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Food in the City: Community-Driven Agriculture across the United States

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Food in the City:
Community-driven agriculture across the United States

A thesis submitted in partial fulfillment of the requirements for graduation with departmental honors in the Program of Environmental Design

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1. Abstract

Urban Agriculture is an accepted practice in many cities and countries, and has attracted a broad cross-section of people across the United States to start growing food in their communities. In some cases, the motivation behind Urban Agriculture is clear, but throughout the history of Urban Agriculture in the United States there have been many reasons why urbanites have started growing food. Such reasons include an ideological battle against conventional agriculture, the need for food itself, the desire to recreate, and the urge to educate others. The motivation behind the practice varies from location to location with national trends shifting throughout history as communities struggled to understand what Urban Agriculture meant to them. Ultimately, however, the motivations of the Americans on the ground practicing Urban Agriculture are largely undocumented. Through a series of interviews with practitioners of Urban Agriculture across the United States, I have gathered data suggesting that the primary reasons why Americans are growing food in cities today are to have a career in a profession they enjoy and to educate others about the benefits they see in Urban Agriculture.

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3. Food in the City

Americans are quick to point out that the United States is a nation built on the work of farmers. Apart from conventional farming, however, the United States also has a rich history of Urban Agriculture, which has been called upon in times of need and plenty alike (Cockrall-King 2012, Mack et al. 1944, Phillips 2013). Since the 1890s American cities have witnessed a rise in the number of urbanites growing their own produce on underutilized lots and urban voids (Cockrall-King 2012; Gorgolewski et al. 2011; Kimbrell 2002; Lawson 2005; Nordahl 2009; Phillips 2013). Throughout the years, however, interest and use of urban farming has fluctuated with economic, social, and political factors (Cockrall-King 2012; Lawson 2005). Each era of Urban Agriculture history is characterized by different models of Urban Agriculture motivated by the unique needs of the time, but the basic principle of growing food in urban and suburban areas has remained constant. The earliest Urban Agriculture movements were largely driven by need for more produce and were caused by economic downturn, such as during the Great Depression, and food shortages like those that occurred during the two World Wars (Lawson 2005). By the 1960s, however, Urban Agriculture had become a product of discontent with the conventional agriculture that had swept the nation (Phillips 2013). The causes and motivations of these past Urban Agriculture movements are well-documented and show how Americans have adapted their practices to meet different goals throughout history. Today, however, practitioner motivations are somewhat less tangible as there is no single defining event that can be pointed out as having inspired the current generations to start growing their own food. This situation has led to myriad

forms of Urban Agriculture popping up across the country that are all driven by different needs and views. Whereas earlier incarnations of Urban Agriculture were more or less uniform, contemporary practices look vastly different from location to location and from practitioner to practitioner.

4. Defining Urban Agriculture

Many definitions assert that in order to be considered Urban Agriculture, a site must be located in an urban or peri-urban context and must have production of food as its primary goal (as cited in Ackerman et al., Enete and Achike 2008, Graefe et al. 2008, Vagneron 2007; Altieri et al. 1997; Companioni & Ojeda 2002; Phillips 2013). Additionally many authors assert that Urban Agriculture is generally a cooperative practice in which residents of a community are responsible for the food production (Altieri et al. 1999; Companioni & Ojeda 2002; Gorgolewski et al. 2011; Phillips 2013; Spector 2002). All of these characteristics lead to a broad definition of Urban Agriculture as community-driven food production in an urban context. Types of production that fit these criteria include urban and market farms, community farms and gardens, education and school gardens, and research and experimental gardens (Phillips 2013).

Urban Context

The most widely cited characteristic of Urban Agriculture is the fact that it occurs within urban or peri-urban contexts. This characteristic seems self-evident given the term "Urban Agriculture," but is enormously important to how Urban Agriculture functions. The most common reasons cited for having agriculture in an urban context is that it is close to the people who actually consume the food being grown (Altieri et al. 1997; Companioni & Ojeda 2002). In their 2002 essay on Urban Agriculture in Cuba, Companioni & Ojeda break the urban rationale down fur-

ther into three characteristics; the first is, as stated above, is that it makes sense to locate Urban Agriculture in areas that have unmet demand for food, either because the communities need it for sustenance or because of moral or health reasons. Second, because a large labor force is typically needed compared to conventional agriculture, Urban Agriculture seeks out dense population centers. Additionally, urban cores, as epicenters of scientific knowledge, provide Urban Agriculture with the technical and functional support that it requires. Finally, they describe Urban Agriculture as a filler of urban voids, which tend to appear in rapidly developing urban regions (Companioni & Ojeda 2002).

Food Production as the Goal

The second widely apparent and well-accepted characteristic of Urban Agriculture is that it is supposed to produce food (Ackerman et al. 2014; Altieri et al. 1997; Phillips 2013). This characteristic seems so essential to the definition of Urban Agriculture, in fact, that some definitions fail to mention it. And yet, it is at the center of defining Urban Agriculture. One exception to the goal of food production that is sometimes brought up is the practice of non-agricultural horticulture, in which growing a crop is the goal, but it is not necessarily a food crop (Ackerman et al. 2014). In most definitions of Urban Agriculture, however, the central act is to produce food. The specific goal for that food, whether it be human for consumption, food education, research, or a range of other uses, is not always specified, but food remains central to each definition (Phillips 2013).

People do the Growing

One final characteristic many definitions agree on, but is not explicitly mentioned in the term itself is the fact that Urban Agriculture is human-scaled and driven by communities of people (Altieri et al. 1997; Companioni & Ojeda 2002; Mack et al. 1944; Phillips 2013). Embodied in this characteristic is the notion that people have become removed from the food production process and Urban Agriculture is a way to reestablish that connection (Spector 2002). Companioni and Ojeda dub Urban Agriculture to be "participatory," and a system in which more people are directly involved than conventional agriculture (Companioni & Ojeda 2002). Once again, however, the method of participation is left undefined. This ambiguity is key as it leaves the definition open to include cooperative, membership-based, community-based, farm-to-table models and many others (Gorgolewski et al. 2011; Spector 2002).

