appearance, or, for communally cultivated gardens, taking too much of the harvest from the common areas.

Health

All the garden members said health was a motivation to garden, but the benefits they identified were varied. Some cited gardening as a relaxing or meditative activity, a remedy to a hurried lifestyle. One Garden B member said, “[Gardening is a] de-stressing experience. ... I think I like it because I get a tangible edible result.” Others cited improved diet or exercise. Women were more likely to focus on the mental or spiritual health benefits than were men. The one man who did focus on mental health identified social connectedness in his garden experience as contributing to mental health.

Food

Not surprisingly, food – either growing it for one’s own family consumption or for donation – was the primary purpose of garden members. One Garden D member put it this way: “Knowing how to grow your own food is a simple joy in life. It takes lots of preparation. It takes me back [to childhood]”. Many gardeners reported joining the garden because their own homes did not offer them sunny spaces in which to garden.

Also not surprising was the garden leaders’ split between growing food and encouraging relationships as the most important purpose for the garden. Half of garden members rated raising food for themselves or for donation as the most important purpose for the garden. Garden members reported that they were able to increase the amount of fresh or organic food in their diet.

All four garden organizations prefer organic methods, though not to the point of organic certification. There is a general consensus to avoid pesticides, but conventional fertilizers are acceptable. The ban on pesticides stems from a desire to control what goes into one’s food and to protect children coming to visit or work in the garden from toxic residue. In some cases, garden members expressed a desire to maintain a diversity of insect life in the garden.

Community building

Garden leaders recognize the potential for the garden to not only foster a sense of community but also build up the capacity of the community to fill its own needs and achieve its goals. For example, during a four-year planning period Garden A organizers consulted people living near the proposed site in order to determine how they would like to use the land. In this way the community was developed even before breaking ground for a garden. A critical mass of potential gardeners interested in growing their own food had coalesced. As one member put it, “You’ll never go hungry if you grow your own.”

Principle 1 – transparent and inclusive decision making – is recognized as important in all the subject gardens, by garden leaders and garden members alike. Monthly planning meetings in which decisions about activities and common areas are made and issues are discussed are open to all garden members. However, no garden reported that more than half

their members attended these meetings. Nine of the thirteen garden members interviewed reported going to these meetings; those that did not cited work conflicts as the most common reason for their absence. Garden B members noted a desire for a minimum of organizational meetings and confidence that their leader would listen to their opinions and make good decisions. Garden A members were aware of low attendance at monthly planning meetings. Leaders of Garden A and Garden D acknowledged the seemingly low turnout but did not see it as an indictment of the principle. Email and conversations during work days provide garden members alternate avenues to state their opinions and air their concerns. "It's a collective decision making process. Some people get frustrated because it takes longer, but it's the only way you get buy in from people. That's my firm belief," says Garden Leader D.

When asked about how long it took to build garden infrastructure and who was involved in building it, it became clear that the garden leaders relied as much on non-member volunteers as they did members themselves. Garden members often reported physical and time limitations which prevented them from doing the work of digging post holes, framing sheds or erecting earthworks. This would explain the need for teenage volunteers from Boy Scouts and high school service learning groups to construct the durable framework of the garden. Master Gardeners provided advice for plant care in a number of subject gardens, and a variety of civic and faith-based volunteer groups participated in other projects as needed. Garden leaders reported reaching out to these organizations when making capital improvements to the garden.

Subject gardens gave back as much as they received from the wider community. All subject gardens report donating food from the garden to local charities and food banks. Most gardens donate food based on what they think the people using the food bank would like. One Garden B member commented, "We think that people who really need food want more basics." However, the leader of Garden D, reported consulting the beneficiaries of the vegetable donations as to the sort of produce they prefer. "We talk to [partner charity] volunteers each year, and we have a list of what they do like and what they don't. "In addition, "We try to send our first fruits. If there is a blemish on a tomato, I'm going to use it anyway, but folks who have

never worked in a garden or seen things grow are used to what is in the grocery store, and that's perfect." In this way food donations remain useful charity. Garden D's partner organization works with people in acute crisis situations; but there are others for whom procuring food may be a chronic concern. Garden A reaches out to some of these folks not only through contributions to a food bank but also by trading labor for produce. Some of the plots are earmarked exclusively or partly for this trade. In this manner the chronic food need is met in a way that allows the person to remain self-reliant.

