

# Surplus Labor and Subjectivity in Urban Agriculture: Embodied Work, Contested Work

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diverse economies, alternative economies, class, economic subjectivity, embodied work, community gardening, urban agriculture, surplus labor

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## **Abstract**

This article examines unpaid work within urban agriculture sites. It focuses on the extra work—the surplus labor—that is performed to sustain these sites and how this work relates to subject formation. Land access and subjectivities are widely discussed in the urban agriculture literature, particularly in the Global North, but recent research has also identified the continual supply of labor as a crucial issue as well. However, work dynamics of urban agriculture have seldom been the object of analysis, and little is known about the relationship between unpaid urban agriculture work and subjectivity. I argue that surplus labor is useful for analysis because of the surplus value that is produced through urban agriculture. I draw on the theoretical framework of diverse economies to examine surplus labor through an antiessentialist form of class analysis. A case study from New Jersey, USA, is based on two years of participant observation and forty-eight interviews in twenty cities. The case study reveals how surplus labor is performed, the techniques used to appropriate and distribute surplus labor, the subject formation that occurs through this surplus labor, and models of surplus food distribution that emerge from the juncture of surplus and subjectivity. Conclusions point to contested work practices and the embodied experience of surplus production as keys to subject formation. More broadly, it sheds light on the processes through which surplus labor is performed in unpaid informal forms of enterprise and the role that subject formation plays in that labor.

## Introduction

This article emerged from a puzzle I encountered over two years of ethnographic research in urban agriculture. At urban farms and gardens, which are described as engines of food production and social resilience (e.g., WinklerPrins 2017), people often came into conflict with each other about the work that was needed to sustain the sites. As some individuals came less frequently or disappeared altogether over the course of a growing season, whether from getting tired of weeds and insects or getting drawn away by other responsibilities, others would take on extra work. The work of urban agriculture was distributed unevenly within gardens and farms, and it often led to animosity between the individuals whose labor those sites depended on for survival. The puzzle was in how outcomes such as the above-referenced food production and social resilience were generated by work that was uneven and contentious.

Interestingly, although land access is a critical issue in urban agriculture (Schmelzkopf 2002; Lawson 2007), even secure land tenure does not guarantee permanence (Rosol 2012; Drake 2014). Continuous labor is also needed for planting, harvesting, mowing and pathway maintenance, construction and repairs, to name a few—which if left undone results in cluttered, overgrown sites that could threaten continued access to that land. It is perhaps no surprise that one of the greatest everyday challenges is ensuring the continued performance of work (Drake and Lawson 2015): in the Global North, much urban agriculture relies on unpaid labor or alternative compensation and less on formal, paid employment (Goldstein et al. 2011; Guitart, Pickering, and Byrne 2012). The work to maintain urban gardens and farms is as important as land access, yet it is an underresearched topic. How, then, is the unpaid work that produces urban agriculture sites organized?

This article examines the unpaid work that takes place within urban agriculture sites—how work is performed, where and to whom surplus goes, and the effects of this work on urban cultivators.<sup>1</sup> As I argue below, doing so will shed light on the surplus labor that results in surplus value—surplus that has often been the locus of conflict between urban cultivators, on the one hand, and local government and property developers, on the other hand. Likewise, subject formation has been the focus of increased research on urban agriculture, but little is known about the relationship between urban agricultural work and subjectivity. As such, this is a study of the internal dynamics of urban agriculture sites that links the concepts of surplus labor and economic subjectivity. I draw on the theoretical framework of diverse economies to identify and evaluate surplus labor through an antiessentialist form of class analysis. This theoretical approach allows me to view unpaid urban agriculture as noncapitalist production, and urban cultivators as being part of a class process of producing, appropriating, and distributing surplus. Through an ethnography of a variety of urban agriculture sites in New Jersey, USA, I conclude that work practices are contested because of surplus labor but that this is also a source of subjective changes that enable reproduction of garden and farm sites.

