UNDERSTANDING THE URBAN:

THE ROLE OF OPEN SPACE AGRICULTURE

IN DAR ES SALAAM, TANZANIA

by

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DISSERTATION ABSTRACT

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There is a fundamental shift in the way people are living on the planet. Over half of the world's population now lives in cities, yet many of these cities continue to struggle to provide basic services, infrastructure and food security for the billions of people who live in cities. Despite decades of intervention by international and national development agencies, cities in regions such as Sub-Saharan Africa are increasingly framed in apocalyptic and dystopian terms, serving as a warning of the dangers of overurbanization while being criticized for their lack of urban development. This contradictory framing poses the question of how a city and the people who live there actually survive. Building on emerging work in critical urban studies, this research examines how narrow definitions of what counts as urban hinder the understanding of cities in different regional contexts and limit our imaginations of how people survive and thrive in the face of the challenges that cities provide.

To examine the idea of what is urban in the context of Dar es Salaam, Tanzania, I use the lens of urban open space farms, large lots of land in the built-up environment of the city used for farming, to explore what makes farming urban, how the practice of

farming contributes to and is embedded within urban systems, and how farms and farmers can illuminate the material practices and ephemeral experiences that constitute the reality of people's daily life in cities. I employ a methodology based on interviews, photo voice, mental mapping, and observation over time to explore the dynamics of farms as spaces and farmers as agents in constructing these spaces over time. The purpose is to contribute to a definition of the urban that moves past associations with capitalism and industrialization as the defining processes of the city towards one more inclusive of the way people experience these spaces, how they remake them to fit the city, and what this means for interventions that focus on the marginalization of people and the ways that cities fail, rather than how they actually work.

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CHAPTER I

INTRODUCTION

In a 2010 meeting between advocates of urban agriculture and a member of the Spatial Planning Department in Dar es Salaam, Tanzania, an NGO volunteer asked the planner about the department's position regarding urban agriculture. The planner's response was that there is no agriculture in the city. The surprised volunteer listed off the examples of highly visible urban farms where thousands of people in the city grow vegetables and earn their livelihoods. The planner argued that those farms are not in places zoned for urban agriculture and therefore not recognized by the city.[1] The lack of land officially set aside for the activity meant that, for this planner, the practice of urban agriculture did not exist. Like many planners she further believed that land should not be set aside for farmers because it made the city look dirty, undeveloped and backward and was an inefficient use of urban space.

Researchers estimate that forty percent of the urban population in Sub-Saharan Africa is involved in urban agriculture (Foeken 2006). Translating that figure to Dar es Salaam, a city of an estimated population of four million (UN-HABITAT 2010), approximately 1.6 million people are involved in some manner of urban food production (Mougeot 2005). Ninety percent of the city's leafy green vegetables are grown and sixty percent of milk is produced within the city limits (*ibid*), and incomes from the sale of milk, eggs, meat and plants make a significant contribution to the urban economy (Foeken 2006). Undoubtedly farms in the city are of vital importance to the urban economy and nutrition. Dar es Salaam has two hundred extension agents in the city (Foeken 2006) and the government of Tanzania has acknowledged the importance of urban agriculture in food security within national policy documents (URT 1997). The government has even directed cities to set aside land for this purpose (URT 2000), though few cities, Dar es Salaam being one, have done so. Government officials, especially planners, and even much of the public, however, continue to see the activity as one that signals failed urban development, and the farms remain illustrative of the illegal and

[1] Thanks to Afton Halloran, an intern working for Sustainable Cities PLUS Africa Network, a Canadian NGO, for sharing this story with me.

informal economy. Farmers therefore continue to struggle for land, access to credit and legitimacy in the urban environment.

The lack of recognition regarding how people meet their daily needs outside of the formal economy ignores that over half the world's population lives in urban areas, and despite the efforts of governments and international development organizations, many cities continue to struggle to provide basic services and infrastructure. As a result, people 'make do,' utilizing spaces and social networks in dynamic ways to satisfy their livelihood needs, often operating beyond formal structures and laws. Indeed, it is likely that the presence of informal markets and land delivery systems have compensated for the harsh austerity measures implemented under structural adjustment throughout the 1980s and 1990s (Maxwell 1996). Yet policy-makers and international institutions, such as the United Nations and the World Bank, continually frame these cities as overpopulated, chaotic and as representing a failed urbanism full of poverty, disease and slums (Auclair 2005). While there are certainly problems in African cities (as there are in all cities), and this thesis is not meant to detract from their importance, the focus on the failures reflects a narrow framework through which cities are understood and through which municipal governments can respond. This framework emphasizes economic indicators as a measure of successful urban development, and planners become tasked by the rent-seeking state with the responsibility of designing cities to facilitate financial investment and transactions. This narrow approach to the city, however, ignores how urban residents in cities of both the global north and south[2] have adapted to urban life through a variety of formal and informal mechanisms that constitute vibrant, dynamic social and economic practices, places and networks.

The focus on economic indicators of urban success has resulted in research that ignores how people actually experience cities in the less tangible ways that actually define their lives (Simone 2004, 2010). Cities in the global south have become assessed for what they lack: economic development, formal jobs and a sense of coherence to outsiders, and the activities of people are generalized as ways of coping with economic

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[2] Following Slater (1997), I recognize the obsoleteness of the dual categories such as global north/ global south, first/ third world. However, they are still used by scholars in postcolonial urban studies, and I hesitantly employ them in my discussion where there is no good alternative.

marginalization. While this is certainly an important aspect of people's lives, it severely limits our understanding of daily urban life, the creation of urban space, and how that might vary between places. Despite a wealth of evidence that cities fail to accommodate the people who rely on them, and our knowledge of severe poverty and depredation, conditions on the ground do not improve and 'solutions' continue to come primarily from the global north through international development organizations (Simone 2010). The situation seems to be getting worse in the context of the current global recession, rising food prices and the spread of political instability. A different analytical approach is urgently needed to understand cities for their ability to provide foundations for people not only to survive, but to thrive, and not focus merely on the problems and misery they face. We can then find new ways of understanding cities from the perspectives of those who use them and find new platforms of engagement (Simone 2010) that allow people to articulate their own ideas about what constitutes a socially just and equitable city.

Taking a postcolonial approach, this project uses the practice of urban open space agriculture to examine the social, physical and material practices that influence the organization and development of urban space in Dar es Salaam, Tanzania. This will contribute to a more inclusive concept of urban that accounts for the many different ways that people use and influence cities in their daily lives and to emerging pathways of inquiry that strive to create more inclusive and socially just cities. As such, this dissertation addresses the following three questions:

- How is agriculture urbanized in Dar es Salaam?
- How do urban farms and the practice of agriculture in the city disrupt the binary between formal and informal urban processes? What does this reveal about how urban agriculture is integrated into wider urban systems?
- How are farms useful as spaces through which we can reconceptualize the city? How can an approach that emphasizes movement, flow and intersection lead to an understanding of the city that promotes new interventions to promote the socially just and equitable city?

These questions emerge from a desire to understand how a particular practice vital to urban life contributes to a sense of the city. This is not just a study about urban

agriculture. Instead, this is a study about urban geography in cities off the map of urban analysis that takes 'the urban' as the central problematic and seeks to redefine it in a way that is more open to a more realistic understanding of processes and materialities in the city. I use open space farms as an example of contestation of the meaning of urban in the context of Dar es Salaam because farms are visible in the urban landscape and can confront ideas of what constitutes proper urban development. This is also a study about social justice. Understanding who is defining the city, who it is for, and who can articulate interventions in the face of marginalization lies at the heart of this research.

'Urban' Agriculture

Agriculture, and in this case urban open space farming, is an activity that urban residents throughout Sub-Saharan Africa use to supplement their household income or diet (Egziabher *et al*. 1993, Mougeot 2005, Foeken 2006). Studies from the 1980s and 1990s revealed the economic and nutritional importance of the practice in cities discussed earlier. While this has helped legitimate the practice in the eyes of some policy-makers in the region, few cities have actually changed their laws (Slater 2001). Urban agriculture remains discursively framed as a strategy of coping with economic marginalization in cities that should disappear under proper conditions of urban development, rather than a legitimate urban activity in its own right.

Turning the discursive separation of agriculture and cities around, urban agriculture provides an opportunity to examine how people in the city of Dar es Salaam have incorporated diverse ways of 'being urban' in daily practice. As farming in the city is highly visible in the landscape and essential to economies and nutrition, it provides an opportunity to examine activity spaces that confront normative approaches to understanding 'the urban' that continue to be framed through political economic and/ or developmentalist lenses. While these approaches are important in revealing larger structures of economic and political power, they do less to expose how people manipulate and work with and within spaces in their daily lives and it certainly tells us little about what it means to be urban in different regional contexts.

Urban farms provide fertile ground for exploring how practices that embed and connect people to the city are overlooked in political economic analyses. Daily life is full of both tangible and ephemeral experiences that create the social connections, economic opportunities, empowerment, personal pride and more that constitute the experience of an *urban* farmer. AbdouMaliq Simone refers to this as *cityness*, which refers to "the capacity for [the city's] different people, spaces, activities, and things to interact in ways that exceed any attempt to regulate them" (2010: 3). It is in the interstitial spaces of theory and analysis that we can examine urbanism beyond the overly economic frameworks that have emerged in Western Europe and North America, but which do not reflect the realities of life in the cities of other regions. This study will examine the cityness of urban farms, how they are utilized by people to *be* urban and how this can be utilized to confront dominant, Euro-American approaches to city planning.

I utilize the practice of urban agriculture to challenge normative ideas of the proper use of space in cities that emerge as officials attempt to control forms and functions. Urban agriculture has been framed by planners and some scholars as an activity of the marginalized and as a ruralization of urban space, reinforcing the conceptual separation between agriculture and cities (Williams 1973), and limits our understanding of the impropriety of using Western models of urban development in different regional contexts. Emerging research in postcolonial theory demonstrates how cities in Europe and North America have emerged as silent referents in how cities are defined (Ward 2007). In other words, theories of planning, urbanism and function developed in the cities of Europe, and later North America, and have come to dominate analysis, pulling all experience through a lens that represents a very specific historical context. My analysis follows Chakrabarty (2000) and provincializes cities in Europe and North America— they are no longer the invisible referent of urban analysis.

This project draws from the emerging literature in postcolonial urban studies questioning the dominance of theoretical frameworks developed in Europe and North America (Robinson 2006, Roy 2011b). As such, this work challenges normative concepts of the urban that often assume that all cities (should) operate under the same rules. It emphasizes that cities are not merely the sum total of their economic output, but that

people utilize in a variety of practices and spaces not only to sustain their livelihoods to *live* in cities (Simone 2004, 2010). Instead of applying the frameworks of cities in North America and Europe throughout the world in blanket fashion, scholars have instead asked what cities in other regions can teach us about *being urban* on their own terms. My dissertation builds on emerging concepts of the periphery (Simone 2010, Roy 2011a) to bring to the forefront practices, engagements and meanings that are often hidden from view in the dominant political economic approach to cities of the global south. This concept of periphery is more than just a space or a reference to informal activities. It refers to the peripheries of theory— the places that are left at the edge of analysis. Peripheries are ephemeral and difficult to grasp, but they are the places of change, where hybrid spaces and practices develop and where different ways of doing things can emerge (Simone 2010: 40-41).

Dar es Salaam, Tanzania, provides an excellent place in which to examine these questions. Tanzania itself has a somewhat unique post-independence history that emphasized a national identity that could be created through a connection to the land and agriculture. This socialist past has also formed a foundation for social relations in the country, as well as an identity that is built upon the idea that farming is in the Tanzanian blood. Dar es Salaam is the ideal city in the country in which to conduct this study, as it is the country's largest city and Tanzania's face to the world. It is the city where debates over urban development play out.

Conceptual Conditions

At this point I need to provide context for how I am using the words urban and city in this text. At the heart of this research is the intent to upend ideas of what constitutes urban-ness, making a solid definition problematic. The literature I draw on for this research, however, sees the terms of the city, urban or the urban condition as highly problematic because these abstractions are actually premised on theoretical work based in the so-called global north (McFarlane 2010). There are several definitions that authors have tried to put forth in recognition of this problem. I utilize a definition of the city that focuses on the city as a place that is located and continually reproduced through acts of imagination that are grounded in material space and social practice (Çinar and Bender

2007). As such, no person can experience the city in its totality: each person is confined to their fragments of space and interactions (King 2007). The city is highly variable and contested. Some theorists have gone so far as to emphasize that there is no such 'thing' as a city:

> Rather *the city* designates the space produced by the interaction of historically and geographically specific institutions, social relations of production and reproduction, practices of government, forms of media communication, and so forth. By calling this diversity "the city," we ascribe to it a coherence or integrity. *The city*, then, is above all a representation. But what sort of representation? By analogy with the now familiar idea that the nation provides us with an "imagined community," I would argue that the city constitutes an *imagined environment*. (Donald 1992 in King 2007, *itals original*).

The phrase *imagined environment* (drawing openly from Benedict Anderson's 'imagined community') compels us to confront the idea that there is only one definition of a city. Through this we are asked to see the city as multiple and contested, defined in many ways and even through many experiences. While recognizing this multiplicity, it is important to have a definition that allows us a more tangible grasp on what a city is. While I recognize the multiplicity in 'the city,' in order to ground the analysis in something more concrete I will also use it as a way of referring to the physical built environment within the municipal boundaries defined by the state in Tanzania. The purpose of talking about the city, however, will be to highlight the different ways that people experience that built environment and what it means for urban processes, materials, practices and experiences.

The idea of the urban is somewhat more difficult to pin down. I generally use the term to describe a process of spatial organization, which includes important components of time and space. It is not, however, a process confined to cities, as highlighted by Amin and Thrift (2002):

> If the urbanized world now is a chain of metropolitan areas connected by places/ corridors of communication (airports and airways, stations and railways, parking lots and motorways, teleports and information highways) then what is not the urban? Is it the town, the village, the countryside? Many, but only to a limited degree. The footprints of the city are all over these places, in the form of city commuters, tourists, teleworking, the media, and the urbanization of lifestyles.

> The traditional divide between the city and the countryside has been perforated (1).

While there is some slippage in this quote between the usage of the urban and the city, it highlights that urban processes are not confined to the city and indeed have implications for life not just within municipal boundaries, but far beyond them in a multitude of ways. Part of the problem in defining the urban is that in western writing it has been primarily linked to industrialization (Lefebvre 1996, 2003, Davis 2006). Yet urban society is not only found in cities that have industrialized. Indeed the process of urbanization is not singular, nor is it manifest in the same way in different places. It takes different forms and meanings that reflect local historical conditions (Robinson 2006). This makes identifying the urban a difficult process at best. In this text when I refer to the urban or urbanization I refer to how social, material and physical forms and processes are reorganized to take place in the city, especially in ways that might not occur in villages. This is not meant to reinforce a dichotomy between the city and the villages, but to highlight how processes are altered to fit within an environment that includes more people, diversity, ideas and infrastructure within the context of the city. This more inclusive definition is an important part of this work, which allows me to define urban processes beyond economic development and imagine different ways of understanding the urban experience.

I also need to provide a working definition of open space farming and agriculture in this project. The nomenclature curiously varies between regions. Using the term urban agriculture implies the science and business of food production for the market, while urban farming refers more generally to the practice of growing food in cities. In my own observations and discussions with practitioners, in North America people refer to the practice of urban food crop cultivation as urban farming, while in Sub-Saharan Africa they tend to use the term agriculture and farming interchangeably. This difference seems to be a result of the way the activity is often framed as a social practice in North America and an economic one in Sub-Saharan Africa. Urban agriculture is a broad term that is inclusive of urban crop cultivation, both food and ornamental, and livestock production- all of which are widely practiced throughout Sub-Saharan Africa. This project focuses on urban crop cultivation of food, which I will generally refer to as urban farming.

In Sub-Saharan Africa, researchers have distinguished between three types of urban farming. First, peri-urban farming occurs on the fringes of the urban built-up environment, or the leading edge of urban expansion. In these areas people have large plots they use to grow produce that can weather longer transportation, such as fruits, non-leafy vegetables and some staples such as maize and cassava. Livestock-raising is also common in these areas because there are larger lots for people to utilize. Usually these lands are owned by wealthy urban residents, land speculators from the city, or indigenous groups that have resided on the land prior to urban expansion (Briggs and Mwamfupe 1999). A second type is home-gardening, which refers to farming on land owned or occupied by a household in the city's built-up environment. Home gardeners generally grow leafy greens, and people with larger lots often grow some fruits such as papaya, bananas and mangos for household consumption. Wealthier households with more space will often sell to traders as an income supplement, in addition to subsidizing the household diet. Poorer households have much smaller plots primarily for subsistence (Sawio 1994, Mougeot 2005). The third type is open space farming, the focus of this project. These farms occur on large lots in the built-up environment, usually on unclaimed land in river valleys, along roadsides, un-used industrial or commercial land, or wherever farmers can utilize land with relatively little harassment (Dongus 2001) (**Figures 1.1. and 1.2.**). Several farmers work their own plots on a shared piece of land to grow vegetables. These are produced primarily for sale to traders and vendors, but can also supplement household consumption. These farmers often have insecure land tenure, and remain under very fragile agreements with landowners (McLees 2011). This is the most visible form of urban agriculture in the city, and hence represents the most discernible contestation of the normative separation between cities and crop cultivation.

Finally, I use the term normative planning and urbanism to represent an approach to cities that privileges the economic organization in urban analysis and intervention. The term is meant to invoke the idea that the assumptions underlying this approach to cities is 'normal' and other lines of inquiry represent deviations that need to be fixed or are inappropriate in the 'real world' of planning. A normative model is the silent referent to which other forms are compared and makes it seem obvious that the best way to organize a city is through economic efficiency (generally implemented through zoning) and a

focus on the highest and best use, as reflected in economic output and tax receipts. In this work, I attempt to expose how a normative approach marginalizes other ways of knowing and using the city.

Figure 1.1. Photo voice, Oyster Bay (no caption). The headquarters of one of the largest cell phone providers in Tanzania is located in the building across the street from this farm. The picture shows several plots of leafy greens under cultivation (Cindy).

Before continuing, I want to highlight that in conducting work that seeks to move past a political economic framework for understanding cities, I am acutely aware that urban farming is for many a practice of survival in a difficult urban context. Most of the farmers I interviewed began farming because they needed a stable income. My work is not intended to romanticize urban farming in the least. It is the idea that cities need to be just and responsive to their populations that motivates my approach. The static, top-down planning frameworks utilized in these cities have severely limited the capacities of farmers' (not to mention the millions of informal workers in the cities of Sub-Saharan Africa) to live a stable urban life. My research is motivated by a desire to bring to light the necessity of understanding cities in different regional contexts on their own terms in order that they can better represent the ways people use space and be more inclusive of

activities until now deemed backwards, dangerous or indicative of the lack of modernity in the city.

Figure 1.2. Leafy green cultivation in an industrial area of the city. The national stadium is less than a kilometer away behind the picture (L. McLees).

Chapter Summary

The remaining chapters of this dissertation examine urban agriculture within the approach outlined above. I emphasize a postcolonial approach towards practices and experiences in cities that seeks to understand what it means to be urban in different places. Working within the periphery of urban theory and of urban space, I demonstrate how urban open space farming in Dar es Salaam is a distinctly urban activity rather than a ruralization of urban space. Indeed, rather than being separate from the city and an indicator of failed urban development, it instead represents a locally specific way of organizing urban space and material practices that provide people with a way of living in and constituting cities. I situate farms as distinctly urban spaces, inclusive of an urban life

that does not fit with categories that emerged in cities of other regions. I then frame these as generative spaces where cities adapt, adopt and change.

Chapter II sets the stage conceptually by tracing the emergence of postcolonial urban studies with regards to the global south. I begin by discussing a history of comparative urbanisms, and highlight work in central Africa in the 1950s and 1960s that was later overridden by structuralist approaches to development and cities. The work of these scholars showed attempts to articulate a broader urban theory than what was emanating from the Chicago School of urban sociology. I discuss how western cities became linked to modernity, as reflected again in various approaches to cities that emerged from theories and experiences in the global north. I then examine postcolonial critiques of these theories and discuss emerging work that seeks to theorize cities in the global south on their own terms. Later empirical chapters will build off this theoretical foundation.

Chapter III presents the methodology of the project. The methods are presented in their own chapter to highlight an epistemological framework that links approaches in postcolonial theory to the various methods I utilized. The discussion reflects specifically on the challenges for research in the context of Dar es Salaam, and presents methodologies designed to move past a developmentalist approach to cities. These methods ranged from semi-structured interviews, photo voice, mental mapping and participant observation. I also include a discussion of issues of translation, both of language and culture, and the importance of recognizing these challenges in a cross-cultural context.

The next three chapters are empirical in nature. **Chapter IV** addresses the urban-ness of agriculture in cities to demonstrate how the material and social practice involved in farming are reworked in cities. After an initial contextualization of urban agriculture in Dar es Salaam and a history of planning regarding the practice, I present data to support the idea of the urbanization of agriculture. The analysis in this chapter is in direct response to scholars who argue that agriculture represents a ruralization of cities. Utilizing data from interviews and photo voice projects with farmers, I examine how urban agriculture is a distinctly urban activity, socially, economically and ecologically.

Chapter V focuses on how urban agriculture confronts the binary of informal and formal practice. Through data from interviews, photo voice, mental maps and observation, I trace several processes and practices on farms that disrupt a notion of a clear separation between formal and informal activities and reveal how interconnected they are in reality. The importance of power in how both formal and informal processes organize the urban landscape is highlighted to build upon emerging ways of talking about urban systems that will move past these static categories, which are too often relied upon to analyze urban processes. The purpose of this chapter is to explore how these processes illustrate the embeddedness of urban farms within urban systems. This approach is then used to critique current approaches by planners and development organizations to 'fixing' urban agriculture by giving farmers land tenure and by framing urban agriculture within the context of sustainability. These fixes rely on a construction of urban farms as informal spaces, isolated from the broader urban system. I argue that the projects and approaches being used to fix the problem of urban agriculture serve to undermine the broader importance of the practices and these spaces in the city. I argue that an over-reliance on informality and formality as categories to analyze urban functions does a severe disservice to how we understand cities to function. Rather than relying on assumed definitions, moving past them provides a more nuanced and complete study of the materialities and practices that constitute cities, demonstrating the expression of power in urban space, whether through formal or informal means.

Chapter VI builds upon an emerging approach to African cities being promoted by the work of AbdouMaliq Simone, who has written extensively about many cities throughout the region (and those to which the region is connected in Asia through migration and economies). This work focuses on movement, flow and intersections in cities, between people and places, which provide new ways of approaching material practices and the organization of urban spaces. In this chapter I take several slices through space and time to examine not only the connectedness of people and practices, but specifically how monies, ecologies, people and even the city move through farms over time. This approach moves us beyond the relatively static political economic categories often used to examine cities and recognizes the diverse ways that people use and move through space. The goal of this approach is to create a new way of

understanding cities that reflects the realities and perspectives (with an emphasis on the plural) of the people who use them, rather than through categories imposed through an overly economistic framework.

The conclusion in **Chapter VII** examines the real-world significance of the approach to urban places and processes adopted in this thesis. With over half of the world's population now living in cities, concern is mounting about how these billions of people will be able to live lives with access to basic needs, such as food and shelter. This project moves beyond dystopian narratives that hide the imaginative and creative ways that cities are made and reproduced. There are certainly mass deprivations caused by economic, colonial and imperial exploitation, but no matter how many research projects reveal this, very little actually changes for people on the ground. While this project explores the daily practice of living in cities, its significance lies in creating new ways of understanding how people in these cities survive and can thrive. Searching for a more appropriate way to understand these cities can lead to more socially just approaches to addressing urban problem by the people actually living in these cities.

CHAPTER II

TOWARDS A POSTCOLONIAL URBAN GEOGRAPHY

> … it seems crucial to find a way to valorize the many efforts that residents make to use the city as an arena in which to say something about what it means to be alive and to practice whatever forms of aliveness they might eke out from the city. If we pay attention only to misery and not to the often complex forms of deliberation, calculation, and engagement through which residents try to do more than simply register the factualness of a bare existence, do we not inevitably make these conditions worse? If we are not willing to find a way to live and discover within the worlds these residents have made, however insalubrious, violent, and banal they might often be, do we not undermine the very basis of which we would work to make cities livable for all?
>
> *For the City Yet to Come* (Simone 2010: 333)

I often sat in the afternoons with the farmers of the Drive In Group, one of the open space farms located near my apartment in Dar es Salaam. The farm is located less than a minute's walk from the sprawling US Embassy on Old Bagamoyo Road— a road infamous for being in a perpetual traffic jam (usually I was able to walk down the road faster than the cars). The farmers' plots are located on land dedicated as road reserve, meaning that the municipality owns it and the land is intended for expansion of the road. Every few months a seemingly random government official (the farmers do not always know who the people are) tell the farmers that someday the government will expand Old Bagamoyo Road and the farmers will have to leave. The expansion would certainly be welcome by daily commuters, but the government has fairly limited capacity to actually expand the road any time soon. Still, the threat remains and is reinforced at intervals.

The farm was a refreshing place to rest during the hottest parts of the day in this muggy, dusty city. As traffic stalled on the adjacent road and drivers yelled, honked or otherwise became frustrated, I would sit with farmers, most often three women who I became friends with, relaxing in the shade of palm and papaya trees, enjoying the light breeze and greenery, sitting on old tires or the ground. Often other people would join us

for a few minutes, stop to say hello or offer to sell anything from seeds, haircuts, cloth, phone cards, to tupperware. Customers would drive up and honk, and the women would either go help the person or call around to find another farmer who had what the customer needed. The farm was a busy place, with pathways from the housing settlement behind to the road, and many people lounging about looking for a chat or some work. A few of the younger male farmers invariable started playing music at one end of the farm, beer was produced and young women and sometimes children would show up (though they certainly would not drink alcohol) for a daily after work party. In an empty lot next to the farm, I often had to navigate around boys or young men playing football (soccer) as the younger people relaxed and cheered them on. As I was there during election season, there were also political rallies at the farm. A point of pride with the farmers was that President Jakaya Kikwete's son came out to officially open the community party station[1] at the farm.

My observations and casual conversations from these times with the farmers illuminated the ebb and flow of daily life on an urban open space farm. The farmers enjoyed sitting in the shade in the afternoon (this is common as it is really just too hot to work between about noon and 3:00 p.m.), talking with people, making connections, having in-depth discussions, worrying, laughing and providing assistance or advice. We often talked about their lives in the villages were they grew up, and they told me they would never be able to sit like this if they worked in a village, and there are few people with which to interact with in this way. Farms in the villages, they said, are more isolated and are rarely in people's daily path; interaction on farms is often only between family members. Another frequent topic revolved around how farmers do not have secure rights to their land, as they generally do in the villages, and they live under constant threat of being evicted and chased off the land.

[1] Political rallies in Dar es Salaam are very different from those in the US. They are small, often less than one hundred people. Throughout the city you can see these small cement platforms with a wall about a meter high painted with the colors and flying the flag of the party the people around support. Invariably these were Chama Cha Mapinduzi (CCM) colors of green and yellow. In reality, having one of these stands did not mean everyone supported the CCM, but that they wanted to look like they supported the CCM, who has been in power since independence. Publicly supporting the ruling party often meant less harassment by government officials.

The market for vegetables in the city is usually profitable, as people are very picky about the freshness of their produce, and without appropriate shipping and infrastructure, vegetables trucked in from other regions or even from the peri-urban areas often arrive spoiled. At certain times of the year, especially after the rainy season when water is abundant and the flooding has stopped, there is a glut and prices fall. The media has also begun to report on recent studies that demonstrate the potential cancer risks for eating leafy greens grown in the city. The Drive In Farm, however, has a thirty meter deep sealed well with an electric pump— an uncommon luxury— and they are proud to tell their customers that their water is safe. The farm as an urban space also provides opportunities for farmers to explore other income generating activities. The group leader at this farm started cooking plate lunches for passersby, charging a little over a dollar for a plate of rice or *ugali* (a thick corn porridge) with vegetables and a little bit of meat. Another farmer goes to the market each day to buy fruits to sell along with her leafy greens at her own stand on the farm.

Despite the distinctly urban nature of the farms, their profitability and their contribution to urban nutrition, farmers are aware that many people, including government officials, often see the farmers as poor and backwards. The farmers know, however, that the population in the city depends on them for food. Before Jakaya Kikwete was elected president, his wife used to buy vegetables from the Drive In Farm, a point of great pride in the group. As stated in the introduction, about ninety percent of the leafy green vegetables that people eat in the city are grown in the city, putting farmers in the unique position of being seen as un-urban and a hindrance to proper urban development at the same time as they provide a necessary urban function in supplying nutrition and employment to the city.

Conceptual Backdrop

At the heart of my research lie three simple yet important questions: what is a city, who is it for, and who gets to decide? Urban scholarship is dominated by analyses that generalize cities in developing countries as desperately poor, over-urbanized, exploding, a warning for the future of cities in developed regions, a lesson in the deprivations of western consumption, parasitic and catastrophic (for only a small

sampling see Southall 1973, Hansen 1997, Davis 2006). Yet these apocalyptic characterizations of urbanism in cities in developing countries provide little insight into lived experiences or realities of how people engage with and within urban space and even less about realistic ways of addressing the serious urban problems that do exist.

Dystopian visions of cities can be traced to a structural perspective that tried to universalize urban experience through class analysis that developed in North America and Europe in order to reveal marginalization and exploitation (Chakrabarty 2000, McFarlane 2010). Applied in different regions, daily practices and relationships in cities of the throughout the world were filtered through the workings of capitalism and industrialization, despite their place-specific experiences (Ferguson 1999). Activities were defined for their productivity and their utility in their struggle for urban existence rather than examined for any other role they might have in urban life (Hansen 1997). Cities in developing regions were urban spaces in that they were sites of accumulation, dispossession and marginalization that were created through colonial relationships. These cities were seen as sites of victimization through colonialism, imperialism and consumption by the global north, and they were relegated to a status of not-quite cities, behind in the modern trajectory of development.

As cities in the developing regions are often framed in such narrow economic terms (poor, marginalized, inadequate access, failing or non-existent infrastructure), the 'fix' has been in the form of monetary aid or 'empowerment' by outsiders. This "liberal benevolence," (Roy 2006) however, represents people in developing areas as without agency and their ways of life as illegitimate in a modern, functioning society. Planning praxis as a fix to urban poverty has become a way to marginalize those who do not have the resources to look modern, and as such are the victims of sometimes brutal policies to remove them from urban spaces[2] (Rankin 2010). One recent example is when Janet Museveni, the wife of the Ugandan president, promised that the streets of Kampala would no longer have street children or their mothers by the end of August 2011 (Naturinda

[2] 'Slum clearance' prior to the World Cup in South Africa and currently underway in Rio de Janeiro in preparation for the Olympics are immediate examples that come to mind. Cities wanted to show the world that they could be modern and erase the embarrassment of having poor people as the eyes of the world are on their cities.

2011). She promises that the children will be "settled in a safe place, given education and skills training [will be] offered to the mothers" (*ibid*). It seems clear, however, that the impetus is not that the government wants to provide education and skills (nor do they provide the capacity to do so), but that people are tired of having street children asking for money.

Framing women and children as a nuisance makes their forced 'removal' from the streets socially acceptable, and does little to address the issues that compelled them to take to the streets in the first place. Further it reinforces a norm of socially acceptable behavior on the street, specifically erasing the practices that confront people with their relative affluence and privilege. Scholars argue that planning needs to move past the "flagrancies of paternalistic responsibility towards others" that divides and disenfranchises communities and reframe it as an "ethics of accountability" (Rankin 2010: 194). What this might look like, however, is less clear. While not a planner by training, my research addresses these new trajectories in urban theory that seek to understand a city such as Dar es Salaam on its own terms, to understand how people utilize these spaces in a myriad of ways that exist beyond formal government control. These perspectives provide a way for cities and their populations to reimagine their own trajectories of development and modernity.

While political economic analyses are undoubtedly relevant to understanding cities in the context of economic development, scholars have begun to problematize historicist narratives that privilege rationality and reason as emblematic of modern society— a society based on an unspoken identification of Europe as the primary seat of modernity (Chakrabarty 2000: 43). The modern city, indeed modernity itself, became linked to western urbanism, ignoring the specific historical processes in Europe and North America that allowed cities to develop in the ways that they did (Robinson 2006). This lack of attention to history in creating cities influenced urban theory, which also emerged in the global north under specific political, social and economic circumstances. These theories centered on approaches that were injudiciously applied to cities across regional contexts without reflection on the situations that led to specific ideas of cities and urban theory. Emerging postcolonial critiques seek to understand processes, places

and practices in the 'global south' without the obligatory reference to theories emerging from the 'global north' (Chakrabarty 2000) and instead examine emerging forms and trajectories, social and economic, that constitute cities across regional contexts. This postcolonial urban theory seeks a more inclusive concept of the city, incorporating experiences not just in relation to economic activity, but the dynamism and change inherent to the urban experience.

As mentioned in the introduction, scholars have been using the term 'cityness' to describe the seemingly intangible, but no less real' aspects of urban life that are difficult to both categorize and control. While the term has been used in different ways, I find the following definition by AbdouMaliq Simone (2010) to be useful in articulating how cities can be imagined as dynamic and as beyond simplified categories of formal, informal, developing, etc. that often characterize them.

> Cityness refers to the city as a thing in the making. No matter how hard analysts and policy-makers might try, practices of inhabiting the city are so diverse and change so quickly that they cannot easily be channeled into clearly defined uses of space and resource patterns of social interchange. In other words, the heart of city life is the capacity for its different people, spaces, activities, and things to interact in ways that exceed any attempt to regulate them (Simone 2010: 3).

Cityness encompasses what is peripheral— what cannot be captured or controlled through planning. Cities are dynamic and much of what happens in them is what we know implicitly, what we take for granted, rather than what we consciously observe. This concept presents an analytical challenge as here intangibility and ephemerality are valorized, resisting the classification we often need to comprehend urban form and practices. I employ cityness as a term not as Robinson uses it to discuss how people define a city in relation to normative, modernist understandings of the city (2006), but as a concept that helps us to examine the interstices of urban practices and spaces and how these contribute to urban dynamism.

Summary of the Chapter

The remainder of this chapter traces the lineage of approaches in urban studies towards cities of the global south. I will begin by presenting the Chicago School of Urban Sociology that drew its theorizations of cities primarily from work in its home city. I will

then contrast this with writing by urban anthropologists working from Central Africa in the 1950s and 1960s who challenged the universal application of urban theory from North America, most especially in Sub-Saharan Africa. Scholars of this Manchester School of urban studies, composed of researchers collaborating with the Rhodes-Livingston Institute in Lusaka, Zambia, demonstrated that African cities operated in ways that did not fit with the idea of cities emerging from Chicago. I present this work here to illustrate that using African cities to construct urban theory is not new and that these scholars recognized diverse urbanisms even within the continent of Africa (Robinson 2006). I will explore this early work in comparative urbanism, some critiques and finally how it became subsumed within the turn in the 1970s to critical Marxist approaches.

I then discuss how the dominant political economic approaches that emerged from the Marxist turn throughout the social sciences and broader trends in development studies limited the analysis of what it meant to be a proper city. Cities became categorized along a trajectory of urban development, and framed through economistic lenses highlighting the poverty and marginalization produced through capitalist expansion. As a result, the comparative work of the urban anthropologists of Central Africa was lost. These analytical processes were embedded in larger discourses of modernity, which became closely tied to visions of western urbanism (Robinson 2006), making cities in the west a silent referent from which all other urban-ness is compared.

From the critiques of the universalized western urbanism have come several calls for a comparative urban studies (Roy 2006, 2010, Robinson 2002, 2006, McFarlane 2008, Ward 2010). This analytical maneuver is embedded in a postcolonial approach that seeks to produce theory from a variety of urban contexts and apply it to cities in different regions to illuminate urban processes previously hidden by universalist approaches to cities. I present just a brief overview of postcolonial theory as it has been applied to social scientific inquiries. I then focus on a postcolonial approach to urban studies, which provides the theoretical foundation for this research. More specifically, I will utilize these theorizations of the periphery and of informality to demonstrate a postcolonial urban geography, one that allows for a spatial examination of practices such as urban

agriculture as an urban function, and one that cannot be reduced to resistance or coping, and one that reveals some of the *cityness* of these distinct urban spaces.

Defining the 20th Century City: Learning from Chicago

The project of defining the city has been fraught with difficulty. A widely employed definition by Louis Wirth in 1938 asserts that a city is a relatively large, dense and permanent settlement of socially heterogeneous individuals (8). Using this definition would allow scholars to examine urbanism from three perspectives: the number of people, the density and the degree of heterogeneity (*ibid*: 18). From this scholars could postulate on the degree of specialization that came from density or the utilitarian nature of urban relationships. This perspective on the interpersonal relationships in cities deserves a direct quotation:

> Characteristically, urbanites meet one another in highly segmented roles. They are, to be sure, dependent upon more people for the satisfactions of their life-needs than are rural people and thus are associated with a greater number of organized groups, but they are less dependent on particular persons, and their dependence on others is confined to a highly fractionalized aspect of the other's round of activity. This is essentially what is meant by saying that they city is characterized by secondary rather than primary contacts. The contacts in the city may indeed be face to face, but they are nevertheless impersonal, superficial, transitory, and segmental. The reserve, the indifference, and the blasé outlook which urbanites manifest in their relationships may thus be regarded as devices for immunizing themselves against the personal claims and expectations of others (Wirth 1938: 12).

Wirth's definition is important to highlight as it provides a conception of the city and urbanism that formed the foundation for the Chicago School of urban studies. This influential group of scholars who tried to theorize the city by drawing primarily on their research in Chicago itself, specifically focusing on development patterns and residential segregation. The observed behavior of people self-sorting into zones based on class or race was considered a natural product of urban development based on ecological models of competition, invasion and succession to explain urban growth and development (Pahl 1968). Some of the of the most influential models of urban development, the concentric zoning by Ernest Burgess and the sectoral model of urban development by Homer Hoyt,

remain in use today (Anderson and England 1969, Lewinnek 2010), despite their narrow applicability primarily to North American cities.

A major theme to emerge from the Chicago school was the characteristic social isolation, or blasé-ness, of urban life. Though an early and influential Chicago scholar, Robert Park, admitted that there is overlap and connection between people and groups and cities can be intensely social, overall the tendency was to analyze cities in terms of isolation (Hannertz 1980). Indeed the focus on the blasé nature of urban life in Chicago provided a point of divergence for African urban studies scholars in the 1950s. As Wirth's attempt to describe a universal framework through which to analyze cities, it became apparent to the scholars of African cities that the characterizations described by Wirth did not fit their observations. Inherent in these characterizations was the figure of the rational being, unreliant on local or customary bonds, who maintained their individual freedom of thought and action (Robinson 2006). Definitions of urban became defined in opposition to traditional/ folk/ primitive/ rural— people in cities who could think logically with their head rather than relying on the emotionality (and responsibility) of the heart (Hannertz 1980). It is this point upon which scholars of African cities were critical of the Chicago School, asserting that their observations of the urban experiences in Sub-Saharan cities were very different.

African Urbanism and the Copperbelt-ers

> An African townsman is a townsman, and African miner is a miner.
> (Max Gluckman 1961: 57)

In 1937 the Rhodes-Livingston Institute (RLI) was established in Lusaka, then the capital of Northern Rhodesia, now Zambia. This institution supported several anthropologists who worked in Central Africa, specifically in what was to be known as the Copperbelt area. This was a place being heavily mined for copper, initiating rapid urban development and rural to urban migration to cities in the area (Ferguson 1999). Through their work, these scholars observed an urbanism and types of social interaction that did not fit the conclusions of the Chicago School (Hannertz 1980). As the RLI achieved popularity and significance, their work presented a direct challenge to

universalist approaches to urban studies. The second director of the RLI was Max Gluckman, who later took a position at the University of Manchester, and he maintained close linkages with the Institute and mentored several scholars who focused on Central Africa (Hannertz 1980). This body of work became known as the Manchester school and was influential in urban anthropology for examining social relationships in cities of Africa.

The main focus of the Manchester School became understanding the process of "detribalization" in cities, or how Africans transitioned from tribalism to become urban. Rather than seeing this transition as a one way process of becoming urban, the Manchester School anthropologists argued that tribalism was turned on and off as necessary in towns, and it existed within urbanism (Gluckman 1961). These anthropologists envisioned not a dualism but a continuum between tribal and townsman in order to address the complexity in urban life (Epstein 1967, Hannertz 1980). Tribalism in this urban sense did not refer to familial and kin relations that dominated village life, and the anthropologists tried to erase the association between tribal and rural. Instead they referred to the social relationships that were created in the heterogeneous environments of cities that people relied on. They sought to explain the persistence of networks and the practice of seeking out of linkages between townsmen that seemed to mimic village life (Robinson 2006). The Manchester anthropologists argued that the heterogeneity of cities, previously understood as an urban characteristic (Wirth 1938), produced different results in Sub-Saharan Africa than that observed in other places. They also asserted that blasé-ness and indifference were not features of urban life in African cities. People actively sought connections to people and groups that generated diverse and overlapping networks of association. For these scholars, tribalism in African cities was reconfigured to create new social relations, manifest in political associations, trade unionism and the custom of searching for commonality in new acquaintances (Epstein 1967, Hannertz 1980, Robinson 2006). People would insert themselves into several different group affiliations that often became important in the harsh conditions of colonial towns where the anthropologists were working (Robinson 2006).

This work certainly had a progressive edge to it. This research was taking place under conditions that were fairly repressive for urban Africans, who were constantly subject to harassment of myriad forms. Colonial authorities believed that Africans could not be urban; denying that Africans could be 'de-tribalized' was justification for keeping them separated in cities. The project of the Manchester School anthropologists was an effort to show that Africans could be 'urban' by reframing the social tendencies of Africans in cities as modern (Ferguson 1999). This is demonstrated by a famous quote of Max Gluckman that "tribalism in towns is manifested by townsmen, not tribesmen" (1961: 68). In the later years of the Manchester School studies, a distinction was drawn between tribalism and ethnicity: ethnicity referred to the manifestation of tribal characteristics in cities, while the term tribalism referred to groups in rural areas (Shack 1973).

Urban studies is a discipline "driven towards comparative thinking" (McFarlane 2010), and in their research, the urban anthropologists in Africa found that Chicago School-style urban theory was indeed a poor fit. Distinctions were made not only between African cities and cities in North America, however. It was evident that the social and spatial manifestations of urbanism cities they saw throughout the continent could vary: some cities, especially in West Africa, served as centers of export of the cash crops grown in the area, and increasingly as sites of administration. In other areas, industries that developed, such as mining, produces different urban forms, interactions and social systems (Epstein 1967). Strictly controlled settler towns of the British versus the less-controlling French also influenced people's ability to move through cities (the British placed strict regulations on who could move around the city and at what times). This influenced social relations between Africans and between Africans and settlers, creating different styles, senses of status and different connections that people could draw on.

While these writers were influential in anthropology and urban studies, their case study methodology and situational approach left them open to the emerging critiques of structuralism in the 1970s. The Copperbelt anthropologists focused their attentions and analysis on their fields of direct observation, leaving larger structural forces unexamined

(Hannertz 1980). Indeed, Zambia's rapid urbanization from the discovery of copper was a direct product of colonialism, a process which these anthropologists often ignored (Hansen 1997, Ferguson 1999). These studies also failed to take into account the role of taxation in urban migration, how the regulations on the movements of Africans within and to cities influenced rural ties, the integration of these cities into resource markets, and their role in global capitalist expansion (Robinson 2006). For the Copperbelt anthropologists to leave this out seemed a great lacuna in urban studies, and it left them open to criticism from a structuralist critique that looked at cities and urban populations in term of power relations within the global capitalist system.

Not only were the Copperbelt anthropologists neglectful of larger structural forces, purposefully deciding to focus on their own locales, they were also unreflexive about their own positionality in their research context. James Ferguson (1999) offers a less gilded image of these scholars who often saw themselves as the progressive white men who would 'save' Africans. Their methods certainly ignored the views of urbanization of white settlers, but in asserting a progressive stance of highlighting the African transition to urbanism, Ferguson illustrates how closely tied that stance was in highlighting the "progress" of Africans:

> Anthropological liberalism in southern Africa has depended, for its sense of purpose and direction, on a modernist narrative that said where Africans were going, and why it was necessary that they should go there. Those who obstructed this progress were reactionaries, short-sighted or ill-informed; a progressive anthropology, on the other hand, showed the way 'forward' (1999: 33).

The Copperbelt anthropologists were products of their time, less reflexive than we might be now about our own position in systems of power. These scholars were embedded in an emerging modernism that left their positionality unquestioned and placed little to no emphasis on larger structural relations of power. While somewhat scathing in his critique, Ferguson's point is that we should not confuse the attempts by the Manchester school to propose new urban forms or a comparative urbanism with the unspoken teleology of progress and modernity in the transition from tribal to urban. While their intent was to show that African urbanism is legitimate, they reified the teleology of tribal to urban, and primitive to modern.

The Structural Turn

The attempts to create typologies of cities that emerged in the Copperbelt, such as administrative centers, extractive centers or British versus French cities (Epstein 1967, Hannertz 1980), were a reaction against the search for the universalizing theory of urbanism proposed by Wirth (1938). However, as development became the discourse through which the former colonial countries engaged with their former colonies, scholars began instead to use categories that divided the world between the developed and underdeveloped (Hannertz 1980, Pacione 2000, Robinson 2006). As methods became dominated by quantitative approaches, the spatial patterns of development and modernization were statistically analyzed primarily in economic terms to make cities comparable across regions and to expose inequalities and exploitation on a larger scale (Slater 1997). The period of comparative scholarship from Zambia was forgotten in the trend towards developmentalism— seeing all places in terms of their level of development— that emerged in the 1970s that began to categorize cities as developed, developing or undeveloped (Robinson 2002, McFarlane 2010: 4). These rankings framed analysis of phenomena around the world, and the poor in underdeveloped regions became targets or objects of development from a paternalistic west.

There is no doubt that these studies remain important as they highlighted the marginalization of people and places throughout the developing world. Yet in highlighting the 'lack' of development apparent in cities of the Third World, a dualism between developed and developing countries emerged (Ferguson 1999, Robinson 2002). Economic theorists, whether marxist or modernist, continued to frame Third World cities as 'behind,' either in economic development, the capacity of the state to provide basic necessities and infrastructure, health or environmental conditions, or the causes of slum[3] 'development.'

The political economic turn in urban studies provided a way of understanding contemporary urban forms, street politics, city politics and urban economies (Harvey

[3] Interestingly, the slum was a form initially associated with western urban development, and the Copperbelt anthropologists highlighted concerns that similar settlements were occurring in the city of Africa (Epstein 1967).

1989). This work was inspired by the need to understand the depredations of capital and highlight pathways to social justice, and the importance of recognizing how capitalism influences life in multiple settings and scales. With regards to urban studies, however, the focus on global economic restructuring in the analysis of cities has often hidden from view everyday place-making and urban experience (Smith 2001). Marxist analysis of cities has also been criticized for seeing the city as a "singular, comprehensive, and theoretically consistent synthetic analysis of a modern metropolis" (Çinar and Bender 2007: xiii). In itself, seeing the city as a totality implies a single definition of what a city is, and a singular definition makes cities comparable across regions (King 2007). In effect, however, these analyses focusing on capital accumulation and spatial fixes have ignored other processes that go into shaping and contesting urban space, squeezing cities in different regional contexts into a narrow economistic framework (Smith 2001). Urban activities become defined by their economic utility, especially in cities that do not 'look like' a more economically developed city (Robinson 2002). Indeed, culture was seen as epiphenomenal: cultural practices and identities (gender, ethnicity, etc.) were understood as merely manifestations of underlying structures of capital and political economy (Sayer 1987). Local practices were considered static and unchanging, and were reduced to resistance (Massey 1991).

The changes in the approaches to cities outside of Europe and North America are illustrated by the various categorizations that have emerged over the last sixty years, ever since critiques of the universalism of Chicago School emerged. To differentiate cities, categories have been created: Third World cities, developing or underdeveloped cities, peripheral cities, cities of the global south and now global cities, upon which many of the cities of the world never rank (King 2007). Each of these categorizations, influenced as they were by narratives of progress and ideologies of development, continually placed cities in a global order for how they compared to western urbanism (Robinson 2006). This trend of comparing experiences, practices and performances within a quantitative ranking has been a way of making the global more tangible and understandable to governments, economists, development practitioners and marxists (Ward 2010). In these rankings, however, a certain type of experience, practice and performance becomes privileged and the modern standard against which all others are compared.

Urban Modernity

Modernity itself has somewhat ambiguous definitions (Friedman 2001, Çinar 2007). When modernity is defined as an epoch, it generally refers to the spread of capitalism and drawing in distant places through imperialist efforts defined the west in opposition to the other people and cultures that Europeans encountered (Mitchell 2000, Bender and Çinar 2007). The discursive opposition that seems to define the emergence of modernity, however, rests on a false binary between the west and the rest of the word as a colonial other (Friedman 2001). Indeed the process of becoming the imperial and economic center through the spread of capitalism was dependent on the framing of 'others' as inferior to the colonial core. Rather than simply seeing Europe as modern and others as not, we should recognize that Europe's relationships with its colonies were *essential* in the making of Europe (Blaut 1993, Mitchell 2000).

Modernity is also often equated to ideals that emerged from the Enlightenment that emphasize individuality, creativity, rationality, knowledge, freedom and the distinctive social formations such as the nation-state and capitalism (Çinar 2007). The Enlightenment is perceived as a historical break from the past through the emergence of ideas, a new temporal period that denies history and is instead focused on the present and the future. While a complete discussion of modernity can certainly not be conducted here, I present these definitions to highlight how modernity, in much of the social sciences, has become tied to the emergence of Europe in relation to the (often unacknowledged) oriental, traditional and colonial 'other' (Said 1978, Blaut 1993, Ferguson 1999, Mitchell 2000, Friedman 2001, Robinson 2006). "Modernism requires tradition to 'make it new'. Tradition comes into being only as it is rebelled against" (Friedman 2001: 510). The primitive, irrational, historical and the unstructured other are often the visible foil to understandings of modernity.

One significant issue with these definitions of modernity is that they are generally created by people embedded in western social theory, who are products of the west and specialists of it. An example used in Friedman (2001) highlights how Anthony Giddens assumes the western origins of modernity:

> How far is modernity distinctly Western? … [T]wo distinct organisational complexes are of particular significance in the development of modernity: the *nation-state* and *systematic capitalist production*. Both have their roots in specific characteristics of European history and have few parallels in prior periods or in other cultural settings. If, in close conjunction with one another, they have since swept across the world, this is above all because of the power they have generated… Is modernity distinctively a Western project in terms of the ways of life fostered by these two great transformative agencies? To this query, the blunt answer must be "yes" (Giddens 1990:174-175, quoted in Friedman 2001, *itals original*).

Giddens' unspoken assumption that the nation-state and capitalism represent all that is distinctly modern seriously overlooks different histories and the embeddedness of the people creating their theory. In response:

> Such Eurocentrism is pervasive in the field whether the writer is celebrating (like Habermas) or critiquing (like Harvey) western modernity. Left intact is a center/peripheral model of globalization in which the West invests and exports, while the periphery assimilates and copies. Left unexamined is the degree to which the production of western forms of modernity resulted from the heightened interaction western societies had with nonwestern others- the Other of the western imaginary; and, with the real, heterogeneous, multiplicitous others outside the West (Friedman 2001: 507).