Ackerman et al. support the social aspects of Urban Agriculture in their definition further by proposing that Urban Agriculture is based on and supportive of the three principles of environmental, economic, and social sustainability (Ackerman et al. 2014). The strongest point in Ackerman et al.'s definition is the inclusion of social sustainability as an essential tenant of Urban Agriculture. Doing so reinforces the anthropocentric nature of agriculture as a whole and Urban Agriculture in particular. As Ackerman et al. assert, not only must Urban Agriculture sustain communities physically, but also socially by developing and strengthening community relationships. Urban Agriculture accomplishes this by bringing together community members and sometimes members of disparate populations in the context of food production (Mack et al. 1944).

5. The Rise of Urban Agriculture

Urban Agriculture is by no means a modern invention, with evidence of urban cultivation as far back as 10,000 years in Egypt, China, and India (Phillips 2013). More recently, theorists such as Johann Heinrich and Ebenezer Howard developed models of how cities and agriculture could be integrated successfully in a productive way (Phillips 2013; Viljoen & Bohn 2010). Conceptual models such as Howard's Garden City with its perfectly balanced five-to-one ratio of agricultural land to developed land never quite caught on and very few were actually built (Phillips 2013). Although Urban Agriculture dates back to the early 1890s in the United States, the massive deployment of War Gardens and Victory Gardens during the First and Second World Wars were the most intensive outbursts of Urban Agriculture the country has seen (Cockrall-King 2012, Lawson 2005, Mack et al. 1944). These efforts, however, are just a piece of the 125 year history of Urban Agriculture in the United States, which, although sporadic, has persisted and flourished across generations (Lawson 2005).

The American Struggle

The history of Urban Agriculture in the United States specifically has been thoroughly documented by authors such as Lawson, who provides a comprehensive timeline of the development of America Urban Agriculture from the 1890s to the present. In her history, Lawson breaks Urban Agriculture down into three phases characterized by different typical organizational qualities of sites; the early programs from 1890 to 1917 that tended to be city-scaled operations and were

generally philanthropic in nature; the national programs that emerged between 1917 and 1945 that brought national awareness of Urban Agriculture to millions of Americans; and the community garden movement that began after World War two and persists to this day according to Lawson (Lawson 2005).

From an organizational and structural standpoint, these three eras are very helpful, but in terms of the primary motivations of Urban Agriculture during each era of Urban Agriculture, the breakdown should be altered slightly. Firstly, the early Urban Agriculture programs and the national programs should be combined as they were both primarily inspired by need on scales from the individual to the national (Cockrall-King 2012; Lawson 2005). Second, Lawson's community garden era should be split into two separate eras; the programs between the end of the Second World War and the mid 1980s that sought to combat the immediate, deadly effects of the developing conventional agriculture system and the more contemporary programs that have the dual motivation of addressing social issues such as food deserts and providing practitioners with a sustainable and enjoyable aspirational pursuit (Gorgolewski et al. 2011; Kimbrell 2002; Lanterman 2011; Lawson 2005; Phillips 2013). These three eras of motivation in American Urban Agriculture represent the national trends over time, but are also blurred by the fact that to a degree motivations such as need, education, environmental issues, and pleasure exist at least peripherally in each era (Lawson 2005). Regardless, the three eras of Need-based Urban Agriculture, Environmental Urban Agriculture, and what might be called Restorative Urban Agriculture represent the evolution of the motivation behind Urban Agriculture in the United States.

Need-based Urban Agriculture

As Urban Agriculture evolved during the Need-based era, it took on a variety of forms, but always at the heart of it was the necessity of providing food for the nation (Cockrall-King 2012, Lawson 2005). The earliest Urban Agriculture programs began to emerge in cities such as Detroit, Philadelphia, and New York in the 1890s and were examples of individual and regional need as they were intended to provide the poor with nutrition and temporary work. These programs were called Vacant-lot Cultivation Associations and, necessitated by economic downturns, spread to over thirty major American cities by the turn of the century (Cockrall-King 2012, Lawson 2005). The Vacant-lot Cultivation associations were quite successful because of their low initial costs and high payback in the form of food cost savings for those who worked in them. For example, in the first year of Detroit's program alone, $14,000 worth of produce was grown and consumed by those who had qualified for the program (Gardener 1895; Lawson 2005) Other forms of Urban Agriculture during the earliest years also sought to improve the lives of the underprivileged by educating them on how to be self-sufficient and ameliorating the unhealthy impacts of industrialization in cities. The two primary programs in this category were called the School Garden Movement and Civic Garden Campaigns (Lawson 2005).

Fast on the heels of these early movements in American Urban Agriculture came the national programs of the 1920s through the end of World War Two. Like the earlier programs, the national programs were based on need, but this time on a larger scale. The three major Urban Agriculture movements in this category were the War Gardens of World War One, the Relief Gardens of the Great Depression, and the Victory Gardens of World War Two (Cockrall-King 2012; Lawson 2005). In the case of the two wartime Urban Agriculture campaigns, the need came from the ne-

cessity of feeding the troops as well as refugees of the wars. To meet this need, Urban Agriculture was used to supplement the diets of Americans domestically so that more food was available to be shipped overseas. During the Great Depression, on the other hand, the need was caused by widespread food shortages due to failing crops (Lawson 2005). In all three cases, the national reach of the necessity to produce more food required the federal government to step in and provide seeds, equipment, land, and agricultural education to enable Americans to grow their own food. All three programs were quite successful, but the Victory Gardens especially were extremely productive, producing 40% of all the fruits and vegetables consumed domestically during World War Two (Lanterman 2011; Lawson 2005).

Environmental Urban Agriculture

The success of the Victory Gardens was relatively short-lived, however, and as the War came to a close Americans abandoned their gardens, instead relying on the emerging conventional agriculture system for their food needs (Cockrall-King 2012). Mass produced farm equipment, fertilizers, and pesticides made in war effort factories allowed conventional agriculture to increase supply, meaning fewer Americans were needed to produce the food required by the growing population (Carson 1962; Cockrall-King 2012). Americans forgot about urban food production, lured by the ease on the part of the consumer offered by conventional agriculture.