## Surplus and Subjectivity in Urban Agriculture

Urban agriculture, as a practice and as a research subject, has a long history (Smit, Nasr, and Ratta 1996; Mougeot 2006), but its discourse leads to widely varying meanings and interpretations that can obscure its economic characteristics. Some define urban agriculture broadly as any food production and distribution within and around cities, while others define it

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<sup>1</sup> I use the term *urban cultivator* to refer to people involved in both urban gardens and farms (WinklerPrins 2017).

quite specifically, such as agriculture practiced by urban residents, even if production is in rural areas (Zezza and Tasciotti 2010). Generally, it is associated with livelihood strategies and food security in the Global South, and with a broad set of environmental, food and nutrition, and community development–based food production activities in the Global North (Tornaghi 2014). Among scholarly research, subcategories have described variations, including community and allotment gardens, nonprofit farms, and commercial enterprises (McClintock 2014). In Global North countries, such as Australia, Canada, and the US, the term *community garden* is often used in scholarly literature to specify the type of urban agriculture that relies on some degree of collective management of the site by the gardeners (Goldstein et al. 2011; Mees and Stone 2012; Nettle 2014; Drake and Lawson 2015). However, in discourse among planners and practitioners in the US, urban agriculture is often framed exclusively as a commercial endeavor, entailing business licensing, job creation, and profit motives, while community gardens are avocational. For example, community gardens are portrayed as limited to beautifying neighborhoods and providing space for social interaction, while urban agriculture is “something else altogether. It’s about growing food . . . at a scale that has the potential to put a dent in food security challenges” (Rowe 2014). The city of Chicago makes this distinction more explicit: urban farms have a commercial purpose to “grow food that is intended to be sold, either on a nonprofit or for-profit basis,” but community gardens are “intended for personal use, for charity, or for community beautification purposes.”<sup>2</sup> A consequence of this discourse is that economic dynamism becomes solely the domain of commercial urban agriculture. However, although formal commercial farms often gain much attention in local planning and policy in the US, most urban agriculture is not centered on market exchange and is not performed by wage-earning workers (Goldstein et al. 2011). For this reason, WinklerPrins (2017) cautions that the normative connotations of *community garden* and *urban farm* are problematic because they can misrepresent the intensity and productivity of urban cultivation—a large unpaid garden could be more productive than a small commercial farm.

Due to the discursive issues outlined above, this study is contextualized in the global urban agriculture literature, but my empirical materials use the term *community garden*. This is done in order to keep analytical focus on the unpaid work of urban agriculture and avoid conflation with formal commercial urban farms. At the same time, I do not assume that community gardens are a certain size, productivity level, or inherently have a communal sense of togetherness (Pudup 2008). Instead, community gardening is used here because the work of the cultivators of those sites is not wage labor and because the food produced is generally not sold through market exchange. However, the sale of food is not an immutable metric to indicate whether a site is a community garden or urban farm. Self-identified community gardens have sold produce (Drake and Lawson 2015; Lawson, Drake, and Fitzgerald 2016); the South Central Farm was run in a decentralized way like a community garden, but some gardeners sold produce (Irazábal and Punja 2009). In sum, community gardening is not *different than* urban agriculture; it is a *form of* urban agriculture, one in which unpaid work and collective management predominates.

Across the literature, the work of urban agriculture—the above-mentioned cultivation and site maintenance—is mostly implicit in and peripheral to analyses that focus on the causes, purposes, motivations, and outcomes of these sites and their practitioners and advocates. The emergence of urban agriculture is explained in critical arguments as a phenomenon that

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<sup>2</sup> [Http://www.cityofchicago.org/city/en/depts/dcd/supp\\_info/urban\\_agriculturefaq.html](http://www.cityofchicago.org/city/en/depts/dcd/supp_info/urban_agriculturefaq.html).

periodically surges and wanes in response to capitalist crises (Lawson 2005; McClintock 2014). It is thus seen as taking an instrumental role in addressing urban manifestations of macroeconomic changes such as food deserts and blight in the Global North and rural to urban migration in the Global South (Schmelzkopf 1995; Hynes 1996; Hou, Johnson, and Lawson 2009; WinklerPrins 2017). The recent wave of interest is also linked to neoliberal policies at the local level that encourage individuals to provide their own food and green space (Rosol 2012). Scholars have assessed how governments and nongovernmental organizations frame urban agriculture as a tool to address myriad issues such as urban food security, neighborhood revitalization, and sustainability (Smit, Nasr, and Ratta 1996; McCullum et al. 2005; Schilling and Logan 2008; Henderson and Hartsfield 2009; Lawson and Miller 2013).