The constitution of modernity as emergent in the west through specific processes reflects the positionalities of the people producing these theories. This has serious political consequences as these definitions have the power to define and shape appropriate responses to political, cultural and economic circumstances and decisions in different places.

A response to this western domination of modernity by scholars from both inside and beyond 'the west' has been to argue that what is modern is shaped by the particular histories of a distinctive place and to recognize the flow within and between places in this process (Bender 2007). This version of modernity is inclusive of the many ways throughout history that homogenizing processes— or "organizational complexes" as Giddens refers to them in the quote above— have emerged around the world.

> [M]odernity is historically a global and *conjuntural* phenomenon, not a virus that spreads from one place to another. It is located in a series of historical processes that brought hitherto relatively isolated societies into contact, and we must seek its roots in a set of diverse phenomena- the Mongol dream of world conquest,

> European voyages of exploration, activities of Indian textile traders in the diaspora, the 'globalization of microbes' that historians in the 1960s were fond of discussing, and so on… our major errors have been two: identifying 'modernization' with the growth of a certain type of uniformity, and associating modernity with prosperity. Any amateur anthropologist who has been to Paris or Manhattan, symbols of 'modernity' for so long, would realize the profound error of both assumptions (Subrahmanyam 1998: 99-100, *itals original*).

Instead, it may be more fruitful to understand how modernity is locally produced and understood in different places and contexts. Conceptualizing modernity through the western experience limits our understanding of how 'the modern' is utilized, located and transformed. We need to move past an understanding of modernity that is located in specific western institutions (e.g. Gidden's quote above on the nation-state) to look at different processes of *modernization* (Çinar 2007). This is not necessarily to say that local understandings of modernity do not emerge from the west, but that it is *reworked* with local meanings, practices and institutions to create a *locally specific modernity*. For example, in Istanbul, Turkey, a decades-long debate about the architectural style of a state mosque represented a larger concern over the symbols of Islam in the landscape of a modern city at a time when Turkey was orienting itself towards the west (Çinar 2007). The Kacatepe mosque that was eventually built relied on Ottoman, rather than 'modern,' architecture, but also contained elevators in the minarets, high tech speakers and lighting, and it sits atop a large market and parking garage. Sermons and pamphlets emanating from the mosque address a Turkish nation, not the Muslim community, making this space one for involving a sense of national, rather than religious, unity.

Another example of local formulations of modernity comes from AbdouMaliq Simone, who has written about contemporary cities across Africa, the Middle East and more recently, Southeast Asia. What is 'modern' in these contexts might not be recognizable as such viewed through the western lens. In writing on the city of Douala, Cameroon, the most advantageous and modern subjects are those who are 'plugged in' to diverse social networks upon which they can draw to deal with the inconsistency and insecurity of urban life (Simone 2007). The *bendskins*, or motorcycle taxis, in Douala were able to shut down the entire city in response to the death of several drivers at the hands of local police. The information quickly spread throughout the city, and vast urban resources were commandeered for the operation: heavy equipment being used for road

repair and the vehicles of locals were moved to block roads and cell phone stalls were used to spread the word. Roads, and the ability of the state to respond, were blocked without any central command. While the siege only lasted for eight hours, it brought visibly to the fore the importance of circulation to modern city life in Douala. Simone queried the *bendskins* about their methods of circulation, how they get 'plugged in,' which reveals some of the mechanisms that make such events as the shutting down of the city by motorcycle taxis possible:

> Wherever one is and whatever one is doing, one must stop and eat, and in this context of eating in public, of sitting down with others in the thousands of makeshift restaurants across the city, conversations are not only overheard, but trajectories into different lives are also potentially opened up. As *bendskin* informants indicate, this is not only about witnessing the *terroir*, but of also continuing to "steer the roads"- that is, to direct the conversation between others in particular directions, to suggest the possible entry points among those sitting to take a meal into each other's dilemmas, stories or activities (*ibid*: 91).

The *bendskins* situated themselves in the social networks of the city, waiting for an opportune moment or the right connection that could benefit them in some way, whether immediately or sometime in the future. In cities that are internally fragmented, Simone's account of an event coordinated by the *bendskins* in Douala reveals how inhabitants produce and share a sense of urban-ness and community. In fact, they produce, and in this event were able to privilege their account of, the city (2007). Their actions in protest against mistreatment revealed their real power, which is a product of their purposive actions to produce social cohesion, and exposed the injustice of police brutality. This highlights that a coherent government structure and a formal economy are extremely limited ways through which to understand the coherence of the modern city.

The next section of this chapter examines more closely the relationship between multiple modernities and cities. I begin with a brief discussion of modernist thinking in cities and present critiques of the way modernity is defined to become so closely associated with western urbanism (Robinson 2006). This writing has converged more recently with critiques of structuralist accounts of cities that frame people in urban areas of developing regions as backwards or as marginalized victims. This discussion sets the stage for the final sections of this chapter that focuses on an emerging post-colonial urban

studies, and potential pathways to theorizing cities throughout regional contexts beyond frameworks that emerged in the west.

Influence of Modernist Thinking on Urban Studies

By reflecting on how cities are situated in the modernist project, we expose the assumptions about proper urban practice and form that are entrenched in this narrative of progress (Robinson 2006). Some urban scholars have confronted this theoretical trend, providing rich accounts of how modernity shapes our view of what a proper sense of the urban entails, with the intent of moving past the search for a singular definition of the city or of the urban (*ibid*). The focus is on narratives that situate the city as more open, as consisting of tensions and multiple associations, and as constructed through relations and practices that are often peripheral and ephemeral (Tostensen, Tvedten and Vaa 2001, Simone 2004, Çinar and Bender 2007: xiii). This is not just a project for cities of South Asia, Sub-Saharan Africa and Latin America, though much of the research has been done there. Instead the intent is to open this perspective to all cities and to expand the interpretation of the urban through a lens that can do justice to the daily experiences in different regional contexts (Roy 2010a).

The themes of individuality, rationality and emancipation are at the heart of modernity, which refers to a system of thought that promises freedom from the irrationality of myths, superstition, scarcity and the arbitrariness of nature (Harvey1990: 12). As described through this paradigm, cities brought with them enlightenment, progress, change and breaks with traditions that held people back. In the city, one could break free of traditional responsibility and create new pathways and futures. As modernity implied a break with the past, cities provided a space upon which modernity could act.

Marginalized and colonized populations began to internalize their own inferiority (as they were never allowed to 'catch up' with their European counterparts), and adopted visions of a specifically European modernity as a desired goal (Fanon 1967). Cities became increasingly tied to modernity, and those that varied from the normative, European form that symbolized rationality and individualism were seen as temporally

dislocated— cities that needed to progress to a certain point to be modern (Robinson 2006). The progress, however, that has defined cities in Europe is intimately tied to imperial ambitions and colonial exploitations. It was indeed the extraction of resources from the colonies that enabled expansion and modernization at home (Fanon 1967, Mitchell 2000). The developments that occurred outside Europe, such as the sugar plantation system in the Caribbean described by Sidney Mintz (1986), were an intrinsic part of the modernization process, but were not considered within the modernist narrative, despite the drastic influence of these processes on the populations and economies where the plantations actually existed (Mitchell 2000). Systems that were created outside Europe, such as the plantation, were not seen as modern, even as they themselves were products of the same system, and they are often excluded in discussions of the evolution of urban modernity in Europe.

These critiques have sparked searches for ways to compare cities across regions or to analyze cities on their own terms, rather than comparing cities to idealized forms in Europe (Ferguson 1999, Robinson 2002, 2006). Jennifer Robinson critiques western urbanism and its close association to modernity to ask how scholarship in cities of the global south can move past the constant framing of being behind or marginalized. Robinson (2006), following Mitchell (2000) and Amin and Thrift (2002), argues that instead of disposing of the concept of modernity, we need to redefine it to better reflect the realities of how people live in various places.

Robinson suggests that a possible path is to address the links between modernity and creativity (2006, see also Harvey 1990). In recent years creativity in the city has focused almost exclusively on processes of urban regeneration in the global north or that of 'creative industries.' Currently, creative cities are generally talked of in terms of attracting a certain demographic through planning and the development of amenities, specifically in art and culture, in order to support creative industries and high-paid workers (Storper and Scott 2009, Sasaki 2010). Though there is a debate on which comes first (the industry or the workers), this has become a powerful model of urban planning and has promoted creativity as the standard of urban development (Florida 2002, Bontje and Musterd 2009). As such, creativity has been defined as progressive values,

innovative companies, cutting-edge art, indie rock bands and various forms of diversity. As cities around North America and Europe have incorporated these persuasive ideals into urban planning frameworks, creativity has become closely associated with economic inventiveness in attempts to attract revenues in everything from higher-value business to tourists looking for more creative and engaging encounters (Bontje and Musterd 2009, Russo and Sans 2009). Creative industries are now seen to incorporate "those industries that have their origin in individual creativity, skill and talent and which have the potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS 1998/2001: 5[4] in Evans 2009). Creativity has become an economic development tool, yet the definition of creativity, novelty and innovation is understood very narrowly.

Rather than confining ideas of creativity and innovation to the experiences in cities of North America and Europe, Robinson explores the concept of creativity as a way to redefine urban studies in a more cosmopolitan fashion (2006). What are the myriad informal activities that people use to earn their livelihood in the cities if not creative? Robinson uses associations between modernity and creativity to rework notions of urban modernity, which she defines as "the cultural experience of contemporary city life and the associated cultural valorization and celebration of innovation and novelty" (2006: 4). Her reworking of the association between these two concepts reveals informal economies are not signs of failed development and failed cities; informality is in fact a signifier of creativity in the city. It is a dynamic organization of economic and social life that adapts to conditions that people face.

Defining urban modernisms through a narrow framework, one that is tied only to urban forms in contemporary Europe and North America, is also symptomatic of a process that confines all cities to a linear trajectory of development. This trajectory explicitly narrates a progression of development that begins with a 'primitive' society where some conditions for growth emerge, which precipitates economic growth that will lead to increased consumption to drive further growth (Rostow 1960, Blaut 1993). This

[4] DCMS (Department for Culture, Media and Sport) 1998. *Creative industries mapping document.* DCMS, London.

narrative has become a powerful lens through which to understand economic development, and much of the analysis of cities, and less-developed regions more generally, has been framed (often implicitly and unquestioningly) through this process. As a result, cities have become viewed through a developmentalist framework: places are seen for where they fit in this trajectory of economic growth and development (Ferguson 1999, Robinson 2006). More than just theoretical analysis, this also sets places up for specific interventions to push them back onto the proper path or forward through the stages of development without recognizing that the conditions that allowed this specific experience of development in Europe and North America rarely exist in the same way in other regions.

Recognizing the biases of this understanding of urban modernity, we can instead address what makes a modern, creative city in different regional contexts without obligatory references to western urban and development theory. This will provide scholars with a platform to understand the manifestation of cityness in different places (Pietrse 2010). The following section will build upon this line of thought and engage more directly with postcolonial theory, an approach that is having a significant influence on urban studies in Sub-Saharan Africa.

Postcolonialism

One response to the problematic definitions of modernity as associated with all things western has been the emergence of a postcolonial theory that seeks to recover the experiences of the colonized (Sidaway 2000) and articulate and contextualize the "poisonous hangover" of colonialism (Myers 2006: 291). While the definitions of postcolonialism have been wide-ranging since its emergence as the newest of the 'posts' (Bhabha 1994, Sidaway 2000), in geography it has primarily been used in two ways (Sharp 2009). First, post-colonialism (with the dash) is used as a description of the conditions and realities of societies that live in the aftermath of colonialism (Myers 2006). This definition can be further extended to refer to the condition of economic, cultural and political dependence on, and domination by, the west through processes of economic imperialism (Mbembe 2001). Second, postcolonial theory (minus the dash), rather than describing a condition, seeks to make visible that Europe is used as a "silent

referent" in history, knowledge and reason (Chakrabarty 2000: 28). In this usage, the post, rather than indicating time, refers to cultures, discourses and critiques that lie beyond colonialism, but remain closely influenced by it (McEwan 2009). These writers highlight the parochialism of western scholarship that fits the conditions of the world into the frameworks developed in the west and instead argues for a "post-universal scholarship" that respects different ontologies and experiences (Robinson 2003: 275). It seeks to highlight other ways of being and knowing that are not defined in opposition (i.e. 'alternative') to European modernities, but establish themselves as co-temporal modernities in different places and for different people.

Postcolonial theory emerged as a way to articulate the injustice of seeing experiences through a colonial narrative, one that frames all experiences as compared to the west and eventually revealing their failure to live up to the comparison. Rather than seeing cultural hybridity as something at the margins of two things and never its own (AlSayyad 2004), this perspective is inspired by the desire to allow societies and groups to define themselves on their own terms, rather than through the legacies of the colonial lens:

> What is theoretically innovative, and politically crucial, is the need to think beyond narratives of origionary and initial subjectivities [such as gender or class] and to focus on those moments or processes that are produced in the articulation of cultural differences. These 'in-between' spaces provide the terrain for elaborating strategies of self-hood— singular or communal— that initiate new signs of identity, and innovative sites of collaboration, and contestation, in the act of defining the idea of society itself (Bhabha 1994: 1-2).

The project of postcolonialism is not a romanticization of a time prior to the European colonial period. It is instead a search for those *in-between spaces* that allow for the articulation of the present outside of the linearity of European historical time (Bhabha 1994). This perspective:

> …demands an encounter with 'newness' that is not part of the continuum of past and present. It creates a sense of the new as an insurgent act of cultural translation. Such art does not merely recall the past as a social cause or aesthetic precedent; it renews the past, refiguring it as a contingent 'in-between' space, that innovates and interrupts the performance of the present. The 'past-present' becomes part of the necessity, not the nostalgia, of living (*ibid*: 10).

This lack of direction- of the de-linking of progress to time and a specific kind of modernity— focuses on the creative and innovative ways that people utilize different practices and spaces. People draw upon these resources not because one is any better, or more modern, but because they work and satisfy some need, whether economic or social. This focus on in-between-ness is important for understanding how and why people engage in certain practices that do not seem to fit specific categories.

The postcolonial project is not only for the global south. This perspective has already had political ramifications for those who remain marginalized as a result of colonial and imperial enterprises in what is now the global north (i.e. Inuit, Cherokee, Aboriginal Australians, African-Americans, etc.) to articulate their claims (McEwan 2009). A postcolonial approach can help redefine relationships between colonizer and colonized, encouraging mutual respect of histories and claims. One example is the provision of First Nations groups with their semi-autonomous region in Canada. The Cree and the Inuit were granted ownership, rights and obligations towards the resources therein. They were also provided with training to ensure that they would benefit from those resources and meet the obligations of their ownership. Admittedly this was all conducted through a process where the final approval came from the non-indigenous Canadian government, and the obligations of ownership included exploitation of resources. However the Inuit and Cree wanted rights to land in order that they could directly receive the economic benefits of its exploitation; indeed they were active in arguing the need for training and agreed to the obligations of ownership within the agreement as it would represent more money that they could use for their own purposes. This process may represent one of a very few instances of postcolonial justice that has been seen in the developed world (McEwan 2009). While seen through a developmentalist perspective, it could be argued that this is a case of making resource extraction by a specific people more efficient, through another lens, this process can be seen as one that empowers a group within an existing system.

Postcolonialism is primarily a project to allow colonial subjects to confront the depersonalization of their own subjectivity— their reduction to primitive beings who are located 'behind' their oppressors (Bhabha 1994). Indeed, at the heart of postcolonialism is

the examination of power and knowledge as they relate to how people and societies are represented and how they represent themselves (Bhabha 1994, McEwan 2009). One of the earliest post-colonial thinkers was Frantz Fanon, French psychiatrist, philosopher and avid anti-colonial activist (as well as being black). He wrote *Black Skin, White Masks* (1952), a book that utilized psychoanalytic theory to explain why blacks in colonial states and colonies felt dependent and inferior in the white world. He claimed that blacks try to embrace and imitate the colonizer's culture, but can never be fully accepted because they could never properly internalize the cultural codes of the colonizer. Further, the colonized internalized the colonizer's image of themselves as an 'other,' resulting in an inferiority complex that pushed them to 'become white' by appropriating the language and culture of their oppressors (Fanon 1952, Bhabha 1994, McEwan 2009). Just as the west is defined by the 'rest', white relies on the categorization of black and other in its definition of itself: black becomes what is not white. Yet the boundary between these binaries is mobile. As the 'rest' or 'others' appropriates what is associated with the west and whites, standards change, making the achievement of western-ness and whiteness an elusive goal.

Postcolonialism and Development Studies

It is hardly surprising that postcolonialism has been roundly critiqued by scholars of critical development studies (Sidaway 2000, Myers 2006, McEwan 2009). Sylvester claims that the debate seems to be that "development studies does not tend to listen to the subalterns and postcolonial studies does not tend to concern itself with whether the subaltern is eating" (1999: 703). While this quote might be essentializing the two positions, there is certainly tension between the two approaches (Sharp and Briggs 2006). Postcolonial scholars challenge and try to destabilize the discourses of development, critiquing them for their singular narrative of change and history and assumptions of modernity. Development scholars generally rebut that postcolonial theorists are too abstract and not concerned enough with real problems, such as safe drinking water and food security. The postcolonial critique of this work, however, continues to focus on how tied development scholars are to a linear understanding and a European definition of what constitutes development and progress. Anti-, post- or alternative development discourses

tend to reify the centrality of a western-style development as a way to understand the process and its outcomes.

Some recent work has tried to bridge between these two theoretical frameworks (Sylvester 1999, McEwan 2009). Rather than an outright rejection of development discourses, as argued by post-development scholars such as Escobar (1995), postcolonialism asserts that we cannot stand outside of dominant discourses such as capitalism and development and instead that there needs to be change from within (McEwan 2009). Provincializing Europe and highlighting the temporality of dominant narratives is a first step in bringing these two approaches together (Chakrabarty 2000). It is also important to problematize the ethnocentric assumptions of what constitutes knowledge and whose voices are allowed to speak (Spivak 1988), which has been a dilemma in development studies, particularly in recent critiques of participatory development. The cultural turn in development studies has been heavily influenced by postcolonial thinking. Critical development scholars no longer write about a convergence of cultures through modernization, but recognize the place-specific contexts that represent different points of departure in the development process. Rather than blaming development failures on perceived deficiencies of local people, scholars try to reimagine a locally specific understanding of development (Ferguson 1994).

Finally, postcolonial approaches have methodological implications for development studies. These approaches have moved away from economism to exploring ways to understand the agency of those whose voices are silenced (Spivak 1988). A famous example used by Gayatari Spivak is the practice of *sati*, or widow burning, in India. The common narrative is that British colonists attempted to abolish this act (as a case of "white men saving brown women from brown men"), while Indian men said that the "women actually wanted to die" (*ibid*: 269). As the eradication of *sati* became linked to discussions of a modern, good society, and the British and Hindu men wrangled over what was appropriate in that society, women's voices were silent. While interjecting feminism into the postcolonial debates, Spivak is also highlighting the voices of the subalterns— the people who are marginalized in debates of development and modernization and who are rarely given voice to speak for themselves. Their

marginalization is not only a product of powerful governments, development agencies or men, but also of scholars who privilege information from the subaltern and use it for their own ends (tenure, publications, notoriety) (McEwan 2009). As such, a postcolonial approach requires creative ways of interacting with marginalized populations and maintaining an ethical stance, one that does not merely take information, but provides a mechanism for the subaltern to express themselves to more powerful agents.

Postcolonialism and Urban Studies

Postcolonial urbanism "[a]ttempts to grapple with the multiplicity of different cities, and ways of knowing the city, across the North-South divide" (McFarlane 2010). This work has taken many directions, yet its focus remains on moving beyond the political economic lens through which many cities in developing countries are framed (Robinson 2002, Nuttall and Mbembe 2004, McFarlane 2010). The efforts to understand cityness beyond the static categories of much of western urban theory is not confined to the cities in poorer countries, however and insightful work is being done that sees cities as spaces of moments, encounter and movement that is comprised of points and networks that might not be rooted or stable (Amin and Thrift 2002, Crouch 2003). Appreciating the ephemerality of New York City or London pushes understandings of cityness in directions that reveal the actual ways that people experience these spaces in cities. As Amin and Thrift demonstrate, much of the work on this ephemerality by theorists such as Walther Benjamin and Michel de Certeau had severe methodological limitations: namely that these important works such as *The Practice of Everyday Life* (de Certeau 1984) and *The Arcades Project* (Benjamin 1999) were written by white men who experience the city in ways distinct from other urban subjects. Yet what writings on everyday life can offer is a space to explore the transience of urban life, as an analysis purely through political economy cannot account for rich textuality, ephemerality and creativity of the urban experience.

As in postcolonial studies more generally, there have been attempts to bridge the divide between development and postcolonial approaches to cities (Legg and McFarlane 2008). As Matthew Gandy illustrates in his discussion about water provision and infrastructure design in Mumbai, the failure of the utopian visions of rational water

supply (exemplified by a map of the Paris water supply system on display in a Mumbai office) can only be understood within the context of the development of the Indian state. The "social polarization and spatial fragmentation" that can be found in cities that have not conformed to western models, which require homogeneous space in which to implement universal sanitation and water delivery systems (Gandy 2008: 126). Understanding why these systems have failed compared to a western model requires an examination of development through a postcolonial lens. The ideological differences, the fiscal realities in the city and a less cohesive civil society create contexts where private actors have more power, rent-seeking government officials providing illegal connections, and the fiscal realities of the city and state create a very different urban environment where normative narratives of development do not fit.

Combining postcolonialism and development in the urban context can also move the actions of the marginalized outside of the power-resistance binary. Instead of seeing the actions of the subaltern as resisting their own economic marginalization, a perspective of postcolonial development provides these actors with more agency in moving forward with their own versions of development. This perspective switches the narrative of development to one created and appropriated by subalterns, from which government and elites can learn locally appropriate ways of 'doing development' (Yeboah 2006). This creates a variety of narratives as different actors appropriate power and perspectives in their orientation towards development. The lessons learned from these processes may hold the seeds of new ways of imagining the past, presents and futures of these cities that will move them beyond being technocratic objects of development towards contemporaneous modernities.

Comparative Urbanism

While this research is not comparative in itself, I draw from recent work seeking to understand how comparison between cities of different regional contexts might work. Some of the theoretical deliberations currently underway provide some of the underpinning of the approach to cities I take here. Work in postcolonial urban studies has focused on the search for a comparative urbanism where scholars can highlight urban lives and practices through an approach that is more balanced or where one place is not

privileged over another (Robinson 2006). While much of social science is comparative work, a truly comparative work distinguishes between behaviors, experiences and practices that are universal and those that are place or system specific (Ward 2010). Colin McFarlane (2010) stresses that comparativism is not just about a method of comparing one city to another, but recognizes how a way of thinking about cities informs urban theory. As urban scholars, we must recognize that there is "slippage" between any claims to 'the city' in the abstract and claims about *specific* cities (*ibid*: 726). Claims about the abstract 'city' silently refer to a specific city, such as London or New York, which has a form and function specific to a place and historical context that is rarely revealed or compared to the city in question. This slippage has been especially the case in recent work on world and global cities, where the theories, debates and methodologies that emerge in cities such as New York and London are used to frame data from the periphery (Connell 2007). This is not to suggest that work on global and world cities is without merit, but that influential work, such as that by Saskia Sassen (2001) and Peter Taylor (2004), represents but one way of categorizing cities. This focus on globalization, cities as nodes, global urban networks and economic power has revealed the dynamics of power in the world urban system, but it certainly privileges a specific urban form and function.

This focus on the epistemological framing of cities pushes urban scholars to question the theory culture in which they are embedded. Rather than relying on Marx or Harvey to help us decipher cities, we must recognize that even the most esteemed theorists are embedded in a specific history and place, and that the theories they constructed from their own observations might not fit another context (McFarlane 2010, Roy 2010). These theoretical approaches have important real-world impacts on the strategies utilized to 'fix' urban problems. Technical fixes to development problems have a universalistic appeal: what works in one place should work in another because the problem has been framed the same (Smith 2008). Instead, scholars and practitioners need to recognize that drawing cities through a narrow lens of comparison, and the fixes that emerge, are not translatable to every context. In reality, cities learn from each other, but often in ways described by Achilles Mbembe (2004) when talking about Johannesburg, South Africa. There, the colonial city saw itself as a European city in Africa, with little to

no imagination of their links to the country surrounding them. As Johannesburg has attempted to mimic European cities, it has in reality developed "an *aura* of its own… uniqueness" (*ibid*: 376, *itals original*). Mimicry does not always fail, and undoubtedly for those in a position to take advantage of this process, it presents a success in economic and/or political terms. It can, of course, further marginalize those who are not in a position to take advantage of changes. Comparative urban scholars need to be able to see that when cities attempt to mimic others, the question is not whether they succeed or fail, but how this changes or creates an urban experience.

The Subaltern Studies School is an example of a desire to question the universalizing tendencies of western theory (Spivak 1988, Chakrabarty 2000, Roy 2010a). Within comparative urban studies their application of Marxism to social struggles in the South Asian context revealed that the focus on capital, politics and nation did not fully explain the reality of what was happening in India (McFarlane 2010). The urban struggles in India seemed to resemble peasant insurgencies rather than a notion of an urban class consciousness or the emergence of an urban proletariat (Chakrabarty 2000). However, the desire to include cities from across regional contexts to urban theory is not about merely challenging dominant theories from Europe and North America, but to learn from these marginalized cities and understand how the lessons they reveal can be used to pose questions about cities in all regional contexts (Robinson 2002, Roy 2011a). Further, discussions around how to 'do comparison' properly highlights the importance of not merely comparing two discrete entities (cities), but to recognize how cities are implicated in each other's experiences (Ward 2010). The emphasis here is both on the experience of cities, but also on the importance of theorizing back, for example, examining the implications of an urban theory developed in Sub-Saharan Africa on the understanding of cities in North America.

With the effort in the last ten years to postcolonialize urban studies have come attempts to articulate just what theory that has emerged in cities of the global south would look like. In an important step forward in this effort, Ananya Roy critiques the limits of subaltern urbanism, while recognizing at length the importance of this approach, as being bound to spaces of poverty and marginalization (2011a). She argues that in reality

experiences and practices most closely aligned with the poor, such as informality or operating in semi-legal grey spaces, can be just as applicable to the entire city: it is not only the poor who depend on informality. Rather than seeing it as an incomplete transition from rural to urban, this perspective takes informality as a distinct mode of being urban (AlSayyad 2004).

The association of informality with marginalization of the poor emerged from neoliberal and structuralist approaches to what is seen as the legitimate economic function (legal, regulated, taxed, etc.). A structuralist approach to informality emphasizes how employers reduce the costs of employment by paying 'under the table' or are excluded through a process of capitalist development that requires a reserve army of labor (Williams 2010). A neoliberal view sees informality as a voluntary exit rather than involuntary exclusion, where workers break free from the chains of the state to pursue truly free-market employment (*ibid*). A post-structuralist perspective moves past a simple cost-benefit rationale of voluntary removal from the economy, but also focuses on social factors that influence people's decisions. There are many motivations, benefits and disadvantages that compel someone to engage in informal economic activities (Williams and Round 2008). This complicates any attempt to valorize either informality or formality, and compels us to move past simplistic binaries. Studies have illustrated that both the poor and the wealthy are implicated in informal activities (Williams and Round 2008). While the poor may be compelled to work in the informal sector from a lack of choice, the wealthy may do so for increased benefits, but may also lack the choices they want in the city. In this way, informality reveals not merely economic activity, but the organization of social and economic power (Roy 2010b). This theme will be explored in greater depth in Chapter V.

For the purposes of this project, what a nuanced understanding of informality brings is the ability to frame informal activities within a gradation of meanings, purposes and practices. Too often informal activities are framed politically and economically as operating within large structures of power, which tends to reduce their experience to resistance, coping or empowerment (Whitson 2007, Round, Williams and Rodgers 2008, Musoni 2010). In other words, actions are always in relation to larger structures. This

approach to informality is primarily because of the theoretical lens that places poor actors within political and economic structures that allow for little room in which to maneuver. As such, any action that people take can be contrived as resistance, whether overt or covert. Further, the actions of powerful interests operating through informal structures are not seen as resistance. Indeed, powerful actors can instead manipulate informal mechanisms to integrate into formal systems. Of course, there are not just rich and poor informal actors, but a continuum between them that complicates efforts to analyze them as distinct categories. This suggests that we need a more nuanced approach to understanding informality and the way it operates in cities.

Another categorization of cities that has been problematized, yet also provides the potential to theorize the city is the concept of periphery (Simone 2010, Roy 2011a). Periphery here is broadened to incorporate the peripheries of analysis, such as cities that are left on the edges of the construction of theory and of the practices that are not brought into the analysis of cities (Simone 2010). In this vein, AbdouMaliq Simone has written extensively on daily urban life in the cities of Africa to explore the ephemerality, transitoriness and networked relations in cities that are often beyond the purview of urban theory as it is more generally applied in the global south (for a few examples see 2004, 2005, 2007, 2010). His most recent writing on the periphery frames the concept not as fixed places, but more broadly as experiences and practices that are always potentially destabilizing of the center, as a buffer to the center where hybrid spaces develop and where different ways of doing things emerge (2010: 40-41). This makes the periphery a potential space for the generation of new urban ideas, practices and experiences, even though it is precisely because of their hybridity, or difference from the norm, that these spaces are vilified and marginalized. Simone utilizes movement, flow and intersection to explore this theme, which I expand upon in Chapter VI.

Key to understanding Simone's version of the city is the concept of cityness, defined at the beginning of this chapter. Cityness is a way of framing the constant change, adaptation, adoption and emerging inhabitations of the city that elude control by authorities. Beyond the structures of formal control, people operate in the periphery and are able to observe their surroundings for information, potential favors, tips and

opportunities. They engage in moments of change, adaptation and anticipation, and are able to negotiate quickly to take advantage of a situation for their own advantage. His framing of cities should not be seen as cut-throat or an all-for-one selfish strategy, but as one of calculation of the potential impacts and influences that will give them a more secure position from which to operate (Simone 2010: 26-27). This approach to cities highlights the need to better-understand the economic *and* social relationships between people and places that are constantly negotiated in the absence of any large structures to provide security. Importantly, however, the periphery is not exclusive to the subaltern or the most marginalized in cities. Everyone in the city at some point operates beyond formal structures of control, whether it is jaywalking, doing a street performance, begging, scalping tickets, loitering or buying vegetables from an illegal urban farm. As the opening quote to this chapter suggests, moving beyond a developmentalist or economistic approach to cities a necessary step to understanding what makes the urban experiences and how people actually *live* in cities. This approach can help scholars and the people they work with to explore different moments that not only explain the urban process, but create new sites of understanding or intervention that are recognized by the people who actually experience them on a daily basis. Simone (2010) calls these moments platforms of engagement where an anticipatory urban politics is possible, a way of reimagining the city that better-represents through both the built environment and policies, the realities of urban in a specific context.

Moving Forward

The purpose of examining informality and the periphery is not merely to itemize and categorize practices as those operating in the informal sector or in peripheral spaces. This dissertation takes these terms to be heuristic devices that highlight the complexity of actions that are often taken for granted as being the territories of the marginalized. The remainder of this dissertation explores these concepts to question the role of practices in making cities, specifically the practices and cities beyond the normative representations of cities that remain powerful emblems of success and centers of measured economic activity.

In the chapters that follow I employ these devices to provide a way of framing urban open space crop cultivation, inclusive of the social and material practices that generate and sustain these spaces, that reworks definitions of proper urban practice.

Before arriving at the empirics of this research, I dedicate a chapter to the methodological underpinnings of this project. I do this with a sensitivity to what a postcolonial methodology might look like, especially in a regional and cultural context quite distinct from my own. The methods outlined in the following chapter were designed to gather a variety of perspectives from farmers and government workers, but I also highlight issues that came up in the field, such as the role of a translator or the types of data that we collect by reading people, understanding their happiness, sadness, pride and frustrations, that they may not express with words. I spend this time on methods in order to examine what it means to examine a city from a perspective that highlights movement, change, ephemerality and how people embody material practices and space. It is to this discussion that I now turn.

CHAPTER III

METHODOLOGY

Farming in the city is more than just digging, planting and harvesting. It is inclusive of social connections on and beyond the farm, interacting with people who move through these spaces and an embodied experience that constitutes an identity as an urban farmer, which will also influence other roles and actions in the city. My observations of farms demonstrated the importance of connections and other spaces in constituting farms as distinct urban spaces that influenced and were influenced by people's experiences and roles, the physical manifestation of agriculture in the city's built-up environment and the ecologies of the city. The methods described in this chapter are designed to capture the material practices involved in farming and how these relate to the city and to people's experiences of it as they move through it.

The material practices of farming includes not only the digging, planting and harvesting, but also the embodied or less tangible emotions and meanings that constitute the whole experience of farming. Indeed, to engage with and understand the material, we need to understand the immaterial and how it influences people's actions and experiences within, and influences the creation of, the complex spatialities of cities (Latham and McCormick 2004). The practice of farming makes people proud, happy, frustrated and determined. Some days work is tougher than others, and sometimes it is a respite from other problems farmers are facing. Some methods of farming are meant to contribute to the social structure of either the farming group or the community surrounding the area. While theft is frowned upon, many farmers say that it happens, and sometimes people need extra help and so if this means that farmers lose some income, it goes to a better cause. Other farmers will chase down thieves and take them to the police. Some farmers are satisfied with farming, and only want more land (or more secure land) on which to grow crops. Others, though a minority, hate it and wish they could do anything else. The purpose of exploring the multifaceted materialities is to understand the complex dynamics of urban spatiality, how the city is used and understood. It is at this point that a new type of urban politics can be explored, where new discourses of cities can be brought into being that facilitates a move towards a more socially just city.

Recent theoretical developments in geography that emphasize practice, performance and everyday-ness have been constrained by the limited toolbox of methods that human geographers traditionally employ (Crang 2003, Latham 2003). A perusal of any qualitative methods book will illustrate that the semi-structured interview is the dominant method to collect data. While certainly important, interviews might be less effective at incorporating more nuanced purposes, unintentional motivations and the meanings behinds people's actions (Dirksmeier and Helbrecht 2008). This project seeks to build on emerging approaches to cities within a postcolonial framework. Postcolonial urban scholars are theorizing cities to reflect the conditions of cities in different regional contexts, often focusing on the ephemeral, the informal, and hybridity as ways to examine urban space and practice (Roy 2006, 2011, Immerwahr 2007, McFarlane 2010, Simone 2010). To understand these processes, scholars utilize methodologies that foreground the construction of knowledge (McEwan 2009) and focus on the various connections and negotiations, both material and ephemeral, that are a part of everyday life. Importantly, within this approach, I emphasize that while I used urban farms as a lens through which to understand experience, I was as much interested in what happened off the farm as on so as to not over-determine people as ‘urban farmers.’ Each person has multiple roles they fulfill (parents, taxi drivers, siblings, elder) and my intention was to understand how being an urban farmers influenced those roles and subsequently movements throughout the city, and in turn, how those experiences influence farms. Methodologically speaking this calls for modes of engagement designed reveal the multi-faceted processes at work in cities (Lees 2003, Fraser and Weninger 2008). This could include engaging in activism, visual research methods, psychoanalytical techniques, working for an NGO or becoming a stakeholder in a conflict. These are all strategies that can be utilized by researchers to reveal the diverse urban spatial narratives that are often overlooked.

This project employed a qualitative approach that utilized three primary techniques: Interviews, mental mapping and photo voice, each discussed in detail below. Farmers were the primary subjects of this project as the focus was on their daily urban experience. I conducted eighty-two interviews with open space farmers, collected twenty-five mental maps from within those interviews and conducted a photo voice project with

twenty farmers drawn from four farms that resulted in over 675 photos taken by farmers, many with captions. I also interviewed five urban planners, eleven agriculture extension agents in the city and two officials from the Ministry of Lands and Human Settlements Development. While in Dar es Salaam I was affiliated with a Canadian NGO called Sustainable Cities PLUS Network that was working on several projects in the city; one of which was land tenure regularization for urban farmers. In my work with them, I attended meetings, workshops and other events that included many of these planners and agriculture agents and sometimes farmers, allowing me to see how these groups interacted with each other and articulated their positions in the context of discussions between the different stakeholders.

Beyond a list of my methods, however, this chapter has two other important aims. First is to highlight the link between my methodology and the epistemological framework I utilized in this study. The methods employed here are meant to look past (though not to dismiss) the structural forces in which people operate and to examine daily material practices for how they contribute to the complex spatialities of the city. I designed methods to move discursively past urban crop cultivation as a mechanism of coping, survival or even resistance, giving farmers more agency in defining themselves and their daily lives to me. This type of analysis required creating ways to gain insight into their daily lives while reducing the distraction of a researcher's presence. The second purpose of this chapter is to provide insight into the very real issues of conducting research in another cultural setting. One aspects of this is a discussion on issues of translation, how my identities and relative power was embedded in social situations; and the logistics of implementing the various methods described below within the constraints of the research setting.

Positionality and Reflexivity

As a white researcher from the United States working with a marginalized group in Tanzania, I was very aware of how my positionality, stemming from my race, nationality, education and gender, influenced the ways I interacted with farmers and the types of information I gathered. Not wanting to repeat accounts of urban processes that reify the marginalization of farmers, my goal for this entire project was to be consciously

reflexive in my work. I employ the term reflexive to mean "confronting or coming to terms with researchers' own subjectivities in relation to what and whom they are researching" (Fraser and Weninger 2008: 5).Throughout this project, I consistently confronted my own ideas about who farmers were and what they were doing to move past seeing them as marginalized or impoverished victims. While I went into this project determined to see past the construction of open space farmers as poor and marginalized, I was surprised that when I arrived I had to continually remind myself that these were not just poor marginalized people. Seeing farmers working their plots in tattered, old clothes and bare feet provided a contrast to the reality that these were people from a wide range of incomes groups and life experiences.

In order to highlight my own positionality in this project, I have situated myself in the first person in this text, and where appropriate, the first person plural to indicate activities that included my research assistant, Ummy. Emphasizing my voice in this project serves a few specific goals, including: to make my standpoint, and the limits thereof, clear in this text; to provide room to highlight other voices— especially those of the most marginalized groups involved in this project— by not speaking passively, which can potentially blur the distinction between the voices of the researcher and the respondents; to avoid objectifying the various voices in this study; and to involve the audience emotionally as well as intellectually (Sprague 2005). I stress these points not because inserting researchers in their texts is a new idea in the social science— indeed feminist scholarship has advocated this practice for some time now. Instead it is to contribute to more appropriate discursive structures for scholarly reflection (Pryke 2003) that situate research within the context of a real-world connection to social injustice. By writing in the first person, I hope that the reader can have some experience with the people I encountered in this process and sense the importance of the issues presented here in the daily experiences of the farmers of Dar es Salaam.

My positionality also influenced my interactions with and through the NGO Sustainable Cities, which I will further introduce below. I facilitated communication between farmers and the NGO, bringing new groups into the process so that their voices could be heard. The perspective gained by my direct involvement in these discussions

provided me with a more nuanced insight into how planning and decision-making processes worked at various scales. More important for my own research philosophy, however, is that I was able to facilitate the pathways for a few of the farming groups that might have otherwise have remained unheard. I had more intimate involvement on the farms than the NGO workers, and due to my interviews, mental maps, photo voice project and time otherwise spent on farms, I earned the farmers' trust, and on occasion I was asked to informally communicate information to the NGO. Often the NGO workers assumed that farmers would reveal everything in an up-front manner when they were face to face with the volunteers and project managers, but local social dynamics and power relations often silenced the farmers. I do not claim that I spoke for the farmers, but instead would pass appropriate information informally to the NGO in order that they might better understand the challenges that farmers face.

I was aware that I needed to design a project that would allow me to understand the ways that farmers were embedded in larger social, economic and political structures to examine the situatedness of urban agriculture in the city physically and socially (Fine and Weis 2005). I also needed, however, ways of examining everyday life that moved beyond the types of questions I might ask in an interview— things that I might not be aware of that the farmers could reveal through a variety of methods. The methods outlined below were designed with these issues in mind. Working in a different cultural context provided many challenges to all of the methods outlined below, but by using different qualitative methods and having conversations with other Tanzanians— especially my research assistant— I was able to encapsulate much of the daily experience of farmers.

Background to the Project

In the summer of 2008 I travelled to Dar es Salaam for six weeks. While I went there to take part in a six-week Swahili course to build upon my courses at the University of Oregon, the main purpose was to observe urban agriculture in its various forms and gain a more realistic understanding of how a project could be designed. I was able to make contacts at the University of Dar es Salaam through the Department of Kiswahili and Department of Geography, and traveled around the city with other students, both American and Tanzanian. I saw urban farms everywhere: large farms on the side of a

busy road, smaller ones in interstitial spaces between industrial lots, and along roadsides. The activities taking place on farms differed dramatically from what I had observed in the United States: people were cooking and eating in the shade of trees, washing their clothes in waterways that run through farms, younger children were playing, older children working, men were playing games like checkers (using different colored bottle caps in the absence of the actual board pieces) and everywhere people were gathered in social groups talking or working.

The physical layout was also different from what I had seen in the U.S. Urban open space farms in Dar es Salaam are dominated by leafy green vegetables, with the occasional tomato, eggplant, okra or pepper plants. Farmers sold the greens either to individual sellers who come to a close farm to buy food for that day, or they were harvesting entire plots for middlemen or traders to take to the market. I also saw women with colorful plastic basins at the farms who would buy around twenty bunches of vegetables to take to the streets and sell door to door. The family I stayed with on this initial trip often bought their vegetables from a woman who brought them from a nearby open space farm.

I had informal conversations with the woman who sold vegetables to my host family and a few other people involved in urban agriculture. I found it difficult to discuss daily mundane practices with them, as they seemed to think it was uninteresting, or unimportant to their more general problems: land tenure, access to water, access to markets, and negative public attitudes being the most cited. It also became clear to me that a history of being research subjects led people to want to express dissatisfaction and need in purely economic terms. A few of the farms seemed to be project sites for courses at the University of Dar es Salaam, which are used to conduct economic surveys and soil sampling, though the farmers tend to be bitter that nothing comes of it except people blaming them for having contaminated soils. Many expressed frustration that they had answered many questionnaires over the years and seen no improvements in their situations no matter how often they told about their problems of land and income. It was also difficult for people to express a real sense of joy, sorrow, frustration, happiness with daily mundane practices as they talked to a white outsider who obviously had very little

in common with them. While initially frustrating, this was an important lesson for me methodologically: I realized I needed different ways of exploring daily practice in a population unlikely to find a conversation with me normal and mundane. As such I needed a methodology that could incorporate those needs and frustrations, but also look beyond them to the diversity of practices, patterns and uses of space that cannot be fit into clearly defined categories or questions. I also needed to get out of the way and allow farmers to define these practices and spaces themselves. It is with these thoughts in mind that I designed the research methodology employed in this project outlined below.

When I returned to Dar es Salaam in April of 2010 for seven months, I became affiliated with a non-governmental organization (NGO) from Canada called Sustainable Cities PLUS Network which is primarily funded through the Canadian International Development Agency (CIDA). This small office consisted of a local project manager, a local accounts manager and two Canadian interns, all working on programs to find innovative solutions to "catalyze action on urban sustainability" through a network of over forty cities throughout the world (sustainablecities.net). The network of cities provides urban laboratories within which to practice and improve urban conditions. In Dar es Salaam, projects included tourism, walkability, urban composting, and land tenure regularization for informal settlements and open space farmers. I was able to collaborate with the interns working on urban agriculture, sharing contacts and information for our mutual benefit. Sustainable Cities is an NGO operating within a standard development model, using cities as labs in which to test ideas that can be applied elsewhere and examining practices through a lens that assumes all cities operate in similar ways. I became affiliated with this group partly because they offered to help me make the connections I needed, which greatly facilitated this project. Having an official affiliation increased my access to people who probably otherwise would not have talked to me. In my initial discussions with the NGO, however, I also began to realize that I could provide a them with a different perspective, giving them potentially more insight into and nuance on what was really happening on farms. This was an opportunity for me to see from the inside how a group took information from a city and perceived it through a lens of western urbanism. I also witnessed the employees' frustrations of this process because no one seemed satisfied that it was working for either the city or the farmers.

With regards to their involvement in urban agriculture, the NGO primarily worked with planners, agriculture agents and ministry officials to facilitate discussions on how best to set aside land for urban agriculture. In 2011 the Dar es Salaam City Council began working on a new master plan[1] (the first in over thirty years), and the NGO used this process as an entry point to find places to properly zone for urban farming. Farmers were involved in the initial phases of this process, and the NGO took the time to ask farmers about primary issues they faced. I worked closely with the NGO through their various activities, which provided me with insights into the dirty details of land tenure regularization in the city. It also starkly illustrated the prevalence of a western-style planning framework in understanding how a city should work. I talked to planners and agriculture agents on many occasions through this process and saw how a static understanding of urban space is realized in zoning and tenure regularization. It also showed me how farmers' uses of space and daily practice were incorporated (or, as was more often the case, not included) into this process over time.

Qualitative Methods

Detailed explanations of the methods utilized in this study are outlined below. Prior to conducting research in Tanzania, the government requires that all foreigners obtain a research permit from the Tanzanian Commission on Science and Technology (COSTECH)— a process that takes about six months. This process allows the government to keep track of all research being conducted in the country and provides a clearing house for that work. Upon receiving my permit (Appendix A), I was assigned to collaborate with Dr. Aldo Lupala, a Professor Urban Planning at Ardhi University. He was eager to help and we had extensive discussions concerning the details on local approaches and problems of planning in the city.

One major obstacle was getting myself on the farms is that in Tanzania you must go through formal connections, to conduct a project such as this. Farmers were unlikely

[1] When I first arrived, the processes was due to start in August of 2010, but due to elections, it was put off until November, when it was then postponed again. The process got underway in mid-2011 and will continue for a year or two. It is a nebulous process and few seem to know how long it was take and what will be involved. Hardly surprising given it is the first Master Plan done in over thirty years. The changes to the city are monumental in that time.

to trust my motives as an outsider and they would have felt like they could get into trouble if they started talking to me without permission. Utilizing a contact within the geography department at the University of Oregon, I was quickly able to meet the director of research in the Regional Commissioner's office, the highest office in the region. He provided me with a letter of introduction to the planning and agriculture offices in the three districts of the city: Kinondoni, Ilala and Temeke. Once I had these letters I could go to offices and request interviews with agents. My association with Sustainable Cities also gave me quicker access to these offices. Working in tandem with the volunteers at the NGO, we were able to have agriculture extension agents take us to various open space farms in the city, introduce us to the leaders of the farming groups and I could go back with my translator at a later date to conduct interviews.[2]

I worked with my translator and the leaders of the individual groups to set up times to come back to the farms and interview two or three farmers each day. My ability to speak some Swahili to convey the project goals and methods proved to be important in gaining the trust of the farmers. My research assistant, Ummy, said the farmers respected that an outsider would learn the language and that it made more farmers willing to speak to me even though the actual interview was conducted primarily through a translator. These farmers seemed tired of 'being studied' and the style of my interviews, while unfamiliar, gave them the opportunity to express this. All of this was important in being able to establish a rapport with the farmers that allowed me to spend a significant amount of time on these farms. This meant that my presence was less disruptive over time and more normal activities would occur as people became less distracted by my presence. Only in a few instances were farmers hostile, questioning my intentions, or upset that I was not giving them money or supplies. The task often fell to the translator to rearticulate the project and our intentions. On two occasions we chose to leave and come back another time when the group leader, who at every farm was incredibly helpful in assisting us in the project, would be present. We worked hard to avoid any potential problems or

[2] During these trips the NGO was soliciting proposals for 'innovative solutions to urban problems'. They worked with the farmers to create proposals over two visits. We were presented together to the farmers, but each of us presented our projects separately and I worked to make it clear that no funding would come from my project.

conflicts. Farmers trusted Ummy, and generally if there was confusion or annoyance with us, she was able to re-explain the project to the satisfaction of the farmers. From what we could tell, these issues seemed to be a legacy of researchers who come to the arm, gather information and leave, which irritates the farmers. Over time Ummy and I worked hard to include these farmers in the trainings and meetings with the NGO in order that we could provide them with some tangible benefits of working with us.

The agriculture extension agents took me to eleven open space farms in the city, and we eventually chose nine groups that I would work with. These were chosen in order to attain a diversity of farm and group sizes, group cohesion, and locations in the city. One of the most important factors, of course, was the willingness of the farmers to work with me. Overall, the farmers were very hospitable and gracious hosts, and they introduced me to as many people as would work with me. My initial interactions with them were to set up interviews. Over time Ummy and I became regular visitors to most of the farms and we spent many hours informally conversing with farmers, their friends, customers and vendors who wandered through the farms.

My research is motivated by a strong desire to be involved with the farmers and work for their inclusion into urban life, and I was fortunate to become involved in projects affiliated with the NGO. I assisted in facilitating meetings between farmers and public officials. I also worked to help put on a training workshop for farmers where extension agents came in to teach about, among other things, soil conservation, pesticide use, economics and composting. The last day of this workshop we brought in municipal extension agents and planners to discuss ongoing plans to set aside land for urban agriculture. This was the first opportunity farmers to be able to stand together and articulate their concerns and ideas about what they do, their importance in the city and the problems they face. It was a moving day with many passionate speeches by farmers, and it was obvious that the planners and extension agents were listening. This entire meeting was in Swahili, but I was able to follow most of it, with gaps (especially in the speeches by farmers) filled in by Ummy. During this final day, I gave a presentation showing how various cities around the world incorporated urban agriculture into urban planning. I did this to show planners that there were various ways of situating this practice in a socially

just way and to show farmers that there are millions of people around the world who have similar problems and are finding solutions. I was able to give this twenty minute presentation entirely in Swahili[3] and it was intended to set the tone for the discussions of the day. This presentation served as a springboard for later discussions with both farmers and public officials.

Archival research is obviously important in a project such as this. Many documents from the Tanzanian government are available online, but many more must be obtained in person. I obtained copies of urban and agricultural policies at the national and city-scale, most of which I scanned into electronic format as I usually had to share the information with the NGO. The Ministry of Agriculture has one of the best government websites in Tanzania, as most external funding goes to this sector, and I was able to obtain several documents relating to land and agriculture policy and funding priorities. Finally, within a week of arriving in Tanzania, I was able to meet and work with GIS technicians and cartographers at the University of Dar es Salaam. I obtained high resolution aerial photographs of the city and GIS layers for political boundaries, water features and roads. I have since digitized the open space farms in the city and made maps to illustrate how embedded these farms are in the urban built-up environment. [4] Substantial work was needed to project the aerial photos properly, a task for which I received technical assistance when I returned to Oregon. Several of the data layers I received were insufficient or outdated. I have since digitized road and water features from the air photos and Bing maps to make separate and more up-to-date layers.