It is not hard to see why it was so easy for Americans in the post war era to disregard Urban Agriculture. The most basic benefit of the conventional system of food production is quite simply that it has averted famine and improved access to food on a global scale (Motes 2010). Be-

fore the Industrial Revolution, there was a real concern world-wide that the earth simply could not sustain the population growth that was occurring, but new machines and methods as well as artificial fertilizers allowed farmers to dramatically increase their output (Cockrall-King 2012; Motes 2010). In fact, agriculture became so efficient that many people were free to pursue careers other than farming and therefore enjoyed more time for leisure (Motes 2010). With the advent of refrigeration and the rise of grocery store, food became even less of an issue for many people to the point where many essentially stopped thinking about it (Cockrall-King 2012).

Despite these benefits of conventional agriculture, the issues it created were too egregious for some Americans to overlook. Rachel Carson was not the first to point out how conventional agriculture was affecting the environment and the health of the country, but her work opened a door to critical examination of its effects and the entire philosophy of environmentalism (Mart 2010). Specifically, Carson criticized the overuse of dangerous agrochemicals such as DDT, the creation of massive swathes of monocultures, and the careless importation of harmful pests (Carson 1962). Of course not all Americans supported her work, and there were those that decried her as being an extreme anti-science rabble-rouser. Such criticism was the start of a decades-long debate between the proponents and detractors of conventional agriculture (Lawson 2005, Mart 2010). The issues that are at the heart of this ideological battle include contamination of soil, water systems, wildlife, and humans and the harmful effects of ingesting insecticides, as well as soil degradation, decreases in biodiversity, and the decimation of wildlife habitat (Ableman 2002; Carson 1962; Kimbrell 2002; Phillips 2013; Spector 2002; Tompkins 2002). As the American public started to become aware of these issues in the 1960s and 1970s, more and more Ameri-

cans decided to combat theses immediately dangerous effects of the conventional agriculture of the time by participating Urban Agriculture (Kimbrell 2002).

In his introduction to his 2002 book Fatal Harvest: the Tragedy of Industrial Agriculture, Kimbrell presents a list of elements that conventional agriculture is "fatal" to, including oceans, lakes, and rivers, topsoil, forests, genetic diversity, farm communities, food security, wildlife, and the entire biosphere (Kimbrell 2002). All items on this list except food security are crucial elements of the environment. Specific effects that conventional agriculture has on the environment include the depletion of topsoil, contamination of water and food, decimation of diversity, and destruction of wildlife habitat (Tompkins 2002). Urban Agriculture provides an alternative that is more environmentally responsible due to its smaller footprint, general avoidance of agrochemicals, diversity of crops, and more efficient use of natural resources (Kimbrell 2002; Phillips 2013; Spector 2002).

Contemporary Urban Agriculture

Within the past twenty years, Urban Agriculture proponents such as Andrew Kimbrell continued Rachel Carson's legacy by pointing out the flaws that they believe make the system unsustainable. Some of the flaws that are cited most commonly include the creation of food deserts, the prevalence of food-related diseases that has been associated with conventional agriculture, and the disconnection of the producer and the consumer (Ableman 2002; Gorgolewski et al. 2011; Kimbrell 2002; Phillips 2013; Spector 2002; Tompkins 2002). These are the issues with conventional agriculture that have spurred dissatisfied Americans to turn not only to Urban Agri-

culture, but also to local food sources such as farmers markets. As of 2012, there were some estimates that put the world wide number of people participating in Urban Agriculture at 800 million, many of whom are in the United States (Cockrall-King 2012). In 2011 it was estimated that Americans were taking up vegetable gardening at a rate of 1 million new practitioners per year spurred by the desire to address the more social issues conventional agriculture has created.

One failing of conventional agriculture that has played a role in this rise in popularity is the fact that it has created a system in which food cost, availability, and nutritional value vary dramatically with location, even at the neighborhood level. Areas where access to healthy food is a major problem have been called "food deserts," and create real, physical issues for resident populations (Phillips 2013; Tompkins 2002). As of 2009 roughly 23.5 million Americans lived in food deserts and consequently were undersupplied with fresh foods (Ver Ploeg et al. 2009). These food deserts are one of the focuses of certain Urban Agriculture sites, such as the Ubuntu Urban Farm and the Re:Farm program, both of which are based in Denver's Westwood Neighborhood, which is classified as a food desert. In food deserts, income levels tend to be below the point at which bottom-line focused food retailers will not invest in grocery stores, meaning that the only food available comes from fast food chains and corner stores (Phillips 2013). In environments such as this, many inhabitants are forced to rely on nutritionally poor foods and may not even know where their next meal will come from, a statement which is true for approximately 15% of Americans (Phillips 2013).

Not only do food deserts perpetuate dependence on unhealthy foods, but also they propagate food related diseases that are caused by overconsumption of unhealthy and non-nutritious food and have reached epidemic levels in the United States (Gorgolewski et al. 2011; Phillips 2013;

Tompkins 2002). Obesity, malnutrition, food-borne illness and increased exposure to toxins from fertilizers and other agrochemicals are several well-documented health concerns related to the conventional agriculture in America (Gorgolewski et al. 2011; Ogden et al. 2012; Phillips 2013; Tompkins 2002).

Lastly, conventional agriculture has destroyed the relationship between production and consumption through a vast network of distribution and middlemen (Ableman 2002; Kimbrell 2002; Spector 2002). By the mid-twentieth century, the norm became to grow food hundreds to thousands of miles from the Americans consuming the food, thereby creating a psychological separation between consumers and their food (Kimbrell 2002; Spector 2002). This separation as well as the average of 1300 miles food travels from farm to table has created a system in which most Americans have no idea where their food was grown, let alone who grew it (Spector 2002). This loss of human connection has led many to seek Urban Agriculture as a means of reconnecting with their food.