Garden B, which has as one purpose intergenerational relationship, has begun assisting the creation of a garden at a nearby elementary school. Garden B members who are also educators are using their skills to incorporate garden activities in the normal teaching curriculum, and PTA members from the school attend workdays at Garden B to get ideas on how to run the school garden. The nascent school garden harks back to the pre-world war use of a garden for education.

One of the gardens began within a faith-based context and left that context to better serve its members bringing the Kingdom of God closer to a larger variety of people more effectively because they do not have an official faith position. Garden Leader D:

[Growing food is a] nonthreatening way for people to open up to each other on a casual basis first. You've seen little groups all around the garden. You're not going to visit a church for the first time and pour your heart out to everybody. This is a nonthreatening place to share a little bit.

In two of the gardens, a few knowledgeable people supported the efforts of all. Some of these people were garden members; others were government employees, expert at horticulture and available to advise the subject garden. This pattern of gardener decision making supported by outside experts first emerged as an effective model for community development in the 1970s.

Community and Environmental Health

Garden members and their leaders were asked several questions to ascertain whether they thought of their participation in the garden as contributing to a healthy environment. Two words which often appear in the news might provide insight: organic and sustainable. Organic

has come to connote health; sustainable has been used to describe practices that allow an organization or a process to persist over time. Three questions of interest are used to explore Principle 3, Fostering environmental, community, and personal health and transformation.

1. Do you value the decision to use organic methods? if so, why?
2. What does sustainability mean to you with respect to the garden?
3. Would you say environmental concerns were central or incidental to your decision to join the garden? What garden activities protect the environment?

The first question is a proxy to health of the environment which, as the background material shows, is better served through alternatives to the industrial food system.

There was general agreement across all the gardens, among garden members and garden leaders alike about the value of organic methods. Three fourths of garden members valued the decision to grow organically. In communally cultivated gardens, this decision is made collectively for the entire garden. In allotment gardens, the decision is made at two levels: collective and individual. Collective rules apply to the entire garden, and individual plot owners have scope to make specific decisions about his/her own lot. When asked why they preferred organic methods, garden members expressed concern about the healthiness of conventionally grown food as well as a desire to control how their food is grown. The main focus of concern was the effects of pesticides on the people working in or visiting the garden as well as on the animals living in and around it. Garden D has a bee hive which they want to protect. Garden A was built on poor soil, so its members focus effort on organic methods to improve soil fertility. The leader of Garden B agrees with the safety concerns and the benefits to the soil and goes further, adding a more holistic concern for the earth. Organic methods, which recognize natural cycles, provide a model of sustainability.

When asked the second question, what sustainability meant for them in the context of the garden, garden members and leaders responded in several ways shown in the table below. Although responses which focused on environmental or human health and wellness were the most common one among garden leaders and members, many other responses garnered as much attention. Not surprisingly, there was no consensus on the meaning of sustainability.

Table 5: Sustainability Responses

	Garden members	Garden leaders
Character building	1	1
environmental health	5	3
human health/wellbeing	4	3
awareness	2	1
self-reliance	1	1
altruism	3	0
sense of community	1	1

For some, the produce from the garden sustains them to the extent they get food and exercise in the garden. For others, sustainability meant maintaining the quality of the soil. One garden member and one garden leader answered in a way that indicated their involvement in the garden was an exploration of the community gardening as part of an alternative food system augmenting or providing a balance to the industrial food system. Garden B leader said, "I want to put more back into the soil than I take out." He shows an appreciation for the interconnectedness of body and soil. Garden C Leader identified the need to conserve environmental and human resources, making sure both remain healthy: "We try to safeguard against [burnout] by spreading the workload around and assigning each leader tasks that they enjoy and that are suited to their skill set. Our shared mission energizes and motivates us." A few garden members identified gardening as character building; patience, goal setting and goal reaching as individuals or organizations all made it possible to sustain the activity year after year. In addition, fruits of gardening including self-reliance and altruism were identified as key to maintaining gardener interest. One Garden D member reported "enjoy[ing] satisfaction of bringing first fruit to [a local crisis center] and knowing people can use it." This impulse to help is tempered by Garden A member's desire for self-reliance: "I do try to show [members] how [to garden] *if* people ask...because I don't like it when others are telling me when to harvest it. I know when to plant and I know when to harvest." Others identified awareness of the garden in the wider community as important to its sustainability. Finally two subjects reported gardening as contributing to a sense of belonging.