In addition, at the grassroots level, there is a vast array of motivations and outcomes that have been identified among individuals and community organizations (Drake and Lawson 2015; McClintock and Simpson 2017). In terms of outcomes, food production is important, and food access is improved, but urban agriculture is not a panacea (Barraclough 2009; Zezza and Tasciotti 2010; Vitiello et al. 2010). Outcomes go beyond food products, however, and include changes in eating habits, increased urban citizenship and engagement, and cultural reproduction and community building, to name a few (Saldivar-Tanaka and Krasny 2004; Groenewegen et al. 2006; Levkoe 2006; Alaimo et al. 2008; Alaimo, Reischl, and Allen 2010; Firth, Maye, and Pearson 2011; DelSesto 2015).

These outcomes going beyond food security suggest a link between urban agriculture work and subjectivity—the effects are not only that food is produced but also that people are changed in the process. Aligning with expanded interest in subjectivities in economic geography (Larner 2012), scholars have debated the degree to which urban agriculture produces individual (neoliberal) or collective subjectivities (Pudup 2008; Hobson and Hill 2010). This parallels similar debates in the alternative food networks literature (e.g., Guthman 2008; Harris 2009). Others argue that such debates focus on intended rather than actual subjective outcomes and that multiple subjectivities are produced by working in urban agriculture sites and that an effective form of resistance to neoliberal subjectification is simply refusal to work in such spaces (Drake 2014; Barron 2017). In this vein, emergent subjectivities of urban cultivation have been the focus of diverse economics-driven research (Hill 2011; Hosking and Palomino-Schalscha 2016; Parker and Morrow 2017).

Of interest to this article, however, is less a concern with the material outputs and types of subjects produced through urban agriculture, but rather how those changes occur, and how the work practices to sustain urban agriculture sites might explain those changes. Again, the literature suggests what is involved, namely, that solidarity and trust emerge because of the work required to care for a shared space of cultivation (Corcoran and Kettle 2015). Herein lies the puzzle that opened this article. On the one hand, solidarity and trust are significant because urban cultivators have had to fight developers and local governments to maintain tenure of those spaces (e.g., Smith and Kurtz 2003), but, on the other hand, it is an everyday challenge to get enough people on site for maintenance and upkeep (e.g., Drake and Lawson 2015; Broadstone and Brannstrom 2017). The nature of that everyday work, however, has gone relatively unexamined. If urban agriculture is a set of “processes through which communities gain greater resilience” (WinklerPrins 2017, 5), then key to understanding these processes is knowledge of the work of urban agriculture, and there is relatively little knowledge on this topic.

I argue that surplus labor—the extra work that leads to surplus value—is a useful concept for evaluating such work.<sup>3</sup> Starting at the end of the urban agriculture labor process, surplus value is evident across much of the literature, and I argue it is one of the sources of conflict between urban agriculture and the local state. A typical storyline is that urban cultivators reclaim vacant and abandoned properties and transform them into productive green spaces (Henderson and Hartsfield 2009). It is not only these properties that are affected through sweat equity work but also the surrounding neighborhoods that can see an increase in property values (Voicu and Been 2008). This attracts the attention of local government and developers, who may see the neighborhoods as targets for redevelopment; they may also take a revanchist attitude against the *noncapitalist commodity production* of food having invaded a place reserved for capitalist urbanization (Moore 2006). Thus, although local governments may try to shift the burden of food security and green space production from the state onto residents (Rosol 2012), there are many cases where local governments engage in contentious and maliciously petty struggles to evict successful urban agriculture, because of the surplus that has made them visible to those in power (Schmelzkopf 2002; Lawson 2007). Such conflict due to unequal power relations has been documented around the world, and notable examples come from Berlin; Kano, Nigeria; New York City; Los Angeles; and Vienna (Groening 2000; Lynch, Binns, and Olofin 2001; Smith and Kurtz 2003; Irazábal and Punja 2009; Möhrs et al. 2013).