6. Uncovering Modern Motivations

Today in the United States, there are concerns regarding the environmental impact of conventional agriculture and economic downturns such as the Global Financial Collapse of 2008 still wreak havoc on the well-being of individuals, communities, and cities. Either of these could be reason enough for contemporary Americans to turn to urban food production, but it is naive to think that on an individual scale Urban Agriculture is motivated by one or the other. To discover why Americans seem to be returning to Urban Agriculture, then, it was necessary for me to turn to the practitioners in the field and ask why they were there.

In order to uncover the reasons why Americans choose to participate in Urban Agriculture today, I conducted a series of interviews with active practitioners of Urban Agriculture across the country. I cast a wide net by speaking with practitioners from a variety of backgrounds located in five cities across the United States with diverse social, political, and economic environments. The interview protocol was designed to elicit information regarding not only how and where the interviewees practice Urban Agriculture, but also why. In this way, I have begun to document the reasons why Urban Agriculture is attracting practitioners in the United States.

Study Site Selection

The selection criteria for my study sites were dictated by the definition of Urban Agriculture as community-driven food production in an urban context. The primary criterion was that each study site be located within a metropolitan area with greater than 100,000 inhabitants.When searching for sites within each city, I looked for organizations that had strong ties to the community and had support from neighbors. This can imply various organizational strategies, and is

flexible enough to capture different models in which different sets of stakeholders are involved. Finally, each study site had to be actively participating in food production, which excludes purely decorative community gardens.

These constraints led me to select five cities, including San Francisco, Denver, San Antonio, Toledo, and Miami. Within each city I selected one site that appeared to be both an active entity within the community and productive based on their internet presence. The study sites are the Far Out West Community Garden (FOW) in San Francisco, the Sunnyside Farm (SSF) in Denver, the Spurs Community Garden (SCG) in San Antonio, Toledo GROWs (TLG) in Toledo, and Urban Greenworks Miami (UGM) in Miami.

The Far Out West Community Garden in San Francisco, CA is small, but is still very active within the community. Squeezed onto only 2500 square feet between buildings, the garden is operated with an efficiency of space that makes it vibrant and productive despite its size. Not only does the Far Out West community tend to 12 productive beds, but also they host a variety of community events ranging from gardening techniques and composting workshops to bicycle repair classes and trips to other Bay Area farms and gardens. The produce grown at Far Out West is consumed by the practitioners or is donated to local organizations.

Sunnyside Farm in Denver, CO is also fairly small, but unlike Far Out West follows the market garden approach to production, growing produce specifically to be sold. This focus on production means that the community surrounding the garden enjoys a supply of fresh produce nearly year round thanks to a hoop house that extends the growing season. Another way Sunnyside Farm has become profitable is through selling worms for composting and starts of various fruit and vegetable plants.

The Spurs Community Garden, which is owned and operated by the San Antonio Food Bank represents yet another model of Urban Agriculture, donating 80% of the produce grown to the community and selling the remaining 20% to cover operational costs. It is part of a larger network of farms, but the Spurs Community Garden itself comprises about two acres of productive land. The Spurs Community Garden is also very involved in educational outreach, bringing school groups and other similar groups to help out in the garden and learn about urban production.

Toledo GROWs is a program of the Toledo Botanic Garden that manages roughly 150 community gardens in the greater Toledo area. The primary site, however, is called the Robert J. Anderson Urban Agriculture Center and Farm. Outreach and education is of the upmost importance to the mission of Toledo GROWs so the Robert J. Anderson farm is often host to school groups and workshops. To cover operation costs and employee salaries, the organization sells much of its produce at an onsite farm stand and pursues grants.

Urban Greenworks Miami also manages several garden programs throughout Miami's poorest neighborhoods as well as at local institutions such as schools, halfway houses, and a prison. The central garden, however, is called the Cerasee Farm and is worked by Urban Greenworks personnel as well as local youths, all of whom are paid for their work. Apart from employing teens and engaging with adult programs, Urban Greenworks also provides fresh, culturally familiar produce to the predominantly African American communities surrounding its lots through dollar sales and farm stands.

Table 6-1: Study Site Sumarry

Site Name	Location	Size	Type	Practitioners
Far Out West Community Garden	San Francisco, CA	0.1 acres	Community Garden	Community
Sunnyside Farm	Denver, CO	0.1 acres	Market Farm	Owners Community
Spurs Community Garden	San Antonio, TX	2 acres	Community/ Demonstration Farm	Employees Volunteers
Robert J. Anderson Urban Agriculture Center and Farm	Toledo, OH	2.75 acres	Demonstration Farm	Employees Volunteers
Cerasee Farm	Miami, FL	.25 Acres	Community Farm	Owners Community

Interview Methods

Primary data collection for my research consisted of interviews with practitioners of Urban Agriculture from the five study sites. I interviewed one to two participants from each study site for a total of eight participants. The first participants from the identified study sites were contacted via email and telephone, and the remaining participants were recruited through a snowball recruitment process. The two primary methods for recruiting additional volunteers that I employed were direct questioning of my primary interviewees regarding associates they believed might be interested as well as the distribution of study fliers through my primary contacts with information regarding the purpose and risks associated with my research. My selection criteria for participants was as follows:

- Participants must be 18 years of age or older
- Participants must be currently involved with food production at one of the chosen study sites
- Participants must have been practicing at the study site for at least one year

I interviewed each participant either in person or on the phone depending on availability and responses were recorded on a digital recording device and/or by hand-written notes. Below is the interview instrument employed for the interviews. It is split into two parts, where Part A concerns factual information about the participants' Urban Agriculture practice and Part B asks the participant to disclose more personal information regarding their motivations and challenges.

Part A:

1) Where do you conduct most of your agriculture related activities?
2) What plant species do you cultivate primarily at that location?
3) Who owns the land you work on?
4) How far is the land from your home?
5) Who are the consumers of the food you produce?
6) How does your produce reach the consumer?
7) Could you give an estimate of how much produce you grow in a season?
8) Do you know the monetary and caloric values?
9) Does your work in agriculture supplement your income in a significant way?