When asked the third question, about what part environmental concerns played in organizing the garden, leaders provided varied responses. For the leader of Garden A, environmental concerns are the practical ones of investing in the soil, and growing pesticide-free produce. For the leader of Garden B, they play a central role. For example, recycling whether it is mulching leaves or repurposing material bound for the landfill makes an environmental statement. His experiences with Garden B have made him realize that he could achieve his goal of feeding himself in the city rather than by purchasing a farm.

We're producing something locally. That's part of what motivates me. I have a goal to grow all my own food some day, and I thought I'd probably end up on a farm some day, but now I'm trying to see if that is possible in a suburban or urban environment.

The leader of Garden D, while not directly expressing concern for the environment, also sees the garden as a societal changer. Her line of reasoning is basically that feeding oneself is as simple as it gets; and growing food with a small number of similarly-motivated individuals holds the possibility to cultivate habits that could change the world. She is fond of quoting anthropologist Margaret Mead: "Never believe that a few caring people can't change the world. For, indeed, that's all who ever have."¹⁰³

With such an environmentally minded leader, would Garden B members also express such a concern? The answer is, "yes," in the specific matter of recycling, but less so on the broader question of concern for the environment. One Garden B member said, "I'm a great believer in recycling... It's fascinating to see what people do with things -- very creative." All the garden members said they had more appreciation for what it takes to grow food; two thirds indicated becoming more critical of the foods available in the grocery stores. Since there were no questions about where garden members purchased food or whether those patterns had changed with awareness of how food is grown, no conclusions can be drawn about whether this knowledge helps to protect environment or influences behavior in any way.

¹⁰³ Brainy Quotes Margaret Mead <http://www.brainyquote.com/quotes/quotes/m/margaretme101283.html> accessed 4/2014.

Challenges to Garden Leaders

Two questions were asked only of the garden leaders; these had to do with the security of the land on which the garden was situated and how the leaders kept the attention of the garden stakeholders. While garden leaders did not focus on the same issues when answering these questions, they agreed on the importance of land security and gardener interest to the long term sustainability of the community garden.

Security of land

Questions as to the security of the land were directed at the garden leaders. Only Garden A has legal support to continue cultivation at its location. The other three gardens have informal relationships with their landowners: a city government, a church and a private individual. The informal relationships appear robust. The city government provides support to the garden in the form of administrative and horticultural expertise and allows surplus material such as extra cinder blocks or a load of leaf mold to be used in the garden. Garden C has many of its congregation members active in the garden both as workers and as financial supporters. Simply by cultivating the field Garden D is upholding the farming traditions of the private landowner's family. Still, the leader of Garden D does not expect the agreement with the landowner to last forever; organizers are saving for another piece of land so they will be prepared when the time comes for them to relocate.

Gardener interest

Having a secure home is just one aspect of keeping a garden going. Another challenge is maintaining stakeholder interest. Part of that has to do with having enough funding – money to pay for electricity to run the well, compost to maintain the soil, seeds to plant and tools to cultivate the soil and maintain the garden infrastructure. Volunteers who do not have the tools to maintain the garden may find some other place to volunteer. Garden members who don't have sufficient resources to plant and mulch, weed and water may get discouraged and not return.

Another aspect of maintaining stakeholder interest is communications. Without clear communication, potluck dinners and workdays cannot be planned or will not be attended. With proper communication, garden tasks can be coordinated, ideas shared, pertinent issues

discussed, and a fellow gardener's needs known. Without awareness, membership may not grow. Garden C leader reported,

Our biggest challenge to keep the garden relevant to the neighborhood is awareness. When the garden was first getting off the ground, one of [the] pastors went door to door to each house in [the neighborhood] and personally invited residents to become members, volunteer, or just come by and check things out. Since then, we have not had the resources to make such personal connections.