In Marxian terms, surplus value is produced through surplus labor. The above examples illustrate that urban agriculture work produces surplus value that is embodied in the physical improvements of abandoned properties, and that local governments and property developers try to extract that surplus. Theoretically speaking, then, urban agriculture entails some amount of surplus labor time. This means that the nature of the work in urban agriculture sites, and how that work is organized, could be of central concern. However, little is known about the decision-making that takes place within these sites to accomplish the everyday work of urban cultivation. Simply put, the focus has been on surplus *extraction* rather than *production*. This also means that while other concepts, such as division of labor, may also be used to analyze urban agriculture work, the attention drawn to surplus value in the literature calls for the use of the surplus labor concept. In sum, it is evident that two types of outputs are consequential for urban agriculture—subjective changes (i.e., people are changed through the process of urban agriculture work) and surplus value in the improved built environment. It is my contention that an analysis of the work process through the concept of surplus labor can best explain these processes.

The objectives of this article are to bring surplus labor into conversation with subjectivities by examining the mechanisms through which surplus is produced in urban agriculture sites, and the relationship between surplus labor and subject formation. However, this must be done in the context of unpaid urban agriculture work. This article thus needs a conceptual framework that can investigate surplus labor, noncapitalist unpaid work, and economic subjectivities. The contributions of feminist economic geographers employing poststructural approaches are of great use here because they have redefined what counts as economic production. Approaches such as the feminism-based diverse economies framework have opened up new ontological terrain to consider noncapitalist economic practices and spaces beyond the household. This comes from a reframing of the economy as not just made of formal

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<sup>3</sup> Here I refer to surplus labor as extra work or surplus labor time that is performed (Smith 1979), and not a different use of the term as a surplus population of workers or a reserve army of the unemployed (Hart 2010).

commercial enterprises, but as all of society's practices that are done in order to survive, generate surplus, and distribute that surplus—organized variously as conventional enterprises or through nonmarket and unpaid forms of exchange and production (Williams and Nadin 2010; Gibson-Graham, Cameron, and Healy 2013). The article contributes to knowledge of urban agricultural production and the work that precedes many of the conflicts reviewed above. More broadly it sheds light on the processes through which surplus labor is performed in unpaid informal forms of enterprise and the role that subject formation plays in that labor. This should be useful for scholars of alternative economic spaces, since an underexplored question in that literature is how work is organized in order to be productive (Jonas 2010; Fickey 2011).

## **Antiessentialist Reading of Class and Surplus Labor**

Class and surplus are important entry points for diverse economies theory, which is the framework for this study of unpaid urban agriculture work. A starting point to diverse economies analysis is that class is viewed as the process of producing, appropriating, and distributing surplus labor. This follows Resnick and Wolff (1987) and is an integral component of the ontology of economic diversity developed by Gibson-Graham (1996). It recognizes that surplus labor is produced, appropriated, and distributed in a variety of contexts—for instance, in factories, in households, or informal unpaid work—and it is found in more contexts than the relationship between workers and capitalists. Scholars using this approach have identified a range of class processes, such as capitalist, feudal, slave, independent, and collective, that might coexist rather than proceed in a discrete historic way (Arvidson 1999; Smith 2004; Brown 2009). Each of these processes is defined by the way surplus labor is produced, appropriated, and distributed (Gibson-Graham 1996). For example, surplus labor is appropriated in a capitalist class process through wages, and in a feudal class process through the provision of necessities such as a home and food. Independent and collective class processes involve the producers of surplus appropriating their own surplus labor and deciding how to distribute it (Cornwell 2012).