Part B:

1) Why do you choose to participate in Urban Agriculture?
    - Follow up questions as necessary
2) What do you personally gain from your participation?
    - Follow up questions as necessary
3) What challenges do you face in your practice of Urban Agriculture?
    - Follow up questions as necessary
4) Do you think your work has an impact in the world beyond the immediate beneficiaries?

- Follow up questions as necessary

Response Coding

To evaluate the responses I collected during each interview, I developed an evaluative protocol composed of recording the responses and then two separate coding processes.

Coding Methods

In the first step, I condensed each response I received into a short phrase and assigned a one word code to each. To ensure relevance, the codes were drawn from the response phrases. For example, for the response phrase, "Gardening is enjoyable" I assigned the code "recreation." I then took the first set of codes and grouped them into five theme codes that were derived from the original codes. These five theme include Sustenance, Livelihood, Well-being, Community, and Values. Finally, I tallied the occurrences of each theme code within each interview. For a complete list of all responses, codes and themes, see Appendix A.

With these five sets of codes and themes complete I then began evaluating each interview by first looking at the theme composition from the responses and then contextualizing those themes with the codes as well as the questions that elicited the responses to begin with. I recorded the top two themes for each interview as well as for each study site and then began to delve into what the data was saying about each participant.

7. Interview Results

Once each interview was complete and I had tallied the codes and themes, I began examining the data for trends. The table below shows the totals for each theme counted during all of my interviews. For detailed counts of codes and themes for each interview see Appendix B.

Table 7-1: Interview Theme Totals

Theme	Sustenance	Livelihood	Well-being	Community	Values
FOW #1	1	2	8	9	9
FOW #2	2	0	5	6	6
SSF #1	3	13	1	6	10
SSF #2	2	8	6	2	4
SCG #1	3	11	5	4	5
SCG #2	1	9	3	3	8
TLG #1	2	11	4	3	5
UGM #1	2	9	3	5	12
Total	**16**	**63**	**35**	**38**	**59**

The data above indicates several trends in the motivations that contemporary practitioners of Urban Agriculture have. The first trend is that six out of eight interviewees had “Livelihood” as one of their top two themes. This suggests that at least among the practitioners who I interviewed and their peers, there are a high number of practitioners who rely on their practice as a source of income and an occupation. A factor that has facilitated this is the large number of non-profit organizations that exist that allow passionate individuals to pursue Urban Agriculture as their job. In fact, all six interviewees who had “Livelihood” as one of their top themes were in some way connected to a non-profit, two of which were founded by the interviewees themselves. This trend appears still stronger when examining the responses to the question, “Does your work in agricul-

ture supplement your income in a significant way?" to which four interviewees responded that their work provided most or all of their income.

Additionally, five out of the six interviewees who consider their Urban Agriculture work to be their career and had "Livelihood" as on of their top themes also had "Values" as a top theme. This suggests that there is a fairly large portion of practitioners for whom Urban Agriculture is a way for them to act on their personal beliefs as well as a career. The five interviewees for whom this is true differ when it comes to the associated codes and therefore the specific beliefs that led them to Urban Agriculture, but the overall model of gainful Urban Agriculture driven by beliefs remains the same. SCG #1 put it well, saying, "I personally strive to educate the youth in growing food… I got into [Urban Agriculture] because it aligned with what I personally was trying to accomplish professionally."

Of all of the six "Livelihood" motivated interviewees, however, SSF #1 was the most clear example of gainful Urban Agriculture driven by strong personal beliefs. Not only is her work at Sunnyside Farm her full time occupation and primary source of income, but also she stated vehemently that it is a goal of hers to "prove the legitimacy of Urban Agriculture as a profession." Beyond proving that Urban Agriculture can provide jobs, SSF #1 also believes that to be self-sufficient and develop a secure food system, the Front Range of Colorado must have 1 million farms at the minimum, many of which would be in urban and suburban areas. In a similar vein, TLG #1 mentioned that it is a goal of hers to not only develop the farms the Toledo GROWs operates, but also to encourage individuals in the greater Toledo region to take up Urban Agriculture and then for Toledo GROWs to become a regional aggregator for their products. Both of these goals are long term and career-oriented in nature, but are also motivated by deep-seated

beliefs on the part of the practitioners. The two primary beliefs that emerged in these six interviews were that more Americans should be educated on food issues and urban production methods and that Urban Agriculture deserves or needs to be more widely recognized. These two beliefs were identified by the "Education" and "Legitimacy" codes.

These beliefs were also common amongst the interviewees as a whole, and not just those who had both "Values" and "Livelihood" as their top themes. Overall, only one interviewee did not have "Values" as one of their top themes and the codes "Education" and "Legitimacy" are still most common amongst all seven values-driven interviewees. This indicates that many practitioners in situations similar to those in which the interviewees operate choose to grow food in cities because of the beliefs they have. There was a wide variety in the codes associated with the "Values" themes, but "Education," "Legitimacy," and "Environment" were the most common.

The "Education" code accounted for nearly one quarter of all of the "Values" themes in all of my interviews, most of which came in response to the questions, " Why do you choose to participate in Urban Agriculture?" and "Do you think your work has an impact in the world beyond the immediate beneficiaries?" Not only does this suggest that many practitioners believe that an important outcome of Urban Agriculture is increased food literacy through education programs, but also that for some, educating others is in fact the primary goal of their Urban Agriculture work. This sentiment is most clearly seen in the quote by SCG #1 mentioned above, but was mirrored by many interviewees, including FOW #1, SSF #1, SCG #2, TLG #1, and UGM #1.

Interestingly, the target pupils of the education promoted by these individuals was not always the same; whereas SCG #1 desires to "educate the youth," her colleague, SCG #2 said that one of his goals in working in Urban Agriculture is to educate his own community, but also his own

daughter because he does not "want her to have to deal with those chronic diseases (diabetes and heart disease)" that are associated with poor nutrition. Others, such as FOW #1 mentioned that he believes in an education-by-proximity approach, where the community and passersby are invited into the garden, where the gardeners will "plant the seed" in their minds and show them the benefits of Urban Agriculture. Yet another model of education is apparent in the work of UGM #1, in which he works with struggling communities in order to teach them a self-sufficient practice and recover from hardships. The fact that practitioners are seeking to educate such a wide cross section of people speaks to both the communal aspect of Urban Agriculture as well as its wide appeal.