[3] While I have basic conversation skills in Swahili, I could not have made this presentation without extensive help from Ummy. She helped me make decisions on appropriate word choices, and assisted me in framing the presentation in a way that did not offend any parties, though also showing my open support of the farmers. The presentation was well-received, but I think part of that is because people, especially the farmers who do not speak English, were excited that I took the time to do it in Swahili.

[4] While I have a map of open space farms in the city from this data (presented in chapter four), I will not identify the farms I worked with on that map because they are technically illegal, despite being known by government officials.

Participant Observation

Participant observation provides the basis for any qualitative inquiry, even if that study is based on other methods such as interviewing (Angrosino 2005). This is generally the first experience the researcher has in the field, and it allows that person to get to know a setting they may have not known previously (Emerson, Fretz and Shaw 1995). Researchers must be aware of daily routines and practices that provide a context for their work and a foundation for asking questions or engaging in other methods. An ethnographic approach requires researchers to spend time with their research subjects, observing their everyday routines and generating data through interactions (Whatmore 2003). There are many variations on participant observation, however, as even the very phrase can be misleading as to what it really entails. The activity can describe anything from sitting off to the side of activities and observing (and probably recording) to working with research subjects in their daily activities (Emerson, Fretz and Shaw 1995). Certainly the tactic taken depends on the local situation, the comfort of the researcher and the willingness of the host community or group to accept them.

As most of my first meetings with farmers were rather formal, being introduced to them through a government agent, my initial visits to farms were always a flurry of activity, leaving me little opportunity to observe daily practice. Subsequent visits proved easier as my presence became less of a disturbance. Over time as we noticed various patterns or practices that we would incorporate into our interview questions. I made notes of my observations on each visit while we waited for farmers, between interviews or when we were just visiting. Conducting research on community groups in an urban context where people lived in separate locations made participant observation more difficult. I could not live in the community as the community itself did not live there. Further, while these were social groups, the farms were also work spaces and I needed to be sensitive to not take up too much of their time. We had to go when farmers would be resting, usually during the hottest parts of the day between noon and 3:00, so as not to disrupt their livelihood activities. Because we could not live proximate to the farmers, we had to spend more time travelling around the city. These are all barriers to participant observation, but ones that an urban cultural researcher must learn to accommodate.

Semi-Structured Interviews

To examine multiple motivations and influences of farming on urban daily life, I utilized in-depth interviews that were responsive and dynamic, and which focused on establishing relationships based on mutual trust (Rubin and Rubin 2005). Farmers I encountered were used to 'being studied' by researchers from local and international universities and agencies. In their previous encounters with researchers, they were asked for their demographic background and economic information on farming practices—questions that were usually asked from a standardized questionnaire that researchers had in their hands. This project, however, relied on my ability to encourage farmers to talk more about daily practice, experiences in the city, ideas regarding urban development and the role of agriculture within that, and what they enjoyed and disliked about being an urban farmer.

I designed the interviews to get farmers talking and telling their stories, while also getting background information. Interviews began with me providing an introduction of myself, Ummy and my project (in Swahili), and then Ummy would act as translator for the rest of the interview, which generally moved through five phases:

1. I asked the farmers to provide a narrative of their life that focused their backgrounds, their experiences with farming, other jobs they had before they turned to farming in the city, the pressures that led them to make the decision to farm, how they gained access to land, and the social relationships they created on the way that allowed them to do all of this. Opening with this theme provided context for all that followed, and it seemed to be the best way for people to get used to telling their story rather than answering questions.
2. This often naturally led to the second phase, which focused more on background details: what farmers grow, how they sell it, their income, what other contribution to household income they have, labor issues and how they access inputs. Depending on the interviewee, this could fall back into a questionnaire-style interview; however, this information is necessary to get basic information about the practice of farming.

3. We would then turn to the typical day of a farmer. This question usually got the farmers back into a story-telling mode. They focused on when they woke up, other duties they needed to do before coming to the farm, where they lived in relation to their farm and how that influenced their daily activities, the main chores that took up their day and the patterns between days (e.g. more days spent watering in the dry season, or in the wet season, they had less work and fewer customers), when and how they relaxed or took breaks, when they would be finished and what they did in their time outside of farming.
4. We used the discussion about the typical day to turn to how the farmers work together as a community on the farm and how the influence of off-farm activities influenced daily life as a farmer and vice-versa. Farms varied in their group cohesion and this phase of the interviews focused on how groups function, what kinds of help to they provide (or not) to each other. We also queried how families and other people in their lives and just people who walked through the farms were implicated in or by their role as a farmer in the city. These social networks are vital in a city such as Dar es Salaam, and the farms obviously provided a source of cohesion and stability.
5. The final part of the interview focused on larger conceptual issues. Here we often got into discussions of how agriculture in the city is different than the village, the role of agriculture in the city and what a city is supposed to look like. Farmers had strong opinions about many of these issues and this was often the most engaging part of the interview. I also asked farmers to discuss what they most appreciate and dislike about being an urban farmer.

In practice, interviews did not follow this typical outline, and there was overlap between issues and themes. This allowed me to explore some themes in different ways, follow tangents and novel answers, and we need flexibility to follow leads to other areas of interest for both myself and the farmers. Farmers were intrigued by the idea of urban farming in the United States and thought it was funny that middle class people farm in cities for pleasure. This invariably led to a discussion of rules and regulations that exist in the US that makes farming safer for farmers, consumers and the environment, but at the same time influence what and how much people can grow. Many farmers focused on the

problems they face at the farm, especially with regard to land tenure and water availability and quality. Many farmers were unsure why I wanted the kind of information I was asking for, and I had to rely on Ummy to articulate the project in a way they could understand (see discussion of translating issues below). This often lessened farmers' suspicion of my intentions, and we were able to continue with relative ease. Interviews lasted between thirty to ninety minutes and were usually conducted with one farmer at a time. On a few occasions, however, another farmer would join in the conversation while they took a break from their work. This was not unwelcome as sometimes they would build upon each other's ideas. However, we decided to keep the interviews to one person in general in order that one farmer did not speak for, or over, another, recognizing the potentially uneven dynamics between gender and age groups.

Interviews took place on the farms, usually in the shade of a tree where farmers gathered to rest during the warmest parts of the day. This provided me with an opportunity to observe and informally talk to farmers between interviews. During interviews I would observe other activities taking place on the farm, such as when farmers called the market to see if vendors needed more produce, seed sellers from a different district walking through the farm to sell seeds and travelling vendors who offer everything from newspapers to shaves.

The demographics of the farmers seemed to mirror that of previous studies in the 1990s. While most of the eighty-two farmers I interviewed were men, abut thirty-five percent of the participants were women. They came from all incomes, though most lived in informal settlements (hardly surprising when about eighty percent of the population of the city does so). All of the farmers but one has completed primary school and fifteen had some years of secondary school. About twenty percent had attended a trade school to learn mechanical skills, such as welding, auto repair or leather working. Others moonlighted as taxi drivers or guards. All except two were born in villages. This is not surprising for two reasons. First, most people living in the city return home to their villages to give birth and often the child will grow up there for a few years. More common with these farmers, however, they had migrated to the city looking for work, and most of Dar es Salaam's population growth has occurred in the last twenty years.

Finally some farmers make a fairly lucrative living, several hundred dollars a month cultivating twenty to thirty plots and growing high-value vegetables such as eggplant or tomatoes, while others barely scrape by growing one or two plots of *mchicha*. Hence, the population of farmers I interviewed had very diverse socio-economic backgrounds.

I also interviewed agriculture extension agents, planners and an official from the Ministry of Lands and Human Settlement Development (which I will refer to hereafter as the Ministry of Lands). I talked to the planners and agriculture agents many times over the course of my research trip. Working with the NGO provided me with the opportunity to attend meetings and workshops where planners and extension agents were present. These meetings and interviews were all conducted in English, as secondary and tertiary education in Tanzania are in the colonial language, and most civil servants at these levels are required to have college degrees. Interviews with planners and the ministry official focused on the idea of urban agriculture and its appropriateness in cities, obstacles to setting aside land and how the acceptance of the practice has changed over time. During my stay in Dar es Salaam media attention was growing over fears of polluted water contaminating the vegetables being grown at one of the farming sites, leading to generalized fears of urban agriculture. We discussed other issues that affect urban farms such as unregulated industry and the competition for the value of land.

Agriculture extension agents in a city may seem contradictory in a place where there is no legal area for urban farming. Many of the agriculture agents are involved more with livestock, especially vaccinations for urban and peri-urban cattle. There are a few agents devoted to urban agriculture, though I believe this only occurred after the NGO began to show interest in the issue.[5] In some cases they tested water at farms, or told farmers that they could not farm anymore, though their decrees were rarely adhered to. However, they knew where most of the open space farms were and a few agents had worked with them in some capacity. My discussions with the agents centered on the challenges farmers face and the capacity of the extension agents to do anything about those challenges. We also discussed issues of land tenure and zoning from the agriculture

[5] Most of the farms I went to had little to no contact with agriculture agents prior to our introduction to the farmers, though there were a couple of exceptions.

agents' perspectives. In one case, an agriculture agent helped maintain connections to land-owners and facilitated communication between parties, and we would discuss how those relationships were set up. Finally, we discussed farming practices and extension activities, such as training on how to make and use pesticides, and how effective extension agents felt those practices were.

Looking Awry

More informal interactions surrounding interviews also allowed for 'looking awry,' a concept that refers to asking questions or observing participants when they were less guarded while working or relaxing with others (Proudfoot 2010). This technique draws from psychoanalytic theory and examines how identity and meaning are expressed not just through words, but with other forms of expression (Thomas 2007). For example, in his research on how the emotional geographies of nationalism were expressed during the 2006 FIFA World Cup, in Vancouver, Canada, Jesse Proudfoot (2010) examines why football/ soccer fans have difficulty expressing enjoyment in an interview setting. He shows how questions about the way people consciously identify (as football fans) receive pleasant responses and those that confront how those identities operate (as sources of nationalism, as sources of enjoyment) through question such as 'why do you associate football with being Italian?' receive more hostile or impatient responses (*ibid*: 515). Fans seemed unable or unwilling to make conscious the unconscious, imaginary supports that create our identity (*ibid*: 514-515). Instead, interviews need to focus on the objects or the ritual rather than confront the discomfort of exposing the emotion or senses of identity wrapped up in that ritual. This happens because directly confronting the emotion exposes a series of banal rituals (such as wearing certain clothes, face paint, buying tickets) that make the emotion or sense of identity seem less extraordinary. While it is true that interviews can get people to reflect on their own motivations and feelings, looking awry provides a framework for, or at least a way of observing and understanding, embodied emotion.

I certainly needed to "listen for the unconscious" during interviews and other interactions and observations (Thomas 2007: 540). This required close attention to farmers' activities during multiple site visits and having discussions with my Ummy

about the context of farmers' words and actions. As Proudfoot argues, questions about emotion (enjoyment, love, despair, frustration) should focus on the ritual rather than the emotion, and importantly, a researcher must pay attention to the context of the language used and expressions to fully understand how they internalize the meaning of that object. While unaware of this framework at the time of this research, Ummy and I discussed the issue of embodied emotions prior to interviewing. During interviews she was able to read the farmers expressions and understand their language to convey to me some of the emotionality involved in farming. It was through these ways of listening that we began to see how important farming was to a distinctly urban identity and the true joy, pride and sorrow embodied within the practice. The faces of farmers lit up or their tone of voice got warmer. Combined with their words, these provided some of the most useful insights into identity and place in the city.

A Note on Translation Issues

I would like to make a brief note here about issues of translation. Often in qualitative research the act of translation is mentioned only in passing. When scholars provide English quotes from research in another language, the lack of transparency into the translation process can remove context and nuance. The act of translation is instead often treated as a technical problem that needs to be overcome, and a translator becomes a neutral fix to this problem. This process ignores, however, the reality that translators are intricately involved in the process of knowledge production (Temple and Young 2004). A direct translation from Swahili to English is not always illustrative of the meaning the interviewee intended to produce, and a translator must be able to provide context to ensure that the meaning of the words is communicated. Power dynamics between the researcher and the interpreter can also influence the translation process. The relationship between these actors must be reciprocal and defined by a communication style that allows for mutual understanding of project goals and the locally embedded realities being expressed. This strengthens the rigor of the project and acknowledges the role of the translator as a collaborator in the research process (Larkin, de Casterlé and Schotsmans 2007). Researchers utilizing translators in cross-cultural research must confront the reality that a translator is often in a hybrid role, translating and making assumptions about

the equivalence of words and meaning, making her an analyst and broker between cultures (Temple and Young 2004).

At the time of this fieldwork I had a moderate proficiency in Swahili, a language spoken throughout the country. However, most people who live in Dar es Salaam were not born there and accents in Swahili are diverse and strong. I therefore needed to use an interpreter for the interviews with farmers. Through contacts at the Department of Kiswahili at the University of Dar es Salaam I searched for someone who was fluent in both Swahili and English. It became quickly clear, however, that most of the suggestions that people had were either busy graduate students or people who would be much too costly for this project.[6] I also wanted to work with a woman, mainly due to the gender dynamics in Tanzania. I had been told that women farmers might be more hesitant to open up to a male translator. Further, a man travelling with me around the city might expose both of us to inappropriate gossip not only among the farmers, but other people we encountered. As I had no office, I would need to have meetings with my translator in my apartment. It would have been extremely inappropriate to have a male research assistant in that situation.

The translator I eventually chose was a young Tanzanian woman who is fluent in English as well as Swahili. What I had not realized I would need, however, was someone who was able to 'read' situations and people. I rely on this skill myself, but this was impossible for me in a different cultural context. Ummy had this skill and we both relied on it to make decisions in the field on who to ask for interviews, whether or not we were welcome and to know what we needed to say to people to ensure that they understood our intentions and could trust us. She quickly became more than just a translator as her understanding and explanations became vital to the project.

While unaware of the nuances of translation issues when entering the field, Ummy and I quickly developed a mutual respect, rapport and friendship that allowed us to exchange ideas openly and effectively. Because literal translation was not always

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[6] People at the university told me that it would cost approximately to one-hundred and fifty to two hundred dollars per day to hire an employee. This was obviously out of my price range.

enough to properly communicate ideas, she would often provide a context for statements, including local events or ways of living that needed to be understood to appropriately convey something farmers said. I encouraged this, and as a result, her voice is very present in the interviews. We also spent time together outside of interviewing to discuss patterns that were emerging and differences between the experiences at various farms. She provided a wealth of insight into the relationships between farmers that she could garner from her informal interactions with them, which provided more nuance to our understanding of interpersonal relations on the farms. Indeed, it is difficult to imagine how this project would have gone if we had not been able to quickly develop the relationship and easy communication as quickly or effectively as we did. In order to acknowledge the substantial role of the translator, quotes presented in this dissertation will be in Ummy's voice, not the farmers'. Therefor the farmers' statements will be presented in the third person.

Photo Voice

Photo voice as a research method is drawn from the performance arts, where it has been used to emphasize social justice and change by providing disempowered people, such as the homeless, children, HIV/AIDS victims and people in conflict zones, with an avenue to illustrate and exhibit their daily realities to a wider audience (Miller 2009). This method is used to show people places where the eyes of artists cannot go (Keenan 2007, Miller 2009), and the process provides participants with the ability to take an active role in data generation (Gotschi, Delve and Freyer 2009). This sense of social change through photography by participants, rather than artists, made photo voice a compelling research tool in participatory action research projects. Incorporating this method into social science research allows participants to focus on aspects of their lives they may not have previously reflected on, or that are invisible to the researcher, empowering participants to make decisions about what is relevant about their daily lives. They can then identify needs and changes they desire to make (McIntyre 2003, Foster-Fishman *et al*. 2005, Fournier *et al*. 2007, Castleden, Garvin and Huu-ay-aht First Nation 2008). This sense of social justice permeates the social science adaptation of photo voice as well.

The power of this method is that it allows participants to generate different ideas from verbal or written interviews alone by appealing to the most powerful sense for many people: the sense of sight (Darbyshire, MacDougall and Schiller 2005). People can focus cameras on places that are most meaningful for them, allowing them to record their own perspectives, sources of meaning and pride and to further their knowledge of their own lives (McIntyre 2003, Nowell *et al*. 2008). Indeed, "[t]he power of the photograph lies in its ability to reveal and reflect, to create dialogue between individuals and social worlds" (McIntyre 2003: 3). When the pictures are printed, the visual aid can provide additional stimulus for conversations and associations with the investigator that might otherwise go unexplored (Latham 2003, Nowell *et al* 2008, Packard 2008), or places where the researcher cannot go (Young and Barrett 2001). In my project, photographs stimulated conversation between farmers apparently because the picture could focus their conversation. The farmers were also more willing to talk more concretely to Ummy and me as they had a visual aid to refer to and describe.

One of the most powerful studies I encountered that utilized photo voice was a study that examined the relationship between place and identity in the context of an area that experienced concentrated violence in Belfast, Northern Ireland. In this project researchers asked women to take photos of their daily lives as they move around the city. The resulting photos allowed the women to explore the meaning of specific places within the context of stress and repression within the broader political turbulence (McIntyre 2003). Certain places represented empowerment or safety, while others represented danger. The women were able to reflect on the landscape of the city and create counter-narratives for themselves, which changed the meanings of places along Monument Road, an area that experienced sectarian violence during The Troubles. When the women worked in focus groups to reflect on the pictures they took of their daily lives, spaces of home and community became more than places of cooking, cleaning or learning new skills: they recognized these home-making activities as creating spaces of safety and emotional support in the midst of violence. These pictures also helped disrupt common the images of chaos and violence that the women held of the area, showing them spaces where they experience joy and peace (*ibid*). This provided the researcher with a method

that allowed the participants to reflect on their everyday experiences in response to pictures, and illustrated the dynamic and nuanced way the women used the landscape.

Photo voice varies in its implementation, but generally researchers provide cameras and ask participants to take pictures of some aspect of their environment. Those pictures are used in interviews or focus groups later to help guide discussion, and often these times are used to allow people to write captions for the pictures, either individually or as a group. The key aspect of this method is that it involves participants in the research process, allowing them to literally frame questions and descriptions themselves over a period of time, rather than the researcher framing and interpreting the subject's everyday experiences (Latham 2003).

While the method is receiving praise for widening the methodological toolbox of geographers, it is not without its critics and potential for misuse and misunderstanding, and there are serious issues to consider prior to the application of this tool. First, it is important to recognize that while photo voice may empower participants, it is still ultimately the researcher who makes decisions about who to include, what the subject material should be and what final products will be included in the analysis (Holm 2008). Second, introducing technology in the field is potentially very problematic. Producing a camera makes the researcher and their project highly visible, which will certainly have an impact on what is being photographed, possibly defeating the purpose of using the photos to capture mundane everyday life by making everything unique (Bogdan and Biklen 2007). Indeed, in many places of the world the camera itself is a novelty and focus of curiosity (Keenan 2007). In these situations people and actions can become a conscious performance, further negating the documentation of the everyday, mundane-ness that the researcher seeks. Third, participants may use the camera for purposes seemingly unrelated to the project, using it to have fun and show their family and friends. Researchers must ask themselves very honestly how they would use information they did not intend to receive back (Mitchell *et al*. 2006). Finally, a camera being a technical instrument, it also takes skill to operate, yet they are ubiquitous enough that people can feel uncomfortable asking for instructions on how to operate one. If used improperly, it can expose people to feelings of ignorance, making them feel closed off and unable to

relay information they feel would help or be useful (Packard 2008). Researchers must be attuned to how the technology will be used by participants in specific social contexts, and they must be aware of how to make it culturally appropriate and relevant. I will address these issues, and how I compensated for them in my project, below.

Prior to my trip to Tanzania I purchased twenty disposable Fuji cameras that had twenty-seven exposures each, and inquired with contacts there whether photo development was possible to make sure I would be able to complete this task. While this was certainly the most technically difficult method I utilized in this project, it produced a wealth of data and insight into daily life on farms that did not emerge from the interviews. We conducted photo voice projects at four farms: Drive In, Oyster Bay, Temeke and Tazara. We collaborated with group leaders to choose five people from each farm to participate. We worked to get first, people who were willing, and second, a representative of the population as a whole with regards to gender and age.

When we introduced the project we gathered the five farmers to provide them with the cameras and a sheet that provided detailed instructions on how to use the camera and the aim of the project, all written in Swahili. Primary school education is almost universal in Tanzania, and most people can read and write, though often not at advanced levels. We did not ask specifically for farmers who were literate and when we gathered them for the first meeting about the projects, we went over the instructions verbally in detail after we gave farmers a chance to read the sheets. This avoided any potential embarrassment for those who might not be able to read, and farmers who understood the process began answering the questions of the other farmers anyway. The instructions were important. While farmers certainly know what cameras are, and many have pictures of their families, they had often never used one before. We demonstrated with a sample camera and gave people the opportunity to take pictures with it, showing them specifically how to use the flash and manual winder. We then discussed the purpose of the project. All of the farmers had been interviewed prior to the project, and they were aware of the types of questions we were asking and the broader purposes of the project. We encouraged them to not only take pictures of activities on the farm, but off-farm as

well in order that we could get a better understanding of the spaces in which they move every day.

There were a few points of note in the implementation of this project. First, we had a discussion on each farm about the implications of taking pictures of other people. When I walk around Dar es Salaam, I am very conscious that people do not like having their pictures taken, and I never would do so without gaining their permission first. Being a white person taking a picture makes people suspicious that I am exploiting them or will profit from their image: a fear that is certainly understandable when people from this region see how their images are used in other places. However, my farmers insisted that they were not bound by the same restrictions and neither I nor my translator heard of any problems in this regard. We did ask that farmers be aware of these issues and not to take pictures that might embarrass other people. Second, we also asked farmers to think about each picture when they took it and how they might describe it later. They were told that we would be asking them to write captions, and we wanted this to be on their mind as they went about taking pictures. Finally, as each camera had twenty-seven pictures, we asked that the farmers take at least twenty for the project, and that the rest could be of anything they wanted, such as their families and homes. This was very important to the farmers as they have few opportunities to have these pictures. We also gave each one of them a copy of the entire set in a photo album as an appreciation for their participation.

We gave the farmers about a week to take pictures. We did not ask them to organize together or to work individually in the project, believing it best to let them manage the pictures in the way they saw fit. In later discussions with farmers concerning how they went about taking the pictures, only one group actually organized together to take any pictures. This was on a farm that is by far the most cohesive socially, and they are proud of it. In some of their pictures from that farm, one participant was taking a photograph of the other farmers who were holding their own cameras as they set up to take a group shot (**Figure 3.1.**). The other three farms were more independent, though at the Temeke farm, each farmer had photographs of a day when one of the wells had to be re-dug. This event was obviously important to all of the farmers involved (**Figure 3.2.**).

Figure 3.1. Photo voice, Drive In. This is a picture showing three members of the group getting set up for a picture. This comes from a group of very strong social cohesion (Mary).

Figure 3.2. Photo voice, Temeke. Every farmer at the Temeke farm took a picture of day when they had to re-dig one of the wells. The green on the water is not algae, but a small green leaf plant that grows on the surface of the water (Thomas).

We returned to collect the cameras and set up a time to return with printed copies. As it generally took about a week to get the pictures developed, we set up a time about eight or nine days later. It was here that these methods became more difficult. In most studies, researchers develop the film and then have all participants sit down together to discuss and write captions. Logistically this would have been impossible as the gathering places on farms are outdoors, where there is a constant breeze, and there are no tables where photos can be spread out, especially not the one hundred to 135 pictures that were taken at each farm. Additionally, after working with the farmers over time, I realized that in groups, it could be difficult for them to go into a facilitated discussion on practice and meaning. This is probably due to my own limitations as an interviewer, but also reflects that interviews conducted through a translator, most especially in a group setting, can be stilted, blocking the flow of conversation. As a result of all these factors, I instead taped the pictures into small steno pad notebooks. Because the pictures came back from the developer in random order, I ordered the pictures consistently for each farmer. Generally, I started with photos of groups or social events (lunch, meetings), the various work activities (hoeing, planting, weeding, spraying insecticides, applying fertilizer then harvesting), then pictures of them selling, customers on the farms, pictures from markets, then plain pictures of just their fields, then other pictures off the farm of families.

One of the most important moments in this project was something I had not foreseen. When we gathered the farmers around to return their pictures in the books, they exclaimed, they laughed, they became thoughtful, and they shared the photos with others. These initial exclamations at the pictures were full of opportunities to look awry and gain insight into the embodied emotions and material practices of farming. These reactions to seeing pictures are something that is so common, I almost missed the importance of it. This was one moment, too, where my limitations in Swahili were more of a problem. After the first group, I had Ummy sit near the farmers and interpret the farmers' reactions. Mostly people laughed at pictures of themselves, but other times they made comments such as "look how heavy that is and I have to carry it every day," "we are lucky to have that water pipe," or "look how good we all look as a group." Any future photo voice projects must take care to observe this special time.

After we returned the pictures to the farmers, we asked them to take a week to write captions to explain what was happening in the picture, why they took it and why it was important to their daily experiences on and off the farm, which allowed us to include the pictures that they took of families and other important spaces to them that they might not have thought about in relation to farming. We were lucky in this project that nineteen of the twenty farmers were literate, as most of the farmers in the open spaces are. Of the few photo voice projects previously conducted in Sub-Saharan Africa, I know of none that was able to utilize written captions, either because the subjects were children (Young and Barrett 2001, Keenan 2007) or rural populations with less access to education (Gotschi, Delve and Freyer 2009). Additionally, some studies wanted to rely more heavily on focus groups to interpret the pictures, even with populations that could probably read and write, such as nurses (Fourier *et al*. 2007).

We asked that farmers take about four or five days to write as many captions as they could. The one farmer who was less comfortable with writing easily worked with other farmers who provided the captions that he indicated. This was not ideal, but I made the decision to include this data based on my observation of how the farmers interacted with the person helping him. They seemed on easy terms and very open with each other. Initially, I did not think it was ideal to have farmers write captions on their own, however, I believe that I actually received more captions than I would have if they had done so as a group. This is partly due to time constraints; farmers were unlikely to have taken the necessary time to discuss an appropriate caption for every picture in a group. Second I believe that many farmers became more introspective when they wrote themselves. Very few of the more reflective comments they wrote were ever revealed to me during conversations. The pictures, and their expressions when they saw them, revealed that farmers were just as proud of what they grow as happy to make an income doing it (**Figures 3.3. & 3.4.**). I found these pictures and captions to be some of the most revealing data I collected about the more intangible aspects into the lives of urban farmers.

Figure 3.3. Photo voice, Temeke. “These are our small customers who help us most of the time when we do not have middle men to buy most of our products” (Thomas).

Figure 3.4. Photo voice, Drive In. “This picture shows how happy I am after looking at how the vegetables have grown. It's no doubt that seeing the green brings happiness. This event contributes to the assurances of our daily earnings. This picture presents me as an entrepreneur” (John).

Focus Groups

After giving the farmers four or five days to write captions, we returned to hold a focus group session centering on the photos and the captions. Focus groups provide participants with a safe space to discuss meaning and importance and often can reveal more about practice and meaning than interviews alone (Pratt 2002, Darbyshire, MacDougall and Schiller 2005), and this method is widely used in qualitative research to explore people's everyday social and physical worlds (Hopkins 2007). Allowing farmers to share their photos and experiences with each other enriched their understanding, and mine, about their daily experiences. The questions were designed to get the farmers talking about their pictures and to decide on two or three from the combined set of pictures that would best represent their answer. We asked them to present pictures that represented positive and meaningful experiences or activities they enjoyed in their daily life, ones that they distinctly did not enjoy, pictures they would want policymakers to see, what activities were a source of pride and what were a source of shame, and ones that showed the difference between the life of a farmer in the city and one in the village. These questions were meant to be general in order to elicit conversation. This was one of the most difficult times to not be fluent in Swahili, however. The translator provided an overview of what was being said, but we did not want to intervene in the conversations. The farmers then presented their two or three pictures with a narrative of each and why they chose it to answer that question, which was then translated for me.

The focus groups provided some real challenges. Farmers in this study have generally only experienced group participation as someone 'above' them telling them what to do, and they were often unsure about how to participate in a focus group discussion. We take for granted the ease with which we participate in classrooms and community meetings in the U.S., but participation is socially constructed in different ways. We quickly learned that farmers needed very specific questions to discuss between themselves, though once we understood and responded to this barrier, the farmers became very engaged. Another major challenge is that a focus group in another language is difficult at best. I found these sessions to be frustrating as I could not keep up with the Swahili and my translator could only provide a summary of what was being said due to

the speed at which it happened. Asking farmers to slow down in order that we could translate a conversation, however, would have most certainly stifled the discussion.

Mental Mapping

Mental mapping of spaces and relationships is a technique that helps researchers gain perspectives on spatial understanding, allowing them to gather multiple viewpoints and empower local communities to assert claims (Brennan-Horley and Gibson 2009). Allowing participants to map their own spaces privileges spatial practices that are often hidden by land-use research and top-down planning policies (Elwood 2006, Brennan-Horley and Gibson 2009, Brennan-Horley 2010). This method has been widely used in participatory mapping projects that allow people to define resources. As a research method, however, mental maps can also add to the richness of interview data by allowing respondents to visually express issues in a fun and creative way, and it can reveal new ways of describing the places in which people engage (Darbyshire, MacDougall and Schiller 2005). Maps focus on the relational spaces within cities and can literally illustrate less-measurable forms of experience that people have in these spaces (Green, Shuttleworth and Lavery 2005, Pavlovskaya 2009). In this project mental mapping was used to show how the imagined landscape is integrated with the physical (Brennan-Horley *et al*. 2010), and to reveal the relationships between certain spaces and practices.

At three farms we asked willing participants to sketch a map of their farm on a blank piece of paper. We asked farmers in a way that left open whether they would draw only the plots they work, the entire open space farm or their routes through it. We asked them specifically to highlight social and economic spaces and areas or places they use and move through in their everyday activities. A direct translation of the word map (*ramani*) often made farmers concerned that I was asking them to draw a detailed, scaled map of the area. For the farmers, and many other people in the city, the allocentric (top-down) perspective is not normally used when imagining or navigating space in the city, making farmers nervous about what they needed to draw. Once we were able to show that we wanted them to basically have fun, that it did not need to be to scale and that it could be from any perspective, farmers were very willing to participate. They generally took about thirty to forty-five minutes to draw the map. Often they sat alone, drawing on a

clipboard, but invariably someone else would come over and provide input. We did not discourage these interactions, but noted them when we could. These farms are intensely social spaces and having other people provide some input seemed to reflect the ways that people utilized that space. These interactions also seemed to increase the sketcher's confidence in what they were doing. Maps not only provided an illustration of the farmer's perspective of the area, but also provided ways to discuss the use of space in very different ways than just in an interview. Having a visual aid and asking the farmers to explain it provided great depth into practice, organization and movement on the farms.

Because of the time commitment involved in both interviewing and then drawing a map, we only asked farmers at three farms (Drive In, Oyster Bay and Msimbazi Valley) to draw them. While we were welcomed to all the farms, at some there was more of a sense of time constraints to interviews and we were hesitant to ask people to give more time than they already had. Out of eighty-two interviews we had twenty-five mental maps. These were analyzed both individually and between groups and there were distinct differences at both levels that revealed uses of space on farms and levels of community cohesion between farms. Two are presented below. The first is from the Drive In farm, located near where I lived in the Msasani area and near the US Embassy. Almost every map from this farm is organized similarly, with the pump house and benches central and a generalized picture of the plots on the farm (**Figure 3.5.**). Significantly, none of the plots are labeled for individual farmers. The second from Msimbazi farm is very basic and focuses on the pathways and major nodes of her daily route between her home and her farm (**Figure 3.6.**). This farm lacks much cohesion between farmers in the group, and therefore the social spaces are missing and the focus is overwhelmingly on individual experiences.

Data Analysis

All interviews, mental maps, photographs and captions, observations and background descriptions of the sites were uploaded into the qualitative data analysis software program NVivo, which was used to conduct a content analysis of all my data (Smyth 2006). Content analysis is a process of coding and interpreting data that can vary depending on the types of data, questions asked of participants and types of research

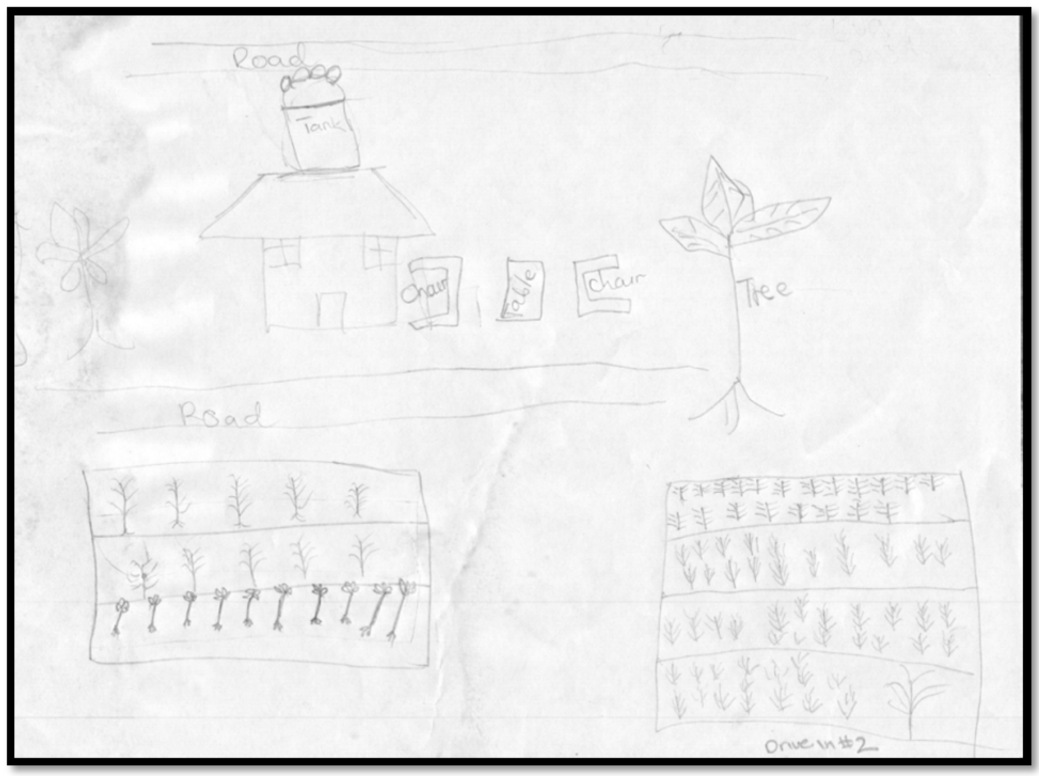

Figure 3.5. Mental map, Drive In. Shows a generalized layout with the social spaces central to the farm, rather than a focus on individual plots. The ten maps from this farm all shared this orientation and layout, regardless if the map was created by an person alone or if they had input from other farmers (Terry).

questions (Berg 2007). For this project, after reading through all my interview data, I coded for specific activities on farms, attitudes about farms as distinct spaces belonging in the city, what effects farms have on daily life of people, what specific uses of space (spaces of care, safety, socializing) farms provide and how farms affect various social and economic groups differently. Using a software program such as NVivo allows the researcher to draw relationships between data by constructing a tree-like network of nodes in transcribed interviews, digital photographs and maps. The researcher organizes the data as they relate to each other into parent nodes and then relates various data to each other through child, grandchild and sibling nodes (Smyth 2006). For this project, I created nodes after reading through interview transcripts and pulling out the issues that seemed most important or insightful (Berg 2007). Doing so allowed me to draw out the relevant themes in my project rather than enforcing a preconceived structure on the data.

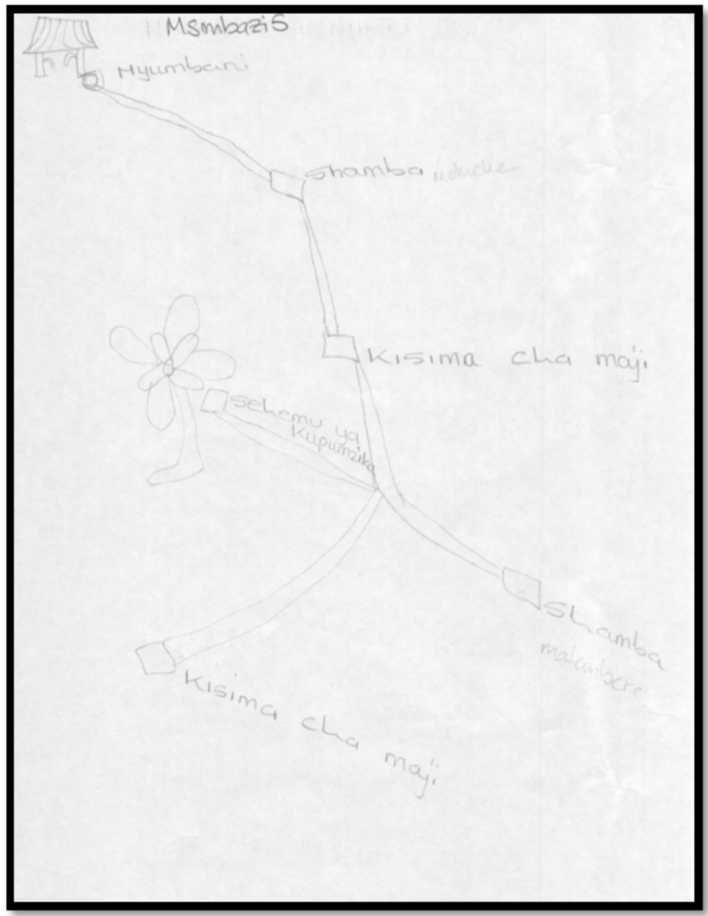

Figure 3.6. Mental map, Msimbazi Valley. The map emphasizes the farmer's routes to and from the farm from her house (*nyumba*), to her plots (*shamba*), the wells (*kisima*), and areas where she rests (*sehemu wa kupimzika*) (Miriam).

While I coded my data, I actually found that I used data more by reading and re-reading my interviews and looking at the pictures and maps. While qualitative analysis software is useful for categorizing data, I found at times that the codes I developed at the beginning of analysis wanted to change and adapt over time, making it difficult to keep to the static codes within NVivo. I used the program to find quotes I needed to make arguments, but I found that in creating those arguments, reading through interviews and looking through pictures, maps and notes gave me a more holistic picture of what I was trying to understand.

Chapter Summary

The purpose of this lengthy discussion of methods is three-fold. First, is of course, to provide a detailed outline of the methods utilized in this project, primarily semi-structured interviews, mental mapping and photo voice. Second is to highlight the connections between my epistemological approach and my methodology. My intention was to highlight the disconnect between research that examines the practices of the marginalized to reify the dominance of larger, structural forces, a critique that has emerged from postcolonial analyses on cities. The methods employed here sought to examine daily practice in ways that move beyond a discussion of the farmers' marginalization by the state and capital. This is not to ignore those process, but to understand the reality of how farmers experience daily, urban life. Third, I provided a detailed examination of issues I faced in implementing these methods in the context of urban Tanzania. I do this to highlight issues that other scholars might face in these situations. Part of this is how to adapt a method such as photo voice to the reality of the situation, but also to go in-depth on how understanding issues of translation and looking awry are vital to understanding the data that a researcher collects.

In the following chapter I begin to present my empirical findings, and I will focus on the urbanization of agriculture as a contrast to the discursive and conceptual separation of agriculture and cities. This descriptive chapter serves first to make the argument that the practice of farming is reworked to fit the more dense and diverse environment of the city. Second, it also provides detailed and descriptive images and descriptions of urban agriculture in Dar es Salaam. Urban agriculture in Dar es salaam looks and functions in ways distinct from other regions and this chapter provides a window into what it 'looks like,' providing readers with an enhanced understanding of the practice. My intention is not to reify a binary between 'here' and 'over there', but to demonstrate how it is manifest in a city in a very different historical, political, economic and social context.

CHAPTER IV

THE URBANIZATION OF AGRICULTURE

Is urban agriculture evidence of failed urban development? Is planting vegetables in the city a reaction to unsuccessful modernization policies? Or, as some scholars have claimed, maybe it represents a 'ruralization of urban space' (Mlozi 1994, 2010: *pers com*). This chapter confronts these arguments to claim that crop cultivation in cities is a distinctly urban activity and one that reflects the ways the practice has been materially and socially reorganized to adapt to conditions in the city of Dar es Salaam. For this discussion I draw upon the definition of urban that moves past the usual association of urbanization with industrialization as discussed in the introduction. Instead, to explore the idea of the urbanization of agriculture, I refer to the ways that the social, material and physical forms of the practice are reorganized to take place in the city. This is not to reinforce a binary between the rural and the urban, but to highlight how processes are altered to fit within an environment that includes more people, diversity and resources and spatial constraints. This includes an examination of the physical forms and social functions of the practice, the types of crops that are grown, how they are organized spatially, why people farm, the social functions of these farms and the uses of farms as spaces in the city. Second, this chapter presents evidence that rather than being a sign of a lack of urban development, urban open space cultivation represents a modern urban reality that reflects a creative spatial response to the political, economic and social conditions manifest in the city of Dar es Salaam (Robinson 2006, Simone 2008). Agriculture does not represent a failure of modernization, but reflects global and local processes that influence urban environments in regional contexts beyond the 'west' with which modernity is defined. Rather than seeing urban crop cultivation as a throwback, as a coping mechanism and an activity of last resort, I normalize it to illustrate how the practice is distinctly urban and serves specific needs— and faces particular challenges— in cities.

Situating Dar es Salaam

The region of Dar es Salaam, Tanzania, lies approximately eight hundred kilometers (five hundred miles) south of the equator on the coast of East Africa and occupies about 1800 square kilometers of land (**Figure 4.1.**). The climate along the coast is warmer and more humid than the inland part of the country: the average temperature throughout the year is about twenty four degrees Celsius (seventy-five degrees Fahrenheit) and ranges only about four degrees Celsius throughout the year. The humidity is generally very high and varies between fifty-five percent in the dry seasons during the day to the high nineties during the rainy seasons and reaches about one hundred percent almost every night (Dongus 2001). There are two distinct rainy seasons: the 'long rains' between April and June, which taper off into July, and the 'short rains' in October and November. The rest of the year is considered the dry seasons. The city receives about 1100 millimeters (forty-three inches) of rain each year, almost exclusively during those rainy seasons. The soils are mainly a mix of sands and clays, with more alluvial deposits in the river valleys that run through the city (Sawio 1998, Dongus 2001), meaning much of the soil in the city is of poor quality.

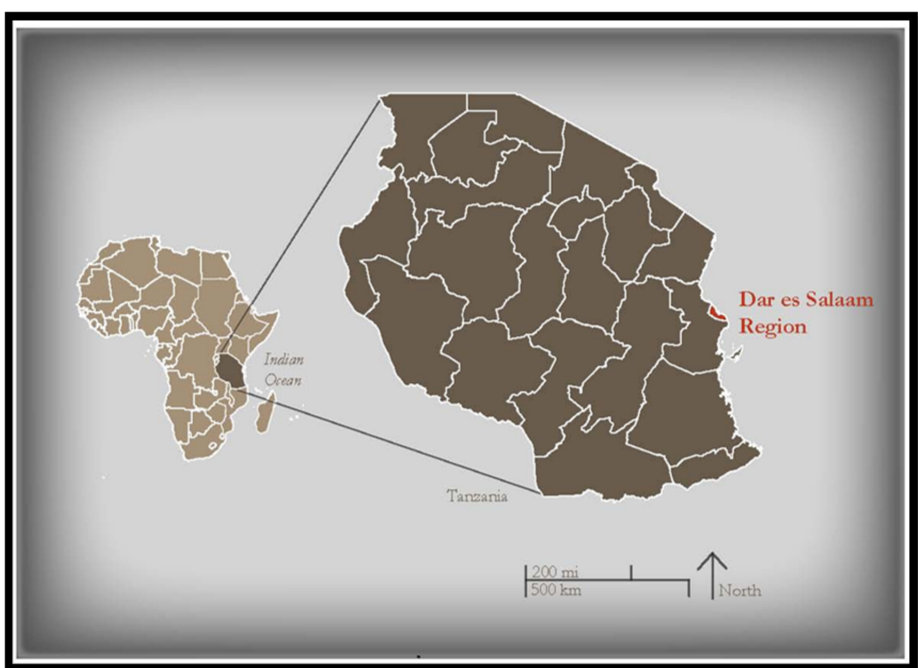

Figure 4.1. Map of the Region of Dar es Salaam in Tanzania (L. McLees).

The region of Dar es Salaam is often referred to as conterminous with the city of Dar es Salaam. The city and the region are broken up into three districts: Kinondoni, Ilala and Temeke. Part of the region is designated as urban while the rest is considered peri-urban, a term referring formerly rural areas at the leading edge of city expansion. In this research I refer to the city of Dar es Salaam as the area encompassed by the designated urban areas as they represent the best approximation of the built-up environment. The city of Dar es Salaam is the administrative capital of the region in addition to the economic capital of the country (URT 2004). The city is governed by the mayor, the Dar es Salaam City Council (DCC) and mayors and councils of the three districts. The districts are divided into a total of seventy-three wards, which are further divided into 368 *mitaa* (literally streets, but can be considered small neighborhoods) and then into over five thousand ten-cell-units, which are groups consisting of about ten households meant to reflect the basic social unit of village life (URT 2004). Each district and ward have a leader and offices of planning, agriculture and other municipal activities, and *mitaa* and ten-cell-units each have their own leaders. In order to access people, places and researchers, people (both Tanzanians and outsiders) must maneuver within this heavily bureaucratic structure.

Dar es Salaam was the site of the German and British colonial capitals, and remained the administrative center after Tanzania's independence in 1961. While officially the capital has been moved to Dodoma, about 570 km (355 miles) to the west, where the Bunge (Parliament) now meets, political life remains centered in this city, as does banking, commerce and industry. After years of poor economic performance as a result of socialist policies and the shocks of the oil crisis and structural adjustment, between 1995 and 2000 the national economy grew by an average of four percent per year (Foeken 2006). This economic growth only illustrates the national average, however, and the majority of the population has seen few if any improvements, and disparities of wealth continue to increase. Evidence suggests that structural adjustment policies of the 1980s left many people without jobs or support, and civil servant wages dropped substantially (*ibid*). As a result of the continued shrinking of the formal sector, people have turned to a variety of creative activities make ends meet. Hawking wares in informal storefronts, selling phone cards, water, tissues, prayer rugs and car air fresheners in

traffic, prostitution, roasting corn street-side for snacks, walking around the streets serving tea and urban agriculture are but a few of the ways people have adapted to the economic situation.

Urban Agriculture in Sub-Saharan Africa

Throughout much of Sub-Saharan Africa, urban agriculture is implicitly condoned by national governments to reduce food shortages (Mlozi 1994). Yet, farmers are also subjected to harassment by city planners and police who continue to see it as an activity that hinders urban development (Freeman 1991, Memon and Smith 1993, Obosu-Mensah 2006). This reflects an approach to urban planning that focuses on revenue generation through taxes and 'highest and best use' (in economic terms) as the most appropriate ways to organize the city. Attitudes in some cities are changing, but few have set aside land specifically for this purpose, and attempts to create a supporting legal framework remain fraught with confusion, conflicting visions of urban futures and negative press coverage of the association between urban agriculture and disease and pollution.

Urban agriculture has existed in cities throughout the region since the colonial period.[1] The practice became more established in the 1980s when the combination of an economic crisis and rapid urban population growth had detrimental effects on people's ability to acquire food (Mougeot 1994, Maxwell 1995, Sheldon 2003). At the same time, cities were under pressure to modernize and encourage foreign investment, and urban agriculture was considered a backwards activity that discouraged proper urban growth and investment. Farmers in several cities, such as Harare and Nairobi, had their crops burned, bulldozed or otherwise destroyed (Sanyal 1985, Freeman 1991). It was during this period that a plethora of research was conducted in the region, which provided an understanding of who farmers were and what they were doing. These studies surprised people with how ingrained and important urban agriculture is actually for producers and consumers. The results of this data from Sub-Saharan Africa are summarized in **Table 4.1.** below.

[1] There is some evidence, and it would be unsurprising if it were true, that cities prior to colonial contact also included forms of urban agriculture, but there is little in the academic literature that discusses this.

City	% Supply (city or households)	Source Study
Accra, Ghana	90% fresh vegs in city	Armar-Klemesu 2000: 104, Dreschel *et al*. 1999: 28, Armar-Klemesu and Maxwell 2000: 194.
Addis Ababa, Ethiopia	79% milk to city	Tegegne *et al*. 2000: 24
Antananarivo, Madagascar	90% leafy vegs (grown by 50% of city households)	Moustier 1999: 47
Bandim, Guinea Bissau	31-68% vendors sell vegs self-grown in city	Lourenco-Lindell 1995:8
Bangui, Central African Republic	100% leafy vegs in city	Moustier 1999: 47
Bissau, Guinea Bissau	90% leafy vegs (grown by 30% of city households)	Moustier 1999: 47
Brazzaville, Congo	80% leafy vegs in city (grown by 25% of households)	Moustier 1999: 47
Dakar, Senegal	60+% vegs in city 65-70% poultry 10% urban food consumption	Moustier 2000: 243-244
Harare, Zimbabwe	60% of food consumption in 25% of poorest households	Armar-Klemesu 2000: 104
Kampala, Uganda	20% staple food consumption; 40+% of food for 55% of households, 70% poultry consumption from urban chickens	Maxwell and Zziwa 1992, Maxwell 1994, 1995
Kumasi, Ghana	13,000 street food vendors supplied with urban cattle meat	Brooks and Davila 2000: 1. Dreschel *et al*. 2000: 25

Table 4.1. Contributions of urban agriculture in cities of Sub-Saharan Africa. The above chart is partially reproduced from Mougeot (2005: 5-7), and it excludes cities outside Sub-Saharan Africa. Agricultural production in cities throughout the region provides a significant source of the urban food supply and has done so for several decades.

Administrators, however, continue to see urban agriculture as a practice of poor migrants from villages, or believe that urban farms are a temporary measure practiced only in times of economic distress (Gertel and Samir 2010). Yet studies from several cities in the region have shown that, contrary to these assumptions, most farmers are *not*

recent migrants to cities who are merely maintaining their rural practices because they have no other skills to rely on (Sanyal 1985, Rakodi 1988, Freeman 1991, Mougeot 1994, Sawio 1994, Maxwell 1995, Mlozi 1997, Mougeot 2005, Foeken 2006). Scholars posit several reasons for this. First, many urban migrants to the city are not sure how long they will be staying, and hence they are hesitant to invest the time needed to grow crops (Sanyal 1985, Foeken 2006). Second, it takes time to develop the social relationships necessary to access land for farming, especially on open space lots (Sawio 1994). Land delivery for urban agriculture is through informal means, and people must spend time to create the alliances necessary to access available space. Third, newcomers to the city often do not even know the opportunities of urban agriculture, or they may see it as an un-urban practice with which they do not want to be associated (Sanyal 1985). Further, rather than being a practice of last resort, many people who engage in urban agriculture claim they would continue to do so even if they found another job (Freeman 1991). Farming is not only seen as a temporary fallback in times of poor economic conditions, but a practice lucrative enough to justify time and investment into land and relationships needed to start and maintain a farm.