Two implications of this type of class analysis are that individuals can occupy multiple class processes and that surplus can be appropriated by individuals other than capitalists. First, poststructural feminist theory argues that identities are fluid and overlapping (McDowell 1993). Just as multiple gender identities can be performed (Butler 1990), multiple economic identities can also be performed. As such, an individual can thus occupy multiple class processes. A male head of household, for example, might participate in a capitalist class process as a worker in a capitalist firm, while also participating in a feudal class process at home when his wife cooks and cleans for him (Gibson-Graham 1996). If the same person also works at a cooperative on the weekends, then he may also participate in a communal class process. Second, this also means that surplus labor can be appropriated and distributed by individuals other than capitalists, including the producers themselves. Worker-owners in a cooperative appropriate their surplus labor communally and decide how and where to distribute it, and as I argue in this article, unpaid urban agricultural work revolves around the shifting decisions on how to appropriate surplus.

This antiessentialist approach to class is similar to conventional class analysis in that it allows one to identify both exploitation and progressive possibilities, but there are some important differences due to the more-than-capitalist ontology of diverse economies. Particularly, rethinking class in an antiessentialist lens puts the focus on the *flows* of surplus labor rather than on the relationship between two social groups (Resnick and Wolff 1987; Graham 1990). Conventional class analysis typically focuses on the exploitation of workers by

capitalists through the appropriation of surplus labor for profit. Consequently, economic action is found through the relationship between workers and capitalists. This notion of class is unsuitable for analyses where work is unpaid or not based on wage relations. By focusing on the process of surplus production, both exploitation and progressive possibilities can be located in more places than, for instance, a commercial firm. Surplus labor is thus not limited to work performed through capitalist class relations.

Another key point about this approach to class is the distinction between necessary and surplus labor. From a diverse economies perspective, surplus labor is identified by tracing whether there are extra outputs of labor that other people benefit from or that the producer recoups. An immutable distinction between necessary and surplus labor, such as the difference between wage and commodity price, is less important for analysis than are the decisions through which surplus is appropriated and distributed. In conventional analyses, necessary and surplus labor is distinguished by what is socially necessary to reproduce the worker and the extra that is appropriated by the owners (the difference between value and cost of a commodity); this distinction provides for an understanding of capital accumulation. For conceptual and empirical reasons, however, diverse economies analysis does not align well with this. Since analysis includes forms of work that are not wage based or do not result in capital accumulation, the value–cost analytic is less useful for the range of class processes listed above.

Rethinking class in this way aligns with efforts to generate new discourses of economy that do not place capitalism at the center of analysis (Healy 2015). This has meant not only studying noncapitalist practices but also resisting framing those practices as alternatives to, or against, capitalism, because in doing so one still places capitalism at the center. In such *alternative* framings, capitalism remains the norm while noncapitalist alternatives are the exception (White and Williams 2016). This is problematic because *capitalocentric* discourse limits what counts as economic: “capitalism which is actually a specific economic form becomes the very model or definition of economy. By virtue of their differences from capitalism all other forms of economy fail to conform to true economic specification” (Gibson-Graham 1996, 35).

Knowledge of noncapitalist forms of economy is thus limited in a capitalocentric lens; practices are rendered one dimensional and lack the complexity of workplace dynamics that can otherwise be found in economic geography research on capitalist firms (Ettlinger 2003; Yeung 2005). This de-centering of capitalism in economic discourse has been taken up by scholars in a range of fields from economic geography to political theory and political ecology (e.g., Arvidson 1999; Robbins, Emery, and Rice 2008; Williams and Nadin 2010; Jessop 2012; White and Williams 2016). It is a move that allows reading for economic difference in a way that social theorists have rethought other categories, such as gender, race, sexuality, and ethnicity, thus making way for new forms of analysis of economic processes. It provides an analytical tool to identify both exploitation and possibility in places where economic practices have otherwise remained hidden.