In addition to funding and communication, the leader of Garden D thinks maintaining a guilt free atmosphere is critical to keeping gardener interest. Life events may interfere with a member's ability to pull his/her weight in the garden; that garden member should be supported or, if she must temporarily leave, that former garden member should be welcomed back without judgment should she wish to return. No records are kept of hours worked, harvest collected or projects completed. The policy is to allow people to simply come and work in the garden at whatever task appeals to them.

Gardening offers an opportunity for lifelong learning, with each season another school term and each garden a fresh laboratory. As one Garden B member observed, "gardeners are risk takers. Very creative. They try something just to try it and see if it works." Most gardeners were natural experimenters, trying to recreate something seen in a gardening magazine or coax more produce out of the plot by experimenting with intensive gardening techniques. I saw many of those experiments in the gardens.

The garden members report achieving common goals as a way of maintaining interest. Each harvest is a milestone along the way. One Garden D member related his experience in the garden, "One thing about working together for a common goal: it's a satisfying big effort. It reinforces the fact that we all have gifts, often complementary skills. Working in the garden is an opportunity to work with others." For some, giving away a portion of the harvest to people who can use it is also a way to sustain interest, a reward for hours spent under a hot July sun. Others enjoy maintaining the well, building a cold frame or erecting a deer fence. A goal achieved is encouragement to continue. One Garden B member felt accomplished after improving the soil,

“On one day [an expert gardener] came by and he said, ‘this soil is just beautiful,’ and my chest just went out! I was so proud, because there was nothing but clay when I got it [the plot].”

The future of a community garden depends not only on gardener interest but also on that of non-gardeners who live or work in the vicinity of the garden and members of the wider community to which the garden belongs. The stakeholders must see the community garden as an asset, and garden leaders must maintain awareness in the garden.

Designing space for use

A community garden must be designed for several functions: plant care, social activities and garden outreach. Plants require open sunny space and gardeners require easy access to tools. Social activities rely on space for groups to gather, perhaps sitting together. Relationships may be promoted or discouraged by the physical space. A visit to each subject garden revealed the way each garden uses space to support social and agricultural activities at the garden.

Three of the four gardens had tool sheds which often were locked against theft, to which garden members had access. A stocked shed provides garden members and volunteers the resources they need conveniently on site. Three of the four gardens had fences surrounding the garden. A fence deters wildlife from eating the plants. All of the gardens had access to water and were evenly split between using city and well water. Half had irrigation systems while the remainder relied on hoses to bring the water to the garden beds. Using well water saves money so long as the garden has someone able to maintain the well. All the gardens had a compost heap and paths wide enough for a wheel barrow. Only one had trellises or table-height raised beds to accommodate people who have difficulty bending.

In support of social activities, all the gardens had benches or picnic tables at the time of the visit. One had a shady sitting area, supporting the use of the garden as a place of relaxation as well as of work. Half have aesthetic plants around the perimeter of the garden, and half have artwork within the garden. One of the gardens has a small playground within sight of the garden plots, encouraging families with young children to come work in the garden. Two gardens have gazebos/outdoor classrooms under construction. One garden has planned fruit trees in its common area, providing one more sign of the seasons to passersby and an

additional opportunity for gardeners to share responsibility of tending the trees and harvesting the fruit.

In support of garden outreach, three of the four gardens had a sign that identified the garden. Half of the gardens were visible from the road; of the remaining two, one was visible from a parking lot and one was hidden behind a screen of bushes. Two of the gardens had a kiosk; a third garden has plans for one. One of the gardens uses its kiosk for agricultural instruction and information on how to join the garden; the other uses it to welcome visitors, communicate the purpose of the garden and the timing of activities, to tell garden news stories and to thank partners.

Plant tending, social events, and advertisement: each plays a role in the life of the garden, and each is promoted or suppressed by the physical structure of the garden. Physical structure in the form of a picnic table or a shady bench can invite relationships with members of the larger community. Several members of Garden A reported nearby office workers enjoyed picnic lunches on fine days. Members of Garden B related stories about interactions with visitors from the surrounding city park. Welcoming all stakeholders binds the garden into the purpose of the community it serves.