Many interviewees also gave answers that fell under the "Legitimacy" code. Such responses accounted for about one eighth of all "Values" themed responses. These answers tended indicate that the interviewees wanted Urban Agriculture to become more accepted and supported by neighbors, Americans as a whole, local government, and even the federal government. This desire makes sense in light of the fact that the USDA does not currently recognize Urban Agriculture as a form of food production (Tallman & Walther 2014). The five interviewees that had "Legitimacy" coded answers were very fervent. As TLG #1 put it, there is currently a lot of excitement in the Urban Agriculture community, but the support systems for it are not yet in place. This suggests that there is a portion of Urban Agriculture practitioners who are actively struggling with a lack of recognition and are seeking to prove the value of their practice.

The main variation in the answers coded with "Legitimacy" was the scale of recognition the individual interviewees were seeking. As mentioned previously, SSF #1 is an example of a practitioner who is seeking to improve recognition of Urban Agriculture in the entire Colorado Front

Range area, but her scope of legitimization was an exception. The next closest response in terms of scale came from TLG #1, who is focused on the smaller scale of Toledo, OH. The rest of the responses were closer to a neighborhood scale, similar to FOW #1, who said that he hopes people will realize "that you don't need that much space to get one kale plant growing… and that can make a big impact on your grocery bill and your health."

Finally, although it came up less frequently in each interview, all but one of the interviewees gave answers that fell under the "Environmental" code. Such answers ranged from condemnations of the conventional agriculture system to the desire to use native plants to reduce maintenance needs, but all portrayed Urban Agriculture as an alternative to conventional agriculture that requires fewer resources. According to UGM #1, "we have to create food production within the city… which might alleviate the environmental pressures in areas outside of the city."

Limitations

However telling these trends appear to be when looking at the data, both have limitations in their representative power across all contemporary Urban Agriculture for two main reasons. The first is that my sample size is fairly small, and therefore cannot be used as a representative sample for all practitioners of Urban Agriculture. Further interviews would need to be conducted to gain a comprehensive understanding of the motivations behind contemporary American Urban Agriculture.

The second limitation is the bias created through my study site selection and my interviewee selection. Namely, the organizations most accessible and most interested in participating were

those that already had a strong interest in sharing their opinions on Urban Agriculture. Similarly, the people most willing to participate were often in managerial roles that give a unique perspective and imply an especially strong passion for Urban Agriculture. Their answers, therefore, were more likely to fall into the “Livelihood” theme because for them, Urban Agriculture is an occupation.

8. A new era

If Urban Agriculture today is indeed both an occupation for many and an outlet for values-based action, then it represents a unique era in the agricultural history of American cities. Looking back at the Urban Agriculture of the twentieth century, there is little doubt that values and beliefs have always had a role in inspiring Americans to grow food in cities. Whether it was the war effort or environmental responsibility, the desire to help a cause has led to a flourishing of Urban Agriculture across generations. The contemporary aspirations have certainly drawn from the zealousness of previous movements, but they seem also to have taken on a new characteristic as well. That is, people seem to want to educate others on the issues Urban Agriculture can solve, the reasons why it should be more widely used, and the joys it offers to those who join in. This desire is fairly widespread and stems from the commonly raised issue of agency in the context of the food system in my opinion. Urban Agriculture advocates, including many of my interviewees, have found that it returns some control over food selection, health, and environmental impact to those who grow their own and they believe that others should learn about it as well.

These results of Urban Agriculture are to a degree answers to the issues with conventional agriculture raised by authors such as Carson and Kimbrell. The health issues and environmental degradation were both cited by my interviewees as reasons why they practice Urban Agriculture in the first place. Whether or not Urban Agriculture can ultimately end such issues by, perhaps, replacing conventional agriculture is somewhat dubious, but my results show that at the very least that is what contemporary practitioners are trying to do. The issues Urban Agriculture seems to be best at solving based on my interviews are those of food justice and food desertifica-

tion if the Spurs Community Garden and the Cerasee Farm are any indication as both seek to provide food to those in need.

The fact that people are choosing to practice as a full-time career at such volumes is unique in the context of Urban Agriculture history not because it has never happened before, but because of the typical duration of practice that has become common. Whereas the Americans who practiced Urban Agriculture as a form of employment during the Vacant-lot Cultivation Association era and the Great Depression viewed it as a temporary job to alleviate immediate and transitory inconvenience, today those who consider Urban Agriculture to be a job view it as a full-time career. Part of the reason for this is that concerns over food security are on the rise, with many Americans seeking to diversify their sources of food as well as provide increased access to those in need. The practitioners at the Sunnyside Farm are a good example of this sentiment, as they asserted that they are seeking to localize food supplies in the face of an unpredictable future.

In the context of the history of Urban Agriculture, these results simultaneously vindicate the concerns of previous generations as well as expand upon the concepts of past Urban Agriculture movements. In spite of the fact that the majority of Americans are not in immediate danger of starvation, Urban Agriculture persists and indeed grows with every passing year. This is an indication that perhaps Urban Agriculture in the United States is moving into a new era.