People from across socio-economic class lines practice urban agriculture, from the poorest, landless peasants to upper class professionals (Freeman 1991, Egziabher *et al.* 1994, Maxwell 1995, Mlozi 1997, Foeken 2006, Sawio 2007). People from the poorest classes are more dependent on growing food for their own survival and only occasionally sell any surplus, but wealthier residents farm primarily to sell produce in the marketplace (Memon and Smith 1993, Sawio 1994). Wealthier farmers more often are home gardeners, using extra space on their home plot to grow leafy greens and/ or to raise chickens or a few head of cattle (Mlozi 1997). Poorer farmers tend to farm more in the open spaces on public lands due to a lack of land adjacent to their houses suitable for farming (Memon and Smith 1993).

Household food security is certainly one of the most important factors in considering urban agriculture (Sawio 1994, Mougeot 1994, Maxwell 1995, Adejeji and Ademiluyi 2009). The poorest residents in African cities spend between forty to eighty-five percent of their income on food and fuel (Mougeot 1994, Sawio 1994). In Kampala,

Uganda, in 1972 sixty percent of the minimum monthly wage could purchase enough food for a household of four. By 1988, a month at the minimum wage could purchase enough food for a family of four to eat for a maximum of five days (Maxwell 1995: 1671). In Dar es Salam today, the minimum monthly wage is 135,000Tsh (Tanzanian Shillings)[2]— about eighty-three US dollars. This amount is not nearly enough to cover household living expenses in this city. Under these circumstances, the ability to acquire food through urban agriculture becomes increasingly important whether a family grows food for themselves or prices are lower because of increased supply.

In a region where many countries have poor transportation infrastructure outside of the major urban areas, the delivery of food into the city is a major obstacle to getting fresh, cheap food on people's tables. Many of the leafy green vegetables grown in cities do not stand up well to the time and conditions needed for transporting them from the rural or even peri-urban areas. *Mchicha* (*amaranthus*, a type of local spinach) is an important green in local cuisine; about ninety percent of *mchicha* eaten in the city is grown there (Binns and Lynch 1989, Mougeot 2005) (**Figure 4.2.**), and being able to buy the greens minutes to a couple hours after they are harvested contributes to a healthy supply of needed nutrients.

Urban Agriculture as Failed Urban Development

At the time of the surge of interest and research on the topic in the 1980s and 1990s, several critiques of the practice also emerged and persist in the bias against the urban crop cultivation today. Studies that sought to understand and even actively promote urban agriculture were embedded in a normative framework that situated agriculture as an un-urban activity. In a major project examining urban agriculture in six towns of Tanzania, one of the authors' main objectives was to "[d]iscuss the implications of the coexistence between agricultural activities and *normal* urban life and activities" (Mlozi, Lupanga and Mvena 1992: 286, *itals added*). Most studies of the practice situated urban agriculture as a response to the major economic crises affecting the region. Many took

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[2] These salaries are public and political. These figures came from a newspaper article regarding public servant wages (Nyakeke and Kimby 2010). In July of 2011 debates were heating up in the Bunge about whether to increase public salaries again.

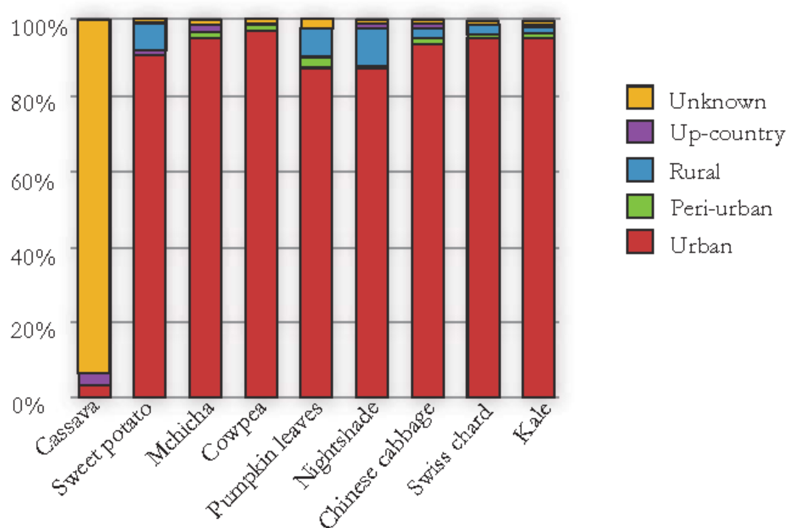

Figure 4.2. Sources of leafy vegetables in Dar es Salaam markets.

Adapted from: Stevenson, Xavery and Wendeline (1996, unpublished) in Jacobi, Amend and Kiango (undated).

the failures of structural adjustment policies as their starting point for urban farming, examining how much of the practice was a response to the crisis as the numbers of farmers quickly rose (Gefu 1992, Kironde 1995, Briggs and Mwamfupe 1999). These frameworks often ignored or dismissed the reality that agriculture had been practiced throughout the region's cities during colonial times and since independence by both Africans and colonial Europeans. Very few studies have examined urban crop cultivation or livestock-keeping beyond the crisis narrative, which has reinforced the idea of agriculture in cities as a coping mechanism, not an urban activity in its own right (Moore 2006).

Ruralization is a word that has been bandied about in many critiques of urban cultivation. While it is often linked to agriculture activities, it also comes to represent a failure of urban service provision for the poor. In this narrative, the high levels of rural to urban migration have led to people falling back on rural skills or ways of life to live in

the city. It also demonstrates the assumption that urbanization is a product of industrialization, rather than a reorganization of practices in a different type of space.

> This leads to a phenomenon called "ruralization" of the urban areas… and refers to the situation where large assemblages of people become concentrated in settlements that lack urban functions… This is particularly links (sic) to over-urbanization in the sense that the large influences of rural unskilled immigrants, usually maintain their lifestyles, value systems, occupations etc., and *are thus not urbanized in the real meaning of the term*. These inhabitants have to make their living through more or less rural means such as agriculture (Mohammed 2004: 7, *itals added*).

What I find particularly interesting in this statement is the link between over-urbanization and ruralization, both tropes for failed urban development that would seem to be on the opposite ends of the spectrum. It further reinforces the idea that people living in informal settlements are not urbanized despite the reality that their physical practices and social systems have been dramatically altered to live in the informal settlements of cities. Maintaining value systems and occupations that people rely upon in villages does not necessarily make one 'rural,' and better attention to how these practices and values change, adapt or are maintained in the urban environment would reveal more about how urbanization occurs in different contexts.

During the two-decade period of active research into urban agriculture in Sub-Saharan Africa, many scholars advocated on behalf of urban farmers, arguing that secure land tenure, access to water and freedom from government harassment were necessary to promote safe and effective urban agriculture. There were, however, many critics who argued that as a practice it makes cities dirty and rural, reflecting a step backward in the processes of modernization and development.

> Both decay and ruralization are facets of the same phenomenon— the collapse of modernization processes, absence of viable institutions and at worst a reversal of developmental processes by regressive forces which have forced non-beneficiaries of those negative changes to search for survival mechanisms including a retreat into subsistence agriculture in an urban setting (Bibangambah 1992: 304).

> The argument by several writers that urban agriculture has an important contribution to make to Africa's economic development through a contribution to the food supply and self-employment is unhelpful. We need to place this

> agriculture into a perspective or scale of evolution of farming. If it is as backward and trapped in viscous circles of poverty as rural agriculture, which also provides food and self-employment, it is no answer to our search for sustainable development.
>
> The evolution of agriculture is seen as a transition from hunters and gatherers to the economy of subsistence cultivators and herdsmen, to mixed or diversified farming, and finally to specialized farming (*ibid*: 306).

Bibangambah argues here that agriculture in cities not only upsets the proper trajectory of urban development, but also that of agricultural modernization. In his narrative, there is no place for a 'regression' to subsistence agriculture in the urban context. Yet his argument makes sense as a response to the ways many studies in urban agriculture have been framed. As scholars were attempting to legitimate the practice and reveal its contributions to urban livelihoods and nutrition— work that has had a very real impact on the policies in many cities (Slater 2001)— they themselves were embedded in modernist (and marxist) discourses that reflected urban agriculture as a way to cope with failed development policies and the harsh conditions of structural adjustment. It also represents a definition of urban closely tied to a specific understanding of modernization through industrialization, one that focuses on an orientation towards western technologies and organization of space. Framing the urban in this way left them open to critiques such as the ones related by Bibangambah above.

My argument is not that urban agriculture has not been influenced by structural adjustment or the persistent economic troubles in African cities, but to situate the practice in a wider context of urban processes and argue that it does not represent a 'failed' modernity or development. Instead it is a cotemporaneous modernity that reflects the realities of policies imposed by the government and international institutions in addition to the local social and physical conditions in a specific regional context. My approach in this chapter will be to understand agriculture as an urban process while drawing upon a more inclusive definition of the urban that can take into account diverse ways of (re)organizing materials and practices in the city.

In the remainder of this chapter, I present evidence from interviews, mental maps, observations and photo voice to highlight the physical, material, social and individual dimensions of the urbanization of agriculture. This is a descriptive chapter intended to

illustrate the urbanization of agriculture in various dimensions, but also to provide the reader with a deeper understanding of everyday life and material practices on farms in Dar es Salaam that will provide a foundation for the following two chapters.

Spatial Dynamics of Open Space Farming at the City Scale

In 1999 a doctoral student named Stefan Dongus from the University of Freiberg conducted a GIS analysis from aerial photos of open space farms in the city from 1992. He ground-truthed all of the open space farms he identified from the photos and he found new areas in the city that were being used for cultivation that were not in 1992. The results of his project are reproduced in **Figure 4.3**. His findings indicate that 650 hectares of land are used in the city for open space cultivation in 1999. Between 1992 and 1999 over 200 hectares of land had vanished from production, but that 120 had emerged in different places. However, because aerial photographs did not exist for the 1999 survey, and finding new open space farms was a matter of seeing them on the way to ground-truthing the 1992 data, the amount of space for new open space farms (as of 1999) is certainly an underestimate (Dongus 2001).

When I was in Dar es Salaam, I was able to procure satellite photographs taken in 2005. Upon returning to Eugene I digitized the images to provide an indication of the amount of land under cultivation on open space farms (**Figure 4.4.**). Urban farms spring up where space is available, in the oddly-shaped interstitial spaces on unused plots, and other farms are eliminated as land owners and uses change. At a few farms where I conducted interviews, there were several farmers who had migrated from other open space areas when the land was bought out or farmers were evicted by the government. For example, several members of the Drive In Farm had previously cultivated down the street at the location of the current US Embassy compound, which was built and opened in 2003 after the 1998 bombing of the previous embassy. Seven of the farmers I interviewed at the Temeke farm used to cultivate vegetables nearby at a place called Kibasila, until a well-known Indian businessman bought the land and evicted the farmers. Throughout the city, farmers had stories of being chased off by land owners and government officials as plans were made for future land use, giving an indication of how spatially dynamic the practice is.

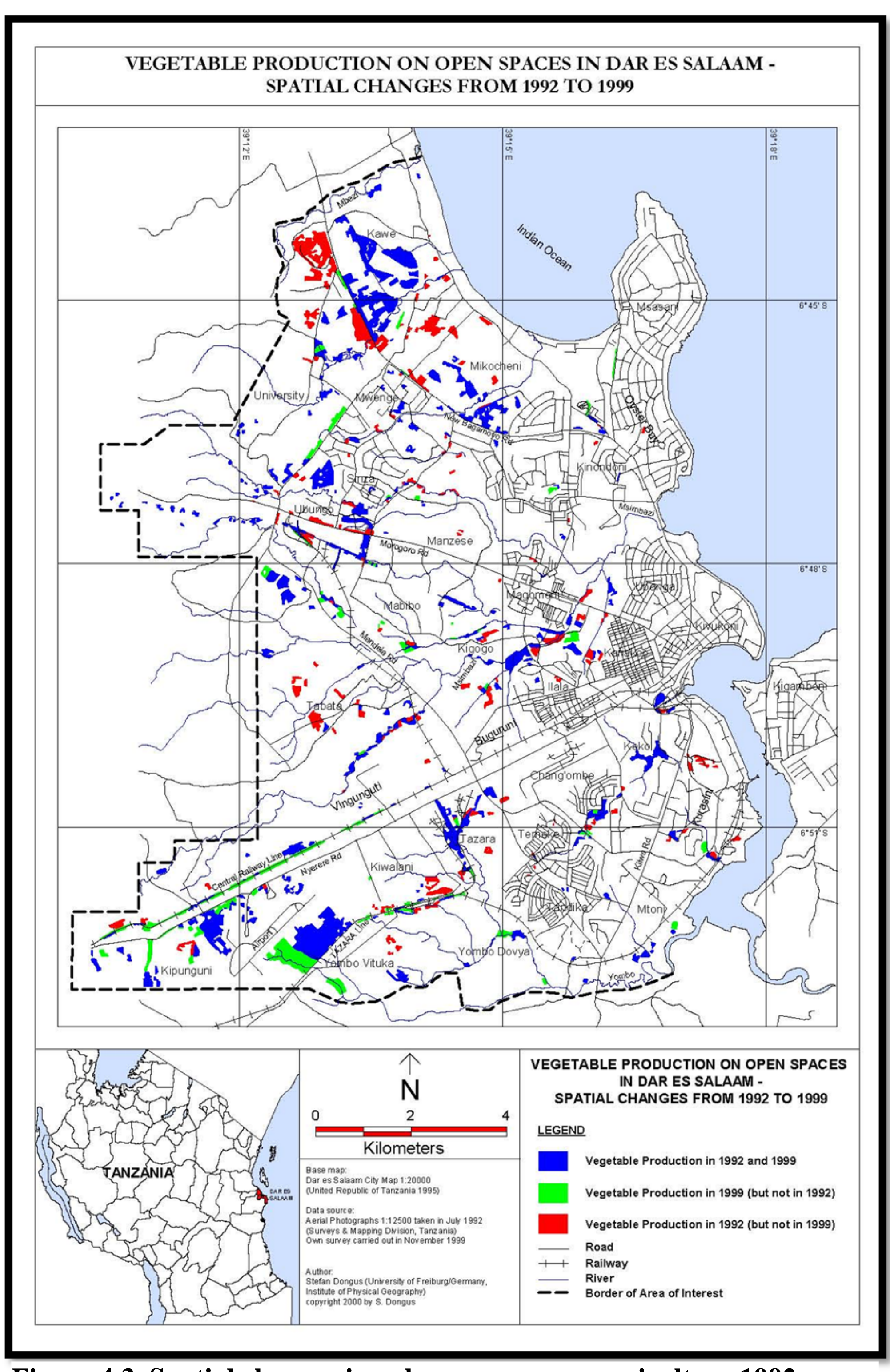

Figure 4.3. Spatial changes in urban open space agriculture 1992 - 1999. Reproduced from Dongus 2001.

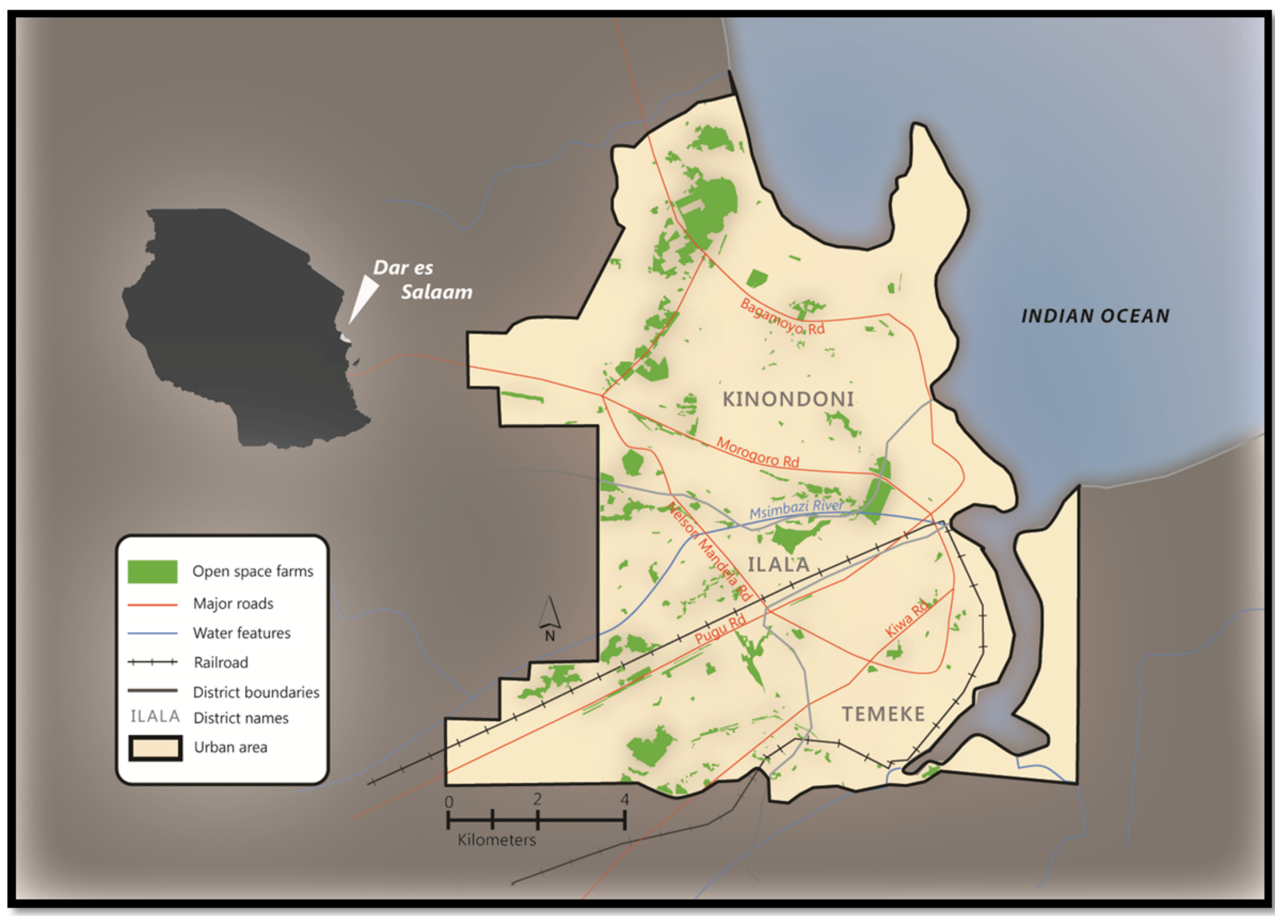

Figure 4.4. Open space farms in Dar es Salaam. This map demonstrates how farms are integrated into the interstices of the urban environment.

Farms generally emerge on land that no one else is using, such as former industrial lands, in river valleys unsuitable for development or land that has not yet had anything else built on it. The Drive In farm began when a couple of the women working as 'house girls[3]' were encouraged to plant some cassava in the lots adjacent to the housing complex they lived in.

[3] Becoming a house girl or a house boy is a common way to have the opportunity to come to the city from the village. House girls are generally young teenagers who cook, clean and take care of the children of the family. House boys are more often employed as guards and taking care of the outside of the house, including any home gardens. They are often brought to the city by a family that also has ties back to the same village. They are often paid very little and many are treated poorly (beat, starved), and several (though not all) of the farmers told me stories of their many problems working as a house boy or girl, and that they turned to farming for economic independence.

> When this woman was working for the Nigerians [who rented one of the nearby houses] she had two or three plots… the people who lived in these houses, their maids used to farm here in small gardens. They used to farm for home food; they were not selling at that time. There was this place in the middle [of the current extent of the farm] that was just a dump site. People would just put their garbage there. That's when the people farming came and cleared the place. When the Nigerians left she just stopped work [as a house girl] and committed to farming. So then another maid was working for another Nigerian. She learned that there was a plot here where she could farm, so she engaged herself in that (Mama Mary, Drive In).[4,5]

In the case of the Drive In farm, the land that the house girls were using is owned by the municipality and designated as road reserve for the potential expansion of Old Bagamoyo Road. Farmers had to remove many layers of trash from the space shown in **Figure 4.5.** One farmer described how he rented a truck for a few days and they were able to remove the trash in order that they could start digging. Over time the farm expanded along Old Bagamoyo Road, and during the time of my project there were fourteen people cultivating vegetables there.

The Tazara farm had a slightly more formal beginning. This farm is located on a narrow strip of land running away from Nyerere Road and adjacent to the TAZARA[6] (Tanzania-Zambia) railroad repair yards and the living facilities for the office workers. Prior to farming, the area was filled with dense trees and scrubby bushes.

> This was just bush when he came here at first, so he asked the owners, the TAZARA people, if he could farm. Tazara didn't need this place because it was just there; there was no person to utilize this place. When he came, the place wasn't full yet so he had to ask from one of the [TAZARA] owners for permission to farm (Anthony, Tazara).

[4] The names of all farmers have been changed to protect their anonymity.

[5] As discussed in the methodology chapter, I am writing quote as they were translated to me through my research assistant. Hence the quotes of farmers will be in the third person.

[6] To distinguish between the Tazara farm and the Tazara railway, I will capitalize TAZARA when referring to the railway, which is a way one can commonly see it written.

Figure 4.5. Photo voice, Drive In (no caption). The houses that people lived in are on the right behind the cement fences, while Old Bagamoyo Road is on the very left of the frame. This area used to be covered with trash until the farmers cleared it.

The Tazara farmers have an informal agreement with the railway company to use the land. The company initially charged the farmers fifty Tanzanian shillings (Tsh) per day (only a few cents in USD); however, over time the water flowing through the farm became so polluted that farmers were getting sick, and they realized the water was not good for the crops or their own health. They began to dig wells instead of relying on the water from the stream, but during the rains the stream would flood and contaminate the wells. The farmers complained to TAZARA for some time and eventually the company stopped charging rent, but not their pollution of the water. Media attention surrounding water pollution and urban agriculture has been putting pressure on farmers to use clean water and in August of 2010 the Ilala (the municipal district that the Tazara farm is in) agriculture extension agents blocked the water from flowing through the farm— a move the farmers strongly supported. Further, rather than kicking the farmers off the land, TAZARA has recognized that the farmers provided some benefit for the railway. Company officials felt that when the farmers cut down the scrubby bushes and trees and when people worked on the land all day, hiding spaces for thieves were eliminated and

the repair yard has seen a significant decrease in the number of thefts. At the same time, farmers remain vulnerable. In August of 2010 a parcel of the Tazara farm was sold by the railway. This parcel contained several farming plots and a field commonly used to play football/ soccer. The farmers impacted by this only found out when the deal was completed and they had just a few weeks to vacate the land and make their last harvest.

The conditions under which people farm, and the areas in which they do so, are quite different in the city than in the villages. Farms are not the primary land use and are relegated to interstitial spaces along roads, creeks or in large open lots not yet under any other use. They often have to be proactive to create these spaces, as well. Removing trash and negotiating with landowners are not activities confined to cities, but they represent practices that are necessary to producing a farm in the city. The practice is very spatially dynamic and farmers take advantage of new areas opening up as they must move on when owners change or appropriate land for another use. Without legal tenure, they are also at the mercy of larger, more powerful landowners who have no obligation to give them warning. This spatial dynamism is one of the defining ways that the practice of agriculture is repurposed to fit within the city's landscape.

Physical Processes on Farms

The agriculture that takes place in cities looks much different than in the village. There is little room for carbohydrate crops that require large amounts of space to grow an amount that will feed people, such as maize, rice or cassava. While maize is occasionally grown on a few of the farms, it is usually only ten to twenty plants that provide a supplement to the household diet for the farmers. I only met one farmer who sells any, and he had about fifty plants in the corner of one of the farms. Further, the agriculture extension agents tell the farmers that they cannot grow crops such as corn or sugarcane because their height creates hiding spaces for thieves. The perception of thievery is important in justifications for agriculture and in restrictions on the types of crops.[7]

[7] While urban agriculture technically is illegal in the city, national guidelines do set some rules on the practice. The only one I ever saw discussed was the restriction on the crops mentioned here. When I travelled to Nairobi, far more corn is grown in the city as they do not have these rules. This is an example

There is less space in which to farm in the city, and in order to make a profit, farmers must grow higher-value crops in small spaces. A lack of appropriate transportation infrastructure, refrigerated trucks and the high value placed on freshness and taste, makes the production of leafy green vegetables an appropriate crop for urban farms. When I asked farmers about growing and selling leafy green vegetables in the villages, they said everyone grows them, but nobody sells them. People always have space for a few plots and so there is no market to sell any. In the city, however, most people have no space or capacity to grow their own greens all year, creating a vast market for vegetables. Leafy greens are an especially important part of local diet. The typical dinner consists of some protein, a starch such as rice or *uagli* (a porridge similar to polenta), and a hefty side of cooked greens. While people of higher-socioeconomic classes can vary their diet more, their dinners still tend to consist of these basics.

A variety of greens form the basis of the vegetable diet. However, the commonly grown leafy green in the city is *mchicha*, a species of amaranthus similar to spinach, though more bitter. There are several other varieties of local spinach, pumpkin leaves (*maboga*), potato leaves (*matembele*), collard greens/kale (*sukuma wiki*). Farmers who have more capital to invest can also grow higher-value vegetables such as eggplant (*bilingani*), tomato (*nyanya*, though technically a fruit), cilantro (*giligilani*) and local peppers (*pilipili*). To ensure steady income most farmers have several plots that they rotate through (**Figure 4.6.**).

The short-growing cycles (usually four to six weeks) of many of the vegetables and the ways that farmers stagger the plots in order that there is always a plot to harvest has another distinct advantage in an urban environment of insecure access to land. When someone comes to take over the land, farmers can ask for a week or two more and harvest as much as possible. They do not lose as much of their investment if they are forced to leave their farms with little notice. Several farmers in Temeke who had been forced off the land at Kibasila were able to ask the land owner for a couple more weeks to finish

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of how urban agriculture is not officially supported, yet there are still guidelines at the national level that are enforced by the city's agriculture offices.

Figure 4.6. Photo voice, Oyster Bay (no caption). Stages of mchicha production at the Oyster Bay farm. The Zain building is in the background. Zain is one of the major cell phone companies in Tanzania (Cindy).

some of their crops, but they said it they had been forced to leave right away, they still would have been able to salvage at least some of their crops.

Farmers in the city also have access to what they see as more modern or developed equipment and supplies. It does not mean they can afford it, but there is the promise of quicker and easier access. Their ability to engage in the cash economy in the city and potentially buy this equipment is an important component of what farmers call 'modern' urban farming. Some of the wealthier farmers used water pumps, rather than hauling water in heavy water cans (**Figure 4.7.**).

Figure 4.7. Photo voice, Tazara (no caption). Farmer using his gas-powered water pump on his eggplant crop (Vincent).

The ability to grow the same (or at least very similar) vegetables all year long is distinct to the city. Much of Tanzania is at higher elevation and there are more pronounced hot and cold seasons, meaning the vegetables and other crops they cultivate cannot grow all year. Dar es Salaam, on the coast, has less temperature variation and people in the city have much easier access to inputs that can even out what seasonality does exist. This lack of seasonality is an important component of an 'urban' agriculture.

> With farming in the village, it's totally different than in town because people in the village depend on seasonality. Where she comes from, people can farm during December and get a nice harvest in February or March, start eating until the end of April and everything is dry. The veggies, you can harvest them in July… [then] eat them until September and it's done. People there [in villages] always suffer from hunger. But in town it's not seasonal. You can farm throughout the year. It's just that different vegetables can sometimes not like the weather, but you can manage that [with access to inputs and water]. With here, the life is a bit constant. You don't have to suffer too much. Sometimes you have to sell and get something to eat, sell again to get something to eat. Though you don't get much profit, at least life is easier. There is no time of year you have to go through so much suffering (John, Drive In).

Removing the cultivation of crops from the natural seasonality is an important part of urban agriculture in the context of Tanzania. The farmer in the quote above has a deep well on his farm, but the water table throughout the city is usually not far below the surface and farmers in the city dig wells that are a couple of meters deep, separating them from their reliance on the seasons. In much of the rest country, wells are very difficult and expensive to dig. Other farms tap into infrastructure such as pipes to get access to water, an option rarely available in the villages.

While water may be easier to access in the city, it is not uniformly available all year on all farms and sometimes there is too much. Some parts of the city flood during the long rains from March to June and the short rains from October to December. Msimbazi farmers number in the several hundred, and many of them are unable to farm in the worst rains as the valley of the Msimbazi River becomes flooded. Some areas of the city are unable to cultivate vegetables in the driest and hottest months because the wells dry up and there is no place to get water. At Tazara the number of farmers during the dry season is reduced from fifty to about twenty as those who do not wish to spend so much time looking for water engage in other economic activities until the rains return. The Drive In farm has been fortunate to have a thirty-meter deep sealed well with an electric pump. Oyster Bay is on police land and farmers use hoses and pipes, but the water pressure is poor in the middle of the day and they often get up around midnight to water when the pressure is more consistent. Most urban farmers must carry heavy water cans from nearby wells (though in the drier seasons, those wells may not be nearby) (**Figure 4.8.**). This variation between farms ensures a continual market for vegetables in the city; when one farm is unable to cope, other farms are well situated to take advantage.

Figure 4.8. Msimbazi farmer watering a plot of *mchicha*. The well is close to this particular plot, right behind her in the tall grass. Other plots are farther away and she carries both water containers to and from the well about fifty times a day. The majority of farmers irrigate their crops this way (L. McLees).

Scarcity and abundance are not the only water issues. Most popular opposition to agriculture in the city is due to the use of polluted water on crops. This is certainly not without a basis. The Msimbazi River flowing through the city is heavily polluted, both with trash and unregulated pollution from upstream industries (**Figure 4.9.**). The public has been increasingly wary of eating urban greens as several news articles have come out warning of the dangers of eating vegetables grown with polluted water. Though a study in 1997 claimed that there were no effects from using the polluted water on the

vegetables grown in the Msimbazi Valley (Muster 1997), more recently studies that examined soil, water and vegetable contamination in the valley have revealed high toxicity from industrial pollution (Kihampa and Mwegoha 2010)– hardly surprising given the unregulated industry upstream. As a result of the press generated from these reports, the Ilala Agriculture Extension Office ordered people to stop farming in the valley in August of 2010. This order was, unsurprisingly, completely ignored. The Tazara farm is heavy polluted from the nearby rail yard. On different visits, the water would be yellow-gray (**Figure 4.10.**) to a reddish-gray. The pictures I show here were not taken by farmers in the photo voice project; none of the farmers noted the pollution on their farms. While they stressed water issues, this related more to scarcity and labor. I believe the farmers did not want to highlight the pollution, or provide evidence of it, because they are aware of how political the issue is.

Figure 4.9. Trash buildup on the Msimbazi river. This picture is taken from one of the plots in the Msimbazi Valley. The bridge goes under Kawawa Road, a major thoroughfare in the city (A. Halloran).

Figure 4.10. Chemical pollution in a stream on the Tazara farm. This yellow stream was reddish-grey another day. This stream was blocked by the agriculture extension office of Ilala in August of 2011 (L. McLees).

The high levels of industrial pollution and solid waste litter makes crops more vulnerable to contamination, and it makes the problem more visible to the public and the media. Occasionally sensationalist articles are printed that warn people of the grave dangers of eating urban vegetables.[8] Farmers and even vendors who sell fresh produce are now wary of being seen as profiting from selling poisoned vegetables, which was

[8] These media reports have titles such as "Vegetables in city gardens declared as silent killers" (Andrew 2008); "Vegetables grown in Msimbazi Valley unfit for human consumption" (Kato 2010); and "Death lurks in that plate of vegetables: Public in grave danger as experts warn of toxic greens on sale" (Kalokola 2010).

demonstrated to me quite vividly. Ummy and I went to the large central market in Kariakoo one day to try and find out more about where vendors there bought their vegetables. We found someone who was willing to introduce us to some vendors, but whenever Ummy talked to them, they got upset, saying that we were going to accuse them of selling poisoned produce. Because it became tense very quickly, we dropped this inquiry. It is possible that my presence as a white foreigner in a place where very few whites ever go made the vendors feel that I was trying to trick them or show how a backwards they were,[9] making them defensive. We tried this on a few occasions when we felt media attention was lower, but we were never able to convince the vendors that we were not trying to trap them. The scale of the pollution and the politics surrounding it are distinctive feature of the urbanization of agriculture.

Conclusion

The physical layout, the spatial dynamism at the urban and farm scales, and the unique environmental issues that provide advantages and disadvantages for farmers are important components to agriculture in cities. This is not to romanticize spatial dynamism; it has very real and negative influences on farmers. They do not like that they have insecure tenure and they know that they might be forced to move, but they accept that it is a part of farming in a growing city. Many say that despite this insecurity, they would rather farm in the city than the village, partly because of other urban realities I outline in the sections below. The ways that farms and crops are physically organized in the city provides a clear example of how the practice of agriculture is urbanized. Due to spatial constraints, higher-value crops are grown, rather than staples. Leafy greens have a very quick growing cycle, and the majority can be harvested within four to five weeks. This ensures a continual cash income needed to survive in the city to easily pay for food, medicine, school fees and other amenities such as alcohol, cloth, cell phones, transportation, etc. It is not that people in villages do not also have these things, but that gaining access to cash is more difficult as a result of the types of crops grown and the

[9] Ummy and I talked about the significance of these conversations. The presence of a white person can be incredibly disruptive when one is making inquiries into a politically sensitive subject. Many Tanzanians suspect the motives of outsiders, who often frame Tanzanians as poor, backwards and helpless, which many Tanzanians obviously resent.

temporal limitations on the harvest. I will explain more below the economic implications of this. Further, farmers overwhelmingly claimed that they have better access to water in the city. Some farms have piped water and others tap the pipes running through their farm. The low water table in the city means that wells are dug relatively easily and farmers can access water all year long. The influence of the rainy and dry seasons means that even though many farmers will quit farming in times of water stress, being in the city gives them access to other forms of economic generation, as outlined in the next section. Finally, farmers (and vendors and consumers) must negotiate the idea of growing crops in the city and the influence on human health. With consumers being proximate to producers, the issue becomes highly politicized. This theme will be elaborated upon in the following chapter.

Social and Economic Spatial Practices

In this section I address the complex social functions that take place on farms that result from their situatedness in the urban context. As I discussed earlier in this chapter, people from across economic classes engage in urban open space farming. While people do not generally move to the city to farm, many fall into it after several years of not being able to earn a steady income at other jobs. People often begin farming because they know someone else who does it and who can provide a connection to a plot of land. Farms are important sites of social support and connection, but also they are also nodes in vast networks that extend beyond the farm through the relationships with customers, supplies and people just walking through. I will address some of these patterns that I observed and collected through my data. I have broken this into three sections, one which addresses broadly the social arrangements, then explores the economics of urban open space farms and finally I will draw out the individual experiences that constitute the life of an urban farmer. This section will focus on how practices and materials are organized in ways that reflect the adaptation of agriculture to the context of the city's built environment.

Social Regulation of Space

One of the primary differences for farmers between farming in the village and the city is the reliance on social relations rather than kin relations in daily work. In villages

farmers are working on individual family plots. Any social contact was with family, such as the sons and daughters who help with daily chores. According to the farmers I talked with who had grown up in villages and had farmed during their childhood, a family has several plots proximate to each other, which may be adjacent to one or two other people, but there was rarely much social interaction between people beyond exchanging brief conversation and news. Farms in the village are not spaces for socializing.

This is very distinct from the role of farms in the city as social spaces. Being situated in a city brings farms in contact with people walking by or through the farm. These people may stop and chat, or they may be people who use the main pathways through the farm as a shortcut though even strangers generally stop to greet farmers and often chat (**Figure 4.11.**). In my own visits to the farms I constantly observed non-farmers walking through the farms, greeting people or stopping to buy vegetables. The entire farm is not available for just anyone, though. Most farms have larger pathways through them that anyone can use, but the smaller paths that separate plots are generally only used by the farmers.

Figure 4.11. Photo voice, Tazara. "This path is often used each day by children who cross through the farm to reach their school. They greet us as they pass" (Andrew).

In the photo voice projects, farmers did not note the exclusion of people from parts of the farms, even though this was an apparent issue that they confronted on a daily basis. How they regulate the people who move through the farms to guarantee the safety, efficiency and sense of social cohesion on farms relies on their ability to control movements and actions through often subtle means. In interviews, I asked them to discuss social spaces that were only available to farmers, their acquaintances or other people associated with the farm. I often herd the phrase, “not just anybody can sit there.” One common resting area on the Drive In farm was a large log under mango and papaya trees, where I often found farmers, their friends and nearby stove vendors (**Figure 4.12.**).

> Those people who sit on the logs over there are those who work [nearby] selling the stoves and stones. People who sit there must be a part of our group. [Their inclusion in the farming group] makes them closer to the people who farm here so they can sit and rest there and make stories all day long (Hana, Drive In).

Figure 4.12. Photo voice, Drive In. "This is where I sit with my customers. We have sat here for some time and chatted, exchanging news and stories. This is an important time with our customers. We are very happy" (Terry).

When I asked farmers how they excluded people who might not belong on the farms, they generally insisted simply that everyone knows whether they belong or not in specific places. Pursuing this line of inquiry was challenging; it is difficult to outline intangible rules, even if they have a tangible impact on the use of space. How this rule was created was certainly difficult to address, and it represents how spatial practice creates codes and norms in the urban landscape that are unconscious, yet nevertheless have very real impacts on people's use of space. However, some farmers said that if someone who did not belong was inappropriately using space on the farm, they would go over to that person and tell them to leave. Though I never witnessed this on the farms, my own observations in Dar es Salaam more generally line up with this direct form of regulation of space. It is not uncommon for people to tell others to leave an area that they may not belong in, and I saw this on occasion in the city.

Another example of regulated spaces is the shared personal enclosures that I found at the Temeke farm. While 'shared personal enclosures' may seem a contradiction in terms, what this refers to are the small tent-like structures scattered throughout the farm. When walking around you can see that there might be a set of nice clothes hanging from the tree, ostensibly from someone who had come to the farm, changed out of their street clothes into ones more appropriate for farming. The enclosures are made from plastic or cloth that is tied to the tree (**Figure 4.13.**). Upon questioning farmers about these ubiquitous structures, I was told that "after doing hard work, you can got there and rest. It's only for the farmers, but any farmer can use any of them on the farm" (Mathew, Temeke). These small personal yet communal spaces illustrate another kind of regulation of micro-spaces on the farms, and they demonstrate the need for security and privacy in the urban setting.

Figure 4.13. Tents on the Temeke farm. One of many tent-like structures made of plastic or canvass found on the Temeke farm (L. McLees).

Socialization on Farms

Farms in cities are intensely social spaces, whether it was the Somanga Shule farm with only three farmers who work independently, the Drive In group with the strongest social cohesion and a formally recognized occupational group, or the Ubungo farm that could not seem to keep a strong group structure, but like everywhere, informal socialization is the norm. These interactions are an integral part of the spatial organization of the farm. **Figure 4.14.** is a mental map drawn by a farmer at the Oyster Bay farm. Her house is on nearby land, making it easy for her to take care of daily chores and her children. This farm is actually comprised of the wives of the police officers living on a piece of land enclosed in a triangle of busy streets. As many of the maps on the more cohesive farms illustrate, socializing is a central component of daily life. In small open spaces not under cultivation, the women will sit together under a tree on mats, logs, stumps, stones and tires while waiting for the customers to appear (**Figure 4.15.**).

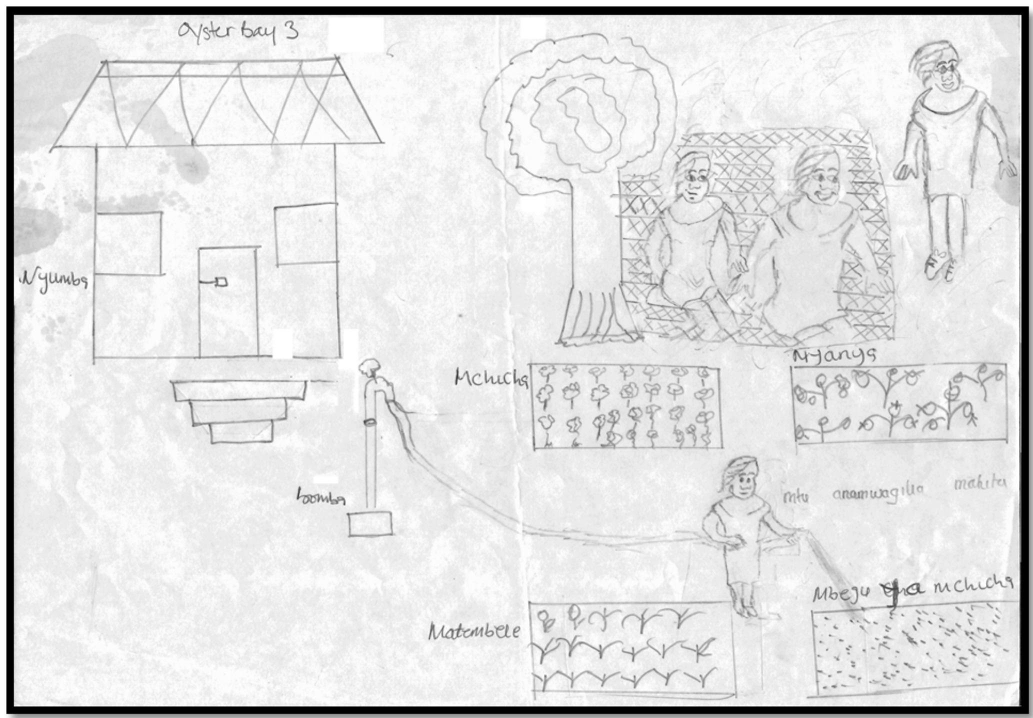

Figure 4.14. Mental map, Oyster Bay. The farmer is showing her nearby house, the water pipe, working and relaxing with friends while waiting for customers (Hana).

Figure 4.15. Photo voice, Oyster Bay. "In this picture we see plots of mchicha that are ready for harvest, a big stone and potato leaves. This important thing is the stone. People, especially the farmers, love to sit here and wait for the customers or even to rest and chat. This picture shows calmness" (Andrea).

As indicated above, some farms have more formal social groups that they use for support, communication and coordination. Leaders are chosen by election or consensus, and some groups even have vice-chairs and treasurers, who collect any membership fees and store the money in their bank accounts. Groups want to use these fees to provide loans to farmers who might need help or who want to start another business, or to contribute to buying ‘more modern’ equipment such as water pumps— though I did not find an instance where this second goal had been achieved. The degree of formality varies, as some groups are registered with the ward office, which requires a constitution and paperwork, and others continue more informally, though often with hopes of registering with the ward office. Registration is strongly encouraged by local government officials. The advantages to the farmers are questionable, except that it gives them a formal avenue for requesting trainings, assistance or land. Whether or not they receive these things, however, is often a reflection of local politics and the whims of agriculture agents and planners.

The Drive In group is certainly the most formal organized group that I worked with in Dar es Salaam. The farmers were encouraged to form their group after they received their well, which was funded by the World Bank through Kinondoni District. They had seen that when they worked together at getting something, they could achieve it. The farmers called themselves together, discussed the purpose of having a group and contacted a local ward officer to find out how to formally register their group.[10] The farmers chose a leader, a vice-chair and a treasurer and then hired a local person that one of the farmers knew to type up the constitution to present to the ward and district offices. The constitution outlines the guidelines for membership (people who cultivate land in the area), conditions of membership (fees, attending meetings), the leader’s responsibilities, committee members’ responsibilities, and names of the original members. It also regulates how land is allocated and what happens when there are conflicts.

> On a farm like this there are always problems, like people have to fight over a hoe or a rake. Someone might take a pipe and water her garden the whole day. Because of that they thought of calling themselves together and each would contribute what they want for laws for the group. ‘This should be this and this

[10] The issue of group registration will be taken up in more detail in chapter five.

> should be this,' and somebody wrote them all down. The laws of this place, like we should respect each other, there should not be fighting, water should be used this way and this way…
>
> They were asked to submit [the constitution to the ward] to show that they are farmers, that they know each other and they have a group… They also have rules that this place is like this and we respect each other and things like that. Because sometimes it could happen that somebody would sell a plot when they wanted to travel and then come back and say I need my plot. Because no one knew, that new person was chased off even though it's true he bought the plot. So things like when you want to sell a plot you need to confirm with everyone. When someone would not obey the rules, his plots would be taken by force and not sold to anyone, people would just farm on that plot and the profit would go to the group's account.
>
> *Has that ever happened?* People would never do that because they're scared to lose their land. (Mama Mary, Drive In).

The Drive In group is also unique in that its membership does not only consist of farmers. Adjacent to the farms are men who sell stoves and *tanga* stones (a particular type of slate stone used for landscaping). These vendors are generally young men who hang out on the farm waiting for customers. They are actually members of the farming group through an agreement that was mutually beneficial for both the farmers and the vendors. The vendors have a 'more legal' place from which to sell their stoves and stones, and the farmers have more members and more income through monthly dues.

> When they formed the Drive In group, they wanted more members, but with them a member has to be someone who has a plot here. But the plots were filled up and there was not any more free space. These people who are selling the *majiko* [stoves] here, they used to sell them locally, carrying them and going away quickly because if they stopped to try and sell them, people from the municipality would come and carry the stoves away and throw them away because they were not registered, giving them no specific place to sell those things. So when this was going on continuously, these farmers told them, because their aim was to have more members and to increase their income, they told the vendors they could be in the group, and we can register you in our group, bring to our space, the space that was not farmed in front there and you'll be paying us Tsh2000 per month, though [they] earn more than that. [The farmers] have a very good relationship with the vendors. (John, Drive In).

The Drive In group holds meetings twice a month where they discuss pricing, problems with pests, people working on the farm who are sick or need help, conflicts, what kinds of development they want and they collected monthly dues and fees to pay for

the electricity that runs the water pump. These group meetings also are very important in maintaining solidarity between the farmers. Often meetings are called at other times if there are problems or issues that need to be discussed. The chairperson of this group is actively involved with her farmers, and they obviously have great respect for her, even though she seems to be one of the poorest farmers in the group. She is proud of the influence she has and how well she knows her group members (**Figure 4.16.**).

Figure 4.16. Photo voice, Drive In. "Always when I am with my group members we exchange ideas and give each other different advice on different issues that are related to farming business. Even if there is a fight we can solve it in this way so that we forgive each other easily and quickly. This picture makes me happy in the way we exchange ideas. As a director of the group, I like being close to my group members so that I know their problems" (Mama Mary, Drive In).

The Ubungo farm is located in a small wooded area near the University of Dar es Salaam, the Ubungo Bus Station where one catches a bus to other areas of the country, and the Ubungo *dala dala* station— a central node in the city bus network. Our experiences at Ubungo were indicative of the lack of unity that exists on the farm, though there was a strong desire for it. We were introduced to the farmers by the ward agricultural agent, who proudly buys her vegetables there. She strongly supports the

farmers— more than any other agriculture agent we met. She encouraged farmers' early attempts to organize themselves, but the leader who was chosen, who we were introduced to, was accused by many farmers of stealing the money they had collected for the group. We went through several interviews before someone would tell us what was happening. Most farmers diplomatically said that the group just fell apart and they needed to start a new one with new leadership. One more disgruntled farmer, however, provided insight into the breakdown of the group process. His quote tells the story of group formation and disintegration:

> At first when the group was formed they said that their aim was to collect money and to try and find a plot somewhere [with more secure land tenure], to collect money which will help us when we need to buy something like [water] pumps and stuff. To collect money that we can give loans at hard times, or if somebody started farming he can take a loan and start some business here. So everybody tended to join the group, but as time went by he thought that the group wasn't really helping anything. Because whenever they called a meeting, there was nothing being discussed and he thought it was just useless so he went out of the group immediately. But his brothers were still in the group and they contributed money every month, which as it was said, was being taken to the bank. But as time went by he noticed that the group was separating; people left and not everyone was going to the group and people didn't care. But the money that the people had contributed was still there. So there was a certain time when it was like a fight happened, and it was noticed that the leaders of the groups consumed all the money that people were contributing. So they were in the process of taking them to jail and they decided to let it go [due to pressure from the ward agriculture officer]. So that's how the group broke up. He said that the main reason that the group broke up was that there was no love in the group and people were jealous of each other (Joseph, Ubungo).

Most farmers at Ubungo said that the group broke up due to a misunderstanding, but would not provide further comments, insisting that when they elected new leaders, they would have a new group. In the meantime, there is still coordination over pricing and digging wells that occurs at all farms, and which helps maintain some communication and cohesion in this loosely organized group. The social use of space at Ubungo was quite distinct from Drive In, where farmers move easily through and have popular resting spots that all farmers frequent. Farmers at Ubungo usually sit in smaller groups spread throughout the farm. I did not conduct a photo voice or a mental map project at this farm, but pictures I was able to take while receiving tours of the area show small groups near their plots (**Figures 4.17. & 4.18.**). Socializing is as important here as

Figure 4.17. Meeting place at Ubungo farm. Three farmers resting in the shade under some trees at Ubungo. This was an ideal central meeting spot on the farm because it had shade, but we rarely saw more than three farmers there. (L. McLees).

Figure 4.18. Social spaces at Ubungo Farm. Four farmers visiting under a small papaya tree. This was the largest grouping of farmers we ever saw, which unlike at other farms where there were more centralized meeting spaces (L. McLees).

anywhere, but people were less connected to each other. There is a strong desire for a more formal group, but the failure merely reflects personality politics that are manifest in any social situation.

One final group I want to discuss is the Temeke farmers, who fall somewhere in the middle in terms of group cohesion and progress towards formal registration. There are fifty-five farmers in this group, the largest group that we interviewed. The leader was very hospitable and seemed to garner a great deal of respect from his fellow farmers. Their experience with formal registration, however, was that an NGO had once come by and tried to get the farmers to form a group and promised to register them with the ward. The farmers organized themselves, but the people from the NGO never returned as they promised, which was frustrating for the farmers. They had not been aware that they could register themselves without the help of an outside actor, and by the end of my project, they were creating a constitution and in contact with extension agents from the Temeke district agriculture office. There had been some informal organizing prior, but instead of being motivated by buy new tools, they were primarily concerned with land tenure and digging wells, which often filled up with sand after rains or needed to be deepened in the dry season. Farmers rarely had formal meetings, even if they did have a committee in charge, and they only contributed money very occasionally to a general collection. As with the Tazara farm, one of the primary influences on group membership was the seasons: the seasons where farmers had more difficulties, such as when the Temeke fields flooded in the rainy season, group buy-in was significantly less. People attributed this to there being more work (time) for farming and needing to find other sources of income that limited their time and ability to participate in the group:

> There is one group of farmers. So he's saying that in the group what they talk about is finding a place that's permanent for them. They know at any time they can be chased out of this place and they will have no say. Also in the group, they have this thing of contributing for pesticides and things like that. But when the rains came they stopped dealing with the group because there was no business at all. Everybody is just on his own. He says it will come back together. They also contribute to welcome visitors (Morgan, Temeke).

Contributions, importantly, does not only mean cash. It also means contributing vegetables as gifts to visitors. Ummy and I often left the farms with *mchicha* or oranges, a popular roadside snack available from May to August, as it is considered polite to offer guests some gifts and very insulting for the guests to refuse them. In the case of Temeke, someone on the farm was called upon to provide us with vegetables, at least until we had been there five or six times and could politely convince them that they did not need to offer us gifts. Despite having little formal function, Temeke is a very cohesive informal group. Digging wells requires organizing labor, and everyone who is affected by a well must help (**Figure 4.19.**). From the beginning, digging wells at Temeke has always meant coordination within the group.