Garden B leader is aware of the impact of spatial design on the life of the community garden. In fact, he regards keeping the garden functional as his biggest challenge to keeping the garden relevant to the neighborhood. For him, *functional* includes landscaping. When he first joined, he noticed that the garden was not secluded from the parking lot. He introduced a berm and planted it with ornamental plants to separate the two areas. The berm protects the garden from the noise of passing cars, making it more peaceful. It also shields the garden from the public eye during those times of year when the plants are not at their best. The garden leader also set aside common space in the midst of the raised beds and at the edge of the garden along the shady border. This incorporated space for conversation into the space formally useful simply as space to grow plants. This expansion in the functioning of the garden has been accompanied by a renewed interest in it reflected in a waiting list to rent a plot.

The story of Garden B leader is a good example of how use of physical space influences the functioning of the organization. He redesigned the garden space to be more attractive to the gardeners by combining his understanding the possibilities of design and consultation with the gardeners to validate his ideas; with their commitment the community worked together to implement the design. Since the changes were incorporated, the garden has a waiting list of interested applicants.

Hypotheses

How effective were the three principles in building community?

The first ACGA principle is to include as many stakeholders as possible in all manner of decisions about managing the garden. This includes planning, building durable infrastructure and organizing events. The first hypothesis, based on this principle, was

An open, inclusive decision process sustains the interest of the garden members.

The discussion above found that leaders intentionally include all members in decisions about the garden. Garden members are free to attend planning meetings, suggest what plants to grow and what social events to plan. All of the garden members interviewed were returning members; to that extent, their interest was sustained. They were aware of the decision making process of their garden and happy with it. In general, they could abide by decisions they disagreed with so long as matters were discussed. All of this would indicate that the transparent decision making would be a positive factor in their decision to return and tend to support the hypothesis. However, there is a problem in that most garden members do not take advantage of the monthly planning meetings. Is it the case that garden leaders understand the need for inclusive decision making but that gardeners don't? Does smooth operation of the garden mean the process becomes like the air that gardeners breathe, taken for granted? No further data was collected as to why members choose to take a limited role in decision making. In addition, no questions in the interview considered motivations for member return. It could be the sunny plot rather than the transparent decision making that holds their interest.

The second principle is to foster relationships among all the stakeholders of the garden: families, neighbors, and members of the larger community. The second hypothesis is based on this principle

Bridging and bonding social capital accrued in the garden is spent in the wider community

The gardener interviews did show evidence for people forming relationships with other gardeners, some of whom were quite different than themselves. Even allotment gardens, where members could cultivate on their own, had social events and work projects revolving around the common areas which brought members together. Space within the gardens encouraged interpersonal engagement. Each garden had partnerships with other organizations either for gaining expertise or for giving assistance. So in the narrow scope of growing and providing food, social capital was spent in the wider community. In addition, Garden B has begun a partnership with a school-based garden, and Gardens A and D have in the past been willing to serve as subject gardens for student research as they have been for this project. Finally, a few garden members have recruited persons volunteering in their garden to participate in other charitable projects in which they are involved.

The third principle is to foster health and transformation at environmental, community and individual levels. It is the least concrete of the principles under consideration and so is more complicated to discern. The questions posed to garden members were meant to provide insight only into whether garden members or leaders saw their gardening activities as an expression of environmental concern. The attention to natural cycles which is more prevalent in the organic method and in the local food system along with the third principle gave rise to the final hypothesis.

Food production and distribution of the community garden follows environmentally- and civically-minded patterns found in the local food system.

The discussion of the questions pertaining to principle 3 shows a preference for organic methods motivated by perceived health and safety concerns. In response to the meaning of

sustainability, only two gardeners responded in a way that showed they were thinking more broadly about ecological concerns. Three others focused on the altruistic perspective using garden donations to work against food-related inequalities found in the conventional food system.