These theoretical developments have opened analyses of surplus to new places and practices, but little research has systematically studied how surplus labor is performed through unpaid work. Although such studies are limited in number, they have focused on the way that surplus must be identified contextually instead of through a metric like wages. One set of examples frames household work as productive of surplus. Take for instance the argument that when any work in the household is consumed by others there has been a distribution of surplus labor; for example, it is appropriated and distributed when household members enjoy a home cleaned by, or eating food prepared by, someone else in the home (Cameron 2000). The

household is thus a site where decisions are made about how to produce and distribute surplus labor—and producers might appropriate their own surplus. On the one hand, such analysis is “a political strategy to represent the domesticated wife and mother as independent and authoritative, rather than dependent and victimized” (Cameron 2000, 65). On the other hand, exploitation within the home is also made visible through such analyses, as Cravey (1997, 179 [Au: page number of quote?]) explains in her study of Mexican industrial change: “the typical male industrial worker in Madero loses surplus labor to his employer, but gains surplus labor from his wife in the form of use values such as warm meals, clean clothes, and fresh produce.” Yet this form of class analysis is not restricted to the household as family unit, though, as the same approach has been used to explain industrial restructuring through analysis of work dynamics within factory dormitories (Cravey 1997), and to explain indigenous economies through the production and distribution of surplus within kinship groups (Curry 2003). Here, I draw on such work to examine class processes outside of a capitalocentric frame in order to examine surplus production in urban agriculture.

### **Case Study: Urban Agriculture in New Jersey**

This case study draws on a form of urban agriculture in the US state of New Jersey, commonly referred to as community gardening. As explained in the article’s introduction, I use the term *community garden* because it has most often been used to describe the form of urban agriculture in Global North countries, such as the Australia, the US, and Canada, that relies on unpaid labor and some degree of collective management. This study was conducted with informants from gardens representing a range of sizes in terms of both physical space (from 125 to nearly 5,000 square meters) and number of gardeners, as well as a range of organizational types, including gardens supported by neighborhood, nonprofit organization, local government, and churches. Methods included (1) participant observation as a member and president of a seventy-five-member community garden and as a member of a local community garden coalition; and (2) semistructured interviews of forty-eight community gardeners from twenty cities from 2012 to 2014. Participant observation was conducted by working at least weekly from April to October each study year, for at least thirty minutes each visit; by participating in garden member meetings in February; and through monthly all-member workdays throughout the growing season (Bernard 2002). Participant observation was also conducted as a member of a local community gardening coalition that held monthly meetings. Field notes were recorded after each day spent working in these contexts (Emerson, Fretz, and Shaw 1995). Semistructured interviews lasted between thirty minutes and one hour, and questions related to the processes of starting and sustaining the garden and the dynamics of working with other gardeners (Dunn 2005; Fraser and Weninger 2008). Analysis was completed in NVivo qualitative analysis software and themes were identifying by coding the data according to established procedures (Cope and Kurtz 2016).

The case study is presented in four parts. The first section introduces the spatial and social organization of the gardens to explain the difference between necessary and surplus gardening labor and what surplus does for the garden site. The second section examines how surplus labor is appropriated and discusses these techniques vis-à-vis the free rider problem. Third, I examine how the experience of producing and appropriating surplus affects gardeners’ subjectivities. The fourth and final section looks at one effect of these emerging subjectivities, which is the practice of distributing surplus food beyond the garden.



## **How Is Surplus Labor Performed in New Jersey's Community Gardens?**

Orienting oneself to the spatial and social organization of community gardens is key to understanding surplus labor in them. In New Jersey, they typically have an internal spatial organization with rows of plots that are assigned to individuals or families. There is generally shared space such as a toolshed, picnic tables, and compost or waste areas that serve the whole garden. Governance is typically structured by a subset of gardeners, but there might also be external coordinators in cases where nonprofit organizations or churches facilitate gardens. Within each plot, gardeners decide what to grow and when to harvest as long as those actions are within any set of rules that apply to the overall garden. For instance, a garden may decide to use only organic practices or to not allow trees so that adjacent plots are not shaded. Many gardens feature both individual and shared plots, where the latter are cultivated through the decisions made by the entire group. Another garden type has no assigned plots but instead all members collectively cultivate and make decisions about what is to be grown.