9. Appendices

Table A-1: Part A Responses, Codes, and Themes

Question Number	Response	Code	Theme
A-1	Any response	n/a	n/a
A-2	Mostly fruit is grown	food	Sustenance
A-2	Mostly vegetables are grown	food	Sustenance
A-2	Mostly herbs are grown	seasoning	Well-being
A-2	mostly decorative plants are grown	aesthetic	Values
A-2	Some decorative plants are grown	aesthetic	Values
A-2	Garden contains native plantings	environmental	Values
A-3	The interviewee owns the land	owned	Livelihood
A-3	The interviewee's employer owns the land	owned	Livelihood
A-3	Some third party donated the land	third party	Community
A-3	A third party owns and rents the land	rented	Livelihood
A-4	Interviewee lives 1 mile or less from the site	close	Values
A-4	Interviewee lives more than 1 mile from the site	far	Livelihood
A-5	The interviewee consumes the produce	sustenance	Sustenance
A-5	Customers consume the food	business	Livelihood
A-5	Volunteers consume the food	exchange	Community
A-5	neighbors consume the food	community	Community
A-5	The produce is given to another organization	donation	Values
A-5	A thief consumes the food	theft	Community
A-6	Produce is sold at the farm (farm stand)	business	Livelihood
A-6	Produce is sold at market	business	Livelihood
A-6	Produce is taken home by workers	cooperative	Livelihood
A-6	Produce is taken home by volunteers	community	Community
A-6	Produce is given to non-producers	donation	Community
A-6	Interviewee takes the produce home	personal	Well-being
A-7	Interviewee has statistics	business	Livelihood
A-7	Interviewee has a rough estimate	supplement	Well-being
A-7	Interviewee does not track production	not tracked	Values
A-8	Interviewee does not know the value of their production	not tracked	Values
A-8	Produce is worth $1000 or less per year	low - tracked	Values
A-8	Produce is worth more than $1000 per year	high - tracked	Livelihood
A-9	Produce generates significant income for the interviewee	income	Livelihood
A-9	Produce generates significant savings for the interviewee	dependance	Livelihood
A-9	Produce does not supplement income for interviewee	none	Values

A. Response Coding Instrument

Table A-2: Question B-1 Responses, Codes, and Themes

Question Number	Response	Code	Theme
B-1	to feed oneself	sustenance	Sustenance
B-1	insurance against food shortage	preemptory	Values
B-1	legitimize urban farming profession	paradigm	Values
B-1	reduces footprint	environmental	Values
B-1	address food and water issues	paradigm	Values
B-1	Academic background imparts desire to change world	environmental	Values
B-1	chance to educate community	education	Values
B-1	Parents grew food	nostalgia	Well-being
B-1	Food is healthier than store-bought	health	Well-being
B-1	Gardening is enjoyable	recreation	Well-being
B-1	outdoor activity	recreation	Well-being
B-1	food tastes better than store-bought	pleasure	Well-being
B-1	origin of food is known	health	Well-being
B-1	chance to meet people	community	Well-being

Table A-3: Question B-2 Responses, Codes, and Themes

Question Number	Response	Code	Theme
B-2	Chance to interact with the community	community	Community
B-2	Friendships made through gardening	friends	Community
B-2	chance to connect with other producers	networking	Community
B-2	marginal profits	income	Livelihood
B-2	improved access to food	sustenance	Sustenance
B-2	chance to improve culture	fulfillment	Values
B-2	improved cultural sovereignty	agency	Values
B-2	chance to be be sustainable/reduce footprint	environmental	Values
B-2	chance to encourage natural processes	environmental	Values
B-2	knowledge of gardening	skills	Well-being
B-2	professional development	skills	Well-being
B-2	chance to be outside	recreation	Well-being
B-2	chance to learn	skills	Well-being

Table A-4: Question B-3 Responses, Codes, and Themes

Question Number	Response	Code	Theme
B-3	theft of produce	theft	Community
B-3	lack of understanding and support	relationships	Community
B-3	openness versus privacy	access	Community
B-3	lack of professional network	relationships	Community
B-3	distribution	logistics	Livelihood
B-3	lack of space	resource	Livelihood
B-3	weather	external	Livelihood
B-3	finding a market	logistics	Livelihood
B-3	financial commitment	resource	Livelihood
B-3	time commitment	resource	Livelihood
B-3	Lack of skilled labor	resource	Livelihood
B-3	Burden of education	resource	Livelihood
B-3	predicting yield	know-how	Well-being
B-3	preservation of produce	know-how	Well-being
B-3	space efficiency	know-how	Well-being

Table A-5: Question B-4 Responses, Codes, and Themes

Question Number	Response	Code	Theme
B-4	demonstration of worth	legitimacy	Values
B-4	spread of knowledge	education	Values
B-4	exchange of values	community	Community
B-4	improved environment	environmental	Values
B-4	supplement local food economy	economic	Livelihood
B-4	education	education	Values
B-4	community development	community	Community
B-4	beautification of area	aesthetic	Values
B-4	Demonstrate the viability of Urban Agriculture as a job	legitimacy	Values
B-4	Become a model for others to follow	education	Values

Table B-1: FOW #1 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	nostalgia	Well-being
Plants grown	aesthetic	Values	**Growth**	skills	Well-being
Plants grown	environmental	Values	**Growth**	skills	Well-being
Land owner	third party	Community	**Growth**	community	Community
Distance	close	Values	**Growth**	networking	Community
Consumer	exchange	Community	**Growth**	community	Community
Consumer	community	Community	**Challenges**	relationships	Community
Consumer	donation	Values	**Challenges**	logistics	Livelihood
Distribution	community	Community	**Challenges**	resource	Livelihood
Distribution	donation	Community	**Challenges**	know-how	Well-being
Amount	not tracked	Values	**Challenges**	know-how	Well-being
Value	not tracked	Values	**Challenges**	know-how	Well-being
Gainful	none	Values	**Impact**	legitimacy	Values
Motivation	nostalgia	Well-being	**Impact**	education	Values
Motivation	health	Well-being			

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	1	2	8	9	9

Table B-2: FOW #2 Response Codes and Themes

Question	Response	Theme	Question	Response	Theme
Plants grown	food	Sustenance	**Gainful**	none	Values
Plants grown	seasoning	Well-being	**Motivation**	environmental	Values
Land owner	third party	Community	**Motivation**	recreation	Well-being
Distance	close	Values	**Motivation**	community	Well-being
Consumer	theft	Community	**Growth**	friends	Community
Consumer	sustenance	Sustenance	**Challenges**	theft	Community
Distribution	personal	Well-being	**Challenges**	access	Community
Amount	supplement	Well-being	**Challenges**	relationships	Community
Value	low - tracked	Values	**Impact**	education	Values
Value	low - tracked	Values			