Gardeners showed civic-mindedness in how they choose to use their produce. As a group, gardeners choose to donate produce to food banks or other organizations serving the hungry or those in crisis. Whether in prerecorded interviews or in live conversations, Garden A members reported a savings in their food budget by growing their own vegetables. Some gardeners also reported having friends, neighbors or fellow parishioners who had difficulty in getting fresh produce and enjoyed sharing some of theirs. Growing their own produce engendered a sense of pride and self-reliance. Growing one's own food is even more important than donating to a food bank as the surest path to food security in Joel Salatin's opinion. Gardening, whether in community or in the back yard, is a kind of self-help program; there are no middlemen between the field and the fork.

These aspects show that growing fresh food in the same urban area represents a step into the local food system. It does not represent fully leaving the global food system, but it provides alternatives, thereby returning some measure of control over the way gardeners' food is produced. The spirit of growing food together is similar to the one Lyson recounts in his civic agriculture. Garden B leader was most aware of and excited by a self-sufficient, agrarian lifestyle. Several Garden B members mentioned the farmer's market as part of their source for household food. Garden D leader focused less on the ecological aspects of food than on the need for the simple things of life like the beauty of nature and the transformative possibility in yielding to that simplicity. As mentioned in the community garden history, Lawson understands community gardens as a form of environmentalism, centered on agriculture rather than unspoiled wilderness, aka agrarianism.

Conclusion

When I started this study, I had an image of a community garden tucked away in a suburban neighborhood frequented by many pedestrians. None of the subject gardens, even those self-identifying as neighborhood gardens, actually fit that image. Garden members do not walk to the garden in order to tend the plants and attend social events. When I visited these gardens I found one next to a mall, another across the street from an office, a third tucked away in a city park and a fourth hidden behind a hedge in a churchyard. On my workday visits I was welcomed; I had a chance to observe members at their chosen tasks getting the garden ready for spring planting. The gardens looked well-kept and their members appeared enthusiastic.

One of the neighborhood gardens is very aware of the value in open, inclusive decision making; organizers spent time even before they broke ground to determine that the neighborhood wanted a community garden. The government sponsored garden relishes members of different cultures who bring exotic plants into the garden; it also wants to bridge the gap between generations by mentoring a local school garden. Another neighborhood garden understands the importance of comfort food in hard times; they contribute the best of their produce to local charities for people in crisis. All of these gardens produce food while caring for the earth, allowing their members to have a little control over what gets to their table, and affording fellowship while growing their food.

This research on local community gardens revealed partial answers to big questions of food production. The organic method which is the preferred agricultural method of these community gardens has shown itself to be sustainable, marketable and scalable to national and international proportions. Agriculture situated in urban or suburban areas and focused on local markets could be an alternative to but not a complete replacement of the global food system. Community gardens are one form of urban agriculture; WellFed Community Garden and Raleigh City Farm are two local examples which blend social and economic purpose. Zero

Carbon Food in London is growing salad fixings in some repurposed WWII bomb shelters.¹⁰⁴ Such local-focused urban farms are friendlier to the environment and to the people involved in producing and consuming their fruits and vegetables than the conventional farms. They are arguably more responsive than larger food producers because they are close to their customers and because they aim to serve the local need. They are innovative, forward looking operations bridging the town-country divide. Because producers and consumers of food are well known to one another, the path of food from farm to fork can be more transparent, ensuring the integrity of the process. Urban farms and community gardens form an international network of small, democratic decision-making bodies.

These human-sized organizations are unexpected storehouses of community. Interviewing community garden members provided insights into the formation of community in post-traditional society. From the initial inclusive decision to form a community garden to the actual operations of getting a garden ready for the spring and from the selection of garden leaders to the equal standing of “garden leader” and “garden member” community gardens function as a viable form of democracy.

Given economic conditions and environmental concerns, community gardens will continue to supplement the food produced by agribusiness. Non-gardeners will support farmer’s markets whether as an environmental statement, out of civic-mindedness or just for the fun of it.

¹⁰⁴ Tim Smedley, “Hydroponics used to grow salad in tunnels under London.” *The Guardian*, January 30, 2014, theguardian.com.