Community gardeners perform surplus labor in three main ways: harvesting surplus food, doing manual labor such as site maintenance outside of their plots, and doing administrative or advocacy work. Due to the spatial structure of plot-based community gardens, for this study I consider necessary labor to be the work needed to take care of one's own plot to produce food for one's own household consumption. When gardeners do any work in addition to taking care of their own plots, surplus labor is performed. Additional examples include maintaining shared footpaths, collecting membership dues, repairing water lines, and distributing extra food to other people. This can be a significant task: for example, the entire area of my community garden was 4,700 m<sup>2</sup> (50,000 square feet). Sixty percent of this area, 2,800 m<sup>2</sup>, was personal plot space; the remaining 40 percent, 1,900 m<sup>2</sup>, included grass paths, water lines and taps, toolsheds, and picnic, compost, and manure areas that were maintained through surplus labor. In sum, any work within one's personal plot is necessary labor (Figure 1), and any work outside of one's plot is surplus labor (Figure 2). One exception is the production and harvest of surplus food from one's plot that is distributed beyond the household.



Figure 1: Example of gardeners performing necessary labor within plots.





Figure 2: Example of gardeners performing surplus labor by maintaining a shared compost area and footpaths at the start of the growing season.

### **Techniques of Appropriating Surplus Labor and Overcoming the Free Rider Problem**

Community gardens thrive through outlays of surplus, but some gardeners may still get to use the site for personal ends even without contributing surplus—in other words, working only in your own plot and leaving the upkeep of shared areas to everyone else. The free rider problem, discussed in much of the literature on the commons, also extends to community gardening.<sup>4</sup> Such individuals get a clean and well-kept garden site, and access to resources, such as land, water, tools, and compost, by working less than other gardeners (or not at all) to sustain that shared space. Given the range of tasks needed to sustain the community garden and not just the individual plots, gardeners must decide what they will do and how much labor they will contribute. However, it has been documented that sustained participation is a major challenge (Drake and Lawson 2015; Broadstone and Brannstrom 2017). Community gardens in New Jersey have used a variety of techniques to ensure these maintenance tasks are completed.

One set of approaches appropriates surplus indirectly by encouraging participation. The aim is for education and social events to foster an environment in which people feel ownership and responsibility—and thus will want to work for the greater good of the garden. In other

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<sup>4</sup> The free rider problem is discussed in common property theory. Deriving from the “tragedy of the commons” thesis, conventional free rider analysis would position the gardener as a self-interested individual willing to benefit at the expense of the other gardeners (Hardin 1968). Research on common property management has refuted many aspects of Hardin’s argument and has shown that overuse is not inevitable in the commons (Berkes et al. 1989; Ostrom 1990).

words, *pull* approaches create the conditions where gardeners want to perform surplus labor. The mechanisms of pull strategies work temporally by making the garden a place people want to visit regularly. A variety of techniques are used in this regard. Community gardens across New Jersey host orientations each spring to explain responsibilities to new members and update returning members. Gardeners foster camaraderie by hosting workshops, screening films, and hosting speakers that bring people together for fun and learning. Other events found across the state include harvest potlucks, which often occur throughout the year so that gardeners can prepare seasonal dishes to share. At these social events, gardeners gather to share food they grew in their plots. At *seed swaps*, gardeners share surplus seeds they have saved.