Figure 4.19. Photo voice, Temeke. "We want policy makers to see these photos because we spend a lot of time redigging in order to get water. This is hard work and we do it almost every day." The green in the water is a harmless small-leafed plant (Vincent).

When the first farmers arrived at Temeke, they started planting vegetables around the edge of the shallow ten acre depression that makes up the farm while some Zamoro women (members of the Zamoro group were historically located in the area of Dar es

Salaam prior to urban expansion) planted rice. Over time the women left and more farmers moved in, many from a nearby farm called Kibasila that had recently been bought out by a locally famous wealthy Indian to turn the area into a parking garage. When the last of the Zamoro women left, the vegetable farmers took over the remaining land and decided to organize themselves to manage the land.

> He says that the wells were here [from when the Zamoro women created them], but they had to modify them because whenever it rains there's a lot of water that gets in the wells and erode the sides, causing them to fill up with dirt. So they called the farmers together and decided which wells to modify and on what places there should be big wells (Mathew, Temeke).

> For every three people who have plots somewhere, they have to dig their own well with their own strength. Maybe they have to pay someone to help them. Like this one [next to where we're sitting] is for these two people here and there are many others around the farm that must be constantly managed (Morgan, Temeke).

When I asked some farmers what happened if someone did not help with redigging a well:

> It is that farmers' choice, but they would know that when they needed help [when they were sick or had other problems], people would not help them. *Has it ever happened?* It never has. People know that it is part of farming here. At least you have help in the city, which you might not in the village where you might not have people nearby to help (Isak, Temeke).

Even in situations of relatively loose cohesion, there are still norms that govern duty and responsibility to the farmers around.

I discuss these three farms and their levels of group cohesion for two reasons. First is to show that urban farms are intensely social spaces where people work together to negotiate power (of the city, of different farmers), markets and the biology of vegetable production to secure their livelihoods and personal fulfillment. Group function is necessarily dependent on the perceived need for cohesion, trust and leadership, and other outside factors that encourage group formation in response to perceived threats. Second is to show the range of those social spaces. Open space farms are often identified with some sort of group cohesion, but this is something that must be worked towards, because personalities, ecology, power and multiple interests can all be barriers to or facilitate effective group formation. My intent here is to disrupt the notion that social

groupings on farms are natural or just another part of life on urban farms. Often these groups have been examined fairly unproblematically with the goal of showing how much social security and support the groups provide. Taking the analysis of groups further, examining what constitutes an effective group and under what circumstances does it succeed or fail deepens our understanding of how open space farms function in daily urban life.

The next section builds upon the social dynamics discussed above and focuses more on the economics of a distinctly urban agriculture. While the assumption that farmers engage in urban crop cultivation as a way of coping with economic marginalization or the inability to find other work certainly holds truth, it does not represent the entirety of the economic experience on farms. I presented the social components of a distinctly urban farming before the economic simply because many of the economic dynamics on farms are dependent on social relationships and group cohesion.

Economic Spaces and Functions on Farms

Certainly farms in the city situate farmers much closer to their actual markets and customers. Many farmers do not need to leave the farm to sell their products; the customers literally come to them. Early in the morning, around 5:00 or 6:00am, after the farmers arrive to work, traders from the markets arrive to buy entire plots of greens to sell at the markets (**Figure 4.20.**). A farmer might have previously negotiated with the trader and established an agreement for an amount of money for an entire plot, or they might just show up and bargain on the spot. This is a very busy time on the farm when the plots are quickly harvested and the greens are tied into the standard size bunches available to for sale at the market. The farmers often work together, sometimes hiring other non-farmers, to make sure that this is done quickly, providing incentive for that trader to return to that farm.

This process is not unproblematic. Traders often come and negotiate with farmers days before, then return to purchase the newly harvested plot. On one occasion when Ummy and I were getting settled on one farm for interviews, we could see a commotion

about fifty meters away between several farmers. It turned out that one of the farmers had made an agreement with a trader to sell an entire plot of *mchicha*. The farmer sold several bunches to someone else and intended to harvest the entire plot before the trader arrived, which would hide the fact that some of it was missing. The trader arrived early, however, and a loud argument broke out. The leader of this farm was mediating between the farmers and the trader, with several other farmers looking on. The personality of and respect for the leader certainly helped the negotiations, and also prevented the farmers from being attacked by the trader as a thief— an accusation that can quickly lead to

Figure 4.20. Photo voice , Temeke. "Every day there is a big harvest of mchicha from this farm. When the traders come, farmers work together to help each other harvest. If we work together, then traders know they can count on us to be fast" (Elias).

violence in Dar es Salaam.[11] The leader was able to negotiate a lower price and asked him to keep coming to buy from other farmers, even if he refused to work with the person

[11] 'Mob justice' is a common way of dealing with accusations of theft and other crimes. One day while I was riding a *dala dala* (minibus) someone shouted *mwizi!* (thief!) and the atmosphere electrified. It was quite startling. Several men started chasing another man who had stolen a wallet as the victim was exiting the bus. When people are caught it is not uncommon for them to be beaten severely, and the daily news

who had tried to cheat him. The loss of even one trader for the fifty farmers there would have been difficult, and the leader was primarily interested in making sure the reputation of his farm remained intact.

After the initial wave of large-scale traders each day, there tends to be street traders, generally (though not always) women who buy around twenty bunches of vegetables to carry through the streets and sell to people in houses. While the quantity of the vegetables they buy individually is certainly less, their consistency is vital for the livelihoods of the farmers. Traders from the market do not come every day, and they often rotate between farms. The women however usually live in the area of the farm and are very consistent customers (**Figure 4.21.**). The final group of customers who come to the farm are individuals buying food for their daily meals. They may come to a vending stand on the farm, or they can walk into the farm and look for anyone who has the product they are looking to buy. If that farmer does not have any, they will direct the customer on to someone who does. At all farmers we visited there is a fixed price for selling individual bunches. When a farmer sold at a lower price it caused problems between farmers because it took customers away from others.

All of this is facilitated by the infrastructure of cities. One of the main differences between farming in the village and the city is the access to reliable markets. There are several large markets in the city, and several different types of customers. This access is facilitated by the roads and variety of transportation found in cities. Many farmers who do take products to the market take it there by foot through network of trails and roads and some can take a *dala dala* (though they must pay extra fare for taking up room with the baskets of produce). Some also have bicycles and motorbikes that they use to haul their produce to the market. They will first try to sell their vegetables to vendors, but if that does not work, at some markets they can try to sell the products themselves. Very few farmers like doing this, however, because they know that people look down on them as farmers, and they are not provided with tables on which to sell the vegetables, making

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reports tell stories about mob justice throughout the city (for theft, rape and murder). This is a controversial practice, but people say that it is the only way to deter crime, as the police cannot be counted upon to help.

Figure 4.21. Photo voice, Tazara. "These are our small customers who help usmost of the time when we do not have middle men to buy most of our products. The truth is we do not always have big business who can buy all of our products, so we are dependant on these women" (Pasco).

the greens seem dirty (**Figure 4.22.**). The infrastructure of cities allows farmers access to many types of customers, rather than having to deal with one middle man.

Farmers often argued that greens grown in the city are better because they are fresher, and from my own experiences talking to people both within the research project and in daily life, undoubtedly people in Dar es Salaam are picky about the freshness of their vegetables.

> [P]eople in the village have to transport their vegetables to town and when they vegetables stay on the road a long time, they are not so tasty. So obviously people will buy the vegetables being grown in the city, not in the village. There is a market [for urban vegetables] every day (Mathew, Temeke).

The main argument here is often that there is not the technology to transport vegetables the long distances from even the peri-urban areas. The hot sun, snarled traffic and lack of refrigeration in transport vehicles means that vegetables will arrive in the

markets wilted and do not sell or as good a price, giving the urban crops a distinct market advantage.

Figure 4.22. Photo voice, Tazara. "This picture shows how we do business without a specific market [support]. We only have a temporary market. We spread out the vegetables on the ground, which is not a clean and safe way to have the assurance of selling all of our vegetables" (Elias).

Spaces for Diversifying Income

Farms are not only utilized for farming and selling produce. Several farmers use these spaces to provide economic diversity to their income.

> You can farm in the city and do other jobs. Like the same people who will be buying vegetables from you, you can at least talk to them when you see that someone can employ you and say 'I'm doing this, but if you have any extra jobs, you can employ me' (Martin, Drive In).

In the photo voice project, many farmers who had diversified their income were keen to show how this integrates into their life on the farm. Most commonly they would open produce stands on the farm. Ordinarily farmers sell to customers who come to the farm and look for a farmer who has what they need. Many farmers have built stands at which to sell their vegetables, but they also buy other produce from the market to sell in

addition to the vegetables, such as oranges, cucumbers, carrots, cabbage and bananas. The farmer in **Figure 4.23.** also sold individual cigarettes to passerby (always male, it is not considered appropriate for women to smoke), who would then sit and smoke and chat with the farmers until he finished.

As mentioned above, the Drive In group has a deep, sealed well with an electric pump. The farmers had to build a shed to house the pump and then they built a small roof off the side of it for meetings and relaxing. One woman asked the other farmers if she could use that space for cooking street food lunches for passerby. The farmers agreed and she began cooking rice or *ugali* with some meat and vegetables to sell for 1000-1500 Tsh (0.60-$1.00). She was fairly successful when she first started due to some construction

Figure 4.23. Photo voice, Temeke. (no caption) A farmer working his stand. He is selling his own leafy greens, but also the cabbage he bought at the market is visible. He also processes the vegetables, cutting of the stems and sometimes shredding it to increase the product value (Tim).

happening nearby, which brought her customers. However, by the time I talked to her, business was slumping and she could not afford to buy the necessary supplies every day

(**Figure 4.24.**). While the shed presented an idea for economic opportunity, it means that on top of the hard labor of farming, she must also cook and clean.

Farming in the city also allows people to engage in multiple economic activities. They may farm some days, but also be a taxi driver, a guard, or have some other small jobs. Making connections in the city and the reliance on a cash economy gives people a diverse range of activities that can bring them money.

> In town you can do to or three things [at a time]. You can farm and sell that. You can cook something at home and sell that. You can do the small business like she is doing [making envelopes for pharmacies]. But in the village you can't to the business she is doing because there are not really pharmacies there (Leanna, Msimbazi).

Figure 4.24. Photo voice, Drive In. "I do my work and I get so tired, I have no option other than taking a rest. Here I have finished selling my food ad I am resting. I am tired. The business is going so bad, which makes me unhappy, because I am trying to increase my income, but the conditions become so hard" (Mary).

Several farmers also discussed the lack of a cash economy in the villages as a distinct disadvantage. Most farmers defined success and development as receiving cash, which is necessary to purchase food, medicine and household goods in town.

> In the village there is not a good circulation of money. Like everyone does not have enough money, so people will always be coming to borrow, 'please can I have some vegetables' and you just have to provide them, which gives you a big loss. But in town no one can come with that excuse. Someone can come with 500Tsh [0.35 cents], though they may demand more vegetables than that amount should usually buy. But that's OK, because at least they have something small to pay. She says that she finds the life of a farmer in town is more better than the one in the villages because in town there is a market for vegetables (Hana, Oyster Bay).

Living in the city also means proximity to other forms of income generation off-farm. At Tazara, where water is scarce at certain times of the year and fewer people farm, or at Msimbazi, when during the rainy season parts of the valley flood and it impossible to farm, people are able to find other work in the city. This is a distinct difference from the village, where there is little cash economy and a lack of diverse economies for people to engage it. I talked to farmers at Tazara who welded a few months a year when it was too dry, others sold second-hand clothes in the market. However, farming is seen as a more stable source of income: everybody needs food, and when the conditions are appropriate, they return to their plots and continue.

Finally, several farmers discussed the advantage of having plots of vegetables that were tangible evidence of future income. Women at Msimbazi, as they took me on a tour of their plots, told me that when they had to pay for school uniforms or fees, they could show the officials their plots that would be a guarantee of future income. In essence, they used their plots as collateral for purchases. The plots were also insurance against household hunger. While informal traders sell everything in the city from newspapers, water bottles, clothes, prayer rugs, watches, supplies for if your car breaks down, stuffed animals, jewelry and anything else, very few products can be consumed for nutrition if they are not sold at the end of the day. One variation on a common refrain we heard was 'at the end of the day, you can't eat a magazine.' Farms provide an added layer of food security beyond producing cash. Because the products are literally consumable, farming

households know that even if they have a bad day or week, they will not go hungry. This provides a counterbalance to the insecurity of engaging the cash economy.

Individual Experiences

What it means to be a farmer in a city, the types of personal fulfillment and the opportunities that urban areas provide, is an important part of this discussion. Farming in the city is not usually the first choice of urban migrants, though I did talk to a few who moved to the city to join relatives who were already farming. Often people turn to farming because other attempts at finding work have failed. One farmer at Msimbazi was trained as a shoe-maker, but the flood of second-hand goods from the more developed countries beginning in the 1990s put him out of business. Several famers had received training in welding or car repair, but an increased number of people with that training meant too little business. Many women had come to the city to be trained as tailors, but failed to earn enough money to rent a space, buy a machine or feed themselves. Farming became one more option of earning money in the city. Yet farmers are acutely aware that crop cultivation is associated with the village life that urban dwellers are trying to leave behind. Farmers know that people look down on them as poor or uneducated, despite the range of incomes and the reality of almost universal primary school education in Tanzania.

Undoubtedly farming is rigorous and often draining work. While acknowledging this, many farmers would also say that being at the farm was a respite in the city, a needed calm landscape that they could retreat to deal with the other pressures of urban life.

> She says that even when she's angry, even when she's come with so much anger in her heart, whenever she sees the green her anger goes away. She tends to relax when she gets to this place [the farm]. (Maria, Drive In).

I spent many afternoons resting in the shade with a few of the women at the Drive In farm. Their vantage point under the trees and amongst the green patches of vegetables and watching the traffic on Old Bagamoyo Road often led them to reflect that they were lucky to have these farms, that it made living in the city bearable because they had these cool, pleasant places to sit. These less tangible forms of enjoyment are easily overlooked

when talking about urban agriculture in the context of poverty, but they remain important for the people who engage in these practices (**Figure 4.25.**).

Pride is another very important part of being an urban farmer. While few farmers would say they were proud of their occupation unless directly asked, many expressed it through their discussions and particularly through the photo voice projects. Farmers are very proud that they provide food to the city, because otherwise they know that people would have less access to fresh vegetables. They are especially proud of being independent, and that they do not have to answer to anyone else in their daily work. Finally, farmers are proud of the tangible results of their labor, whether manifest in the plants being grown (**Figure 4.26.**) and how this reveals ones drive and hard work (**Figure 4.27.**), or in their ability to buy food and clothes to sustain their family.

Figure 4.25. Photo voice, Oyster Bay. "What is done is to improve the mchicha market by preparing well the plots of mchicha to get a good income will help us get out daily needs and help the people who can't farm. This picture represents the environment that surrounds us. I love this picture because it shows how calm the area is with no sun and not many people live here [as opposed to much denser informal settlements]" (Sally).

Because pride was a theme touched on in all of the photo voice projects, during the focus group discussions I often asked farmers what made them proud to be farmers in the city. Their responses, combined with the photo voice pictures reveals a strong narrative of 'making it' in the city. Life in Dar es Salaam is difficult (another common refrain about the city), and farmers must work hard to earn their income. There is a tangible sense of pride that they have succeeded on what they see as their own terms. They still fear loss of land and water is a continual struggle (for most), but despite these obstacles they have survived and often thrived.

Figure 4.26. Photo voice, Drive In. "This picture shows how happy I am after looking at how the vegetables have grown. It's no doubt that seeing the green beings happiness. This event contributes to the assurances of our daily earnings. This picture presents me as an enterprenuer and I love my work" (John).

> She's happy to do farming because when she wakes up in the morning it's all she thinks about. So she concentrates on her work. Compared to other jobs where you go and work somewhere and someone humiliates you and kind of doesn't give you all the rights and respect that you need. After that you might decide not to do the work, go home and rest until you get another job. That becomes so hard. But with farming, she just puts all her effort into farming because she knows that one day it's going to get better. At least is you don't get something to eat, you can

take something home from the plot and cook at home and sell a little to get something else to cook with an give the children (Naomi, Msimbazi).

She says that at least when I farm here people see me as a person, not just someone walking in the streets or something like that. They don't see me as a jobless person [who has to beg]. She does something and she gets something to eat so she gets some respect (Patty, Tazara).

She's proud because the husband doesn't find her as something helpless. So she's proud, though she doesn't have much education, she's proud she can do something else which makes her a woman and she can help her family. Something that doesn't make her husband find her a burden (Gladys, Oyster Bay).

Figure 4.27. Photo Voice, Oyster Bay. "This picture shows a woman watering her vegetables. The important thing is how she is using the container to water her plots. This shows that even if one is poor, it only takes some hard work to achieve what she can. So she is showing an example to others that nothing is impossible of you really want to do it. This represents activeness. I took this picture because I love watering the plots as it is one of the easier things. I really enjoy doing it at the farm and it makes me happy" (Hana)

Many farmers are able to pay their children's schools fees for secondary school, which most of them were not able to attend themselves as they grew up in villages where

farming often does not bring a profit. Some farmers have children going to the University of Dar es Salaam and two have sent children to South Africa for school. For these people, farming in the city is a practice that makes them more modern, more developed and their children more educated than they could hope to be in the villages.

The idea of being ‘more developed’ or ‘more modern’ in the city means many things to farmers. The existence of the cash economy is important in the urban context, and being able to engage in it, using smart business practices to earn and spend money, is seen as being more urban than as a part of village life. Farms are considered more lucrative than many other informal jobs in the city.

> [She loves farming because] she doesn’t have to wait for the monthly salary. And she’s not even educated, so even if it was a monthly salary it wouldn’t be that much. So at least now she does this she gets [cash] daily. Because [of the way crops are rotated so that something is always ready to harvest] she can always get something. Even if she wants uniforms or books for the children, she can call someone and say, 'when I sell this I am going to return your money so please lend me something' (Sabina, Msimbazi).

The existence of the cash economy in cities is an important advantage to urban crop cultivation. In cities, growing crops means that people can afford to have better health care, relax after work with friends and have a beer— or a soda in the case of women— and send their children to the better schools that exist in cities. Strong social cohesion also means that there are more people to help out in times of need.

> Back then [in the village] life was so hard. But when he came here, when you put effort in this you get something to eat, you get money to go to the hospital, when he gets sick and everything gets so bad, he informs people here and they go help him and take him to the hospital (Stefan, Msimbazi).

Several farmers emphasized that the cash earned from farming in the city has made their lives better, or as they often framed it, more developed. The way ‘being developed’ is framed is closely tied with urban life, conforming to standard narratives of development. This perception is not without foundation. Farmers’ overall lead easier lives in the city than in the village. They work less (though continue to work hard) and they enjoy the concentration of amenities that cities provide.

Conclusion

The descriptions presented in this chapter are intended to provide evidence that agriculture can indeed be an urban practice. In cities it has been reorganized spatially, physically, socially and economically to reflect urban ecologies, built environments and the existence of cash economies that exist in cities. The presence of urban agriculture in the interstitial spaces, its embeddedness where it can fit, and how this changes over time as land is used and abandoned, illustrate the dynamic nature of the practice. Short-cycle plants that can be harvested after only a few weeks are a strategy to deal with the reality of insecure land tenure. Farms are also intensely social spaces, both between farmers and other people who move through or near the space and within the farming groups themselves. In villages people are often reliant upon kin relations; there is rarely resting and relaxing out on the farm, and there are fewer neighbors to exchange information, make potential connections or just chat with. The groups that have developed on the farms in cities serve many purposes, such as regulating conduct on the farm, promoting unity and cohesiveness in order that farmers feel responsible for each other and to ensure that no one farmer is cheating the others, such as by undercutting prices. Finally, at the individual level, certainly many people farm to supplement their household income, but most farmers really appreciate the independence that farming in the city provides. They are not beholden to someone else for work, they get paid almost every day, rather than waiting until the end of the month or at the end of the harvest, and being in the city allows the benefits of engaging in the cash economy. The proximity to the cash economy brings urban amenities, such as better schools and hospitals and the ability to go to the pub down the street after work within reach. Most, though not all, farmers I talked to loved farming. They certainly recognized that it is hard work, but they are proud of their ability to grow these green plants in the city and help provide vegetables and contribute to urban nutrition.

I want to reiterate that this is not meant to reinforce a dualism between farming in the city and in the village. Practices do indeed overlap. For example, sometimes kin relations are important on farms in the city, but they are supplemented by social relations. Farmers in the villages can certainly be proud of what they grow, but the context might

be different and the difficulties of marketing and transportation make the life of the farmer in the village more difficult. The purpose of the chapter is not necessarily to draw a solid line between agriculture in the city and the village, but to highlight that in many ways, urban crop cultivation has distinct characteristics that should not be ignored in discussions over the urban manifestations of the practice. This is also not meant to undermine political economic approaches to urban agriculture that highlight the realities that farmers face: insecure tenure, market fluctuations, poverty that compels people to farm. These all exist. Yet to take these as the whole of the urban characteristics of agriculture takes away from a wider understanding not only of agriculture, but also of the city and what it means to be urban.

While the prevalence of urban agriculture has certainly increased in the past thirty years since the implementation of structural adjustment policies, it cannot be examined merely within the framework of coping with the failure of these policies. The practice existed in cities at independence (and in some cases during colonial settlement of cities), and it needs to be understood beyond the economic limitations imposed by the usual frameworks of analysis, which I address in the next chapter. By examining urban agriculture as an urban practice, we get a more complete view of what is really happening on farms, how they influence and are influenced by the city and what it means to have a modern city inclusive of agriculture. I do not argue that urban agriculture is a method of coping with failed development and modernization policies, I instead contend that urban agriculture, and the increased number of people engaging in the practice in the past thirty years, reflect urban modernization in the context of Sub-Saharan Africa, and in this case, Tanzania in particular. Those policies and ideas of urban development were imposed on a different social and economic reality, and urban agriculture emerged as a part of that contemporaneous urban reality.

The next chapter builds upon this foundation to examine issues of formality and informality as they are discussed in relation to urban agriculture. I start from the idea that there is not a binary between these two concepts, but that they instead represent a continuum of practices that blend together, that traverse both formal and informal, to reveal more nuance in urban systems. I use open space farms as a lens through which to

examine these ideas and the importance of power in how formality and informality are expressed in cities by addressing some current efforts to formalize urban agriculture.

CHAPTER V

INFORMALITY & URBAN SYSTEMS

What makes a practice formal or informal? In urban scholarship it is common to hear about the 'problems' of informality, especially in the cities of developing regions, how informality is a system people revert to when they are unable to engage in the formal economy, and implying that the informal economy is the domain of the marginalized. These approaches, however, simplify the reality of informality, its importance and integration into the production of cities and how closely linked with and interdependent it is with formal systems, spaces and practices. Informality is too often closely linked to marginalization and resistance to the formal economy, yet in my study I found that rather than resisting the formal economy, most farmers want to be integrated into it. People who farm are not necessarily marginalized and poor, and indeed many urban farmers are quite wealthy, sending their children to college in Dar es Salaam and South Africa. Instead of seeing urban farms as islands of informality, and by extension sites of intervention for formalization to 'fix' the problems of informality, this chapter demonstrates how intricately linked these are with more formalized spaces (markets, government offices) in the city. Indeed, it is difficult to delineate these processes neatly.

In this chapter I examine urban agriculture as a practice that negotiates between informal and formal spaces and relationships. The previous chapter examined the urbanization of agriculture socially, economically and environmentally. Here I build upon these ideas to examine how those characteristics are expressed and implicated within diverse urban systems. I show how formality and informality both are essential and mutually constitutive in creating and producing the urban spaces that people rely upon for their livelihood needs. This analysis requires problematizing the formal/informal divide to confront normative, Euro-American approaches towards the development of urban agriculture as it is being imported by outside actors, including development NGOs. I argue that we need to look beyond urban agriculture as an informal practice and instead see it one that is integrated into urban systems of power, materials and social connections and has important repercussions for the ways these spaces are understood and seen by development practitioners (planners, NGO, or otherwise). Rather than seeing these spaces

as projects, or as objects of development in need of a 'fix,' urban analysis needs to move beyond the informal-formal divide to make visible the myriad social and material urban networks in which these spaces are embedded. This analysis demonstrates that approaches to development need to stop seeing cities as a collection of projects, and instead needs to imagine a regionally or locally appropriate urban development that incorporates and recognizes activities such as agriculture as important component of complex urban systems rather than a derision of it. It also questions the continuation of the language of informality, and exmaine what it means to focus on the catagroy when eighty percent of an economy is informal. As I seek to blur the distinctions between these processes, I also focus on how we can talk about them beyond the binary, and how focusing on how expressions of power through various processes (legal, extra-legal, economic, social) are manifest in and create the urban landscape (Roy 2011a).

The bulk of the chapter consist of tracing connections, relationships and actors across urban spaces to examine how farms operate within both formal and informal networks and actions to engage in urban (and in some cases international) networks. The main argument here is that by looking at urban agriculture only within the framework of informality, researchers overlook the ways it is woven into the urban system and networks, which has serious implications for how this activity is managed. After presenting this data, I focuses more specifically on how informality is being reworked within planning theory, which has been criticized for its over-emphasis on the need to formalize all urban activities. The data I present reflects new approaches to position informality and formality as modes of production of urban spaces and reflect different levels of social or class power. Building off the case study material illustrates how these practices operate, and indeed often cannot be considered separate processes.

I then turn to a discussion of the implications of ignoring this more complex and nuanced system, some of which is already playing out in current discussions about how to integrate the practice into the newest revisions of the city Master Plan in 2011-2012. Efforts to zone for urban agriculture and incorporate it into visions of sustainable urban planning are based on the idea of spatial control in cities. Creating a zone for urban agriculture makes it easier for the government to regulate, tax and otherwise limit

activities in that space. The discussions surrounding this process also reveal how the neoliberal idea of providing tenure to informal uses of spaces is premised on static notions of cities and reifies the marginalization of people who are left out of the formalization process, as is currently happening to many of the farmers I worked with in Dar es Salaam. I will conclude with a discussion about potential ways forward of discussing informality.

The following section presents data from the case studies on the open space farms. Through these examples I examine how informality and formality are negotiated and produced through social and material spatial practices to produce farms and everyday urban landscapes. Finally, these examples are used to illustrate how farms are connected to other actors and spaces in the city, reflecting their dynamism and linkages within the urban systems of Dar es Salaam.

Tracing In/Formality and Power in Urban Systems

By referring to urban systems, I highlight the plurality and recognize that there is no one system that can define the city (Amin and Thrift 2002). I also do not refer to a system to imply there is an underlying logic to urban life, but that networks and spaces exist within multiple and overlapping arrangements. By taking this approach to urban systems, we gain a fuller appreciation for the practice and instead how current prescriptions to address the 'problem' of urban agriculture miss this point. I want to briefly express that the examples I outline below are not the only forms of power operating on these farms. There are age and gender hierarchies and other forms of power operating in these spaces. The purpose of these examples, however, is to problematize the formal-informal binary as a mode of explanation for urban agriculture.

The data for this section are drawn from interviews with farmers and their photo voice projects. This will be supplemented with interviews by government officials, including planners and agriculture extension agents, and documents obtained from both the Tanzanian government and the NGO Sustainable Cities. I also draw upon my own observations and experiences in meetings with the NGO. The following section is organized thematically, where a practice or use of space is examined for its formal and

informal characteristics. A discussion of the various actors and their relative access to power and influence within these practices and spaces enhances the discussion of how these practices operated within and beyond the formalized urban system.

Access to Land by Groups of Farmers

As discussed in the previous chapter, while urban agriculture is legal at the national level, no place in the city of Dar es Salaam has been zoned for the practice. In order to obtain and maintain access to land, groups of farmers in open spaces must constantly negotiate with landowners. This negotiation occurs with industrial companies, political parties, municipalities, schools and, in one instance, a police station. In some cases farmers begin farming without permission and slowly encroach on the land, and in others they make an agreement with the landowners prior to clearing the land for planting. Occasionally farmers are at the whim of changing land title and must formulate agreements with new landowners, and at other times the improvement of the land through farming causes disputes over who actually owns the land, as improved land becomes more valuable and different actors begin to assert claims to it. There are several examples to demonstrate the dynamism of these arrangements. Here I focus on three farms: Msimbazi, Tazara and Makumbusho Shule. While I could present a unique story for every farm I visited, these examples demonstrate the fluidity of the categories of formal and informal through a discussion of how farming groups secure access to land.

Msimbazi

Msimbazi is the largest open space farm in the city and has a long history of agriculture. During the colonial period, the area lay beyond the formal urban boundaries and farmers commonly grew rice and other staple crops there. At independence, President Nyerere, who encouraged self-reliance of Tanzanians through agriculture, gave the land over to the women of the Zamoro group,[1] who primarily used it to cultivate rice. As it expanded, especially post-independence, the city grew up and around the valley.

[1] I will use the word group rather than 'tribe,' even tough tribe is the commonly used terminology. I do this in recognition that the notion of tribe is a very colonial term that implies much more rigidity within and between identity groups than actually exists. The word tribe is also too commonly associated with primitivism. Group is a rather generic word, but I feel that it best suits my purposes here.

Settlement was limited because the valley floods regularly during the rainy seasons, though today informal settlements are tightly fit down the slopes right to the edge of the level at which the river will usually flood. Because people do not build on the valley floor, however, there are several hundred acres of land available for agriculture. The land is dominated by vegetable production today, though pockets of rice cultivation remain. Ummy and I were fortunate to interview Rachel, who was one of the women who received land from Nyerere and one of the last Zamoro remaining in the valley. Her narrative illustrates the many times this land has changed hands and how this has influenced who farms, what they grow and under what conditions they are allowed to stay:[2]

> Because she and her husband lived near here, when Mwalimu Nyerere[3] gave the land to the Zamoro women she qualified and with many other women started planting rice. They would walk to the center of town to sell it at the market. When Nyerere died [in 1999] and he was no longer around to protect his programs, that's when the rich people, the officers came in and said 'this place is ours.' They called themselves Sukita.[4] They came here and took the land. Some people were still planting rice, but others were planting vegetables. Sukita said, 'we only need people planting vegetables. Those with rice, go away.' So because she needed something to eat, she started planting vegetables, though she [still] has a small rice plot over there. So the [people from] Sukita planted a coconut plantation because they wanted the money. They thought it could be a big plantation and they could just sell somewhere. They let the vegetable farmers stay and grow between the trees, but there wasn't much room and other people kept livestock. But as time went by, it was not so profitable for Sukita, so they sold it a certain rich man[5] who came in with a crashing down machine [a machine to knock over the coconut trees]. Many are left standing today and there is more room for the vegetable plots (Rachel, Msimbazi).

Rachel's quote demonstrates the various forces and actors to which farmers have been subjected over the past five decades. Originally farmers had the support of the government— at least tacitly as colonial laws remained on the books outlawing the

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[2] As a reminder about quotations. As outlined in the methods chapter, all quotes will be in the third person to recognize the role of the translator in the act of interpretation.

[3] *Mwalimu* is Kiswahili for teacher. A nickname for the intellectual first president is Mwalimu Nyerere

[4] Sukita is the name of the business arm of the Chama cha Mapinduzi, or the Party of the Revolution, the party that has ruled Tanzania since independence from Britain.

[5] It turns out that the valley is still owned by Sukita, but managed by a different person who changed how the coconut plantation was run.

practice of agriculture in cities. When Nyerere's influence faded with the end of his presidency and death, commercial interests (in the form of the business arm of the ruling political party) took over. Sukita created a palm plantation, which left no room for rice cultivation and instead farmers were forced to leave or change what they grew. The Sukita company, as an arm of the ruling party, the Chama cha Mapinduzi (CCM), has an enormous amount of power in this space. Not only are they a formal company, they are also part of the dominant political party. Farmers have little recourse to challenge the conditions in which they work. They can, however, negotiate because their labor power directly benefits Sukita. Over time, more men became involved as the Zamoro women sold their plots or grew tired of farming and the valley became an area full of orderly palm trees surrounded by patches of vegetable plots (**Figure 5.1.**).

One man named Stefan, who had been farming Msimbazi for about twenty years, provided more insight into the relationship with Sukita:

> Some people decided to remain here [after Sukita kicked out many farmers]. Farmers were just doing small things like sweeping under the coconut trees, removing wastes like those ones there [a decaying coconut]. So they remained here. The Sukita people did not have workers [to clean up the debris] on their coconut plantations so they had to ask some people to do it for them. So after people like this man were doing it and they saw these people farming, these people asked to plant vegetables and Sukita said that was no problem as long as everything would remain as it is. Until now that's what they are doing is farming and sweeping under their trees. Now instead of selling coconuts the man who managed Sukita taps the palm wine and the farmers keep the area clean of fronds and coconuts that fall or are cut from the trees (Stefan, Msimbazi).

Figure 5.1. Palm plantation and vegetable plots in the Msimbazi Valley (L. McLees).

These narratives demonstrate the fluidity of ownership, access and responsibility farmers have had over time in the valley. Under Nyerere the Zamoro women were favored and proudly farmed staples to sell in the city markets. Over time as some of the Zamoro women left, other farmers negotiated for their plots and began to cultivate vegetables in the valley. The death of Nyerere meant that the Zamoro women's security and ability assert control over the valley faded. With increased population pressure, a more diverse population, and children who did not want to go into farming (who would rather live a more 'urban' lifestyle), many left farming or moved up the valley into less urban areas where rice is still grown. The vegetable farmers who stayed negotiated with

Sukita to keep the areas clear of debris in return for being able to farm, a relationship that has remained fairly stable even as the purposes of the plantation have changed. Sukita benefits from allowing the land to remain under cultivation in return for maintenance, even though this company represents one of the most powerful entities in the country. The very power they have allows them to permit and even promote this 'illegal' use of space in the city.

Tazara

As introduced in the previous chapter, the vegetable plots at Tazara are located adjacent to the railway repair yards (**Figure 5.2.**). About fifteen to twenty years ago (estimates vary between farmers) there was no farming on this land, but one by one people came in to ask if they could farm.

> This was just a bush when he came here at first, so he asked the owners, the TAZARA people. He was one of the first people. TAZARA didn't need this place because it was just there, there was no person to utilize this place and they got it from there. When he came the place wasn't full yet so he had to ask from one of the owners (Vincent, Tazara).

The land under cultivation is surrounded by both the railway repair yard and housing for the workers. Early on it was apparent that farmers would need permission. As the land was not being put to any other use, farmers were able to say that they could make the land productive.

When farmers first began cultivating on the TAZARA land they were charged rent that amounted to a few pennies a day. After a few years the stream that runs through the farm became very polluted, often changing colors every day and irritating the farmers' skin, and they worried about the effects on their crops. The farmers complained to TAZARA and asked them to block the water so they could ensure that their own wells would stay free of contamination, which TAZARA refused to do. The railway company did, however, stop charging the farmers rent. The farmers were fairly helpless to complain further about the water quality because they did not want to jeopardize their access to land, and they continued to use polluted water and dig new wells when they could. Yet the tenacious nature of that access was brought home to farmers in August of

Figure 5.2. The TAZARA Repair Yards. These yards lie adjacent to a field of *mchicha* at the Tazara farm (A. Halloran).

2010. When I visited the farm late in that month the group leader Vincent told me that three farmers had lost their plots because the railway company had sold a piece of land. Because there is no formal agreement between farmers and landowners, they had little recourse and those affected had to leave the group to find another place to farm.

Several farmers told me that the agreement was very beneficial for TAZARA because the reduction of trees and shrubs reduced hiding spaces for thieves that tried to break into the repair yards. This perception that farming reduces hiding spaces for thieves is a common theme that farmers draw upon to justify crop cultivation. In this case it turns out that even the railway company believes that having farms not only reduces hiding spaces for thieves, but generally improves the land, which has been graded, drained and made productive, making it more suitable for future sales (McLees 2011). Finally, for TAZARA the land being under cultivation discourages other more permanent forms of settlement, such as housing and street businesses, that can be more difficult to evict.

The Tazara farmers actually have one of the more stable relationships with

landowners in the city, despite the unequal power relationships, yet they are still at the mercy of the company for their livelihood needs, not just for access to land, but also clean water. They are able to articulate, however, that they do provide some benefits to the railway company that would be difficult (costly) for the company to provide themselves, such as keeping the fields maintained and looking nice, reducing land invasion by other more permanent structures, and reducing hiding spaces for thieves. This example illustrates how formal actors incorporate informal people and practices to maintain their own land security. Farmers have to balance their needs and requests with the knowledge that they have relatively little power to make demands, yet their security of land is somewhat more stable than other farming groups in the city.

Makumbusho Shule

One final type of arrangement is at the Makumbusho Shule[6] where about thirteen farmers have small plots on the property of a primary school. Many school properties in the city are quite large and the buildings few, leaving large swaths of unused land. The rest is generally large lots of dirt that students use to play soccer or otherwise recreate in (**Figure 5.3.**).

Farmers began cultivating here about ten years ago. One of the men was working as a night security guard and planted a small plot of *mchicha* to sell to the local community to earn extra money. He eventually received permission from the headmistress of the school to cultivate more plots and eventually other farmers joined, filling up almost the entire outdoor area of the school grounds (except, of course, the all-important soccer field where young men often played in the late afternoons while we interviewed farmers). Farmers are able to sell to the *maduka* (small shops on the side of the streets where most people buy everyday goods) and *hoteli* (street side restaurants) in the area (**Figure 5.4.**), rather than relying on selling everything to traders, though, like most farms, traders remain an important market outlet.

[6] *Shule* is the Kiswahili word for school, a derivative of the German *schule*.

Figure 5.3. Makumbusho Shule. Plots of *mchicha* in front of the school buildings (to the right), a soccer pitch in the background and hedges that separate the school yard from the trees surrounding the school (L. McLees).

As relatively stable (if severely underfunded) government institutions, schools are highly unlikely to be closed or moved, meaning that farmers have relatively stable access to land. While the threat remains that another building could go up and displace some farmers, the chances of that are extremely low as the government has little to no money to invest in education, let alone make improvements to school infrastructure.

The headmistress of the school receives 10,000Tsh per month rent from each of the farmers, the equivalent of about seven U.S. dollars. This money is ostensibly put into school funds, though it was impossible to find out for sure where the money went. Some farmers believed she put the money in the students' funds, but others felt that she probably kept it as an extra source of income, a not uncommon form of rent-seeking in the city. Regardless, these monies provided the farmers with an opportunity to establish a mutually beneficial relationship with the school: they have space to grow crops and the school (or at least the headmistress) earns an income. Farmers here, and several others

cultivating on school grounds throughout the city, have some of the most stable access arrangements.

Figure 5.4. Outside the hedges of Makumbusho Shule. The structures in the back are *maduka* (small shops) and *hoteli* (streetside eateries) where farmers can sell their *mchicha* (L. McLees).

The examples of Msimbazi, Tazara and Makumbusho Shule demonstrate the various relationships that farmers, as seemingly informal actors, have with highly formalized urban actors who guarantee that farmers access to land. Landowners are powerful actors and as long as farmers can maintain good relationships with them, they have relatively stable access to land. There is constant negotiation, as is demonstrated at Tazara and Msimbazi, as landowners have a vested interest in keeping farmers there, not only for security or clean-up, but to prevent more permanent informal settlements from being built that can be more difficult to remove later. Other lands used for formal purposes, such as the schools, are doled out by rent-seeking individuals who control access to that land. Each actor is negotiating between formal and informal uses, blurring the distinctions of these two terms and adding complexity to the machinations of land use

in the city.

Access to Land by Individual Farmers

Though often farmers have organized themselves into fairly organized groups, access to a plot for farming is often on an individual ‘who you know’ basis. This section presents a few ways that farmers make the links they need to access plots to demonstrate the multiple pathways of access and power that go into controlling land. This section draws upon interview material from three farms: Drive In, Msimbazi and Ubungo.

Drive In

The Drive In farm, located near the American Embassy, is one of the newer farms where I conducted interviews. The land belongs to the municipality and is considered a road reserve. Farmers remain there with the knowledge that they do not have secure land rights, but the municipality allows it for now. Most of the members in this group were the original farmers who began cultivating about seven years ago. Currently there is no more room to allow more people to farm Access to the land was originally granted by the adjacent homeowners (**Figure 5.5.**), who did not have the legal status to actually say how the land could be used, and the area filled up slowly over the course of several years starting in about 1995. After some farmers were displaced down the street with the building of the new American Embassy compound, the plots filled up fast.

The following quote from the Drive In group leader provides an example of how many of the farmers came to farm here, how they decided what to grow, how they gained access to plots and how the increased density influences the subdivision of land. The beginning gives some insight into the pressures that rural-urban migrants face as they come to the city and look for ways to earn their livelihoods:

Figure 5.5. Photo voice, Drive In (no caption). A farmer watering his fields with the walls that surround the houses adjacent to the farm (John).

> She got a job in Oyster Bay first as a house girl, but she was only being paid 7,500 per month [about $4.50]. The claim is that you're sleeping here, you're eating here, and you don't need more even though the people were very rich. She couldn't take it because at that time she had a child with another man. She thought life was so hard so she moved from Oyster Bay and came to work for the Nigerian here. With this place it was kind of nice because they were helping her and something. Because of her problems and the family she had… and because this place [used to be just a] dumping place, in front of that woman's house she used to work with, so she asked the woman and the woman said 'you can do anything you want with that place because it belongs to us.' She cleared this place and started planting *mchicha*, which she was just using for home use, and then people started coming and buying *mchicha* for fifty shillings so she thought people would need *mchicha*. The woman told her, why don't you just sell the *mchicha*? So she started selling. The profit went to her and she educated her child. Her mother died and she had to go back home and when she came back the woman in the house had gone away, so she didn't have any job. Since she had already started the gardens, she decided to go on with the gardens.
>
> At first there was this man who used to work with whites, in the white's house, he was called Chesco, he had plots next to where she had her plots. Chesco often would go away with the white people, like they took him away on trips. After a time she heard he was dead. So she just had to move over to those plots. It used to be like that, that when you have an open place beside your plot, you can take it for

> free because at that time, not so many people were coming to farm. But after they had made a group, they had to divide the plots for each person. Though the people that were favored were those that came here earlier. They have the bigger plots (Mama Mary, Drive In).

This quote demonstrates the various pathways through which access has been granted through time to individual farmers through the homeowners adjacent to the farm. Yet in reality, this land was not theirs to dole out, but their proximity, and their power as wealthy people, allowed them to claim the right to control the use of the land. It also shows that at least until now, the Kinondoni municipality that technically controls the land had no input into how the farmers allocate land, despite being the actual landowner.

Msimbazi

Most farmers, however, have had to negotiate access to plots with people already utilizing the land for their own livelihood. In these cases creating and maintaining social relationships becomes vital for access to land. Often these social interactions are fleeting and they take time to build up. Walking past a person each day over the course of several months or even years, offering to sell them chai or a newspaper can begin a conversation. These are often the type of social relationship that people rely on. As I discussed in chapter two, AbdouMaliq Simone has written extensively about the ephemeral and intangible relationships that people consciously or unconsciously weave with strangers that create a support network that people might able to rely on in times of distress. Many farmers in the city owe their ability to access land for farming on this essential, yet less material, process.

> She grew up in Kilimanjaro region, but there wasn't money to send her to primary school when her mother died. She came to visit a cousin in Msasani [a ward in the city]. Then she started tailoring. She got sick when she was doing the tailoring, as in she got arthritis. Once it became so serious so she had to go for an operation and it wasn't possible for her to do the tailoring again. So she started this business of walking around, buying small things, and walking around to sell them. She sold many things, such as *vitenge*, *kanga*, lotion, and many other things. So she sold to this woman working here [the Zamoro woman 'Rachel' quoted earlier] and they became friends. After becoming friends, she told [Rachel] that the job of walking and selling things didn't pay much and she liked what [Rachel] did on the farm. So she asked her if she could get land here. So when she came, [Rachel] gave her a plot of land, she didn't sell it, she just gave it to her. [Rachel] told her she should work there (Regina, Msimbazi).

I spent several hours talking with Rachel and Regina. Even though Regina had only been farming there for about six months, the women had developed a close friendship over the years that Regina had been walking by selling her wares. Rachel insisted that after her husband died (he was killed by a motorcycle on the busy road right next to the farm) she had too much land to work herself, but she did not want to give it to just anyone. When Regina kept walking by, one day they started talking even though Rachel could not afford to buy anything from her. After several months of getting to know each other, taking soda together, and hearing Regina's story, Rachel thought she could help by giving the land to her new friend. I heard countless variations on this story, but it is typical in that it came after a seemingly innocuous encounter set in motion the eventual transfer of land from one farmer to another.

Each farmer independantly decides what to do with their plots, and as a rule, the rest of the group respects those wishes, despite their informality and a lack of any record-keeping on the part of the group. It also might not take years to build up these relationships in order to have someone hand over a plot. Most farmers emphasized the need to understanding and support each other in the city and occasionally someone would give plots to someone they barely knew, but had fallen on hard times.

> She would see people here farming and one day she was consulting with this man who we just interviewed and told him that life is so tough can you just help me and give me a plot. He didn't sell it to her; he gave it to her for free. It was a very big plot. And the man called the relatives and said even if I die, no one should take the plot from this woman (Elizabeth, Msimbazi).

These transactions take place on a large area of land technically owned by a very powerful national entity. Sukita is not concerned with the day-to-day logistics of granting access to plots in the valley. The company's primary concern is instead to ensure that somebody is cleaning up the debris from the palm wine plantation and as long as the farmers maintain this, they feel free to organize who and how they like.

<u>Ubungo</u>

I was surprised to find that some people had moved to Dar es Salaam specifically to be farmers, rather than to engage in something considered more 'urban,' such as

tailoring or being a mechanic. People who followed this route did not see themselves as relying on rural skills. Instead to them moving to the city to farm meant a switch to cash incomes rather than subsistence though farming. However, without relatives or connections, it is difficult to gain access to land. Most people were able to establish trade with farmers and then when the time was appropriate, ask those farmers for some plots.

> In Morogoro there was no market. When you farm, you just do the subsistence farming and not get something to sell because there were no customers. But when he came here and when he heard of Dar es Salaam, and the way people were talking and people said you can just farm and sell something and you can keep the money you get and rent a place to live. So he thought of coming to this city. He saw that it was really true and he had no idea of going back to Morogoro. Because he didn't have a plot, he bought produce at this farm and sold them at Kariakoo [main city market], like fruits, cucumbers and oranges… but the police chased him out of Kariakoo he asked these people if he could get a plot of land here. So he finally got his dream to be a farmer in Dar es Salaam (Josef, Ubungo).

Occasionally people are called from the village to the city by their relatives to help out on the farm. They often receive their own plots when their relatives die or move back to the village.

> Some of his brothers were already farming in Dar es Salaam, they told him to come to Dar. They used to live at Mabibo. So there he got a small plot and he was farming there. But the plot was bought and somebody built an oil station. And the brothers told him to come over to Ubungo and they handed him two or three plots, which he's working until now. Some of the brothers went away so he took their plots (Michael, Ubungo).

Family connections were more common at the Ubungo farm than other places. When I asked about this it seemed to be because the Ubungo farm, while being near the largest transit stops in the city, including the bus station linking to the rest of the country, is set away from the road and surrounded by trees. Only the people who know about it go there, such as traders or people cutting through from houses or the university. There are far fewer chance encounters on this farm, leaving more space and time available for people to call on their family members and give them plots.

I use these three farms as examples of the varied ways people gain access to plots for vegetable cultivation in the city. I also show the ways that formal relationships might provide a foundation for who controls the entire piece of land, as set out in the previous

section, and how, at a smaller scale, personal relationships become much more important in gaining access to land. While the municipality, the university or a political party, all very powerful actors in the city, may formally control the land, rarely do individuals have to negotiate with them in order to gain access. Instead, people negotiate with individuals or, at most, a farming group, to receive a plot of land, while the representatives from the group negotiate with the land owner. Further, many farmers emphasize a sense that 'we're all in this together,' they appreciate the informality of access; they can help those they feel are needy or who are important to them (e.g. family) secure their livelihood needs.

Group Registration

Dar es Salaam requires people who form occupational groups to register with the district or ward offices. This includes people engaged in informal and/ or illegal activities that occupy space in the city. While I worked with farmers, the NGO Sustainable Cities encouraged farmers to register their groups. Most people are aware of these rules, but are hesitant because they fear it makes them visible to the city and vulnerable to harassment. In reality, most groups that are registered find that they are less subject to harassment by public officials, which lessens their sense of insecurity. Registration gives them some legal justification for engaging in their livelihood activity, despite its illegality. The process seems fairly simple; representatives of a group go to the ward or district office and fill out paperwork with the names of the members and pay a fee. Some groups would go to the proper offices and be turned away for seemingly no reason, or they would constantly be told that they need some other piece of paperwork. This was frustrating for farmers, and they have little recourse but to keep trying and find someone who is willing to let them file their paperwork.

Harassment on the farms is a very real issue, as it is for informal workers throughout the city. Public officials can stop by and tell people they should not be there or that farming is illegal. Indeed, most farmers have stories about this and I witnessed it on one occasion. During one meeting at the NGO offices we were visiting the Drive In Farm and one Ministry of Lands official told one of the women who was farming that she should not pretend to be poor and that she should put her time and skills to better use than

farming so she would be more successful rather than ‘dressing poor’ and ‘farming like in the village.’ This was spoken in Swahili during a field trip that was part of a meeting to discuss urban agriculture and land tenure. The NGO staff did not hear the comment, but the Ministry official did not know I was right behind her, nor that I could understand her. The woman farming just smiled and continued to work, but she later told me that she is used to it and just ignores it when people say such things to her.

The creation of the occupational groups seems to provide at least some relief from harassment. It also gives groups recourse though which to access government officials—at least in theory. Once groups are registered they can ask for assistance from the agriculture extension offices, though in reality most farmers have not ever seen, much less talked to, an extension agent. Farmers also believe that forming a group gives them more access to loans from banks specializing in small loans for just such groups, however, farmers have found that banks are not generally willing to give loans to people who do not have secure land tenure, worrying that farmers will be evicted before they can pay back the loan.

Of all the farms I interviewed at, the only one registered with the district office was the Drive In Group. They have a fourteen page constitution and defined functions and roles for various actors; there is a leader, a vice-president and a treasurer. They have monthly meetings, though they will also call meetings when some kind of issue arises, such as a conflict between farmers or some new pesticide or planting technique. **Figure 5.6.** is a photo voice picture of several members who were present when one farmer wanted to share a new planting technique.

We talked to ten of the fourteen farmers here and all professed that the group was important to their experience as farmers. It provides a mechanism for them to support each other and they liked the fact that the rules set out in the constitution (about how long they could use the water, about agreeing on prices to sell the vegetables) gave everyone the same foundation for group collaboration and coordination. I asked one farmer what would happen if someone broke these rules and he just looked at me blankly and said “No one would do that. The rules say that if you break a rule, you will lose your land.”