Appendix A – Gardener Questions

	Question
S1	Q: Were you familiar with this area before the land became garden name?
S1Y	If yes, what was did the place look like? What was it used for?
S2	Q: Did you have a hand in building/planning X
	P1: Engage and empower those affected by the garden at every stage of planning, building, and managing the garden project
D1	What organizational meetings do you have? Do you attend?
D1Y	
D1N	What prevents you from attending?
D2	Allotment only: As a plot owner, you decide what to plant in your own space. Are you proficient enough to decide independently?
D2Y	allotment: yes= yes, independently
D2N	allotment: no = decide with help
D3	Who decides what to plant in common spaces? Do you express an opinion?
D3A	Does the beneficiary of food donation express an opinion about what is needed/liked?
D4	(Choose to/value decision to) used organic methods?
D4Y	Why?
D4N	Why not?
	P2: Foster relationships among families, neighbors, and members of the larger community.
R1	Have you made friends because you work in the garden?
R1N	
R2	In addition to common interests and goals, what is it about growing food that encourages relationships? Categorize: shared space/place teaching/learning fellowship food is accessible to all (shared biology, history) pride of self-reliance altruism safe space -- new from leaders
R2A	Do you experience teaching/learning {could be instilling of self confidence}
R2B	Do you experience connection to earth

R2C	Safe space; could also add fellowship, altruism as a pigeon hole for answers.
R3A	Are you a new member?
R3AN	Do you make it a point to interact with new members/visitors?
R3AY	Do you feel welcome and well-connected?
R3BA	Allotment: how important is the company of other gardeners?
R3BB	Allotment: do you coordinate schedules?
R3BC	Do gardeners gather to work? for what purpose?
R4	Mission of social engagement: (for CS, intergenerational; for SG joyful simple life as that engagement) does this fit your experience of the garden?
R4N	How not?
R4Y	How?
R5	Do you experience discord among the gardeners?
R5Y	How resolved?
R5N	
	P3: Foster environmental, community, and personal health and transformation
T1	What does sustainability mean to you with respect to the garden? Categorize: Character building(goal-meeting) environmental health (resource conservation) human health/wellbeing awareness self-reliance (economic) altruism sense of community -- new from Sally Parlier
T2	Does health motivate you to garden? What health benefits have you enjoyed?
T2A	How if at all do you eat differently because you work in the garden?
T3A	Garden B Mission: Environmental concerns central or incidental to joining the garden.
T3A1	Since you began gardening, have you become more critical of the food you buy?
T3A2	Do you have more awareness/appreciation of what it takes to grow food?
T3A3	Garden B garden: Does the garden improve the neighborhood?
T4A	What do you do with your harvest? eat fresh?
T4B	What do you do with your harvest? preserve?
T4C	What do you do with your harvest? share/donate?