B. Interview Code and Theme Results

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	2	0	5	6	6

Table B-3: SSF #1 Response Codes and Themes

Question	Response	Theme	Question	Response	Theme
Plants grown	food	Sustenance	**Growth**	skills	Well-being
Land owner	rented	Livelihood	**Challenges**	relationships	Community
Distance	far	Livelihood	**Challenges**	relationships	Community
Consumer	community	Community	**Challenges**	relationships	Community
Consumer	business	Livelihood	**Challenges**	relationships	Community
Distribution	business	Livelihood	**Challenges**	external	Livelihood
Distribution	business	Livelihood	**Challenges**	resource	Livelihood
Amount	business	Livelihood	**Challenges**	logistics	Livelihood
Value	high - tracked	Livelihood	**Challenges**	resource	Livelihood
Gainful	income	Livelihood	**Challenges**	resource	Livelihood
Motivation	sustenance	Sustenance	**Impact**	education	Values
Motivation	preemptory	Values	**Impact**	community	Community
Motivation	paradigm	Values	**Impact**	environmental	Values
Growth	sustenance	Sustenance	**Impact**	legitimacy	Values
Growth	fulfillment	Values	**Impact**	demonstration	Values
Growth	environmental	Values	**Impact**	legitimacy	Values
Growth	agency	Values			

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	3	13	1	6	10

Table B-4: SSF #2 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	recreation	Well-being
Plants grown	seasoning	Well-being	**Motivation**	health	Well-being
Land owner	rented	Livelihood	**Motivation**	health	Well-being
Distance	far	Livelihood	**Growth**	sustenance	Sustenance
Consumer	business	Livelihood	**Growth**	environmental	Values
Consumer	business	Livelihood	**Growth**	recreation	Well-being
Distribution	business	Livelihood	**Challenges**	relationships	Community
Amount	supplement	Well-being	**Challenges**	resource	Livelihood
Value	high - tracked	Livelihood	**Challenges**	resource	Livelihood

Table B-4: SSF #2 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Gainful	none	Values	**Challenges**	logistics	Livelihood
Motivation	environmental	Values	**Impact**	education	Values
Motivation	nostalgia	Well-being			

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	2	8	6	2	4

Table B-5: SCG #1 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	nostalgia	Well-being
Land owner	owned	Livelihood	**Growth**	community	Community
Distance	far	Livelihood	**Growth**	income	Livelihood
Consumer	business	Livelihood	**Growth**	environmental	Values
Consumer	donation	Values	**Growth**	skills	Well-being
Distribution	donation	Community	**Growth**	skills	Well-being
Distribution	business	Livelihood	**Growth**	skills	Well-being
Amount	supplement	Well-being	**Challenges**	relationships	Community
Value	high - tracked	Livelihood	**Challenges**	resource	Livelihood
Gainful	income	Livelihood	**Challenges**	resource	Livelihood
Gainful	dependance	Livelihood	**Impact**	demonstration	Values
Motivation	environmental	Values	**Impact**	economic	Livelihood
Motivation	education	Values	**Impact**	community	Community

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	3	11	5	4	5

Table B-6: SCG #2 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	health	Well-being
Plants grown	seasoning	Well-being	**Growth**	income	Livelihood
Land owner	owned	Livelihood	**Growth**	fulfillment	Values
Distance	far	Livelihood	**Growth**	personal	Values
Consumer	community	Community	**Growth**	recreation	Well-being

Table B-6: SCG #2 Response Codes and Themes

Question	Code	Theme	Question	Code	Theme
Consumer	donation	Community	**Challenges**	external	Livelihood
Distribution	donation	Community	**Challenges**	resource	Livelihood
Distribution	business	Livelihood	**Challenges**	resource	Livelihood
Amount	supplement	Well-being	**Impact**	education	Values
Value	not tracked	Values	**Impact**	economic	Livelihood
Gainful	income	Livelihood	**Impact**	legitimacy	Values
Motivation	education	Values	**Impact**	education	Values
Motivation	environmental	Values			

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	1	9	3	3	8

Table B-7: TLG #1 Codes and Themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	nostalgia	Well-being
Plants grown	food	Sustenance	**Motivation**	recreation	Well-being
Plants grown	native	Values	**Growth**	community	Community
Land owner	owned	Livelihood	**Growth**	recreation	Well-being
Distance	far	Livelihood	**Growth**	health	Well-being
Consumer	donation	Community	**Challenges**	resource	Livelihood
Consumer	community	Community	**Challenges**	external	Livelihood
Consumer	business	Livelihood	**Challenges**	resource	Livelihood
Distribution	business	Livelihood	**Impact**	education	Values
Amount	business	Livelihood	**Impact**	economic	Livelihood
Value	high - tracked	Livelihood	**Impact**	education	Values
Gainful	income	Livelihood	**Impact**	legitimacy	Values
Motivation	education	Values			

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	2	11	4	3	5

Table 6-12: UGM #1 Codes and themes

Question	Code	Theme	Question	Code	Theme
Plants grown	food	Sustenance	**Motivation**	paradigm	Values
Plants grown	food	Sustenance	**Motivation**	nostalgia	Well-being
Plants grown	seasoning	Well-being	**Growth**	recreation	Well-being
Land owner	third party	Community	**Growth**	community	Community
Distance	close	Values	**Growth**	income	Livelihood
Consumer	business	Livelihood	**Growth**	agency	Values
Consumer	donation	Community	**Challenges**	resource	Livelihood
Consumer	business	Livelihood	**Challenges**	resource	Livelihood
Distribution	business	Livelihood	**Challenges**	relationships	Community
Distribution	cooperative	Livelihood	**Challenges**	resource	Livelihood
Amount	not tracked	Values	**Challenges**	external	Livelihood
Value	not tracked	Values	**Challenges**	resource	Livelihood
Gainful	none	Values	**Impact**	education	Values
Motivation	community	Community	**Impact**	education	Values
Motivation	environmental	Values	**Impact**	legitimacy	Values
Motivation	education	Values	**Impact**	demonstration	Values

Theme	Sustenance	Livelihood	Well-being	Community	Values
Count	2	9	3	5	12

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