Figure 5.6. Photo voice, Drive In: "One of the group members was telling us something important. Something important about this picture is to show that we are one as a group. This is why one of us decided to call us and tell us something about the farm. This event helps to spread ideas and experiences from one farmer who knows to the one who doesn't know about the skills of planting vegetables. This picture represents unity, love and cooperation in the Drive In Group" (John).

Many farmers believed, however, that they should have more members because it makes them look like a stronger group. Yet all available space was used up. In 2007 several farmers noticed that there were these men who sell stoves and stones who would try to set up areas to sell from near the farm, but the police or other officials would often come and chase them away. The farmers proposed to have the stone and stove sellers have a permanent place adjacent to the farm. To properly consider them 'farmers,' one group member gave up one of her plots for the stove and stone vendors to cultivate vegetables in order that they could officially be farming members of the group (**Figure 5.7.**). The Drive In Group now has twenty members on its registry, all claiming to be farmers, even though technically six farmers share one plot. Further, having the vendors nearby increases business for farmers— a kind of one-stop-shopping. **Figure 5.8.** shows that farmers believe that the two trades are mutually beneficial to each other. The stoves

Figure 5.7. Photo voice, Drive In (no caption)**.** This picture shows the stove-sellers adjacent to plots of mchicha and Old Bagamoyo Road (John).

sellers also pay the farmers about 3000Tsh (about 2 dollars) a month, which goes into the shared funds of the farmers controlled by the treasurer, which pays the electricity for the water pump and provides a small amount of money to provide lands to farmers. This manipulation of the registration requirement is a way that farmers have learned to navigate the formal requirements and use them to their own market and political advantage. It also seems to be tacitly accepted by the government officials because the stone and stove sellers are no longer harassed. Local agriculture agents state that the activity is probably still illegal, but since they are somewhat formalized, the police do not bother them anymore.

Figure 5.8. Photo voice, Drive In. “This picture hows one of the other projects that the group does, which keeps us close with different types of customers” (Mary).

Market Networks

Urban open space farms throughout the city are highly dependent on networks of trade that supply the city with its fresh leafy green vegetables. Much of the city’s produce gets sold in the main agriculture market at Kariakoo, where it is bought and then dispersed throughout the city to smaller vendors. Smaller markets with varying degrees of formality are dispersed throughout the city as well, where traders take the vegetables they buy from the farms to sell to vendors. **Figure 5.9.** shows an image from the Kariakoo central market. In the foreground there are vegetables that have just been brought in (covered in cardboard to protect them from the sun) and in the background the umbrellas that show where the produce is being sold.

While it might not seem so at first, Kariakoo is a highly regulated space (**Figure 5.10.**) Vendors hold permits that they apply and pay for. Areas for selling goods are reserved at different times of the day for different vendors, and authorities come through and evict people who do not belong. Kariakoo stands as the beginning or end of a

significant amount of the informal trade in the city. The supply of vegetables is no exception.

Figure 5.9. Kariakoo Market. The picture shows green vegetables in the foreground with the rainbow umbrellas in the background where the produce is sold (Source: peace-through-fiction.blogspot.com/2009/09/kariakoo-in-dar-es-salaam.html).

The networks that bring the produce in the city to the market represent a linkage between highly informal and highly formal uses of space in the city. The traders who maneuver between these spaces are the link that both the farmers and the market vendors rely on for their livelihoods. Because the farmers sell the bulk of their produce through traders, rather than individual customers, they are highly dependent upon this formalizing process. Their dependance upon traders also means that farmers band together because it is in their best interest to keep traders happy by harvesting quickly and fairly. Farmers often work together to help one farmer harvest in order to keep the trader coming back to their farm again when he needs to buy another plot (**Figure 5.11.**).

Figure 5.1. Kariakoo Market. A market that initially looks very chaotic and informal, but is in reality has highly regulated spaces and times (L. McLees).

Figure 5.2. Photo voice, Temeke. "Here we are helping a farmer harvest *mchicha* to sell to the trader who then can sell it at the city market" (Thomas).

Traders act as a vital link to the markets in the city, some of which are highly regulated and others of which spring up where people find room. Regardless of the market however, these farmers the supply the city's leafy green vegetables, purchased not only informally, but also for the houses of the city's wealthiest and elite. While the farms are considered informal, traders, markets and the eventual consumers constitute a chain that gradually, if unevenly, formalizes many of the products grown on these farms. Farmers are dependent on the relationships with those traders, but this is reciprocal. The highly regularized markets also depend on the informal open space urban farms for the products that they sell.

Water Availability

Dar es Salaam is a hot and dusty city, yet for much of the year the water table is only a meter to two below ground level, and farmers can often dig wells to access clean water. As I have discussed previously, some farms, such as Msimbazi and Tazara, have been at the mercy of flooding from nearby rivers and streams that are highly polluted, which contaminates their wells. Farmers in these places have been forbidden to use the water from the rivers. Farmers try to follow this rule, but when those rivers become the only source of water (in the dry season) or they contaminate the wells, the farmers have no choice but to irrigate with it. In a following section I outline in more detail some of the dynamics of these issues with municipal authorities. In this section I discuss how the Drive In farm was able to receive the thirty-meter deep sealed well that provides the clean and consistent water upon which they rely. This situation clearly demonstrates the ways that formal and informal processes are linked, and how they are manifest on this farm.

When people were first cultivating at Drive In, they did not dig wells or use a nearby water source— there was none. Instead they used piped water from DAWASCO, the state-owned water company, which they bought from nearby houses. Using DAWASCO water for agricultural purposes, however, is illegal, and many nearby homeowners, who did not like farms making their area look dirty and backward, complained and the farmers were forced to stop, at least during the day. While they were struggling over the water issue, the new American Embassy was being built down the

street and one of their customers suggested that the farmers go ask the Americans for help. The group leader and couple of others went down to ask the United States Agency for International Development (USAID) for funding to build a well. Perhaps unsurprisingly, the farmers were turned down:

> When they decided to walk to the American Embassy, they got in there and told those people that they need help. So the people there said we cannot give you straight help. We need a letter from the city council or the municipality. So these farmers, they really wanted the help, so they came with the letter to the municipality of Kinondoni. They told the municipality about their problems. The municipality told them 'You! You bring shame to us. People will see us as not concerned, why did you go to the Americans instead of letting us know. Give us this statement from the American Embassy, and we're not going to write any letter. Leave us and we will do it by ourselves.' It took time, until 2005, because of the election campaigns. The person who came and supervised them to make sure that water was coming out from the well was a person from the World Bank, but he's a white and an American. He came here and it seemed like the help had come from him alone. It seems that the people at the municipality had consulted that man. They probably knew him (Marie, Drive In).

The reality of the situation was that 2005 was an election year in Tanzania, and it is at these times that a plethora of projects are completed throughout the city, organized by the Chama cha Mapinduzi (CCM), the party that has ruled in Tanzania since independence. Roads are paved, electricity and water are on and development projects, large and small, are completed in an effort to buy votes. This request for a well seems to have been the result of good timing by the farmers. The Kinondoni Municipal Council, who the farmers appealed to after their initial trip to USAID and which represents the CCM's interests, was able to lobby to the World Bank and USAID for funding. The farmers, of course, had no hand in the negotiations or decisions about the type of well that was to be built. This example reflects, however, the diverse views and enactments of informality and formality that serve to create these farms as spaces. The Drive In farm represents a space where multiple international, national, local actors mobilize resources to serve their own ends, namely to secure votes and advertise the 'help' they provide to what they consider the city's poor and marginalized.

This well has become the centerpiece of the Drive In farm (**Figure 5.12.**). The well house that was built to protect the electric equipment is used as a cooking shed for

Mama Mary. The farmers built a roof up against the shed and made a table and benches for customers and farmers to sit at and the area serves as an important meeting and socializing site. In this way the farmers have taken this place created by international finance institutions and local electoral politics and added other highly informal economic and social activities to make it represent the community of farmers (**Figure 5.13.**).

Figure 5.12. Photo voice, Drive In. "We have a water tank and well on our farm. We are lucky because this makes our work much easier" (Mama Mary).

An addendum to this story reflects another way the space here has been modified to reflect the multiple influences that political actors have in creating this space. Because the CCM (through the Kinondoni Municipal Council) was instrumental in setting up the pump and well, the farmers knew they needed to demonstrate support for that party. On informal spaces throughout the city (in courtyards, near shops, etc.) you can see small cement platforms painted in green and yellow with the green CCM flag flying. These are places where the political rallies are held during the election season, which officially lasts the two to three months prior to elections. Rallies are small, but they are continual throughout the city. Other parties also have these platforms, but they are very few, because it is important to demonstrate allegiance to the ruling party. The farmers built

Figure 5.13. Photo voice, Drive In."This picture shows the women of the Drive in Group washing utensils after they had finished selling food in the area created by the water pump. The event contributes to their income and enables us farmers to get food and support each other. The picture represents the effort put by women to earn a living and the also love and happiness of people in our group" (James).

their party platform to commemorate the CCM in the 2010 election (**Figure 5.14.**), and the inaugural rally was hosted by the son of the current president, Jakaya Kikwete. One farmer told me that while they have a farmers group, they also have a CCM group. When I asked how many farmers were in the CCM group, she replied they all are. "You must be in the CCM group to be in the farmers group." The CCM also freely hands out *kanga* (a meter by 1.5 meter piece of cloth that women wrap around like a skirt to protect their clothes while they farm), hats and T-shirts bearing CCM colors and logos. The farmers wear these, publically demonstrating their support for CCM. Several farmers admitted to me in private, however, that while they might support the CCM because that was the party of Julius Nyerere and the original party of Tanzania, they would not vote for them because they did not feel that the people in the party represented their interests.

Figure 5.14. Photo voice, Drive In. (No caption). This is a picture of the CCM platform in the middle of the Drive In farm. The inaugural rally was help here in 2010 and hosted by the President's son (James).

All of these swirling political undercurrents create dynamic and overlapping networks of formality and informality, certainly blending the two and revealing that informal spaces are directly and purposefully influenced, manipulated and even accommodated by very powerful national and international interests. These farms are integrally networked into urban systems through these chains of power. Importantly, the farmers themselves are not passive recipients of these dynamics. They actively create and manipulate them in order to serve their own ends, such as building the CCM platform and wearing the clothes to show public support, which helps them maintain their access to land and reduce harassment by public officials, while at the same time opposing the ruling party in the actual elections.

Working with City Officials

Very few farmers I talked to have ever seen, much less talked to, an agriculture

extension officer. While each of the three municipalities— Kinondoni, Ilala and Temeke— have agriculture offices, as does the City of Dar es Salaam and the Region of Dar es Salaam, the people who work in these places are not involved on the farms. At Msimbazi and Ubungo, the ward extension agents come around and communicate occasionally with the group leaders, often serving as an interface with landowners more than as educators on agricultural production and marketing. My own experiences with these officials reveals that there is little work being done for farmers in terms of advocacy or education. Much of what these officials do revolves around livestock, and there are massive cattle vaccination programs run from these offices. Otherwise there is little support for the farmers that supply the city with vegetables.

The situation changed however, when the NGO Sustainable Cities began making plans to host a workshop for farmers. Sustainable Cities put on a week-long workshop at the end of September in 2010 to train farmers in practices, such as composting, pesticide use, soil conservation techniques and marketing. About forty farmers from six farms participated in this workshop, and it was considered a great success. The NGO asked the agriculture agents from each municipality to lead a workshop, assuming that their training made them the most proper people to do so. However, the agents from each municipality protested, saying they wanted extra income to teach the farmers, despite this being a part of their job description. Once the NGO agreed to pay a substantial fee,[7] the agents were much more willing and able to meet the expectations of the NGO and they put on a workshop that was well-received by the farmers (**Figure 5.15.**).

Agriculture officers have the potential to help alleviate some of the worst biases against urban agriculture through training of farmers, thereby legitimating farming in the city itself. These agents rarely respond, however, to the much less powerful farmers, and instead manipulate other potentially more powerful (or wealthy) actors for their own benefit. Several officers and agents claim to be supportive of the activity, but subsequent response indicates that they demonstrate interest when there are outside pressure, such as

[7] The fee that the NGO paid to the extension agents was even higher than what the agents themselves expected. I was at the meeting where the sum was proposed and one agent quietly said to me that it’s too much, though they were not about to refuse. The NGO justified it by saying that if they paid such a good fee, then the agents will be sure to do the work.

from an NGO gaining support from the Dar es Salaam City Council who is willing to pay extra for farmer training.

Figure 5.15. Training workshop on pesticide use. This was part of a series of trainings organized by the NGO and led by agriculture extension workers from Ilala (shown), Temeke and Kinondoni (T. Tong).

Agents respond to larger political pressures, too. Throughout 2010 several fairly sensationalist newspaper articles came out that linked the consumption of urban vegetables to cancer and hinted that farmers were profiting from making other city residents sick. All of this stemmed from the use of polluted water and specifically pointed to the Msimbazi Valley farmers as the worst offenders. This has huge effects on other farms as well, because potential customers became concerned about the water used to irrigate the crops and many farms lost customers. Those that could prove they had clean water, such as Drive In and the Somanga and Makumbusho school farms, which rely on well water, actually saw an overall increase in customers. Farms such as Msimbazi and Tazara, known to have polluted water, saw a loss in the customer base.

Yet these articles placed pressure on the agriculture agents to make changes necessary to protect public health. When, in August 2010, agriculture extension agents from the Ilala municipality blocked the polluted stream that contaminates the farmers' wells at Tazara (**Figure 5.16.**), farmers lost a potential source of irrigation, but they were able to tell their customers that they used clean water that was not contaminated by the Tazara stream. Despite their repeated requests to have the stream blocked, it took media pressure on the agents to make this fairly simple change.

Figure 5.16. Polluted stream from the TAZARA railway station. The pictures shows the stream flowing through the Tazara farm next to a clean well dug by the farmers (A. Halloran).

This case demonstrates the relative lack of power held by the farmers to encourage the agriculture agents to help them. Yet public pressure via the media is also an important motivator in the city. Media can often be sensationalist, and stir up controversy, as it seemed to do throughout 2010, and in this case it had a desirable impact for the farmers at Tazara. The farmers at Msimbazi, however, were told by the Ilala agents that they must stop farming. As the study that drove the story has been centered at Msimbazi, and people in the city know the river is quite polluted, it is hardly surprising that the agents were calling for farmers to cease agricultural activities. Even less surprising is that the farmers did not heed the agents' demands. The agriculture office has no enforcement mechanisms against the hundreds of people who farm in that valley. If it was a smaller farm of less than fifty farmers, it is likely that the agents could use force through the police to chase the farmers away, but at Msimbazi the sheer number of people in the valley overwhelms any attempts to control the space and prohibit farming.

I use these examples of the pressures on agricultural agents to act to demonstrate that even a government institution with official duties still responds to a variety of power dynamics that transcend formal and informal categories. Public pressure in the media, money from an NGO and the sheer numbers of farmers who can make demands (that they not stop farming) themselves of the agents. The following section examines some approaches towards fixing the perceived problems of urban agriculture. These 'problem' are outlined in more detail in the previous chapter, but include using polluted water for irrigation, poor soil management, pollution through the use of pesticides and creating breeding grounds of malaria-spreading mosquitoes, to name a few. Yet agriculture poses larger threats to the city than ecological degradation. The *idea* of farms in the city confronts Euro-American approaches to urban planning by disrupting the opposition of agriculture and urban long-popular in Western thought (Williams 1977).

Informality and Urban Planning

The focus on informality in research on urban agriculture suggests that the practice is commensurate with failures in land use planning (Adedeji and Ademiluyi

2009). The practice becomes constructed as a coping mechanism or as the inability of a city to properly manage its space. Confusing regulations and a lack of awareness regarding the details of laws means that urban residents and planners often disagree on the legality of the practice throughout Sub-Saharan Africa (Gable 1999, Hampwaye, Nel and Rogerson 2007). Yet despite this confusion and the sometimes violent destruction of crops reported in the 1980s and 1990s (Freeman 1991), open space cultivation continues to flourish. The practcice of farming confronts planners with the challenge of how to design a more modern-looking city without disrupting 'informal' economies and food supply that realistically provide substantial livelihood security. It is here that new approaches to planning theory are emerging.

Planning is a tool that governments use to manage spatially designated territories and populations (Rankin 2010) and, as such, is a strong expression of formal power. Euro-American planning generally emphasizes single use of space (e.g. a separation between residential and business spaces) and fixes that use in one place through zoning (Simon 1999). These practices of Euro-American spatial planning of course do not always reflect the ways that people use space in cities throughout the world (or even in Europe and North America for that matter). Informality is global, and it is pervasive in cities throughout the world. Yet disentangling informal modes of organizing space in cities from formal structures of planning is not simple— indeed the two are deeply entwined (Roy 2011a). The interactsions between the two often go unnotced, however, and a neoliberal approach to 'fixing' informality that emphasizes providing land tenure to 'informal' people has become a dominant paradigm in urban development in cities across regional contexts.

Neoliberal approaches to informality, most associated with Peruvian economist Hernando de Soto, emphasize the untapped capital (which by his accounts equals about nine trillion dollars) of the world's poor that could be harnessed if their activities were formalized (de Soto 2000, Sachs 2005, Roy 2011a). The idea is that with economic freedom (from debt, from illegality), the poor will help themselves and be successful. This claim is most notable for asserting that informal systems (e.g. land tenure) should be formalized, which will reduce the barriers to investment and growth that will release the

economically marginalized from the trappings of poverty. Another version of this argument comes from scholars such as Mike Davis who provide apocalyptic visions of the urban world through a focus on the structural crises that 'cause' informality. Davis's argument is that urbanization without industrialization (e.g. cities that have not followed the 'normal' path of urban development) and the impact of IMF structural adjustment programs have led to inappropriate forms of urban growth (2006). Davis uses these conditions to assert that the urban poor are victims of various forms of state violence through unemployment and discrimination.

The problem with these approaches is that they focus on larger structural forces (IMF programs, government bureaucracy) and they rely on a framing of informality as a sector made up of the poor and marginalized. This framing denies agency to the poor and ignores the reality that often the informal economy or use of space can provide them with more options than more formal modes of production. Further, many poor and marginalized can and do participate in the formal sector, and even the wealthiest and most powerful in the city participate in the informal economy. In Dar es Salaam, for example, a nineteen story building was built across the street from the President's house in an area where regulations call for no building was to be constructed over six stories (**Figure 5.17.**). The story, uncovered by the newspaper *The Citizen* (James 2011), asserted that someone in the planning department had given approval to the project despite its outright illegality. Rather than tear the building down to six stories, however, the government took over all floors above the sixth, allowing service provision (electricity and water) and paying rent to the developer, despite the fact that the building flagrantly broke urban development laws. This example illustrates first that even very powerful actors operate through informal processes (in this case probably through bribery), second that informality can be more understood as an expression of power, and third that certain types of informality are actively encouraged because they represent a form of urban development that fits within a modernist trajectory. The building 'looks like' something that belongs in the city, reflecting a level of development that the governement wants seen in the city.

Figure 5.17. Informal power in the urban landscape. Building thirteen stories above the legal limit near the President's House in downtown Dar es Salaam. *www.thecitizen.co.tz*

On the other hand, informal sectors should not be romanticzed as open spaces of possibility, and when people are left without recourse to protections as they might have in formal economies, the informal sector can be highly exploitative, espcially for those with less resources. Informality can reflect low levels of class power in the images we commonly associate with the informal sector— street hawkers or informal stands that people create to sell whatever they can (**Figure 5.18.**). The acceptance of some forms of informality, and the destruction of others, reflect relative positions of power and produce an uneven urban landscape. This approach suggests that powerful expressions of informality gain legitimacy (such as the building), while others are criminalized and destroyed (Roy 2011a). This chapter highlights how power operates at the interstices of planning and informality, showing how they are interlinked and dependent on each other within networks and systems. I demonstrate through the relationships of various actors (municipalities, traders, farmers, private land owners, political parties, etc.) within and

beyond the farm that influence the legitimacy of what is happening on farming spaces.

Figure 5.18. Photo voice, Temeke. Informal market in Dar es Salaam. A common image of informality that reflects relatively low levels of class power (Elias).

In light of this discussion of the linkages between formality and informality, and in the context of the data presented above, I want to turn to some of the proposed fixes to the ‘problem’ of agriculture in cities. This is meant to highlight how defining agriculture within a relatively static catagory of informal (as a practice and as a use of space) situates it as one in merely need of recatagorization in order to make it legitimate. In other words, the fix to urban agriculture will come through making it formal. Yet the ways that policy-makers and development specialists have envisioned this process disrupts the flows and ways that agriculture articulates with urban systems. The focus on zoning and the construction of urban open space farms as sustainable spaces are ways that farming is taken out of context and discursively diassociated from their linkages within the city. The following section will address how these processes have and continue to play out in the city of Dar es Salaam.

‘Fixing’ Urban Agriculture

Let us take a step back now to reflect on the assumptions of formality and informality in urban systems and how they influence various approaches to urban

agriculture. Urban agriculture is framed as a 'problem' by planners and development practitioners. It is a problem first because it is a practice that does not belong in a city, and second, even if it can belong, it is not practiced where or how the people in power think is appropriate (e.g. it is not zoned or contained). The definition of the problem is important because its framing implies the solution. To 'fix' the 'problem' of urban agriculture (as dirty, as a nuisance, as a sign of a lack of development, an informal practice) implies the necessary intervention of planning. In Dar es Salaam, acceptance of urban open space farming is mixed at best, with some planners very enthusiastic about the practice, and others who see it as one that should be eliminated. The opening vignette of this dissertation reflects a common approach towards urban agriculture: that there are no spaces zoned for the practice, and therefore it does not and should not exist. In reality, planners and the public seem to be aware that despite planning and chasing farmers from their land, it would be difficult at best to remove agriculture from the city.

The 'fix' is understood by examining how urban farming is being discursively framed by researchers, NGOs and development agents that makes it amenable to urban planners. As defined above, urban planning is a central tool through which government manages spatially defined territories (e.g. zones) and populations and is a strong expression of formal power (Watson 2009). Activities such as agriculture are re-worked to fit within the dominant discourses of planning; they are regulated and spatially contained until they become comprehensible in the urban landscape. Urban planners are trained in western theories of planning, which emphasize zoning and static notions of cities, and the dynamism of urban agriculture is often unseen or ignored as they look for the most appropriate spaces and methods in which to conduct this activity. The following sub-sections present two common approaches to 'fix' urban agriculture in Dar es Salaam. These solutions attempt to address urban agriculture in places (through zoning) and control the practice itself to make it conform more to an urban sensibility (through efforts at framing the practice as 'sustainable'). The two planning approaches overlap and draw upon each other's discourse, meaning that they will overlap in my analysis below.

Sustainability as the 'Fix'

The discourse of sustainability has become increasingly popular in Dar es Salaam

and many of my discussions with government officials revolved around how urban agriculture could be used to promote some sort of urban sustainability. The idea of sustainability did not come up during my interviews with farmers, though they asserted that urban agriculture in the city brought social and economic security and provides cool, lush places to relax. Economic and social sustainability, however, were not something that government officials were primarily concerned about. Even if they acknowledged the importance of food and economic security, it was never in the context of sustainability, nor was it an issue when figuring out how to address the ecological problems of urban agriculture. Instead farms were to be translated into 'green spaces' that signal development and the luxuries of a well-planned city. I highlight the distinction between the farmers' perceptions and the government to illustrate the very different ways that groups are approaching this practice within a potential sustainability framework. The focus purely on the green spaces of urban agriculture that I often saw reflected in discussions and meeting ignores social and economic realities of urban farms as spaces, but as I show below, this approach to urban greening is not necessarily a new idea in Dar es Salaam.

The idea of a green belt in Dar es Salaam was initiated in the 1968 Master Plan. The expansion of the city was to be tightly controlled through this space to help resist sprawl, provide breezeways from the ocean inland and create satellite cities that would reduce pressure on the urban core (Armstrong 1986). This idea was perpetuated through the 1979 plan and again the 1997 Sustainable Dar es Salaam Project (SDP) established by the Global Sustainable Cities Programme of the United Nations Centre for Human Settlements (UN-HABITAT). The SDP process was never approved and therefore not legally binding, but I use it here to demonstrate how the discourses of urban greening played out. Through a stakeholder engagement process several "Environmental Issues" were identified, one of which was "Managing Open Spaces, Recreation Areas, Hazard Lands and Urban Agriculture" (**Figure 5.19.**). The group discussing this issue had four goals: Managing community opens spaces, rehabilitation at Oyster Bay Beach, managing urban agriculture and green belts, and managing hazards lands/ sand extraction (UN-

Box 4: The SDP Issue Specific Working Groups at the Peak of the Project in 1995/96	
Environmental issue	**Working group**
1. Solid Waste Management	1. Strengthening privatization of solid waste collection 2. Recycling of solid waste and composting 3. Managing disposal site 4. Community solid waste management
2. Upgrading Un-serviced Settlements	1. Hanna Nassif 2. Mbezi "C" 3. Kijitonyama 4. Tabata
3. City Expansion	1. City Expansion 2. Land Information System
4. Managing Surface Water and Liquid Wastes	1. Managing sewer upgrading and extension 2. Managing pit latrines, septic tanks and sullage 3. Managing industrial effluents
5. Air Quality and Urban Transportation	1. Managing City Centre traffic congestion 2. Managing City Centre parking 3. Improving road network and storm water drainage 4. Promoting public transport 5. Promoting non-motorized transport 6. Improving air quality
6. Petty Trading and City Economy	1. Core Group 2. Ilala Group + Task Force 3. Temeke Group 4. Kinondoni Group

Box 4: Continued	
Environmental issue	**Working group**
7. Managing Open Spaces, Recreation Areas, Hazard Lands and Urban Agriculture	1. Managing Community open spaces 2. Rehabilitation of Oysterbay Beach 3. Managing Urban Agriculture and Green Belts 4. Managing Hazards Lands/Sand Extraction
8. Managing Coastal Resources	1. Protection of mangrove 2. Coordinate Urban Expansion (tourism) 3. Manage lime extraction 4. Manage salt production 5. Promote Deep sea fisheries
9. Co-ordinating City Centre Renewal	1. Plan Review 2. Strengthen Private Business & Community Participation 3. Infrastructure Provision and Costing 4. Review Land Titles, Standards, & Development Control 5. Planning and Monitoring 6. Financing and Implementation

Figure 5.19. Working group issues for Sustainable Dar es Salaam Project. The nine environmental issues and subsequent working groups of the SDP (Source: UN-HABITAT & ENUP 2005, pp. 12-13).

HABITAT & UNEP 2005)[8]. shows how many of the city's 'problems' became segregated from each other and framed through the lens of 'Environmental issues' (the title of the left-hand column). Further, urban processes that are intricately linked are separated, leaving little room to see how they are integrated into larger urban systems. For example, the 'managing industrial effluents' working group is under the 'Managing surface water and liquid wastes' environmental issue, yet there are strong links between these processes and what is happening on farms (under the Managing Open Spaces working group). This framework highlights how issues become reframed quite narrowly and separated from the larger urban context and issues, rather than understanding how these various social, economic and environmental issues were interlinked in larger urban systems and networks. Sustainability as conceptualized here is not seen as promoting an integrated urban system, instead it will be measured by pollution levels and other environmental measures that can be easily quantified.

This project was an attempt to formalize the practice of sustainability, yet it falls short first by casting it too narrowly (as merely an environmental issue) and dissecting it so that it is comprehensible and easy to address, neglecting the connections between practices, issues and processes that are actually happening in the city. Currently, the Canadian NGO Sustainable Cities (not to be confused with the UN Sustainable Cities Programme), is working with the three municipalities to more specifically integrate urban agriculture into the newest Master Plan discussions. Their argument is that while there were green spaces in the city, they have been invaded by informal settlements. If those green spaces could be zoned for urban agriculture, they would still be green while helping to reduce (non-violent) land invasion. Not surprisingly, this view has been quite appealing to planners who often believe that agriculture is not an efficient use of land. However, even as similar projects to create green spaces have been attempted in others cities, such as Arusha to the north, over time land values increased and through the informal market land was still parceled out. Ongoing discussions about this program indicate that parties recognize the need for enforcement from local government, NGOs

[8] I believe it is important to point out that while there were many people interested in urban agriculture in these working groups, including researchers, advocates, agriculture agents and planners, there were no farmers.

and other private groups to protect the land for farming (Bersaglio 2011).

The locations of the new green zones that will be appropriate for urban agriculture are still being worked out. In preliminary reports I have obtained from Sustainable Cities, Ilala was the only district with a map of potential areas to be zoned, though Msimbazi Valley, where the largest number of farmers can be found, is not on the list of places to be zoned. The other farm in that district, Tazara, is also not on that list, but it is not public land, instead being controlled by the railway, so the municipality has no say over it. These two examples illustrate one of the clearest problems with this process, a lack of recognition about the types of lands that farmers use and the relationships that they can construct to obtain access to that land. The valley where several hundred farmers are working, and where a substantial portion of the city's vegetables are grown, is left out of the protections of the formalization process, and the Tazara farmers will see no change in their status or security of land access. The neglect of these farmers' situations results from a narrow perspective of how farmers contribute to the sustainability of the city, rather than seeing more holistically the multiple ways that farmers have gained access to land to create those green spaces. No incentive has been created or even recognized for other entities (schools, companies, etc.) to provide access. This approach to sustainability through a process that leaves out the majority of the farmers in the city reflects the limitations of a rigidly formal approach. Farmers gain access to land contribute to the urban economy and food security in a variety of creative ways, yet these are ignored within a global greening discourse that sees evidence of success in ecological measurements, rather than quality of life.

Land Tenure as the 'Fix'

As hinted above, the most popular idea for encouraging sustainability and proper urban development is to give farmers land tenure in one form or another, in order to secure their access to land for farming. Providing legal title for informal workers and 'squatters' is an idea popularized by Hernando de Soto (1989, 2000) who argued that the poor have the potential to contribute to economies, they just need security to invest in the land. In this framework, having legal tenure would allow farmers to have collateral for bank loans, which would allow them to get money for pumps or wells for clean water.

Farmers would also be encouraged to manage the land for the long term because they would have more vested interests in it. They would use soil conservation practices to reduce erosion, and they would use fewer chemical pesticides and polluted water to preserve soil health. The idea, of course, is that farmers would take better care of the land because it is theirs, overcoming 'tragedy of the commons' problems of overuse of common-pool resources and lack of conservation. This idea is has been widely promoted by officials and NGOs working on urban agriculture in Dar es Salaam.

There are various options that have been put forward as to how land tenure for farmers would work. Municipalities would set aside land being brought under municipal control and sell it to farmers, or they would rent out city land to farmers. This process is extremely problematic because while many farmers can afford to buy the land, many cannot. Certainly there are farmers who would be able to afford it and would buy or rent the land for the sense of stability, and it would automatically exclude hundreds of farmers who barely make ends meet. It would also be an added expense for those who may be able to afford it, but who certainly are not well off. Taken together, this approach marginalizes the poorest farmers who do struggle on a day to day basis and favors those who have the capital to invest the earliest. Land will have value as an investment, and in a city that has little capacity to enforce whatever land-use laws and tenure agreements in existence, there is little hope that many of the people farming now will be able to afford or maintain the land zoned for urban agriculture.

A common response to these concerns was that this was the only way to protect land for farmers. Yet in a city where less than six percent of land tenure applications each year are even approved, it is difficult to imagine how this process can be successful. Farmers are at risk of informal land markets, where wealthier farmers will be able to buy out smaller ones, evicting those farmers from their source of livelihood production. Most farmers I talked to envisioned themselves as a wealthier farmer in the future, even if they have spent the last ten years barely surviving. There is hope in the idea of land tenure, but speculation is rampant, and often land that is provided through formal mechanisms becomes at the mercy of informal markets. Farmers often see themselves as the ones who will buy out other farmers, rather than one who will be bought out. This optimism is

admirable, but hardly realistic given the financial situation of many farmers.[9]

Further, many farmers are already on land that is not owned by the city, and some argue that they actually have more stable arrangements now, even if they are informal. When I questioned them on this, they said that because they have agreements with relatively powerful landowners (e.g. schools, Tazara Railway), there is no chance for land speculation or for them to be bought out. They are, of course, still susceptible to being removed if the landowner decides to use the area or sell it, but they are removed from the often too-dynamic land markets that will inevitably develop as a result of a tenure process. These agreements between landowners and farmers are an avenue to explore other creative ways that farmers maintain access to land.

Zoning areas for urban agriculture also ignores an important function of these open space farms in the city. They are often temporary uses of land that move as land in the city drops in and out of use by other actors; farms become a way to hold land for future use by landowners. Farmers drain land, cut down shrubs and level the area, improving it for future investment by land owners (McLees 2011). Farmers are often eventually evicted, but farmers as individuals and a whole have shown remarkable resilience at finding new places to grow food, either areas that are at the edge of the urban built-up environment or other areas that have yet to be used for other purposes in the city. This activity has been quite spatially dynamic in the urban built-up environment[10] and has served as an important way of maintaining land value for the formal sector as a result of being improved and kept out other developments, such as informal markets and housing.

The current appraoches to land tenure reveals ever more starkly how urban agriculture is being formalized and brought under increasing control by the government. Urban farms are being incorporated into zoning to ‘defend’ public green spaces from invasion by ‘illegal’ housing. This process represents a “spatial technology of governance” where elites produce and control spaces to serve their own ends (Hunt

[9] Again, I will stress that not all farmers are poor, but many are, and the formalization of land that would require them to pay rent or buy land would be unattainable for them.

[10] Recall the map by S. Dongus that illustrated the changes in open space cultivation in chapter 2

2009), in this case, reducing ‘land invasions’ from the poor in an attempt to create the proper image of the city, which is important for attracting development and encouraging business. Dar es Salaam is bringing urban agriculture under government control in order to ‘save’ spaces from informal land parceling, obviously ignoring the structures and pressures that lead to informal parceling of land in the first place.

This discussion is meant to challenge the idea that private property is the best way to address issues of urban agriculture in the city. Providing land tenure puts land on the market, whether formal or informal, and produces speculation. More nuanced agreements should be supported that empower both farmers and landowners and recognize the reality in which these cities operate. No city will ever exist without some kind of informal economy, and a mix of solutions to better reflect what is happening on the ground will provide the empowerment that actors search for. Urban agriculture is perceived a productive use of land and while people may say it makes the city look backwards or undeveloped, it is also aesthetically more pleasing to them than unkempt shrubs that are perceived to provide hiding spaces for thieves. Many communities around the farms appreciate the use of space for keeping ‘undesirable’ people and material wastes (trash) away from their neighborhoods. Farming is indeed perceived as a better way to preserve and take care of the land. These are the spaces where the informal practice bridges what formal planning cannot do. The unintended consequences of urban farms are far reaching and misunderstood when seen through the lens of the formal planning process.

My goal in this section has been to critique the various mechanisms for asserting control over the spaces of urban agriculture with the goal of making them more comprehensible within the urban context. De Soto’s ideas about granting land tenure to liberate the poor have been widely accepted and implemented in cities throughout the world, even though they repeatedly come under fire for the same issues: creating informal land markets and marginalizing those who cannot afford to hold out against more powerful economic forces (Gilbert 2002, Musembi 2007). Sustainability discourse has been a way not only to green urban agriculture, while ignoring the social and economic importance and integration of the practice, but also a way to mobilize resources and support through international organizations.

I want to point out two glaring problems with the processes outlined above. First, as the discussions between the NGO, planners and agriculture agents have progressed, they have been increasingly exclusive to the actual farmers. Indeed, the famers have been removed from the process. Further, the ones who were involved in the original discussions with the NGO, providing their perspectives on urban agriculture, are not farming in places that will be protected under the new zoning regulations. Removing them from the discussions was easier than keeping them in once it became obvious the city had no plans to protect the areas they were farming. Second, because a majority of the people farming in the city are not cultivating in places that at this point of the discussions look like they will be set aside, it will only make their illegality more apparent. In other words, because there have been steps taken towards incorporating the practice, places that are not included in these new zones will be reified as illegal, placing some farmers at increased risk of harassment and eviction. I point these issues out in order to highlight the very real marginalization emerging from this formalization process.

How Do We Talk About Informality?

This chapter has emphasized that the binary of formality and informality may not be the most appropriate way to discuss urban processes. Too often activities outside the formal (legal) economic and state processes are labeled as informal, but the connotations of that word often relegate those processes to the margin, with all the implications of poverty and powerlessness that the term has come to imply. This chapter has complicated this assumption, showing that even in a city where about eighty percent of the economy can be classified as informal (and little could be known how informal state processes are as there is no reliable measure for it) formality and informality are closely intertwined and mutually dependent.

I do not argue that the terms of formality and informality should be disposed of. Instead, scholars should instead focus on the processes occurring without resorting to the easy categorization. An approach that emphasizes the networks (such as the transition from illegal production of greens to their legal sale in the market) disrupts this categorization and highlights the processes that bring vegetables to the market, rather than focusing on the illegality of urban farming. Granting access to land by various

powerful actors illustrates how allowing farming can keep land in reserve for the formal land market, but also for the informal land market, as will be demonstrated further at the end of chapter six. We should recognize that the categories of formality and informality do have analytical purchase, but they should not be the primary categorization of activities in any city, as there is too much overlap between the two.

A way to move past the stasis of these categories is to focus, as Ananya Roy does (2011a) on looking at formality and informality as modes of production, or as I prefer, relative expressions of power in the urban landscape. From the activities of the World Bank and the CCM on the Drive In farm to the smaller and often more incremental taking over that occurred when that farm began, power is displayed in myriad ways that influences how spaces are constructed and utilized and importantly, how they change over time. Urban space is incredibly dynamic, and I have presented just a few examples above on the ways different actors influence these spaces over time. In my discussion of these examples, I have tried to use the language of in/formality as little as possible and to let the empirics demonstrate the systems, linkages and processes that connect farms to wider urban systems in Dar es Salaam.

In my discussions on the relative expressions of power, I have focused primarily on the intersections between farmers and other urban actors, and less in this dissertation on the way power is negotiated between farmers. This is not to say that groups are homogenous and harmonious, and indeed there are countless ways that individuals and sub-groups influence the ways farms are internally organized or function. My intention here, however, has been to focus more on the relationships between farms as spaces and their integration within the urban system. As such I have highlights examples that seem to best fit that purpose.

Conclusion

The goal of this chapter has been to illustrate the diverse ways that formal and informal networks and spaces are mutually constitutive, overlap and are interdependent. I have also demonstrated the various ways that power flows within these negotiations of formality and informality. There are, of course, several other types of power dynamics I

have not included here (such as intra-group dynamics, gender), but this exclusion has been because the focus is on formality and informality as a mode of production in cities and I have focused more on how farms are integrated into cities, rahter than the relations that occur on these farms (Roy 2010a). My intent is to show the ways different actors respond to pressures to create farms as the distinctly urban spaces that they are. I have also demonstrated the responses to the 'problem' of urban agriculture, and the ways that urban agriculture has been framed as an informal activity, one that does not belong in a modern city, in order to put 'fixes' on it that make it more legible in the eyes of city planners. Situating urban open spaces farms in one place designated for only one function (farming) is a way of making the city readable to modernist Euro-American planning.

I would argue that the government's desire to relocate urban farmers to areas more peripheral and to incorporate them into the formal land system (and by extension the formal economy) represents a spatial technology of governance. I use this term, following Hunt (2009), to indicate active participation by the state to reorder spaces to suit its ideological needs. In this case, I refer to the city (and the state's) desire to make urban citizens out of farmers by incorporating them into formal networks of power that the city can control, rather than leaving farmers to the informal means, which the state has less influence over.

The 'fixes' I refer to above, of using farms as sustainable green spaces or providing legal land title, are two mechanisms through which the city is attempting to assert more control over farmers. These mechanisms, of course, ignore the multiple ways that formal and informal networks and relationships are intertwined and the relative effectiveness of both systems in producing farms as urban spaces. It also merely represents a way of controlling space and practice, making them in the image of a 'modern' city by Euro-American standards, and providing potential sources of revenue for the state.

These fixes reflect static categorizations of formal and informal that can be useful as a way to examine processes, but can also limit how we see these processes to work. The concept of informality has a lot of baggage, including assumptions about marginality and exclusion. Yet this chapter has demonstrated that informality is closely link to,

supportive of and supported by the formal economy and even state practices. So where does that leave urban analysis? Rather than simply categorizing processes within this static binary, we need to move past it to examine activities, events and practices for how the influence the urban landscape. One way to do this is to talk about these issues without even utilizing the terminology of informality, but also to emphasize the different ways that power is expressed through various practices (both formal and informal) to create and change what happens in urban spaces. This is not only a project for a city dominated by informal economies and state practices, but for cities in all regional contexts where there is often very little emphasis on informality.

Having discussed the urbanization of agriculture and its integration into urban networks, spaces and systems, the next chapter explores the movements, flows and intersections of people, practices, and materials through urban farms. Following on the writing of AbdouMaliq Simone, I highlight the ways that associations and movement occur and how these constitute a city that seems chaotic, but actually reveals new insights into how the city can be understood to function. This next chapter focuses on movement and intersection, but within the context of larger structures that influence people's movements to and through farms. It is hoped that through these emerging forms of analysis, new ways of engaging with the city can be opened up. The purpose is to help create a space for a politics and discourse articulated by the people who experience the city in ways that diverge from the normative ideal, and bring new forms of urban analysis and organization into the discussions of urban futures.

CHAPTER VI

INTERSECTIONS AND FLOWS IN THE CITY

This final chapter continues to rely on urban agriculture for its empirical basis, but focuses more on what this can tell us about urban analysis and ways of approaching the city as an object of study. The approach taken here concentrates on movement within and through farms: movements of people, money, materials and visions of the city. In this chapter I build upon the idea of farms as integrated elements of urban systems, both in time and space, and how to use movement, flow and intersection as heuristic devices to explore these spaces in the city. These ideas emerge from recent writing on African cities, pioneered primarily by AbdouMaliq Simone, whose examinations of cities are illustrative of the nuance and ephemerality that constitute everyday life in a city such as Dar es Salaam. This chapter will take different perspectives of farms, situating them as slices of space and time within larger population, economic, ecological, development and material flows within the city. This form of urban analysis highlights the possibilities and creativities within urban space and is at the forefront of urban analysis in cities in Sub-Saharan Africa.

This chapter proceeds as follows. I present work by AbdouMaliq Simone to illustrate how his writings on urban flows, ephemerality, connections and intersections reveals the city in ways that can be difficult to capture. This work confronts the developmentalist lenses and urban frameworks that have emerged in Europe and North America[1] that continue to focus on movement (activities do not have fixed places or people move to different areas to take advantage of situations) and creativity (informality) as proof of failed cities (Myers and Murray 2006). Rather the focus here is on the myriad ways people and materials flow through the city in ways that disrupt narratives of marginalization and powerlessness. Following a brief orientation to this line of analytical inquiry, the main empirics of the chapter will focus on specific flows and relationships that intersect with urban farms and farmers. First, I present the movements

[1] I fully acknowledge that there has been recent work on creativity in the city and everyday life also coming out of urban studies, especially in Britain. However, this work is often still focused on an individual or a specifically 'first world' experience, such as the work of Latham (2003), Latham and McCormack (2004) and Amin and Thrift (2002), among others.

of farmers, exploring how they came to be farmers, where they go, and how farms operate in their own life trajectory. Next I situate farms as spaces through which money flows not only in the urban economy, but throughout the farms in a wide variety of ways. This analysis includes where money for inputs comes from, how farmers diversify their incomes and what the money is used for once the farmer takes it home. Third, I examine the ecological flows through farms, looking at how farms act as an intersection in the urban ecology of Dar es Salaam that forces us to ask questions about how other urban processes are also implicated in and by farms. Fourth, I examine farms as nodes in daily social life for people both on and off the farm. Finally, I focus on farms as distinct spaces that evolved in a specific place and time, and how these farms are situated in the trajectories of a specific place in Dar es Salaam. I briefly conclude with where this perspective can lead us with regards to developing an understanding of urban Africa that moves beyond the focus on poverty and marginalization towards understanding the creation of new "platforms of engagement" (Simone 2010: 331) between people and places. This term constitutes a focus on the potential for creating new dialogues in and about the city that better-represent the experiences of people who use and move through these spaces.

This approach to the city specifically situates the urban as a process, emphasizing the roles of intersections, movements and flows in the continual processes of remaking that defines, and is often distinct in different cities. The data presented below are about processes that continually make, re-make and in some cases un-make urban farms. These spaces are a conjunction of seemingly endless possibilities (Simone 2005: 9), and authors are only beginning to really explore what this means through daily life, encounters, movements and examinations of what seem to be intangible or ephemeral aspects of city life, but which have very real implications for the people who experience them. This approach differs from work on everyday life such as that of Michel de Certeau (1984) and Walter Benjamin (2002) in that it does not seek to privilege a specific class or desire to experience the city at random. Instead it seeks to examine the city through the eyes of people who consciously navigate places with intentions of creating connections or to manipulate spaces for their own benefit. My intent with this chapter is to mobilize this approach through the interrogation of a specific space, not only to demonstrate the

fluidity of cities, but to emphasize the integration of these spaces within city-making and re-making. This approach contributes towards methods of urban analysis that can focus on the urban as a process, rather than the outcome of determined events.

The City as Flow and Intersection

I use the terms flows, movements and intersections not as categories, but following Simone (2005: 13) as heuristic starting points to describe the varying capacities of people and spaces to operate together in ways that help make sense of what otherwise appear as disparate and irrational dimensions of urban life. Over the past decade AbdouMaliq Simone has worked through his experiences in urban Africa, and more recently Southeast Asia, immersing himself in a variety of contexts and roles, and relying on his own identity (as an activist, an NGO workers, a fellow Muslim) in order to experience various urban contexts (2004). His motive is to understand how cities 'work' and how people articulate and disarticulate from each other, from places and from institutions, to create their own urban futures. His work attempts to capture the nuanced and ephemeral components of cityness, how those are made real, and how people use spaces and movement to make claims and connections that will help secure their livelihoods and their identity.

His analysis has moved through several modes of explanation for different situational contexts, which have built up in more recent comprehensive work that is emerging as a new theoretical approach to cities that emphasizes intersections and flows. Simone rarely focuses on specific spaces per se, but rather the ways people move through and use cities. My approach draws upon his, but I modify it to focus on a specific space in order to grasp more specifically the roles that these spaces, and the people who move through them, play in the larger urban system.

Simone's work compliments other frameworks emerging in critical urban studies, especially those emphasizing the role of assemblage in urban life:

> … urban actors, forms, or processes are defined less by a pregiven definition and more by the assemblages they enter and reconstitute. The individual elements define assemblage by their cofunctioning and they can be stabilised (territorialized or reterritorialised) or destabilised (deterritorialised) through this

> mutual constitution, but that is not to say that assemblage is the result of the properties of its component parts. It is the interactions between components that form an assemblage, and these interactions cannot be reduced to individual properties alone. As a form of spatial relationality, assemblage thinking is attentive both to the individual elements *and* the agency of the interactive whole, where the agency of both can change over time and through interactions (McFarlane 2011a: 653, *itals original*).

This approach emphasizes the networks and objects that actors draw upon in their daily lives to secure their livelihoods and their urban existence. It also recognizes that people draw upon diverse practices and resources to constitute their whole experience. Analyzing just one component of that might not provide a complete picture of the importance of that resource or practice. There has been deliberation over the usefulness of this term in urban studies, as evidenced by a debate in the 2011 issues of the journal *City*, and more specifically the lead article in that issue by Brenner, Madden and Wachsmuth (2011), who argue that a focus on assemblage is removed from larger political economic forces and the ways that cities are shaped through capitalism. Yet it is precisely this critique that scholars working in cities outside Europe and North America where a political economic approach dominate urban analysis, but does not seem to adequately capture the urban experience- are seeking to upend. The focus on power (imposed by the state, by capitalism, etc.) that emerged from a political economic approach does not fully explain the subtleties and variations in power and how power can be expressed differently in different situations and spaces. Assemblage, which emerged from actor-network theory (ANT), uses a more Foucauldian notion of power that incorporates these nuances to help explain people's experiences (Ong and Collier 2005). An assemblage approach is a creative and useful technique for intervening in cities and incorporates more marginalized knowledge of urban function (McFarlane 2011b), making an assemblage approach appealing to critical urban theorists and activists in regional contexts throughout the world.

Simone himself draws upon ideas of assemblage in much of his work, focusing specifically on how marginalized actors desire to belong and define the terms of their own belonging, just not necessarily in the spaces and ways that prevailing paradigms of urban development would normatively consign them (Simone 2004: 9). For him, power is found in the everyday interactions and subtle ways people move and communicate with

each other. His focus is often on how people embody the need of being what they need to be in any given moment or place and is a reaction to the perpetual emergency that defines daily life for many urban residents in Africa. I would point out here that while Simone emphasizes throughout his work the constant emergency of urban life in the region, he does not use it to perpetuate the marginality of residents, nor to constitute them as victims, but instead to realistically convey the circumstances in which many people function in their daily lives. Employment can be insecure or impossible to find, food prices rapidly fluctuate and other expenses (bribes, school fees, water) can wipe out a family's income very quickly. He also uses the term emergency to refer to the 'emergence' of opportunity and resourcefulness that also defines daily urban life, that people seek out and utilize to mitigate the circumstances of the struggles they do face.

A critique of this approach is that it leaves out the politics, whereas a more Marxian approach to cities is intensely political (Bender 2009). A relational approach to examining spaces can indeed make it difficult to find an entry point in which to engage with issues of social injustice. While the project is not as easily defined, to be sure, seeing the myriad octopus-like tentacles of power that shift and relocate does not imply that there is no way to engage in social justice, only that any approaches to addressing it should better understood within its local context and sensitive to the power relations that exist as defined by local actors, rather than outside interests (be they scholarly or through the arms of development). I would also like to say here that relational approach such as actor-network theory may not be appropriate to study cities at all scales, and it is indeed not meta-theory. Instead it provides a framework that is seeking to politicize urban social injustice through a different approach, especially in the cities of the global south.

In his latest work, Simone moves on to the idea of intersection to illustrate urban experience and life. His emphasis has been on urban circulation, how people circulate through meanings and experiences, trying some on and discarding those that do not work, in an effort to valorize the agency and constructive powers of urban subjects (2005, 2008). For Simone it is these processes that define cityness, which he refers to as "a thing in the making… the capacity of or its different people, spaces, activities and things to interact in ways that exceed any attempt to regulate them" (2010: 3). Rather than taking

these processes for granted, or not exploring them because they seem too intangible, they are emphasized and examined for their ability to disrupt planned urbanism that often fails the very people it purports to help.

The idea of intersection is employed to illustrate spatial and temporal relations between people— and people and spaces— that create the city.

> Intersection is about people and ways of doing things coming down to a crossroads, not knowing what else is going to be there, and no one being able to completely dominate what takes place there… Whatever happens, people coming to the crossroads are changed… anywhere can be a crossroads at a particular time. The key is how spaces get turned into crossroads— points and experiences of intersection… in other words, take the opportunity to change each other around by nature of being in that space, getting rid of familiar ways of and plans for doing things and finding new possibilities by virtue of whatever is gathered there (Simone 2010: 191).