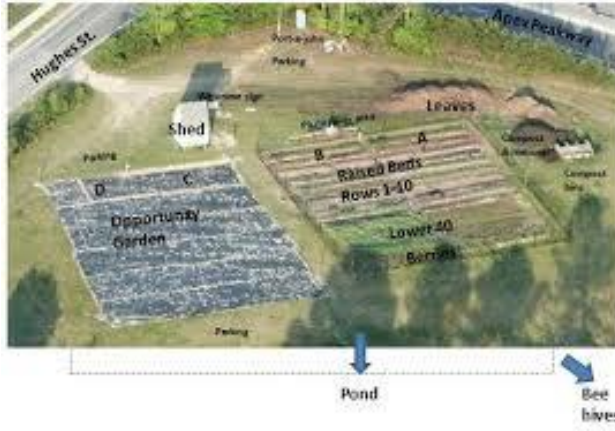
Appendix B – Leader Questions

S1	Q: How did you get the land for the garden?
S2	Q: How long did it take to develop the physical facilities of the garden? How many people were involved in building them?
S3	Q: What is your biggest challenge to keep the garden relevant to the neighborhood?
	P1: Engage and empower those affected by the garden at every stage of planning, building, and managing the garden project
D1	. Q: Is there an organizational meeting for the leaders of the garden?
	Is it open to plot owners? To the neighborhood?
	Is it attended by more than half of the eligible attendees?
D2	2. Q: plot owners decide what to plant. Depending on their level of expertise, does the garden provide resources to help them choose?
	Q1 training classes about horticulture?
	Q2 training classes about nutrition?
	Do more than half the gardeners use these resources?
D3	Q: Do garden leaders have anything to say about how gardens are cultivated?
	For instance about using organic methods?
	If they do have an opinion, is it seen as a benefit to soil, a safety concern for gardeners, a holistic concern for the Earth or some, combination?
	P2: Foster relationships among families, neighbors, and members of the larger community.
R1	Q: The garden is an allotment garden. Is building relationships important to you as a garden organizer, or is your focus more about providing a place for people to cultivate plants?
R2	Q: Many activities can help people form bonds. In addition to providing shared goals and interests, what is it about growing food that encourages relationships between the gardeners?
R3	3. Q: the garden is an allotment garden; the plot owners can come at their convenience to tend their plot. What formal or informal opportunities are there for plot owners to interact with one another?
R4	4. Q: Several goals listed in Gardening Agreement have to do with interpersonal actions:

	<p>between seniors and youth, among seniors and volunteers What activities are put seniors and youth together in the garden?</p>
R4A	<p>a) How do you see NON-GARDENING activities fostering relationships? Do more than half your plot owners attend? Do you have non-plot owners among your guests?</p>
R5	<p>5. Q: How do you avoid burnout for yourself and for other organizers in the garden?</p>
R6	<p>6 Q: Have you ever had to handle disputes in the garden? If yes, how did you handle it?</p>
	<p>P3: Foster environmental, community, and personal health and transformation</p>
T1	<p>1. Q: There are multiple dimensions to sustainability from maintaining the soil's fertility to promoting healthy relationships among the garden members. What does sustainability mean to you with respect to the garden? Is the garden sustainable?</p>
T2	<p>2 Q: Would you say environmental concerns were central or incidental to your decision to join the garden? What garden activities protect the environment?</p>
T3	<p>3. Q: garden open to members only?</p>
T4	<p>GH mission question</p>

Appendix C – Subject Garden Pictures

Every garden is different yet the same. All plants need soil sun and water. The subject gardens answered those needs. The gardens had wells or city water available to augment the natural



rain patterns. They had some space allocated to compost organic waste, turning it into food for the soil. They had plans to handle pests that would eat the plants before they could bear fruit: fences or nets or sometimes sprays for fire ants. Many gardens had a shed to store tools conveniently for garden members to use.

Some gardens were organized into rows which the members worked communally.

Others were divided into raised beds which were allotted to members who made their own decisions about what to plant and how to tend it, with some input from the group. When safety was in question, gardens deliberated together how best to handle a particular pest or problem.

Some gardens displayed artwork such as colorful sculptures; others had playgrounds for the

youngest gardeners to entertain themselves while more serious gardeners worked the soil.



This garden is clearly visible from the street, making it easy to find. The picture was taken from the top of its shed. Its fence is particularly high to ward off deer living in the adjacent wood.

Blackberry bushes climbing the fence and an herb garden are worked communally while the raised beds are rented to individual families.

The bones of the garden attend to the plants and people who spend time there. In addition to soil and sun, some gardens have a protected place for tender seedlings and a gathering place for members.



The heart of the garden is the people who gather to assemble the bones of the garden: the sheds and fences, the raised beds and cold frames, the picnic tables and shaded benches that make the garden not only a place of work but also a retreat for relaxation.



The heart of the garden is the people who work together for a harvest and gather to celebrate.



The gardeners in the subject gardens were very generous with their time and very welcoming. The space itself can make it visible to a newcomer and an asset even to non-gardeners.



That boundary between the garden and its surroundings are the welcoming arms of the garden.

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ⁱ Michaels describes *social capital* as the ability of individuals to enjoy benefits by belonging to a social network or other social organization (Michaels 21).

ⁱⁱ The 1996 World Food Summit defines food security as a condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Food and Agriculture Organization, 2006)

ⁱⁱⁱ Social capital falls into several categories: *bonding capital*, which is a strong intimate tie between individuals with common demographics or a close social bond; *bridging capital*, which connects people from different social networks; and *linking capital* which connects individuals to powerful people or institutions (Michaels 22).

^{iv} Chevrette's working definition of a *food system* includes food production, processing, distribution, access and use, recycling, composting and disposal. Thus, a food system is an entire cycle of functions (Chevrette, 1).