Drawing on examples from throughout Sub-Saharan Africa and Southeast Asia, Simone demonstrates how urban space becomes repurposed as investment comes in or leave, and how people can create specialized jobs that allow them to integrate into specific networks (e.g. a trash collector in Jakarta, who used to specialize in gathering plastic bottles, learned the different networks in the city and how different recyclers operated to create a plastic-gathering business that operates in a variety of ways in different parts of the city). Another example comes from inner-city Johannesburg, which has transitioned from a central management point for South Africa's mining economy towards being a center of information technology and finance that is linked to South Africa's lucrative resource extraction sectors. The city center has literally been moved to the more fortified part of town in the north, away from a central city that now languishes. At the same time, residential and occupational segregation based on race began to break down and while some middle-class blacks have been able to follow the spatial shift wrought by economic changes, the majority of black residents are left with few options for employment or even to develop skills that would be make marketable for the new economy. With little opportunity for improving their livelihoods, intricate and elaborate relationships and social networks are established between hawkers, taxi drivers, small shop owners and residents, etc. Others simply wait to take advantage of a situation, living off of someone else's income, stealing or situating themselves into other people's

schemes. These processes create an urban fabric with high levels of risk and residents must navigate it by reading the landscape, the buildings (decorations, graffiti, level of decay or rebuilding) and the people who them. Foreign-born Africans who create small enclaves reproduce what they know from home, but gradually these enclaves shift over time as more people move in and create ethnic archipelagoes, displacing other groups specializing in different trades. While some groups purposefully make the buildings they occupy look disheveled to reduce crime, they are fortifying and developing on the inside. Yet the government is also rebuilding streets, hoping that it will encourage residents to take better care of the urban environment. This give, take and movement represent the inner-city of Johannesburg as various actors intersect (e.g. government, thieves, school-children, Malians, shop owners) to create a dynamic space through time that help explain the creation of the urban fabric of Johannesburg.

> Therefore, for those who aspire to be something more than they are in the present, the objective is not to tie themselves down to prevailing notions about what can be taken into account, what makes sense, or what is logically possible. The idea is to keep things open, keep things from becoming too settled or fixed. The messed-up city, then, is not simply a mess. In the very lack of things seeming settled, people keep open the possibility that something more palatable to their sense of themselves might actually be possible (Simone 2010: 260-261).

I use the above examples to demonstrate a couple of way that fluidity that can operate on the urban environment and that the very lack of settled-ness is an intricate part of the city itself. This approach should not be confined to cities in Sub-Saharan Africa, and could provide insight into cities throughout the world, recognizing that what fluidity and movement look like may change in different urban and regional contexts.

Intersections and Flows Through Urban Farms

In the remainder of this chapter, I present several intersections focused on the urban farms of Dar es Salaam. I examine the flows and movements of people and materials and examine how they intersect on farms to look at what kinds of spaces are produced at the junction of specific actors, ecologies, urban development processes and economies.

Lives Intersecting with the Farm

Each farmer has his or her own past and a story about how they began farming in the place I met them. Most farmers provided a history of themselves that began in the village, where there were few opportunities or little land available. They moved to the city, either by themselves or through family connections, worked small jobs or received some kind of training, and then ended up farming after other attempts at an income were unsuccessful. The myriad variations on these stories reveal the diverse urban experiences that people have prior to and on the farm. Here I present a few stories from farmers that represent the diverse pathways and forces that people have navigated to get to the farm, and how the practice of farming has influenced their urban livelihoods. The purpose of sharing these stories is to provide a window into the many ways people end up as farmers and to highlight the structural forces and personal decisions that lead people to farming.

Mama Mary

Mary comes from Lindi region and went to school until class seven, the end of primary school and free education in Tanzania (which is generally when students are twelve years old). She had little to do at home and wanted to move to the city to make money for her family. Her cousin used to live in Masaki (an adjacent ward), worked at a company nearby and he said he would pay for Mary to go to school to be a typist. He was married, but his wife lived back in the village, and when Mary arrived in the city he started trying to seduce her. When she constantly refused him, he stopped paying for her typing school and told the teachers she should not be allowed to attend anymore. She had nowhere else to go, but when her cousin raped her she ran away to live with an uncle who had just moved to Msasani [the area of the farm], but the uncle's wife did not like her and refused to give her food. She got a job in Oyster Bay (an affluent area nearby), but the woman of the house paid her only 7500 Tsh (about one dollar) per month, saying that Mary was getting free board and food, so she did not need more money. Mary had a child by this time and she needed more income to support herself and her daughter. She was eventually able to find a job with a Nigerian family adjacent to what is now the Drive In farm. The woman of this house was very nice to her and encouraged her to grow plants in the area to earn extra money. The area was a trash dump, and Mary cleared some of it to

grow *mchicha*, which she was able to sell very quickly, and she was able to send her child to school. At one point she had to go back to the village because her mother died, and when she returned, the Nigerian family was gone. She still had her plots and she decided to expand and live off of growing *mchicha*.

Mary is now the group leader of Drive In, but she has also been able to use the space for earning extra income by selling lunches to people on the streets. This potential endeavor to earn extra income has only been of limited success, however, and Mary remains relatively poor. She hopes in the future that she will be able to make more money by growing more profitable vegetables, but she cannot imagine what she would do after farming. She will depend on her children, who she hopes have better lives than she does. Yet she enjoys farming because of the independence she has from other people who have tried to take advantage of her or treat her poorly. She is very proud of what she has accomplished in her four plots and often (though not always) enjoys the challenges of farming. She is also a very social person who has a reputation of being sensitive, fair and accommodating, which is why the other farmers support her being the head of the group. She says that, too, is challenging, as people come to her with all kinds of disputes, but she enjoys the leadership position and knows it gives her good experience in case another opportunity comes her way.

Mr. Londo

Mr. Londo comes from the Kilimanjaro region in the north where his parents were farmers. He went to school until class seven, but there was no money to send him to secondary school so he moved to Tanga, a town on the coast north of Dar es Salaam, to work as a tree planter. This job did not bring him much money, however, and he started going to school to learn how to make shoes, hats and belts. He started working in that trade, but he was still known as a student and people wanted more experienced workers. He moved to Dar es Salaam, though he did not know anyone who was there for a while, until some friends from back home also migrated to look for work. He made a good income at first working for an Indian company making special order leather goods. But over time there were fewer customers because of the emerging second hand clothes market. People would rather buy cheaper shoes and belts that were being brought in from

the US and Europe then pay extra for handmade goods. About this time he got married and he and his wife moved to the Msimbazi Valley and built a house in the informal settlements near the valley floor. They kept chickens and sold eggs for a while, but eventually met the people farming and were able to access the plots they use now by becoming friends with some of the farmers.

Mr. Londo is also very proud of what he has accomplished on his farm and he has been quite successful. He has made enough money to buy a gas-powered water pump, which he rents out to other farmers. His wife and he work together on the plots and they continue to raise chickens for eggs to sell. He has also developed some innovative techniques for irrigation that are now used throughout the farm. Because they are not supposed to use the water from the river, the farmers dig wells, and to reduce the distance to the well, Mr. Londo suggested that they link the wells with ditches, which has made it easier for many farmers to irrigate their plots. He also helped the farmers use their pesticides more efficiently, such as mixing the pellets they use with water rather than just throwing them dry on the plants. Because of these ideas Mr. Londo is currently the leader of a group of about fifty farmers in the valley. When he talks about farming, he is obviously proud and quite boastful of what he has accomplished. He sees in his future that he will be a 'big farmer,' a phrase used by many who hope to have more plots, or be able to buy some land in the peri-urban areas where they can grow higher-value crops such as fruit.

Kevin

Like many of the farmers I talked to in Dar es Salaam, Kevin was born in Morogoro, an agriculturally rich and productive region. He grew up in a village there and attended school through class seven. With nothing to do at home he came to the city to live with his uncle and try to find a job. He had seen many people become successful after moving to the city, or at least they were able to make some money, and he felt that was a better option that remaining in the village. He had been doing some small work in the city of Morogoro (not to be confused with the region of Morogoro) selling foodstuffs on the street, but he felt he was not going to be able to improve his life if he stayed in the city of Morogoro. His first job in Dar es Salaam was with his uncle, buying fruits and

vegetables from a large market in Urafiki and selling them in the smaller markets around town. After his uncle passed away he did other small jobs, such as selling second hand clothes and phone vouchers. One day he was walking by the Ubungo farm and saw some of his friends from Morogoro were there. They told him to find a place to clear and he could start farming. Kevin is one of the few farmers that got a plot the same year that he arrived in the city. He is in his twenties and for now sees himself as a farmer for a long time, though he would like to be a 'big farmer' also, buying a larger plot of land in the peri-urban area so that he can make more money. For Kevin, the Ubungo farm represents opportunity for the future. It is a place where he can make enough money to successfully live in the city and support a wife and children, when he eventually gets a family.

Cindy

Cindy lives and works on the Oyster Bay Farm, which is located on the Oyster Bay Police station very near the Drive In Farm. She lives in a six-story apartment building on the property where many police families stay. She was born in Ruvuma in southwestern Tanzania and went to primary and three years of secondary school. However, one of her parents passed away and there was no longer enough money to pay the school fees. She became the girlfriend and eventually the wife of a man from the village who worked as a policeman in Dar es salaam, so she moved there with him. She earned some extra income by cooking chapatti and *maandazi*[2] to sell to the kids who go to school nearby. It was not much extra income, but it gave her a small amount some nice things for the house and to help with school fees. In about 2000 she noticed that many of the other wives of police were farming, but by the time she decided to get involved there were no plots left. She was eventually able to buy one from a man who wanted to retire. They have piped water, though during the day the pressure gets so low that they often run out. Cecelia, like many of the other women, is often watering her eleven plots of *mchicha* between midnight and 6:00am. Because she is often up for a few hours in the middle of the night, she sends the house girl to go sell to traders. She says it is hard, but that it is worth it because she earns a good income and can pay for the school fees for her children

[2] Chapatti is a flat bread similar to Indian naan, which is commonly served as a snack with morning tea from street side vendors. *Maandazi* are lumps of dough deep fried, similar to donut, but lack any sweetness. They are also a common street-side snack served with tea.

and her husband does not have to worry about her ability to pay for household things. Her husband is very supportive and they agree about what to do with the money they both make.

All of the people who farm at Oster Bay now are the policemen's wives and during my fieldwork they were just starting to organize themselves as a group. Cindy felt that there had not been a need to organize before, but because they had been participating in the discussions with the NGO as a group, and they were invited to the series of trainings that the NGO put on in October 2010, they felt it would be smart to at least organize in order that they could communicate and act together.

Conclusion

These are only four stories that represent one slice of the trajectories of people's lives. If I had not been there specifically talking to urban farmers, these same people might have told me a different type of story. As it is they have highlighted the larger economic or political forces that have compelled them towards urban farming, but also the ways they personally responded, made connections and decisions, the simple joys or frustrations they face, and how those are integrated into their daily movements and experiences. There are common themes among them, namely the desire to move to Dar es Salaam in search of hope and a more secure economic future. There are many structural forces at work that have led people to the farm, but also individual experiences that create fear or desperation of dependence. For most of the farmers I interviewed, the sense of independence in the city is an incredibly strong motivation to keep farming. There are few jobs in the city where you can be your own boss. The market may be difficult or the weather might not cooperate, but there is no one to blame you for the problems of farming. Many farmers talked about being shamed in their previous work, and while they recognize that many people think they are 'low class' because they are farmers, they can hold their heads high because they are not abused by bosses or swindled out of wages.

The farms also provide a place of innovation and creativity in solving ecological, social and economic problems. These are incredibly dynamic spaces, and farmers draw upon previous experiences to create these farms that will best suit their livelihood needs.

In the process they change these spaces, which they then leave to future farmers who continue to build upon them. Because farmers have the freedom to try different strategies, they are constantly innovating solutions, another source of pride for many of the people I talked to. The ways that these farmer's lives intersect with these spaces has provided the vast majority of them with an urban experience that gives more freedom and independence than they had in other informal jobs. Recognizing their independence is not meant to romanticize their experiences: farming is difficult and often grueling work, as every farmer would take pains to tell me. The purpose here is to highlight the multiple pathways and ways that farmers' lives interact in this space and how it influences their sense of the urban experience. Highlighting how these lives flow towards and intersect specifically on farms reveals how these spaces provide security, insecurity, livelihoods, freedoms, pride and myriad other satisfactions and dissatisfactions in the city.

Economic Intersections: Following the Money

One of the main points of chapter five was to demonstrate how economically integrated farms are into urban systems through both formal and informal processes. I used the examples of traders buying produce from the farms and taking it to the market to sell to the public. I build upon that example here, providing more nuance and specifics about the ways that money flows through and within farms to demonstrate the economic intersections. The previous section focused on the lives of famers, but here I focus more specifically on the flow and intersections of money on farms, specifically on how the urban economy moves through these farms, their integration with the city, and the wide variety of creative ways that people integrate economic functions into these spaces. Examining from this perspective can illuminate what motivates people to begin certain ventures, how people maintain connections (economic and social, which are often blended) in various parts of the city through farming, and provide insight into potential ways that people can build on their success as farmers and entrepreneurs. The privilege given to economic development by farmers also means that they strive to 'develop themselves' as they search for opportunities of looking and being 'more advanced' and 'modern.' This is an important component of the pride that many farmers have in themselves, and makes farms spaces for demonstrating their ingenuity, development and

economic status. It also means that they can transform other spaces in the city, such as their homes, and even in their villages they come from by sending remittances, to reflect their level of development and advancement.

The basic place to start is the inputs to the farm, namely pesticides, seeds, fertilizers, tools and labor. Few farmers I talked to have much saved up before farming and had to start small, using only the most basic tools borrowed from plot neighbors. They would need to be able to buy seeds and fertilizers to grow much of anything in Dar es Salaam's sandy soils, but over time as they created some profit, they would be able to invest more in their own tools, pesticides, equipment for spraying pesticides, and even hire labor. For farmers, these are material signs that they are developing themselves (**Figure 6.1.**).

Figure 6.1. Photo voice, Tazara. This farmer is demonstrating the water pump he bought with his profits (Vincent, focus group).

In response to the question about how his life as a farmer has changed since he began to farm in Msimbazi Valley, Stefan replied:

> It’s so different. He has assurance of a life. He has a house and there are still things he wants more [that he will get from farming]… He has seen development in his farms. He’s referring to the tools, modern farming tools like a water pump, and he can employ people in his gardens (Stefan, Msimbazi).

Over time many farmers have been able to accumulate wealth and reinvest some of it back into the farm through ‘modern tools.’ Yet the more they develop, the higher their sights are set, encouraging them to invest more to earn more profit to reinvest. These are signs on the farms of ‘successful’ or ‘developed’ farmers.

Most farmers buy their pesticides from the markets in Kariakoo in the center of town. They are the least expensive there and the selection is best. Fertilizer is purchased from the many poultry growers in the city. Chicken manure is very inexpensive (as opposed to goat or cow, also available in the city) and readily available throughout the city. Farmers sometime band together to hire a cart to bring a few bags over to the farm.

Seeds come from a variety of sources. Farmers will often harvest the seeds of overgrown plants, especially *mchicha* (**Figure 6.2.**). Generally farmers can harvest seeds

Figure 6.2. Photo voice, Drive In. “This is my fellow group members harvesting *mchicha* seeds to plant. This shows that one can produce the seeds on her own rather than buying. This represents happiness and creativity of farmers” (Hana).

only when the market for the vegetables is bad and the plants have gone to seed, but farmers see it as the best of a bad situation. Agriculture agents, however, oppose the practice, saying that the seeds the farmers harvest are not as good as the ones in the market (Kinondoni agriculture extension agent, Aug 2010). Yet this is one way that farmers can save money for other inputs, and farmers said that they never saw decreased yields when they planted the seeds that they harvested.

At one interview on the Drive In farm we were interrupted by a man from Morogoro selling seeds from a large bag. He had *mchicha* and pumpkin leaves seeds. As other farmers had already told us, he used an empty half-liter bottle to measure the seeds and poured them into a plastic bag provided by the farmer. Each bottle cost about 500Tsh (~$0.35USD), which is about the price of one bunch of *mchciha* when the farmers sell it (and they get many tens of bunches from each plot, depending on the size). While this travelling seed salesman was polite enough to answer my questions, Ummy said that he was in a hurry to sell and move on to the next farm. He did tell us that he comes from Morogoro about twice a month with a large bag of seeds to sell, though he would not tell us how much he makes. Each bag of seeds probably held about 100-150 bottles worth of seeds, however, meaning an estimated gain of about 50,000-75,000Tsh ($31-$45 USD).

Many farmers also hire labor to work on the farms, though philosophies towards labor vary. Some farmers will only do it if they are very sick and unable to work, though often in this case, plot neighbors will pitch in and work for free, expecting reciprocation when they themselves fall ill. However, some farmers have a large number of plots that they cannot expect to work every day. Stefan at Msimbazi, who has several large plots of *mchciha* and tomatoes, which require more labor and bring in a higher profit addresses how the cost of labor influences the overall calculation of inputs.

> Hiring labor is why the inputs become so expensive because you must find people to help you planting and farming. You can never do these things alone. When someone comes and digs, it costs 1500Tsh ($2USD) (Stefan, Msimbazi).

Often farmers hire the same person because there are issues of trust: the fear that someone will take the money and leave the work undone. If a farmer can stay around while they do other chores, however, the work is more likely to be completed. Other

farmers see hiring labor as a way to help people who are less fortunate, to provide work for other people.

> Sometimes when he's tired and can't do the work he hires someone, but it is not regular. He gives someone 2000 or 3000Tsh ($3-$4USD)… It's not permanent people, it's just people who pass here who have no other work to do. Most of his crops he sells to the women who are here, but who don't have plots [women who hang around socializing or waiting for this opportunity]. So they make an agreement, 'I'm giving you my lot, you should sell it at this price and bring the money to me' because he can't spend all day on his farm waiting or customers to come. *So if they get more than what the minimum, they keep the difference?* Yeah, that is how he usually does it. It gives them some extra income and he can relax (Mike, Drive In).

Money also circulates within the farm, especially as some farmers operate side businesses, such as the lunch stand on the Drive In farm. Several other farms have small business associated with them, such as the previously discussed stove and stone vendors also at Drive In. At the Temeke farm there are two women who operate chai[3] and lunch stands. One of the women started with many of the farmers who were located at a previous farm called Kibasila. When that land was bought out and many of the farmers moved to what is now the Temeke farm, the woman came with the people who moved and set up a stand to serve tea and food. The woman who opened the second stand arrived after the Temeke farm was established strongly disliked the idea of farming herself, but she saw the customer base that the fifty-five other farmers in the group offered:

> When she came here, she says it's good when you know people from your own place, like she knew some of the farmers here from [her home village in] Morogoro. So she had to talk to them and they told her that one of the problems they had was that they didn't have anyone to prepare tea for them, so she decided to start doing that… So when she came she was told to start cooking tea, but she didn't really know where to do it. So they told her to talk to the person who had this plot before because they thought it was a good place. She talked to the guy and he gave it to her for free, but with the capital she had to ask her brother [not a farmer] for some money [to buy plate, pots, etc.]… at first she was just sitting there and the shed was not built, so she was just selling tea under the hot sun. It was so bad. But after getting a little money, she assigned somebody to build the place and paid him. It was built about two weeks after she started here (Ellen, Temeke).

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[3] Chai stands are where people make the tea and often sell chapatti or *maandazi* in the mornings, which most farmers have for breakfast.

Figure 6.3. shows Ellen, who participated in the photo voice project in her chai stand. She has made a good living doing this, though she certainly wishes she did not have to compete with the woman on the other side of the farm who also serves chai and lunches. But for now she is satisfied. She also has a small plot of vegetables that she grows for her household consumption.

Figure 6.3. Photo voice, Temeke. “This picture shows how happy I am that I have worked hard enough to earn money to have a business and meet my daily needs” (Ellen).

Farmers, of course, use the proceeds from their farms in a wide variety of ways. As suggested in chapter four, one of the main distinctions between farming in the villages and farming in the city for these farmers is the ability to participate in the cash economy and have easier access to urban amenities. Farmers have built houses, bought cell phones, paid school fees, opened other small shops, gone to bars, bought nice house decorations and supplement other business activities such as small shops and an internet cafe (**Figure 6.4. & 6.5.**). Money also moves between farmers in the form of loans and assistance. Several farms have savings accounts where they collect money to loan out for farmers to do projects both on and off the farm (i.e. build part of a house or purchase stove). At both

Msimbazi and Drive In the women have sub-groups where they have a separate fund that they collect once a month and loan to one of the women. Each month a different woman receives the money and then puts in for the next month to help out another woman. The entire group farmers at Drive In collect monthly due to pay for the electricity for their water pump.

Figure 6.4. Photo voice, Tazara. "I earn a good enough income to be able to pay for internet and conduct business online for my wife's shop. The money I make helps me develop myself and my family" (Vincent).

A common practice throughout Tanzania is for groups of people to donate money to help someone who is sick or who has had a death in the family. Not surprisingly, donating is also common farms. At every farm, collections are regularly taken for people who are sick enough to be unable to come to the farm. The collection is taken by a plot neighbor or particularly good friend and then delivered to the person in need.

Figure 6.5. Photo voice, Tazara. "The money I make from the farm allowed me to build a house for my wife and children. We can buy nice things and have shelter over our head because of farming" (Vincent).

As discussed in the previous chapter in the sections on formal and informal economic networks, traders from the city's market buy most of the vegetables that

farmers are growing. However, they also sell to individuals who are either purchasing for home consumption or to people who will buy around twenty bunches to sell in the streets. These women (**Figure 6.6.**) sell door to door, calling out the product they are selling as they walk down the street. Of course, the money they earn goes back to their own families and serves as the way to buy more vegetables the next day to go out again.

The following quote tells the story of the relatively common practice of collecting money for fellow farmers:

> Although they don't have a farming groups, they still have that thing of contributing money to a person who is sick and who needs immediate medication and they give it to him or her and they go to the hospital and sometimes the women take meals to the home. There was a time that a customer died, but it was a very close relative of someone who farmed here, so many of them travelled to Morogoro to and some people remained here who were in charge of the plots. A collection was taken up from the farmers that was given to the family by those who went to Morogoro (Christian, Ubungo).

Figure 6.6. Photo voice, Temeke. "These ladies are regular customers and are preparing to sell their vegetables on the streets" (Joseph).

Several farmers also operate produce stands next to the farm. They often supplement the greens they are selling with a few products that they or a family member bought at the market earlier in the day. During the first five months of my project, it was common to see farmers selling oranges along with their pumpkin leaves and *mchicha* (**Figure 6.7.**). Family members often take produce from the farm to sell at the markets, but this is usually only a small amount. More often if the farmers cannot sell their greens, they will try to find a small place at one of the markets where they can spread their produce out and try to sell, but it is difficult and most farmers do not like to do it (**Figure 6.8.**). Most

Figure 6.7. Photo voice, Tazara (no caption). This is a picture of a farmer with his son waiting for customers to buy his produce (Jeff).

farmers only do this in the seasons where there is a glut of vegetables, making it harder to sell them from the farm.

One final point to make is the empowerment that cash flows bring to many of the farmers. Many of the female farmers who were married addressed this issue when I asked what they do with the money that they earn. Some women said that they keep it for themselves to pay for school fees and supplies and in order that their husbands do not

Figure 6.8. Photo voice, Tazara. “This picture shows how we do business without a specific market. We only have a temporary market. We spread out vegetables on the ground, which is not a clean and safe way to have the assurance of selling all our vegetables” (Richard).

“drink it away.” Others, who seem to have better relationships with their husbands, see the money as a way to contribute to the family in a productive way, to ease the burden on the husband.

> She’s proud because her husband doesn’t find her as something helpless. So she’s proud and though she doesn’t have that much education, she’s proud that she can do something else, which makes her a woman and she can help her family. Something that doesn’t make the husband find her a burden (Gladys, Oyster Bay).

It is important to recognize how money intersecting with the farm brings not only financial success, but also a sense of pride and independence that few other jobs in the city seem to provide. This pride may be manifest in different ways— such as being independent from their husband, feeling freedom from overbearing bosses in other jobs they have had, or in just having a steady income— but much of it comes down to a sense that they have been able to find a way to ‘make it’ in a city where many people around them do not have this success or independence.

Conclusion: Economic Flows

The purpose of this section has been to provide some insight into the various economic flows as they pertain to farming, how the money intersects with the space of the farm and the implications of these flows for farmers themselves and other spaces in the city. The flow of money is never-ending, and here I have just chosen to highlight the most common flows that farmers discussed or highlighted in the photo voice project and interviews. Of course money continually circulates through the urban system, and much of it is sent outside the city in the form of support for families back in the villages. The integration of cash into urban farming makes it easier for farmers to 'develop themselves,' a common phrase they used to describe obtaining more efficient and higher quality tools such as water pumps and rakes that would allow them to work faster and obtain even more profits.

There are a myriad other small activities taking place on the farms. I saw people walking through selling newspapers, tea, seeds, shaves and haircuts, cloth, rattan for tying vegetable bunches, plastic bags for farmers to use for customers, farmers selling cigarettes to customers with their vegetables, and so on. People are ready to take advantage of each and every opportunity they can to earn extra income. Farmers and the vendors they use diversify as much as possible in order to exploit whatever niche markets they can. Many of these transactions are mundane that farmers do not even realize to recount them or dismiss them as insignificant, yet they represent an integral part of the ways economics flows intersect with and influence the social and material organization of the farms.

These economic flows, not only of farmers, but of other vendors, transform not only the farms as spaces, but other places in the city as well, such as homes and other places of business. Vendors coming from other districts, such as Morogoro, tap into the economic flows of farms and use that money back home, influencing the configuration and construction of space in areas far removed from the city of Dar es Salaam. Yet focusing on the farms as a space of intersection provides a way of engaging with these flows that might be overlooked in other approaches that focus purely on the political economy of urban farming. Here we can see how much individual creativity and

associational networks play into the flow of economies through these spaces. The following section will take a similar approach to ecological flows, and examine how processes that occur in other places interact on farms, and in turn how this influences the materialities of the urban experience.

Ecological Flows

Recent work in urban political ecology has stressed the importance of the connections between urban systems and local and distant ecologies. Much of this work has stressed the ways that resources, such as water, flow through the city, where they emerge from, how they flow through the city, what happens to them en route, where they go and how they influence that place as a result of their urban pathways. In her work on Athens, Maria Kaika takes on the urban versus nature duality that emerged through modernism and shows that instead of being separate, the two are intricately linked (2005). Instead of seeing the urbanization of ecological processes as destroying the environment, we can examine how the process of urbanization reconstructs nature and creates new environments (*ibid*. 23). In this section I examine some of the ecological flows through the farm, specifically focusing on water and soils, to illustrate how these interact and influence life on the farms and beyond. As discussed in the previous two chapters, water is a hot-button issue with regard to urban agriculture in the city. This section will take a more nuanced look at the flow of pollutants through the farm and others run off. I will also explore other ecological inputs, such as fertilizers and pesticides that farmers use to enhance crop production.

Msimbazi River

There have been numerous academic articles and reports from government and non-government institutions about the levels of pollution in the Msimbazi River and selected other areas of the city. In the mid-1990s, a series of studies were conducted by the Ministry of Agriculture and Co-operatives funded by the German Technical Cooperation (GTZ)[4] looking into issues of urban agriculture. A study on soil

[4] As of 1 January 2011, GTZ is now GIZ, the Deutche Gasellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)

contamination in areas around the Tazara farm (and other areas not included in my case study) found that concentrations of lead and cadmium, two toxic chemicals of highest concern in the city, were quite low, though the authors acknowledge that lead tends to accumulate in topsoil and levels were higher in areas near busy roadways (Amend and Mwaisango 1998). Zinc was also at relatively low levels in many areas, though increased use of batteries probably accounts for the levels found in some sites near dumps. Msimbazi, however, had relatively high levels, and other studies speculated that this was a result of high density informal settlements with no trash collection that leads to people dumping their batteries indiscriminately. The conclusions of the studies indicated that while there were toxic elements found in the soils, they were generally below levels of concern primarily due to low levels of industrialization at the time of the data collection.

More recently however, much attention has been focused on the high levels of pollution in places such as the Msimbazi River. The newspaper articles I have previously mentioned have all centered on debates over pollution of the water and soils used in urban farms in the river valley. With headlines intimating that farmers are profiting by giving cancer to consumers, it is hardly surprising that the issue became a very sensitive one. The newspaper reports were based on the research done by two scholars at the Ardhi Institute, affiliated with the University of Dar es Salaam. This work demonstrated that levels of chromium and lead exceeded FAO/WHO guidelines for safe limits for human consumption, particularly in *amaranthus* species (*mchicha*) and *C. maxima* and indeed that the level found in these soils indicated accumulation effects as earlier studies had found much lower levels of these chemicals.

The Msimbazi River serves as the catchment for about 122 km^2 and has three major tributaries that converge within the city, namely the Ubungo, Sinza and Luhanga Rivers (Mbuligwe and Kaseva 2005). As the river meanders throughout the valley, it serves as a collector of runoff from vast informal settlements, areas of sewage collection, warehouses, automobile garages and repair shops, a slaughterhouse, a large sold waste disposal site and farms throughout the valley. Increased populations and industrial activities, including paint, battery and textile manufacturing and milling and chemical industries have been correlated with the increased concentrations of not just lead and

chromium as mentioned above, but also copper and cadmium (Mwegoha and Kihampa 2010). With few restrictions on dumping, and even fewer that have any enforcement, and a lack of solid waste management in the city to pick up trash from the informal settlements, the river water is strewn with trash and full of chemical pollution. When the valley floods, which happens several times a year, water is deposited on the valley floor and onto the soil the farmers use, which leads to the high concentrations of toxic chemicals. Different species of plants will absorb different chemicals, and the most recent research has shown that the *mchicha* readily absorbs several of these toxic chemicals in the Msimbazi Valley, leading to public health concerns (Kihampa and Mwegoha 2010).

Farmers are aware of these concerns and will readily state that they do not use the water from the river to directly irrigate their crops. In the dry seasons, however, their wells often run dry and they may turn to using river water until the wells fill up again. Further, despite the public awareness surrounding this issue, the Msimbazi farmers had seen little impact on their sales, though other farms in the city say they have gained customers from Msimbazi who want to avoid the polluted vegetables. Much of the greens grown in the valley are sold in the large formal and informal markets of the city, such as Kariakoo or the Ilala market. One indication of the fervor surrounding this issue came when Ummy and I went to Kariakoo, as previously mentioned, to find out where the vendors source their vegetables from. Not one vendor admitted to selling vegetables grown in the city, claiming vociferously that they were unsafe and unfit for people to consume. Despite this, many farmers I interviewed said that they sold to traders who sold in the Kariakoo market and it is widely known that much of the leafy greens originate from urban areas.

Pollution in Msimbazi has been a real test for advocates of urban agriculture. On the one hand they want to protect farmers in the valley, but the reality of the levels of pollution is indeed alarming, though probably not as much as the newspapers make it seem. One of the authors of the studies cited above said he had mixed feelings about his research. He supported urban agriculture, but there needs to be a way to protect the public from risks such as cancer that could result from toxic chemical loads. Soil remediation at this scale is not an option and the government is not will or able to enforce pollution

control mechanisms. As the city continue to grow and add industry, the levels of pollutants will likely increase, putting more of the public at risk, especially those who are unable to travel farther to buy vegetables that are potentially safer.

Inputs and Outputs

The soils of Dar es Salaam are not very conducive to intensive agriculture; they are primarily sandy or loamy-clay soils, neither of which are particularly good at holding nutrients needed for crop growth (Dongus *et al*. 2009). As a result, farmers rely heavily on fertilizers. Much of these are gained from the several thousands of chicken farmers in the city. Chicken is the least expensive type of fertilizer, and many acknowledge the least efficient, though cow and some goat fertilizer can also be found. Chicken farmers can be found throughout the city, raising the animals both for their meat and their eggs to sell to local shops and restaurants, delivered around the city via car, bike, cart and motorcycle (**Figure 6.9.**). Farmers buy large bags of fertilizer, using one or two each time they prepare a new plot for planting. **Figure 6.10.** shows a farmer lifting one of these bags. The plots at this farm are quite small. Other farms that have plots at least twice as large will use two bags. Each bag costs the farmer about 2000Tsh ($1.50 USD).

Pests are a significant problem on many farms, especially as about ninety percent of what the farmers grow tends to be *mchicha*, meaning an infestation of a bug or mold that thrives on that plant can damage an entire farm and customers will refuse to buy damaged plants. Farmers communicate when an infestation is noticed in order that they can address it quickly. Many farmers use pesticides all the time, though some do not, depending on the season (wet or dry, hot or mild). Pesticides come from the markets and are generally synthetic chemicals. Farmers with more resources will be able to purchase a sprayer and can cover a wider area (**Figure 6.11.**), though most farmers depend on smaller scale applications, such as hand-held brushes (**Figure 6.12.**) or dissolving pellets in an empty water bottle, cutting holes in the top and spraying it through the holes.

Figure 6.9. Makumbusho Shule. Farmer bringing bags of chicken manure that he has purchased via a cart. This farmer owns the cart and rents it out to other farmers who need to use it to bring in their own fertilizers (L. McLees).

Figure 6.10. Photo voice, Drive In. "My vegetables cannot grow without using fertilizer. The bag here is chicken fertilizer, which is what we most commonly use" (Mama Mary). *From focus group*: "We are constantly having to carry these heavy bags around, but our crops will not grow without them."

Figure 6.11. Photo voice, Tazara. “This is a farmer spraying pesticides on his vegetables” (Thomas). *From focus group* “He is growing eggplant, which brings in good money so he can afford to buy more modern chemicals.”

Figure 6.12. Photo voice, Tazara. “This farmer is applying insecticides in a local way. This indicates that we still do not that the knowledge on how to make the modern sprayers, so we need training on this” (Thomas).

One of the biggest complaints that farmers have about agriculture extension agents is that the knowledge of how to properly apply pesticides, including which ones to use for which pests, is not being transferred to farmers. Agriculture agents, however, claim that when they do trainings, the farmers do not take their advice. The agents promote the use of 'natural' pesticides. There is a tree found in many areas of the city, and indeed on many farms, called *mwarubaini*, or 'tree of forty uses'. This is the neem tree (*Azadirachta indica*) and is widely known for is antiseptic and anti-pest properties. At the Tazara and Ubungo farms, we often sat under the neem tree because there were rarely any bugs flying around to bother us. The agriculture agents said that you could pick the tree leaves, grind them into or soak them in soapy water to spray on the plants. The soap helps the neem juices adhere to the plants. Some farmers had tried this, and had been pleased with the results, especially since it was so cheap, but the scale at which they would need to use this treatment would require far too much time investment. Further, the use of 'modern' pesticides was closely associated with being a 'more developed' farmer— hence a status element is integrally bound with the use of pesticides on farms.

Run-off from farms in the form of phosphorus and nitrates has been detected in Dar es Salaam Bay (where the rivers flow into the Indian Ocean) and is cited as a pollution problem in Dar es Salaam (and indeed in cities throughout Sub-Saharan Africa) (Mwegoha and Kihampa 2010). This issue, however, has not been politicized in the media, probably because of much larger pollution issues from untreated sewage and industrial pollution. While certainly in Dar es Salaam there are more significant pollution issues, agriculture run-off is cited as a reason by planners, agriculture agents and newspaper articles as to why the practice is harmful to the well-being of urban residents.

Conclusion: Ecological Flows

The purpose of this section has been to examine the influences of part of the ecologies that flow thorough these farms, specifically in the Msimbazi valley where the issue is highly politicized. While I focused on the valley, similar issues exist in varying degrees on farms throughout the city. Farms have been constructed as distinct spaces by planners and agriculture agents and other government officials where pollutants flow towards and intersect to create political and economic problems for farmers, consumers,

traders and vendors. The implications of these flows and the ways they are interpreted reify farmers as culprits who benefit from polluting the environment and the bodies of the urban populace. Yet this simplifies the ways that pollutants, and indeed other chemicals, organic or not, flow through the city and are implicated in perceptions of the city and in the very real effects on human and ecological health, and it hides the ways that these various actors and spaces in the urban system are mutually implicated in pollution and its impacts. The following section focuses on the social intersections. This section complements the previous two, but it is also more ephemeral and often immaterial than economic or ecological flows. Yet for many farmers, the social flows and intersections on farms constitute some of the most meaningful and useful uses of the spaces on urban farms.

Social Intersections on Farms

Farms in Dar es Salaam are intensely social spaces. On any day sitting on the farm a person can observe far more non-farmers than farmers moving through the space, from school children, customers, people who live nearby coming home from the market, vendors, visiting friends, people looking for day labor, etc. Farmers are also embedded in social networks both on and off the farms. Many groups are organized well enough to have regular meetings; others hold impromptu gatherings to discuss pressing issues or emergencies. Farmers also sit together, with their friends and customers chatting, gossiping, exchanging information, talking politics, greeting passerby. People who move through these spaces greet farmers, who greet them back, often regardless of whether or not they have ever met before. In this section I want to trace some of these movements through the farms, how they intersect and how they move on. Of course I could not follow everyone who moved through the farm to see what they did, where they came from or where they were going. Much of the data in this section is based on observation of various types of interactions, including my own, with the farmers and on the farms, but I also draw on the more formal methods I used in the research. This cannot be a comprehensive review of social interactions on farms, which would be impossible to document. Instead I pick just a few examples of how this approach can highlight the

social interconnectedness on farms and the ways that these interactions connect farmers and farms to the larger urban system.

In this section I explore the movement through farms and the everyday social intersections by focusing on four main themes. First I focus on the interactions with customers on farms, including not only people buying vegetables, but also other products such as prepared food, which I introduced earlier. Second, I discuss the people who move through this space on a daily basis, including school children and other local people who use the farms as a shortcut or a pathway because of the perceived safety on the farms. I will also discuss the role of farming groups, but here I focus on the less formalized functions of these groups and how they operate in the daily lives of farmers to influence people and spaces both on and off the farm. Finally, I briefly discuss the role of family on and off the farms. Some farmers have family help them and others do not and I will use the final sub-section to explore this dynamic.

Customers on the Farm

Customers are obviously an important component of social life on the farms. Because I have previously discussed traders at length, I focus here on the individual customers who stop by to purchase a bundle of vegetables for home consumption. People I talked to in my own daily experiences in Dar es Salaam are very picky about the freshness of their produce, and many like to go to the farm and have it picked just a few hours before they eat it. This is something that I observed to cut across economic and social classes. It is primarily women who stop by, either the female head of household or a house girl buying for the place she works. They will often stop and chat for a few minutes with the farmers, especially if they are regular customers and women customers tended to be more willing to stop and chat with other women, rather than male farmers. I asked several of the women farmers about this and they said it is due to social norms that can make it inappropriate for young women to socialize too much with men, which can lead to gossip. Waiting and chatting with customers is an important social time on the farms, providing an opportunity to rest from the hard labor they did earlier in the day (**Figure 6.13. & 6.14.**). The importance of this time rarely came out in interviews, but was a dominant theme in the mental maps and photo voice projects.

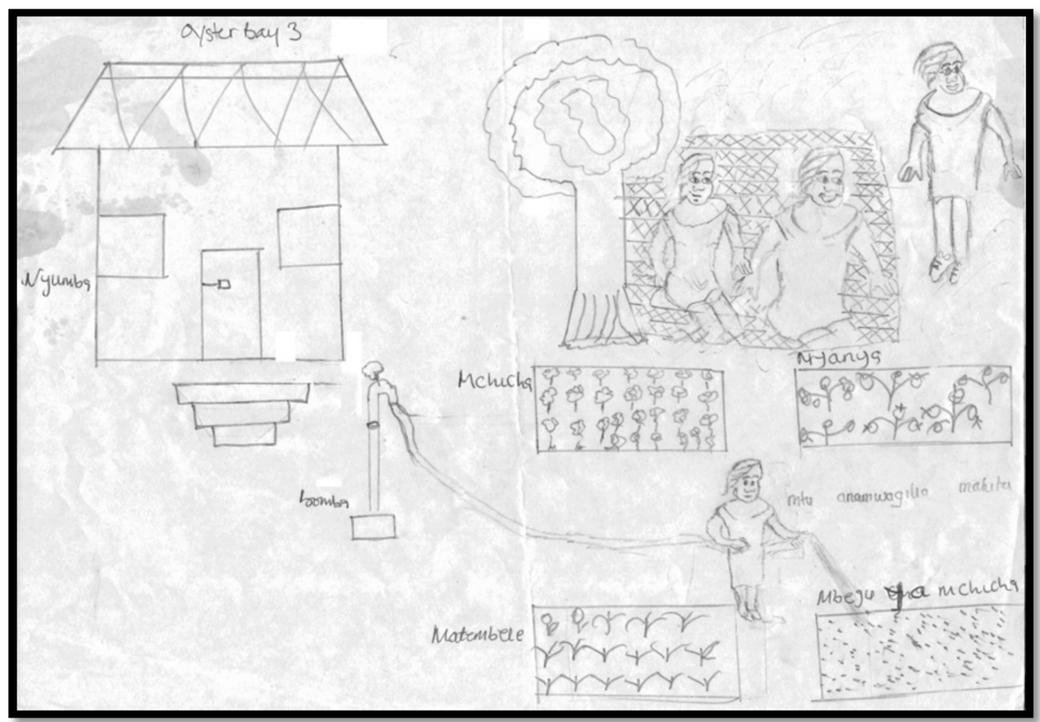

Figure 6.13. Mental map, Oyster Bay. This map shows two farmers under a tree waiting on their mat for customers. The woman who drew this map told me that it was her favorite part of the day, talking to her fellow farmers and any customers who arrived. Often the customers would join the farmers on the mat to talk about life, their families or politics.

When reflecting on the photos and maps that showed the farmers socializing with customers, the people always smiled and started giving me eloquent descriptions of what they talked about. I spent a lot of time at the Drive In and Oyster Bay farms, as they were near where I lived. Much of this time was not in interviews, but in stopping by on the way to the store or back or to buy my own vegetables. I often joined them in their afternoon relaxation and observed their conversations with customers. They talked about subjects ranging from general gossip about people they knew friends, to planting techniques (many customers also plant vegetables at home) and politics. The election in October of 2010 (discussed earlier) provided ample conversation during the months of July through October. These conversations were not idle, however, In a city where few people have access to a television and only intermittent radio, these informal chat sessions are a primary way of exchanging information, which is then passed along again to others. Information flows through these spaces with the people and farmers are well

situated outside and in people's pathways to see and hear information that they can use in myriad ways.

Figure 6.14. Photo voice, Drive In. "I have taken this picture with one of my customers who often talked with me in the afternoons under this tree. [This relationship] contributes to the bond we have with our customers. It represents the happiness of being a farmer." (Terry).

While it did not come up in the photo voice projects with most of the male farmers, social interaction and conversation with customers is also important for them, and I was able to observe some as we waited around for interviews. More generally they were interested in connections to businesses and other opportunities to increase their income, but politics and the lack of government support for people was always a popular

issue. Their conversations seemed to be more focused on marketing and politics, but also included family life and other more causal subjects.

Farms are also simply nice cool places to sit in an otherwise hot, dusty and humid city. As one farmer from Msimbazi explained:

> There are people who come by and drink [palm wine] here. They sit there and buy some. People will just come and sit here [in the shade of the small shelter we're under] from nowhere, enjoy the shade, exchange news and then go away. There is no sun under here. It's like air-conditioning from God. When the sun is too hot, people come and rest here and talk to us (Sam, Msimbazi).

Ummy and I ate lunch several times at Mama Mary's lunch stand at Drive In. My presence was a bit disruptive to the normal conversation, but from casual observations that occurred as Mama Mary or the girl she hired served food, customers would talk to each other and involve whoever was serving. Politics was a common theme in these mixed-gender groups, as well as a discussion of economic troubles or new projects where someone might find a job or a new market to exploit. People shared news items and opinions readily and often disputes over different perspectives generated some very intense discussions, but they were all good-natured. While disagreement is common, arguing rarely was. It in these brief encounters with customers that information and news is quickly passed through farms and outward again to the general communities as farmers take the information home and add it to discussions regarding these issues.

Farms as Pathways to Another Place

While farms are closely monitored for theft and some spaces regulated ("only a farmer can sit there"), the farms are widely used as a safe space that people can move through. In the previous chapters I discussed a common perception that in improving an area for turban agriculture, bushes are cut down and people often assert that it removes hiding spaces for thieves. Reality or not, it is a widespread perception. Some parts of farms, such as at previously uncultivated parts of Msimbazi, were also known to have snakes in them, and eliminating the tall grasses in the valley made people feel safe to walk to through from the informal settlements to the roads and markets they went to on an almost daily basis.

The most obvious case of this is the farms on school grounds. Two farms I interviewed at had arrangements with local schools to grow crops on the property (**Figure 6.15.**). At both, the farmers indicated that they know many of the students, though the students rarely buy vegetables from them. I often observed students that a farmer knew particularly well who would stop and respectfully greet the farmer.[5] The

Figure 6.15. Makumbusho Shule. Farmer standing next to his plot of ready-to-harvest *mchicha.* In the background the school buildings and grounds can be seen. The path immediately behind the farmer is one commonly used by students to get to the school grounds (L. McLees).

[5] There are different greetings for different types of people. Despite 'only being farmers,' students always greeted the farmers with *Shikamoo*, the most respectful greeting you give someone in Swahili culture.

teachers at the school were regular customers of the farm and often stopped by on their way out to chat with the farmers and buy vegetables. Customers from outside the farm also came onto the school property to buy vegetables, creating more interactions between students and non-students. While the farmers did not necessarily feel a responsibility for the children they knew, they liked to think that they were part of the authority that helped keep the students from misbehaving. I witnessed several times farmers scolding students for rough-housing or being too loud or disrespectful to each other. This is not uncommon in local culture, where adults scold younger people even if they do not know them. This makes the farms a place where students can move through that both feels safe, but also represents an extension of adult authority over their movements and behavior.

Another farm where the idea of safety was incredibly prominent was at Ubungo. Located in at the bottom of some heavily wooded hills behind the University of Dar es Salaam, pictures of this farm make it difficult to image it being in the middle of the business transportation area of the city. However, being located between the university and the main bus terminal that connects people to the rest of the country makes the Ubungo farm a very important through-space.

> … this part of the city could be a very dangerous place. People farming here help to make the city visible and remove the dangerous people that can hide in here. Clearing the area for farming gets rid of some of that (James, Ubungo).

During times when Ummy and I would sit at Ubungo, either socializing with farmers or waiting for interviews, people walking through would pass by and greet us (**Figure 6.16.**). If they were amenable to talking, we would ask them if they lived nearby and what it is like to walk through the farm. Many people said they bought their vegetables there, but also every person emphasized how much safer the area was now that the farmers were there, including people too young to remember when there were not farmers there, showing that the narrative of safety was being passed down generations. Several people told us that people had often been robbed, raped and even killed prior to the farms being there. There are no reliable records kept of the changes in the number of

Figure 6.16. Passing through Ubungo Farm. A woman walking through Ubungo farm on her way to the market. She is talking on her cell phone as she approaches. (L. McLees).

murders, rapes and thefts on such a small-scale, but what is important is the *perception* that these farms provide this safe space through which people can move. Farms provide connections between residences and the city, providing people with more security in conducting their daily affairs.

Another way to see farms as pathways is to examine how they function in the daily lives of farmers themselves. With the exception of the people farming at Oyster Bay, who generally live adjacent to the farm, farmers usually have some kind of commute to the farm. They also have other errands and tasks in the city that they must accomplish before going home each day. The mental maps from Msimbazi valley were particularly illustrative of this fact (**Figure 6.17.**).

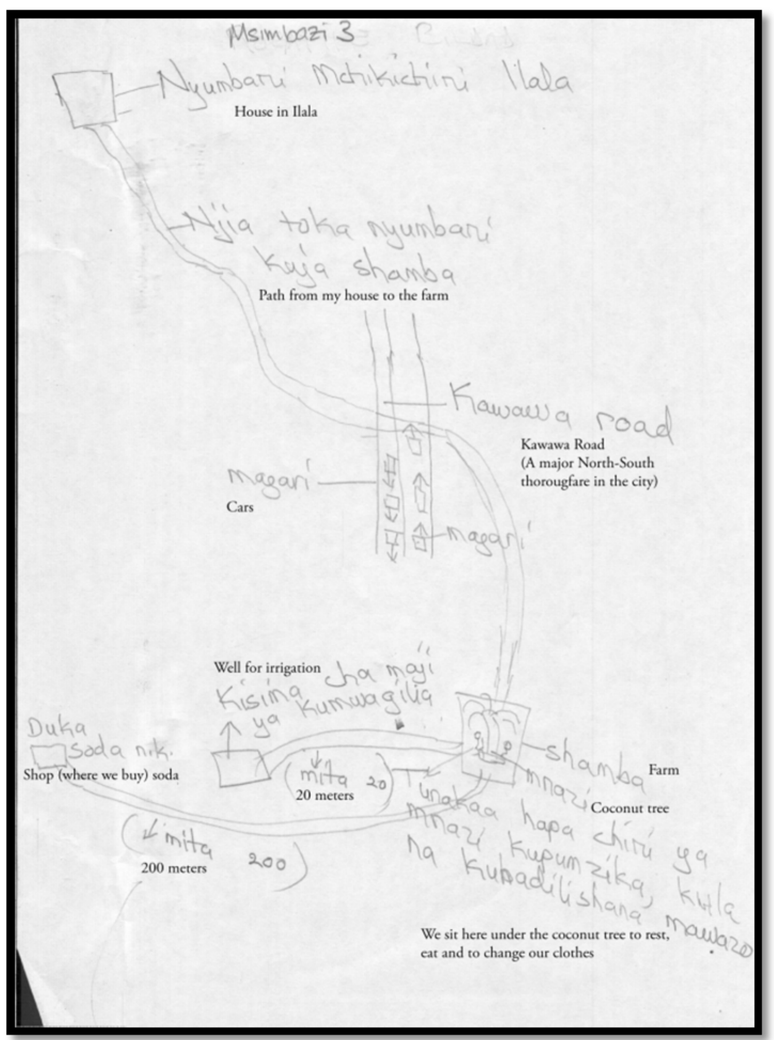

Figure 6.17. Mental map, Msimbazi Valley. The map demonstrates the multiple routes and pathways that people take in their daily commute, and even where they go while on the farm. I have added English text to illustrate the different places (Rachel).

While farmers knew that I was conducting research on urban farms, they also wanted to make me aware that they are not just farmers, but parents, grandparents, consumers, vendors, etc., and that these activities all constitute their daily movements through the city. Of course as they move through the farming space they are bringing inputs and information and taking away other information, money and food to their families. Indeed as they move through the farms, both the spaces and the people are

influenced, often in small and almost invisible ways, but they constitute important and influential component to urban farms.

Farms as Pathways of Knowledge and Emotion

The materiality of exchange has been discussed previously, such as bringing inputs and turning them into outputs in the form of vegetables (and other materials that people sell) to earn a cash income. That cash is translated into amenities, such as cell phones, school fees, after-work beer, *vitenge* to make clothes, a water pump, medicine, etc. People also bring home vegetables to feed their families. Indeed, this is one of the main benefits of being an urban farmer over other informal occupations in the city— as mentioned previously, a variation on the phrase, "you can't eat a newspaper" was repeated in many interviews.

However, knowledge and ideas are also transported through farms. Above I discuss the flow of information and opinions between people as they move through these spaces, but also particular knowledge of farming is utilized to transform other places in the city, or vice versa. Many farmers grew up in villages where their parents were farmers, though they often focused on growing staple crops such as corn, cassava, millet or rice. Families grew small plots of vegetables, too, which for many of the farmers in the city, became the foundation of their knowledge for making a living. These plots were usually maintained by the women in the house as they are considered subsistence.

> His parents were farmers. Farming was inside his blood. He did farming since he lived at home with them, so this was a very common thing for him. He thought the only he could do was farming, so he decided to do it just to add to his income [as a guard] because the salary was very low (James, Drive In).

In the city, of course, the vegetables are cash crops and many people had to learn how to grow them in the poor soils and within different seasonal conditions. Often it was the person they met who provided them with access to the plots that taught them or provided the information, or it was through trial and error that they learned, but they often relied on some form of experience farming from the village. Many farmers, however, did not learn to farm in the village as their parents had government jobs or

worked at other businesses. They were reliant on the knowledge that was brought and expanded by other farmers. One entertaining interviewee told this story:

> He's been growing up in town, he never thought that one day he would farm. This problem made him learn more. At first when he came here to this farm and tried to farm, these women [the others who already farmed here] were laughing at him. They would say: 'That's not how you plant the seeds. You're taking them out' because he used to dig them up again after planting. Mama Mary used to help him plant and [apply fertilizer and pesticides], but now he's an expert (Philip, Drive In).

Other farmers have home gardens where they started growing some vegetables and then had the idea to make a living from it and start farming. Others were open space farmers and then found areas at home in which they could grow some extra crops to supplement their household diet and incomes (**Figure 6.18.**). The knowledge gained at the farm was transferred to the home, and vice versa.

The experience of farming influences people's identities as they move through this space on a daily basis. Many farmers are incredibly proud of what they bring to the city and how farming has given them something to do that helps them build a house or support their family. Beyond these material advantages, however, are several other benefits that may seem less tangible, but are intricately woven into the daily experiences farmers. A few examples are:

> She says that even if she's angry, even if she's come [to the farm] with so much anger in her heart, whenever she sees all this green, her anger goes away. She relaxes when she gets to this place (Marie, Drive In).

> Farming has helped him become a decent person. He's not like a street kid and he's not a man who can now go and start following girls and rape girls or something like that. Like he can get a nice woman, and a woman he wants, even though he's farming. He has the income, he as the respect to be called a man. He's proud of that…. Some people underestimate the farmers, but he thinks that the farmers would be an example of the men who are developing right now. He says, I have the money, I can get any woman I like, I can't just go and rape women like other men do (Said, Ubungo).[6]

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[6] The danger to the reader of including quotes like this in my empirical analysis is that is perpetuates a stereotype that may exist in the readership. I recognize that the issue of rape has come up a few times in this chapter. To confront this, I draw upon the Nigerian writer Chimamanda Adichie who gives a most eloquent talk about the 'danger of the single story' about Africa. In it she recounts an encounter with a fan of her work. In one piece she wrote, a male Nigerian protagonist was very abusive. Her fan said that it was

Figure 6.18. Photo voice, Tazara (no caption). *From focus group*: Farmer explained that planting potato leaves on his plots had given him the idea to plant them in this unused space near his house. These are used mostly for his family, but they also sell to neighbors, which supplements his household income.

> They are happy because they feed the people of Dar es Salaam. So many people don't have to go far away to buy these things and because they plant many different kinds of vegetables, so many people are depending on them. [They are expressing a sense of pride] because they have everything here. Some who need Chinese cabbage or any other variety of vegetable, they can get it right here (Phyllis and Anthony, Tazara).

The farmers in the above quotes express a range of emotions that farming gives them. There is a sense of relaxation in the city, a sense of being a man and pride in being

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a shame that Nigerian men are so abusive. Adichie's response was that she had just read *American Psycho* and that is was a shame that all American men are serial killers. While the issue of rape does come up several times, it does not define the experience of the people who talk about it. Instead it is a reality that people were willing to talk about in interviews and used to make points about pride (as in this quote) or challenges they have overcome in their lives to get where they are. www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story.html

able to support a wife, and finally pride in being able to provide the people of the city with a variety of vegetables. While many farmers acknowledge that people look down on them, I found that so many were proud of themselves despite the perception of them as poor and uneducated.

One last theme I want to present in this transfer of knowledge within families. While many farmers said that their families rarely helped them on the farm (indeed, for many this just caused laughter at the idea that children would help "city children do not farm!" (Rachel, Msimbazi). Yet for some, they depended on farming to at least provide their children with some skills that they would be able to fall back on if they did not find another source of income (**Figure 6.19.**). Many, however, claimed that they did not want their children to be farmers, that they worked on the farm in order that their children would have more opportunities and would not need to rely on farming to earn their livelihoods. Yet others used the farm to provide a way of teaching their children lessons about finance or about hard work. They wanted to provide the children both with tangible skills of farming so that the children always had something to eat in case they could not find other jobs. Yet even if the children did find better employment, farming the parents argued, would provide them with other skills they would need in life.

The purpose of this section has been to articulate the less-tangible transfers of knowledge and emotion and how they inform the daily experience of farmers, not just on the farm, but in their own lives as they move through the city. Farmers embody an identity that both influences and is influenced by their movement through the farm. People experience spaces within the context of their everyday movements and interactions with people and places. An urban identity closely tied to agriculture only further demonstrates the complexity of the interactions between these spaces and the larger urban system. People are proud of the ways they creatively explore and use these spaces that are seen as peripheral to urban life.

Figure 6.19. Photo voice, Oyster Bay. "This picture shows a boy picking up *mchicha* and on the other side is the road. The important thing about this picture is the boy, he is my son. In this picture I am helping him to understand how the *mchciha* business is done and also how to pick *mchicha* so that he can also do this one day in his daily life and also an example to others. This picture shows happiness" (Ellen).

Groups and Their Influences Beyond the Farm

One last component I want to address regarding the social flows within and through farms is the importance of the farming groups in securing stability in other spaces. The realities of life at home, either in the city or with family back in the village, promote a social system where off-farm events are supported through the farming groups. Farmers often travel back and forth to their villages to be with family or in the instance of a death and responsibilities require their presence at home. Several times Ummy and I would go to meet a farmer for an interview only to find out that they had to travel back home for a family event. This is certainly not an event confined to farms, as many people who live in the city have strong connections back to their home villages (even if they were born in the city) and travel back for various reasons.

What is important here, however, is the dependence that people have on the farming groups when they are compelled to travel away from their plots. In such a hot and sunny environment, crops must usually be watered or otherwise tended to in some way every day. Even on farms where the groups are not very official, it is quite easy for one to find someone to do the work for them.

> Most of the time travelling is a regular thing which happens. Sometimes you cannot be sure of when it's going to happen. You are just informed that you have to come home, there's this and this going on. And so when it happens that somebody wants to travel, you just tell your neighbor. Because… you never know when a problem is going to happen to you so you just have to help the other. Like 'I'm going to help you with no payment.' The neighbor has to help him, and not only the neighbor. Anybody can volunteer to do that. Sometimes when it's worse and somebody stays home [in the village due to a lengthy illness or particularly traumatic death in the family] you have to go and ask him what does he want. Whatever they need, the others contribute [money] (Mike, Drive In).

It is a common practice in Dar es Salaam to contribute money to someone who has had a death in the family or who is very ill. I saw and participated in several collections not only on farms, but in government offices, on the street where I lived and for the Tanzanian staff of the NGO. The attitude towards these collections is that a fellow person needs help, it often does not matter how well you know them or if you even like them. People engage in this and when something happens to them or their family, they are assured that there will be support for them.

Additionally, when farmers are really sick, occasionally people do not only help on the farm, but travel to that person's house or the hospital where they are staying, and cook for them. Because of the gendered division of labor common in the city, it is usually the women farmers, or sometimes the wives of the male farmers, who organize and take food to the ill person. It is not a function of the formal group, but of the farmers who are closer to the person who is sick. The exception to that is the Drive In group, which is small and far more cohesive than other farms, and where organization to help each is more formalized.

> When someone is sick and is in their group, they work on the farm for them for free and also at their home. The women will work at the home for each other in shifts. Like you have to go today (and cook) and someone else has to go tomorrow (Seth, Drive In).

Beyond helping, farmers also socialize together, cementing relationships and forging news ones off the farm. I only heard about going out for a beer together from the women, primarily because the women would tell me that they do not go with the men to drink alcohol:

> She doesn't take alcohol and a lot for these farmers when they go out they drink alcohol, but they invite her. But she doesn't go. But if she did take, she could go because all these farmers always meet somewhere and have these drinks somewhere near here (Ellen, Temeke).

The men never talked about socializing over beer during interviews, and only in passing did they refer to it. It is possible that they either felt it was not important or they did not want me to think that they wasted their money on alcohol. Several women said that they had to give their money to their husbands and sometimes they drank it all away, though others were able to save some or their husbands allowed them to keep it. The point here is that while farmers participate in social activities together, the dynamics of gender and race between the interviewers and interviewees might have made men more reluctant to admit to the social activities they do engage in off the farm. However, bars and drinking are important social spaces where connections to people, farmers and non-farmers, are made and cemented that ensure stability and support back on the farm and more generally in their lives.

The purpose of this section has been to give a small sample of the ways that the social organization on farms influences the social networks off the farm and how this becomes one support system that farmers can rely on. The rules tend to assume, however, a reciprocal relationship. When something bad happens to one farmer, the rest should pitch in, because one never knows what will happen to them the next day. These connections extending from the space of the farm are part of the mechanisms of survival in an uncertain urban environment, where people are unable to rely on government or often even private institutional support for their problems. In these cases, professional groups (co-workers) become an important for of livelihood support.

Conclusion: Social Intersections

Tracing the social movements towards, through and from urban farms is difficult at best because much of the intersections of these flows is ephemeral or mundane, something that people often do not think to describe in a research setting. The photo voice and mental maps, in addition to my own observations on farms, reveal some of the everyday social interactions that are important to farmers. Farms are places where family cohesiveness is constructed and where people can rely on social connections to assist them in times of hardship that do not necessarily involve the practice of crop cultivation. Farming gives people confidence to address other issues in their lives by creating pride and social connections that will give them the confidence that influences other components of their lives. As in the case of the farms on school ground, the interactions between farmers and students reinforce social norms such as conformity to authority and control over the behavior of others. Often these interactions on farms are short, but often they are some of the most meaningful a person has, such as when they are allowed to sit and visit with friends and other farmers as they wait for customers. These are also chances for people to make connections, not only farmers, but other people moving through these spaces. Indeed, it is non-farmers who walk by or through farms who over time can establish the relationship necessary to one day gain access to a plot of land for farming or find a job for a day. Or they might over time realize that they could buy vegetables for farmers and their knowledge of another place allows them to exploit an economic opportunity. These interactions are difficult at best to trace in a study such as this one, but they provide the foundation for examining the multiple ways that pathways intersect and influence the lives of the people in these spaces.

Trajectories of Places within Urban Space

While this project took place over the course of seven months in 2010, it is important to keep in mind that all cities are dynamic spaces in which multiple forces act to change over time. In the previous two chapters I provided some examples of the various relationships that farmers have made to secure their access to areas for farming. I explained some of the histories of those places, especially Msimbazi. In this section, instead of examining the movement of people, materials or money through the farms, I

look at the spaces of the farms themselves and how they have changed in response to various political, economic and environmental pressures in the city. While it is impossible to know what will happen in the future of these places, there are some signs of what could happen, and sadly, what is already happening on one farm. In this section I first discuss the Msimbazi in greater historical depth and provide some current context for issues playing out in the valley. I then turn to the Drive In farm, half of which, as I write this last chapter, is being destroyed to make room for a new business complex. I will close with a discussion about the perception of farms in the vision of the city, and how these farms represent sites where ideas of what constitutes 'proper' urban development play out.

Msimbazi Valley

The earliest indications of settlement along the Msimbazi River in Dar es Salaam demonstrate that the Zamoro group occupied much of the land coming down into the valley and often farmed rice in the fertile soils (Leslie 1963). By the early 1960s, the most fertile soil in Dar es Salaam was given by Mwalimu Nyerere to the Zamoro women for the cultivation of rice (**Figure 6.20.)**. I previously discussed in chapter four how the Sukita corporation evicted many of the Zamoro farmers and hired people to remove palm debris from the area, and in turn those people became the vegetable farmers of the valley today.

Due to the recent media attention, Msimbazi has become symbolic of all that can go wrong with urban agriculture. The pollution that contaminates the soil and the vegetables stands for the inappropriateness of urban agriculture. Yet the reality is that people continue to buy crops, and people at Msimbazi have seen little reduction in their sales. The river is also a site of annual flooding, an in the most recent floods in December of 2011 and January of 2012, a particularly devastating flood event for the city, the Msimbazi valley floor, where the farms are, and settlements up the side of the valley (**Figure 6.21.**), were severely damaged (**Figure 6.22.**). The rains were the heaviest in fifty-seven years. The last flooding on this scale during the colonial period when this valley was unsettled. Dozens of people were killed in this most recent flood event.

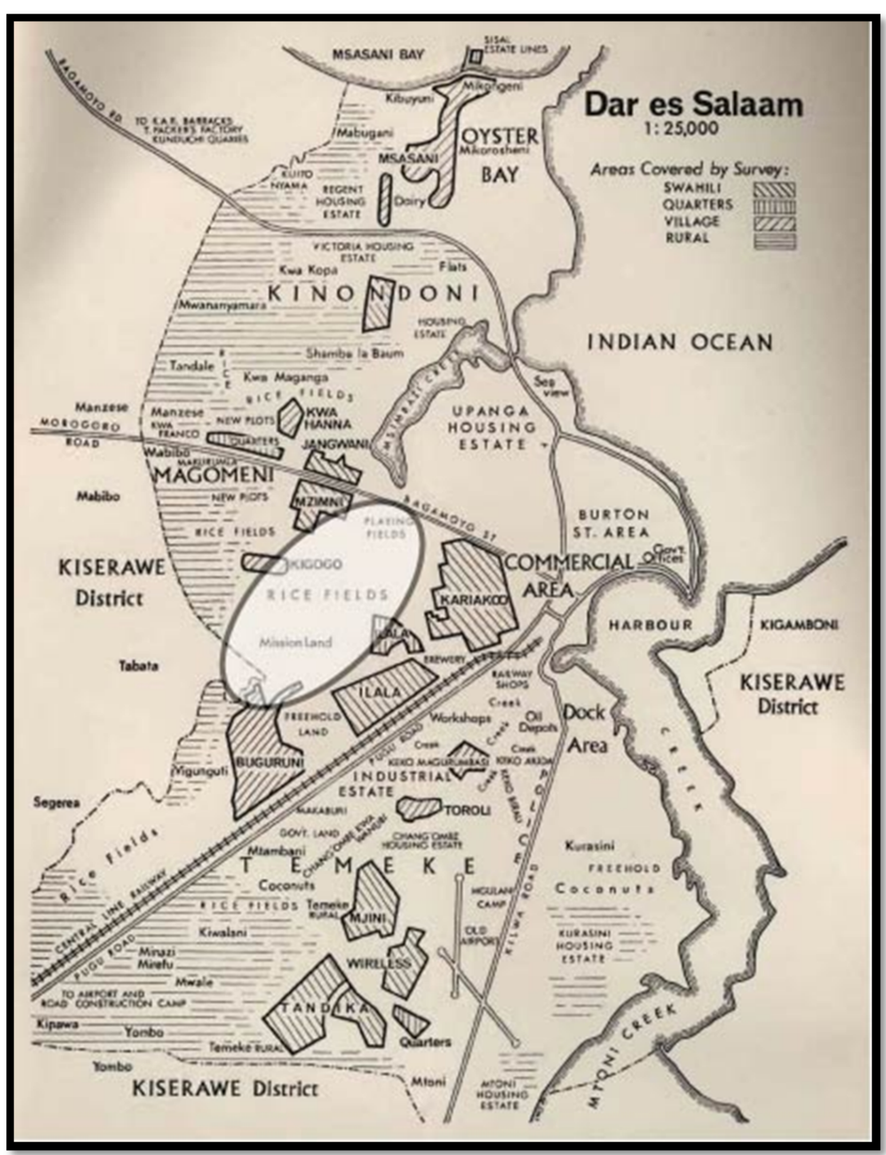

Figure 6.20. Map of Dar es Salaam in late 1950s: Msimbazi Valley . Map shows study sites of a survey of the city, including settlements and other land uses. The area is the transparent circle is the location of the Msimbazi Valley today (though the stream is not drawn it connects to the Msimbazi Creek labeled immediately above it). (Source: Leslie 1963).

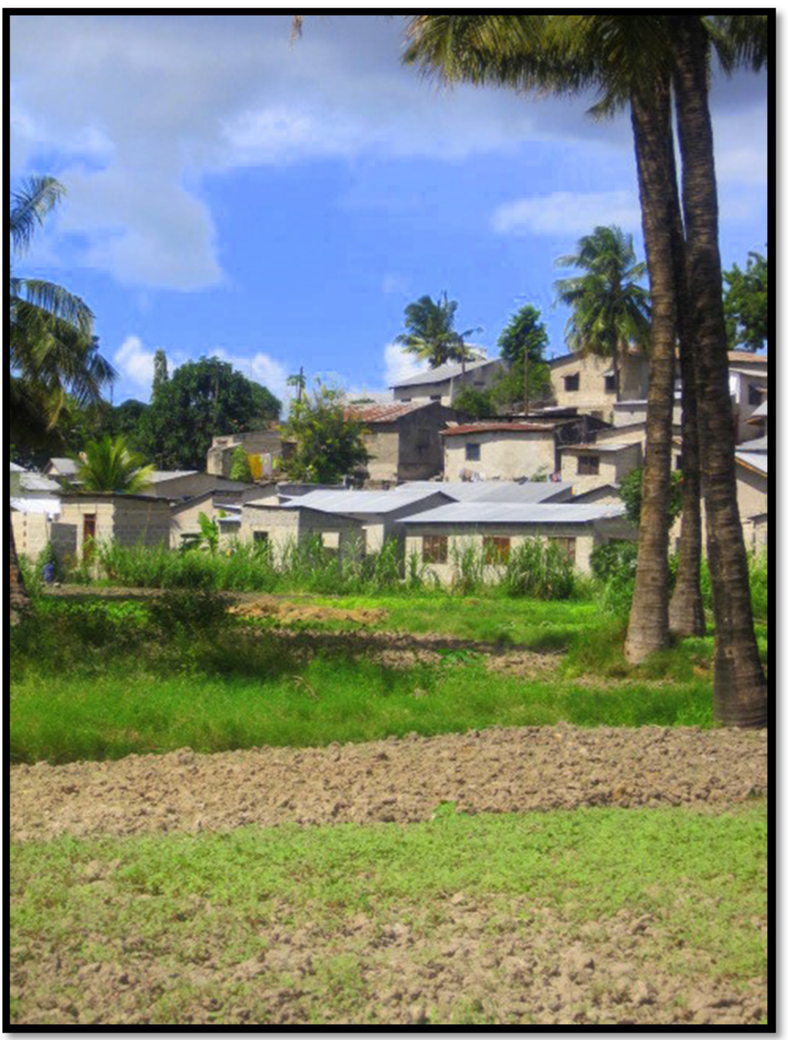

Figure 6.21. Plots in the Msimbazi Valley. Houses are packed right down to the edge for the river, which is indicated by the taller grasses in front of the houses (L. McLees).

Controversy has erupted around the Msimbazi Valley as political leaders have called for evacuations and resettlement of people living and farming in the valley. People have pressured the government to use force in evacuating people and accused the government of not acting dutifully. There is a mixture of blaming the government and blaming the people in the valley for ignoring government predictions of heavy rains (Joel 2012, Saiboko 2012). Some scientists have called for an evacuation of the valley, calling

it a protected area, in order to plant mangroves and other forest species to reduce flooding (Gideon 2012).

Figure 6.2210. Msimbazi River floods. Residents sitting on top of their houses in the Msimbazi Valley during the December 2012 floods (Source: http://dailynews.co.tz/index.php/features/popular-features/2449-too-stubborn-to-leave-their-flood-prone-homes).

These two issues, pollution and flooding in the valley are unlikely to produce any real change. Farming in the valley has been technically banned due to pollution, and crops were wiped out in the most recent flooding, but farmers are returning to the valley to delineate their plots and start planting again (Of course devastation of the crops in this area is a boon to farmers in other areas). As Sustainable Cities has discussed areas to set aside to zone for urban agriculture with planners and agriculture extension offices, they have been told that there is no likelihood of the area under cultivation at Msimbazi will be set aside. The area is too politicized to justify setting it aside for a controversial activity. With the government having little capacity to enforce its regulations, and with the temptation of such fertile soil and a central location, farming in the valley will likely continue. As it is flood-prone, there will be no development and with many hundreds of

people farming here, it is unlikely that the government will be able to remove the farms completely.

Drive In

In prior chapters I have discussed how the area that is currently the Drive In farm is located on what used to be a dumping ground for trash for the surrounding communities. The area serves as frontage for the homes located along Old Bagamoyo Road as well as road reserve for the municipality for the potential expansion of the road sometime in the future. The area was first settled in the colonial period by British and other European ex-patriots. At independence, wealthier Africans began moving in. The Msasani/ Oyster Bay area is now primarily diplomatic building, housing for ex-patriots, and a few high-end shopping and tourist areas. When many of the farmers first began there, the adjacent houses were owned by the National Agriculture and Food Organization (NACO) and were rented by workers from that company. Many of the residents from this time opposed having the farmers there, saying that it made the property look dirty (as opposed to the trash heaps) and calling the authorities on the farmers for using piped water from nearby houses. Though the farmers were paying for this water, it is still considered illegal to use it for agricultural purposes. When NAFCO sold the houses and new tenants came in, the farm was established, and the farmers claim that they were treated much better, partly because the farming is all these new tenants ever knew in that space. This had been the situation until the beginning of 2012.

An intern that I worked with at Sustainable Cities has returned to Dar es Salaam (as of January 2012) to conduct her own thesis research. When she arrived, she found that the Drive In farm, located very near the NGO offices was undergoing major construction. One day she posted a picture of herself with two women on the farm, and I was astonished: The background of the photo revealed that the farm I knew now had a huge building under construction right in the middle of it. **Figure 6.23.** and **6.24** (for comparison see **Figure 6.25.**). I have since found out that it is a large supermarket and that between the building and the areas to be paved over for parking— over half of the farm will be destroyed. Indeed it already is.

Figure 6.23. The new business/shopping center on the Drive In Farm. The curb and brick road in the foreground are new. The building is in the place of several homes that were removed for construction. The tractor is sitting very near the pump house. The entire area is being prepped for paving (A. Hollaron).

Figure 6.24. Paving over Drive In Farm. View from the opposite side of the farm. The truck in the left background sits in front of the building. The area that has been graded for paving consists of about half of the Drive In farm (A. Halloran).

Figure 6.25. Photo voice, Drive In. This photo looks in the direction of the current development project. The road on the left runs in front of the housing, and the billboard on the far right is on Old Bagamoyo Road. To the right of the photographer is the pump house and well featured in other pictures from this farm (John).

Further conversations with the intern have revealed that the investors for the project received a permit to build on several plots where they had previously been houses. According to the zoning in this area, the area is considered frontage, and people who have rights to the plot do not have rights to develop the frontage land. Currently, one of the agriculture extension agents for Kinondoni is trying to get the permit reviewed to determine if it a forgery (Halloran 2012, *pers com*). The well and pump house that the farmers had built is also being removed. The CCM has come back and said they did not build the well for the farmers, they built it for the community, not the farmers (despite building it in the middle of a farm) and they are rebuilding it across Old Bagamoyo Road. Much of the dirt that farmers have been cultivating is slated to be built over has been moved to a private garden in the nearby Oyster Bay community (this is not the Oyster Bay open space farm, but a private house in the Oyster Bay neighborhood).

When the farmers first learned about this development, they went to the agriculture offices of Kinondoni and the head agriculture officer there told them not to take any bribes from the developer— that they would try to help the farmers. The perceptions of government being what they are, many farmers took the bribe of five million Tanzanian Shillings ($3125 USD), ostensibly because they had little faith that the government would help them. The developers also promised the farmers lots in Kigamboni, which is a ferry-ride and a several-hour commute away. Still several farmers have taken the developer up on that offer and moved over there, though it remains to be seen how secure the farmers' access and security will be.

I previously noted that the farmers were proud that they had built a CCM stand and that the president's son has held the inaugural rally of that stand during the 2010 elections. One of the investors in this current project in that same man.

While this issue unfolds right now, and some people are advocating on behalf of the farmers, there is little doubt what will happen. The building will continue and the farmers will not get the land back, even if it is found that the development is illegal. In the last chapter I discussed how informality is one way of organizing urban space and reveals more how power relations play out on the ground. The recent events at Drive In are but another example of this process. It is unclear how many farmers remain, or whether they will be allowed to on such a small piece of land next to an upscale grocery store. It is doubtful that the developers will allow the farming to last too long.

<u>Conclusion: Trajectories</u>

The flows of the places these farms occupy through the spatial development of the city demonstrate the ways that larger political, economic, colonial and social processes have influenced these places over time. I want to demonstrate that they have not always been used for farming; they can be sites of contestation over what constitutes the proper use of space in the city of Dar es Salaam. Indeed both of the examples I used vividly illustrate the contestation over these spaces as urban sites. In the case of Drive In, the expression of power through a highly suspect process is seen as legitimate because the

result will be a shopping area that seems to fit the idea of a city more than plots of *mchihca*.

More than just an expression of power (as discussed in chapter five), however, these recent events demonstrate the relative powers of these various political, social and economic forces and what happens when they do intersect, how they influence the space and the people who have relied on it in a very different way. Much of the debate at Msimbazi has centered over the vulnerability of informal settlements. The requests of people that the state exert more power (certainly more power than the state has) on the use of the valley floor, reveals the valley as a site where multiple ideas of what it means to be urban play are currently playing out. Yet eliminating crops from this area would be almost impossible in the current economic and political climate. The pollution issues and the current debates around how to mitigate flooding in the Msimbazi illustrate how popular ideas of the city flow from ecological events and intersect with larger political forces (both of the city, the state and the voting populace) to play out in a space.

Conclusion: Towards Platforms of Engagement

This chapter has been about the movement of money, people, development and social relations within and through urban open space farms. I have highlighted the everyday practices and materialities that constitute these movements and just a few ways that actors, ecologies and practices both influence and are influenced by these dynamic urban spaces. I have taken farms as the intersections of these movements and flows. Too often these mundane practices and intangible interactions and materialities are taken for granted, and parts of them are analyzed as if they represent a whole. But this is not possible. Urban life is too dynamic, fragmented and interconnected to truly comprehend. It is here that we fall back on the idea of city-ness as presented by scholars such as Jennifer Robinson (2002) and AbdouMaliq Simone (2010) presented earlier. It is through this understanding of a city that everyday interactions and movement can expose how larger structural issues play out on the ground, often in intangible, but no less real ways.

This chapter is a way to examine how “urban work gets done” (Simone 2010: 2) and emphasizes the processes by which this happens, where urbanites actively negotiate

and shape their spaces, take chances, and experiment to survive and indeed *live* in the city. Urbanists (planners) use buildings, roads and other infrastructure to make sense of the city, to stabilize relationships between bodies, institutions and events. They attempt to control interactions and relationships and in the modern period facilitate exchange and the flow of capital. However there is no way to fully control what people do and how they interact, whether in Dar es Salam or New York City. Practices, materials and relationships all have a life beyond what urbanists are trying to control. What happens in places to people and things, and how they are integrated into urban systems, has myriad implications for cities. Being open to these processes, and learning to see and understand them, has significant implications for how we understand cities to be made, operate and re-made.

What can be done with this approach to understanding the city? It allows us to see how connections are built, both between people and places, through material practices and experiences. It allows us to see how people live with other people, how they engage in multiple social and economic networks for information and monetary exchange, how they spread out their investments to better-ensure success, how they define themselves in relation to others and to places in ways to make claims, and the roles that places such as farms play in the larger story of urban development. This approach recognizes the structures that influence the flow of people and materials (e.g. economic circumstances that led people to farming), but focuses more on the agency of people as they act in material and immaterial ways to create their own sense of stability and security in the city. People I worked with were ever-open to new possibilities, not just out of desperation, but for pride, a feeling of success, a shared sense of commonality with the people around them, and because they needed to be.

A perspective such as this one is needed for the cities of Sub-Saharan Africa. There have been endless development initiatives, workshops, meetings, discussions, programs intended to alleviate poverty, yet poverty still seems to define these cities, and more people arrive all the time, putting increased pressure on development and government resources. Rather than focusing on the dystopian images of the city, the poverty and marginalization, a new focus is needed that highlights how these cities work,

how people survive and even thrive in them, and why and how people continue to move there in spite of apocalyptic visions of urban life.

CHAPTER VII

CONLCUSION: PLATFORMS OF ENGAGEMENT

This dissertation began with the argument that urban analysis needs to move past dystopian and apocalyptic visions of the city in order to recognize the realities of how people live in, survive in and experience the urban. This has real-world implications for how we address the challenges that cities hold as they increase in size, but not necessarily in resources. Until recently analysis on cities across regional contexts has been dominated by political economic approaches that focus on marginality and poverty, reifying the idea that these are places in need of intervention, whether through development aid or more neoliberal influences to encourage foreign investment. This results from a narrow understanding of what it means to be urban or the process of urbanization. When definitions of the city are too closely tied to processes of industrialization or a narrow definition of modernization (being more like the west), cities that do not conform are set up for failure. Indeed, urban agriculture, street hawking and informal settlements are all iconic images of chaotic, failed and improper urban development. We need to reframe the idea of the urban as a way of organizing activities within the spaces of cities. We also need to accept a wider definition of modernity as a process that is cotemporaneous across regional contexts, rather than equating modernity with the West, and 'the rest' in the processes of 'catching up.' Urban spaces across regional contexts are indeed the modern, urban reality for people in different places and reflect cotemporaneous processes of capital accumulation, extraction, policy, development relationships and other local and global forces. Structural approaches to cities that have dominated urban geography for the past fifty years tell us this. My approach here is to complicate these stories through a postcolonial analysis that examines how these structural forces play our in different places.

The arguments I have presented in this study are not meant to diminish the reality that billions of people experience poverty on a daily basis and that many do struggle to survive. Yet this does not necessarily reflect the entirety of their lives. People have multiple roles, connections, practices and identities that define their urban experience, all of which influence and are influenced by the myriad ways of constituting the city and the

larger political economic forces at work that comprise urban development. My goal here has been to expose first the assumptions of what are considered proper urban functions, and second to highlight what is actually happening in these cities, what actions and materialities constitute these cities and how they can help question dominant approaches that hide these less tangible, but no less real, urban experiences.

I have explored these ideas using the materialities and practices of urban agriculture to confront normative ideas of urban development. Urban open space farms are but one type of space and represent one type of practice in Dar as Salaam that contributes to the contestation of what it means to be urban. The practice itself is dynamic, adaptive and an integral part of the city economically, socially and in relation to food security. Ignoring these realities, as some planners and other government officials have been apt to do, has not led to either the elimination of the practice, nor in its improvement (however defined). The dynamism of cities remains a visible contestation of top-down planning that seeks to remake the city in the image of the west through the economic logic of 'highest and best use' that relies on stasis and control to generate revenue for the state.

This conclusion will briefly revisit the central tenets of this dissertation, namely that cities in different regional contexts need to be understood for how they work, rather than how they fail. I first revisit the justification for utilizing urban agriculture as a lens through which to examine these processes and the main arguments of the three empirical chapters. New ways of studying cities, both methodologically and theoretically, need to be examined for their potential to construct more just and realistic expectations for cities and the people who use and experience them. I will then focus on several implications of this work for urban analysis, focusing on the discursive separation of agriculture and cities and more broadly what it means to combine political economic and postcolonial analyses in the future of urban studies and urban geography. I then conclude with a brief discussion of how this approach can be political through the creation of platforms of engagement (Simone 2010) that allow people to contest the city on their own terms, rather than continue to battle for the city within the discourse outlined by Euro-American perspectives of cities and proper interventions within them.

Urban Agriculture in Context

Urban agriculture is not a new phenomenon. It has been practiced in cities for thousands of years, has been vital in ensuring food security for billions of people in the past, and continues to be so today. While this is not a dissertation on urban agriculture *per se*, recognizing its history and how it has been implicated and influenced in and by urban development can reveal how ideologies of cities are constructed and contested. In colonial Dar es Salaam, urban agriculture was illegal when practiced by Africans, though white settlers often had small vegetable gardens to supplement household diets. Early British town planning policies that kept populations separate by race (whites separate from blacks with a buffer of Asians between) meant that different populations also had different rules. Still, despite the illegality of the practice, urban agriculture was widely practiced, often in small in-between spaces beyond the eyes of the colonial regimes.

At the same time, there were already groups of Africans farming in the areas around what has become a bustling city of four million people. Along river banks and inland, where better soils could be found, people were growing maize and rice in addition to the ever-present *mchicha*. The city, and the practice of urban agriculture, did not just emerge out of a vacuum: the stories from the Zamoro group that had been present as the city was being built testify to the presence of farmers in the area prior to colonial expansion of the once remote trading port. As the Germans and subsequently the British planned Dar es Salaam, they continued to marginalize practices such as urban agriculture in the attempt to make the city one that could function as an efficient entropôt, pulling resources from the interior of the Tanganyikan colony for export to Europe, at the same time attempting to cultivate an African elite who could serve as consumers for European goods. Cities needed to function in a way that compelled people to engage in the cash economy, dependent on European goods and services for living. Eliminating subsistence activities was integral to this effort.

The focus on health and sanitation in colonial cities provided justification for the elimination of urban agriculture. Beyond seeing urban agriculture as dirty when practiced by Africans, it was also blamed for the spread of diseases, especially malaria, from

standing water on farms[1]. It also was perceived as making the city look disordered, especially when crops such as maize turned brown, leaving plant debris on the ground. Finally, many crops, such as rice, maize and even small mango trees were considered to be hiding spaces for thieves. An elimination of urban agriculture was therefore in the interest of public safety. Through these discourses of sanitation and public safety, colonial planners tried to make the city conform to ideals they were importing from Europe. Eliminating or restricting urban agriculture was a way of making the city safe and clean, encouraging the forward march of progress towards the development of the city. Of course Africans were often not included in what it means to be a developed city in the first place, as many of the areas zoned for their residential settlements were at the edge or outside city boundaries and were rarely serviced with infrastructure in a way that recognized them as integral to the city.

At independence, Tanzania broke from many of its neighbors and embarked upon a path of self-sufficiency, and many of the laws from the colonial period were ignored. Julius Nyerere encouraged urban agriculture in many forms as Tanzania attempted to provide its own food and materials and create its own path of development. In the face of external economic and political pressure, and especially the oil crisis of the 1970s, these plans failed and the country was compelled to seek out a course towards development recognizable to the emerging global economic system. This meant reconceptualizing the city in ways to make it appealing to foreign investment; practices that were considered un-urban were banned, specifically urban agriculture. As such, discursive and material support (subsidies, lands, training) were eliminated, yet there has only been an increase in the number of people farming in the last thirty years. The practice has persisted and there have even been national guidelines enacted to control certain aspects, primarily to stop the spread of disease, to reduce hiding spaces for thieves and to prevent soil erosion.

What is particularly troublesome about the recent debates in the city surrounding urban farming is the lack of acknowledgement of how integrated the practice is in urban systems, reinforcing the conceptual separation between cities and agriculture. This

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[1] I do not argue that sanitation is not a concern of all people, but that it often became an excuse for marginalizing the practices of Africans in cities.

separation exists despite vast historical evidence that food has been grown in cities throughout the world for thousands of years. Why is agriculture so threatening to the idea of urban development? Many farmers told me that farming makes the city look more developed because it brings in green and shady areas and because the practice of farming is more developed in the city. For farmers, the idea of being more developed in the city is reflected in their use more 'advanced' tools such as water pumps, water is far more easily obtained in the city than in the villages, and most importantly, farming in the city brings cash, which helps the urban economy. This discourse of urban agricultural development also became a way of enacting a Tanzanian identity based on agriculture in the city. Most of all, however, they believed that farming benefits the city by putting the land to good and productive use. This definition of productive differs from the urban planner who sees lots and land in the city in terms of the potential for raising taxes and economic investment.

Farming in Dar es Salaam is a materially different practice than farming in the villages. In chapter four I describe in detail many of the ways that agriculture is urbanized materially and in practice. This chapter is in direct response to academics and government officials those who argue that agriculture is a ruralization of urban space. This equation of agriculture with the rural reinforces the opposition of agriculture and the city and ignores the creative ways it is adapted to the built environment of the city. Continuing to frame agriculture as something that is merely a coping mechanism or a social movement reinforces the idea that farming and the urban cannot coexist, that it is a special circumstance, when we know that they can and do. Farmers engage in the cash economy, they sell to customers and traders, they can afford urban amenities. Even the ecologies of farming are distinctly urban in the issues of erosion and pollution that farmers face, the availability of water in pipes, and the ways that their crops are organized to make the best use of space and earn as much profit as possible on a small piece of land. Farmers I spoke with suggested that the type of farming that they do in the city could not be accomplished in the villages. Their very lives were transformed by farming specifically in the city. They could use their profits to go meet friends at bars, buy cell phones, easily buy other home goods and have access to medicine that they could not find in the villages.

The discussion in chapter five blurs the distinction between formality and informality to highlight the realities of how cities (and certainly not just Dar es Salaam, but all cities) actually work. Framing the informal as the space of the poor does a great disservice to wider knowledge about how cities actually function, and how practices and materialities can be seen as legitimate or illegitimate depending on time and space. The purpose of this chapter is not to argue that all of these practices should be formalized, because that implies planning and taxation that can hinder the connections necessary to survive in the city. Instead it is to recognize that not all practices may *need* to be formalized, that many can exist and run quite efficiently through a blend of formal systems of governance and taxation and informal networks and practices, and that there might be other ways of regulating for safety and encouraging economic development. Building off of this framework, I examine specific events in recent history regarding urban agriculture, and what ignoring its very real complexity and dynamism means for grounding approaches towards 'fixing' urban agriculture and for the people that planners and NGOs purport to help. As such, chapter five ends with a critique of current efforts to provide land tenure for farmers, first because it falls into the trap of treating farms as independent spaces (i.e. projects that need to be fixed). Second, the people tasked with zoning for farms or using farms as green spaces in the city attempted use the discourse of sustainability as a justification for intervention without any real understanding of what that term might mean in the context of Dar es Salaam. The approach to sustainability taken by international development organizations (in this case, the United Nations) separates urban problems into distinct categories, not recognizing how interwoven they really are and undermining the potential of people on the ground to deal with them. Finally, the current effort has a strong potential to further marginalize farmers who are not included in the areas zoned off (which so far are all in the peri-urban areas anyway). This means that hundreds of farmers who contributed ideas and time to the effort will be left out of the final plans.

Current discussions and debates framing urban agriculture in both policy and media circles in Dar es Salaam reflect unease with associating the urban with agriculture in any positive way. As planners and agriculture extension agents in Dar es Salaam work to zone places for agriculture, they continue to frame these spaces as ones in need of

intervention, rather than as intricately connected to the communities, ecologies and economies, both adjacent to them and in more far flung places, such as other sections of the city and villages. Ignoring these connections risks obscuring ways of not only understanding, but integrating the creative practices upon which people rely in cities such as Dar es Salaam. The discussion in chapter five is meant to disrupt binary divisions between formality and informality, which is the subject of much recent writing in postcolonial urban geography and urban studies. I agree that we need to move past this binary, because it is too easy to allow urban analysis to unproblematically use these categories. Rather than focusing on the informality of practices, we need to step back and observe what is actually happening. The terminology of informal and formal has become too static and limits the analysis of the ways that people, materials and practices interact in the urban context.

Chapter six represents the culmination of my approach and its implications for understanding cities and urban spaces. The preceding chapters build towards this newer approach to urban analysis of the multitude of material and ephemeral practices that constitute one type of space in the city. People, money, ecologies, materials and even the city move through these spaces and influence and are influenced by them. This approach recognizes the structural issues embedded in these movements; it also highlights the agency and creativity that people rely on and employ as they navigate the city. Examining the lives of farmers is meant to show that they are not just farmers. They are children, parents, victims of economic restructuring and of personal crimes, shop owners, taxi-drivers, members of the Chama cha Mapinduzi, silent dissenters, etc. Indeed they hold multiple identities, of which farming is only one; like all the rest, however, being a farmer frames their urban experience and contributes to their success in living in the city. Top down planning policies that see people only as farmers neglects the various ways they are interconnected within the urban system and ignores the creative ways they use and transform the city.

Implications for Urban Analysis

Several points I emerge from my analysis. First, is the critique of the developmentalist approach to cities such as Dar es Salaam that frames them as 'behind'

in some urban teleology or exhibiting a lack of modernity because they do not look like cities in 'more developed' countries of North America and Europe. Indeed, it is important to point out that despite privileging the experience of New York and London and other so-called global cities in both popular and academic writing, the majority of the world experiences a very different type of city. From Tuscaloosa, Alabama, to Dar es Salaam, Tanzania, the range of urban experience is enormous. Even within these cities people experience them in dramatically different ways. A stock broker and a homeless person in New York City may move in the same spaces, but they will confront dramatically different barriers to movement and use of space. Similarly, the urban farmers of Dar es Salaam move through the same spaces and interact with urban elites, but their experience is cotemporaneous with both each other and with the Wall Street banker and homeless person in New York City. Recognizing this diversity of experience is important in order that approaches to 'fixing' the city do not reify the marginalization of the people who live there.

Indeed, the focus on marginalization in cities can also be problematic. Generally people talk about marginalized populations within a narrow economic sense, and certainly this is a very real experience as people in cities all over the world struggle to feed families and maintain a standard of living that ensures basic quality of life.[2] Yet the huge category of 'marginalized' in cities is too focused on economic conditions. It fails to take into account the very diverse and dynamic ways that power is expressed in the urban landscape. Powerful economic actors can be marginalized in specific spaces (especially through fear) and government regulations can be ignored by relatively poor actors. Spaces are appropriated and controlled by seemingly powerless actors who can exert themselves to regulate what happens within them, yet this does not necessarily mean these activities are resistance. Looking past marginalization illuminates how urban spatialities are actually created and function.

There is cause for pause in this discussion. Much of the writing in postcolonial urban studies, and indeed in this dissertation, has focused on the inappropriate application

[2] Of course the idea of a basic standard of living is quite problematic, as this will vary across time and place.

of urban models from Western Europe and North America wholesale throughout the world. But significantly, these models might not be appropriate for the regions in which they originate. Agriculture has existed in cities throughout the world, and is currently experiencing a resurgence in the United States and Canada especially. While it has been framed as part of broader social and environmental movements, it still reflects a divergence from ideas of the city that are conceptually separate from agriculture. Indeed, cities throughout Europe have allotment gardens or other forms of urban gardening and agriculture, and have for centuries. Further, the idea that cities must go through a specific process of modernization, specifically through industrialization, does not explain many cities throughout the more developed regions. The city of Eugene, while often struggling with promoting urban growth, has certainly not experienced industrialization or many of the other processes described by urban geography textbooks as the model of how a city works. A postcolonial approach would be able to examine the processes in cities in a region such as North America to see how the frameworks for urban development fit or not, and then try to understand what this can tell us about urban spaces and development across regional contexts.

Another implication for this work is how a focus on 'alternative' uses of space in cities often serves to reify the normative city. Keeping practices such as urban agriculture 'alternative' discursively reifies them as beyond the norm, and as needing constant justification for their existence. Instead of seeing urban agriculture as a rural activity, we should instead see it as a constituent and integral part of the city of Dar es Salaam. We know it is essential in urban food and economic security not only for farmers but traders, vendors and consumers as well. Beyond that, the spaces of urban farms provide social security that farmers, laborers, the surrounding communities and even people 'back home' in villages. It is not alternative. It represents an organization of space suited to fulfill diverse and distinctly urban needs. Using the idea of 'alternative' confronts proper use of space of cities, but to see a practice or space as legitimate in an urban system, it cannot continually be framed as a coping mechanism or an alternative urban form. If we accept that there are multiple urban forms (as stated above, the experience of New York or London actually represent the minority of cities in the world), there are too many urban forms to posit any 'alternative.'

Urban geography has come to a crossroads. Political economic approaches to the city have been and will continue to remain vital for understanding the built environment and how people navigate through it. Recent work in postcolonial urban studies has highlighted the need to reclaim the experiences of those marginalized through various structural discourses and encouraged a focus on the everyday activities and experiences of people in different urban contexts and how this constitutes urban space. Bringing these two seemingly disparate approaches together is the next step forward. Is there a way to talk about the city that takes both perspectives into account? What are the implications of this for urban analysis and more importantly, how interventions and prescriptions for more socially just urban development should be addressed? This analysis is not only needed in the city of Africa, but in all regional contexts.

Finally, a postcolonial approach to cities begs new ways of interpreting words, meanings and experiences within the larger political economic contexts within which people operate. This study has employed a diversity of techniques and explicitly recognized forms of observation that often go unnoticed by researchers. While interviews were a primary method to collect life stories, economic statistics and an understanding of the social relationships on farms, utilizing mental maps asked participants to articulate their spaces in a different way that allowed them to reflect in a more relaxed and even fun way about materialities and practices on and beyond farms. Interviews can be too stilted and people on their guard. Mental maps provide another object on which to focus and provide an avenue for creativity and perspective-taking that interviews alone may not capture. Photo voice provided this as well. This method has not been widely utilized in geography, but provides serious potential for postcolonial engagement with cities and spaces. Allowing people to literally frame their spaces and provide their own words to explain the picture, rather than filtering the image through the eyes of an outsider, is a way that materialities and practices of cities can be understood in the terms of the people who literally use those spaces. Farmers took ownership of the photo voice project and used it to demonstrate a wide variety of both structural and experiential realities in their lives. This method holds promise for new ways of examining cities on their own terms by literally putting data collection in the hands of the people who define them. Finally, observation on farms and technics such as ‘looking awry’ should have more of a central

importance in urban analysis, especially within a postcolonial context. Betrayal of emotion and passion about subjects should not be ignored for how they demonstrate connection, pride, frustration or stability. In this research, I have placed a great deal of emphasis on the role of the translator, whether linguistic or cultural. Scholars from 'the West' need to be aware of the filters they have in interpreting words, meaning and images. Working with locals (not just having them work for scholars) in new ways, whether it means in the design of a project, the methodologies, securing funding, publishing articles, new ways of incorporating the various voices we accumulate in a project are necessary for a truly postcolonial approach to cities in all regional contexts.

Searching for Social Justice

Highlighting the above points is meant to disrupt some common ways of talking about practices in the city and the people who participate in them. Dislocating these narratives is vital for an understanding of cities in all regional contexts to reflect the realities of their multiple functions and the ways that people use them. This emerging trend in critical urban studies is still searching for ways to ground a political movement that seeks a more socially just approach to cities might look like. This analysis is not meant to replace the valuable political economic approaches to cities. Instead, it is meant to compliment them in order to gain nuance and examine how different urban experiences, identities, roles and spaces actually influence the lives of people that a more political economic approach seeks to understand. Intervention that motivates a political economic approach needs to take account of the small-scale interactions and associations that constitute the daily lives of urban populations.

The approach taken in this dissertation frames farms as ways to engage with the idea of the city. This is where urban farming in Dar es Salaam links up with social movements in the United States that position urban farms as ways to confront the agro-industrial food system, create community, provide people ways of connecting with the land in the city, etc. Urban agriculture has become popular (again) relatively suddenly in the US, and it has emerged as a movement that confronts more forcefully the separation between agriculture and the city. Part of this certainly is a result of *who* has defined this movement, specifically urban, middle-class whites with relatively high levels of political

power. Despite the fact that many other groups (African Americans and various immigrant groups) also participate, the discourse continues to come from middle-class whites who have focused on food deserts and sustainability in cities. I believe that this discussion is possible in the US precisely because agriculture was eliminated in the city (at least discursively)— unlike in Dar es Salaam where it has never disappeared— and has been brought back more deliberately in recent years, forcing conversations in cities around the country. Yet seeing urban farms in the US as a social movement also hides the reality that for some people, it is a mundane practice, a way of life (like the Vietnamese gardens in New Orleans) or possibly more of an attempt first to take back a community than to grow food (such as in some neighborhoods of Detroit and New York City). The reasons for practicing urban agriculture are diverse even in the United States. We need to see that same diversity in a city such as Dar es Salaam. People enjoy farming, they take pride in it and they argue that it is a legitimate way of urban life. The make money, they help friends, they connect to the community, they help each other, they relax, they toil and they take pride in the practice.

It is this perspective that could make urban agriculture a social movement in places generally off the map of seemingly cutting edge urban politics. I in no way insinuate that farmers in Dar es Salaam should learn from urban social movements in the US, but that the analytical approach taken in this project can provide a window into the ways that farmers (and other urban actors) can articulate their connections, contributions and influences to and on the city to build an urban experience that better-represents what they require to live a dignified urban life. Rather than lumping the practice under the guise of marginality, or relying on rural skills to live in the city, an analysis of movements and flows, and the integration of practices into the wider urban system can reveal a different kind of city. This more realistic city is one that people who live in it can recognize as something to defend from planning practices that seek to dismantle it and make it legible to powerful institutions (of government and capital) that continue to marginalize how people live in cities.

The Role of Geography

Geography has a central role to play in this project, and indeed many urban scholars in the discipline are taking the lead in reconceptualizing the city in the context of emerging postcolonial critiques. The scholars I have drawn upon here are used in geography, but often focus more on networks and associations without integrating space into their analysis *per se*. My analysis here has examined a specific urban space to study how people and materials flow through them to constitute a city. Urban spaces are experienced as real and tangible places, and networks, associations, assemblages and practices all occur in places connected together, both ephemerally and materially. Exploring how these are connected in space and time can reveal these platforms of engagement that constitute daily urban life. Geographers are also attuned to processes of scale, recognizing how global forces are embedded in daily life, how they influence or are circumvented and manipulated in through practices that transform or perpetuate places. This makes geography an important approach in combining political economic and postcolonial approaches to cities as specific spaces through which people move and live. Most of all, however, geography is an inherently political discipline, motivated by a sense of social justice that seeks to understand how power and people operate in spaces and scales. The approach taken here serves to reinforce the political potential of these approaches and can serve as mechanisms to create the platforms of engagement for a radical urban politics in cities throughout the world.

APPENDIX

COSTECH RESEARCH PERMIT

TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY (COSTECH)

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RESEARCH PERMIT

No. 2010 –152-NA-2010-41 **2nd June 2010**

1. Name : **Leslie McLees**

2 Nationality : **American**

3 Title : **Urban Recognizing Urban Space in Developing Places: Everyday Practices and Urban Farms in Dar es Salaam, Tanzania**

4 Research shall be confined to the following region(s): **Dar es Salaam**

5 Permit validity **2nd June 2010 to 1st June 2011**

6. Local Contact/collaborator: **Dr. Aldo Lupala, Ardhi University, Department of Urban and Regional Planning, Dar es Salaam**

7. Researcher is required to submit progress report on quarterly basis and submit all Publications made after research.

M.Mushi
for: DIRECTOR GENERAL

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