There are also *push* techniques to more directly appropriate surplus labor. Even if education and social events boost morale, garden leaders still find themselves needing to accomplish specific tasks. To this end, garden leaders may require participation in a variety of ways. One method is to organize workdays, where gardeners are expected to contribute to shared work at various intervals: for instance, weekly, monthly, or seasonally. Weekly workdays are minor, like picking up trash and organizing toolsheds. Monthly and seasonal work includes larger tasks like mowing, mulching paths, or maintaining infrastructure such as fencing or water taps. Some gardens ask members to contribute a certain number of what they call volunteer labor hours over the course of a season. In these cases, there are no official group workdays and gardeners contribute on their own or informally with other people. Some gardens account for volunteer hours by asking members to record their time in a ledger located in the garden shed, but others acknowledge that such a system leads to conservative estimates because not all gardeners take time to record their entries. A variation of this system is to specify volunteer hours over each month of the gardening season rather than a lump sum. In the town of Hopatcong, many members of a new community garden fulfilled their yearly volunteer requirements in the first month because of the large amount of work needed to build the site. The management committee then proposed a monthly volunteering requirement to ensure that site maintenance was performed on a regular basis throughout the season. Regardless of which shared work model is in place, the point here is that even in supposedly decentralized and grassroots community gardens, there are structured collective work practices that enable the garden site to be reproduced.

### **From Utility-Maximizing Individual To Becoming a Surplus-Distributing Subject**

The decision-making that is a concern for Gibson-Graham (2006) is evident in the subjectivities related to work and surplus in community gardens. Gardeners continuously navigate the work needed to maintain their own plots and the surplus labor that sustains the garden; they also navigate those push and pull aspects of being a member. This means that their production and distribution of surplus labor is always in flux. As a result, gardeners are astute at perceiving their own surplus labor in relation to others' contributions—or lack thereof.

The issue of sustained participation appeared again and again throughout this research, and surplus labor is a lens through which to understand gardeners' subjectivities. While some loved being at the garden and going above and beyond their personal plot work, others tended their own plots and did not perform work for the broader garden. This was most visible, for instance, at workdays when some members were cleaning common areas while others simultaneously tended their own plots. One garden leader explained that tension builds when some gardeners do not contribute to group work, and as a result benefit unfairly at the expense of others doing the work:

[Some people said] “we don't mind doing the work, but what about all these other people who aren't doing anything and have the same benefits that we're getting?” I can tell you, from the experience, *it really created more tension between people who are doing the extra work and felt like they were doing more*. And they were really put out that other people didn't have the same degree of commitment that they had . . . [but] there's always those degrees of people [that contribute more]. (Interview 20, emphasis added)

The reasons why there is such variation in participating in collective work seem in large part to be related to how gardeners incorporate community gardens as a routine part of their everyday lives. Gardeners explained this spatial routine in different ways. On the one hand, a person might be highly committed to and serious about the community garden from the beginning:

You have to be doing it for eating, not for fun. If you're doing it for fun, when it gets hard then you'll stop. I don't buy any vegetables during the [growing] season. If you do it right, you can even feed two families with one plot. We give food away, [but] you have to be serious about it. (Interview 30)

This interviewee went on to say that if you are serious, then you will do the extra work for the overall garden. On the other hand, the motivation level may matter less than simply whether gardeners are frequently at the garden. As another gardener put it, “the people that garden [in their own plots] a lot, [participate in] the workdays. Those that don't, don't have time” (Interview 35). In this view, gardeners work in accordance with the amount of time they have to be at the garden. In other words, if one's daily or weekly routine prevents much time from being spent in the garden, then only the necessary labor of plot maintenance will be done.

These tensions can lead to surprising transformations. This involves learning to see surplus labor not as a source of divisiveness but as a way to help other gardeners. Given the variations in motivation and time availability described above, some gardeners come to see their surplus labor as a gift that they can appropriate and distribute to others who may not have time in their schedules to perform surplus labor for the garden. Furthermore, gardeners who start out as free riders exploiting the surplus labor of others can grow to engage in ethical exchanges of surplus and thereby develop a sense of fairness and equity.

These changes occur over time through the embodied labor of community gardening—not just horticultural work but also the observations of surplus labor being produced for the benefit of all gardeners. As a long-term gardener put it, “Gradually you become more interested. Some people drop off. But some find it beneficial” (Interview 35). The person referenced above who faced a great deal of tension within her garden saw a similar change:

I think it takes time before people begin to develop a sense of commitment to the garden. You can almost see the moment at which people at the garden begin to make a connection and take responsibility for what was going on. At the end of the second year I was like, “I'm giving this up, nobody's getting along.” And then you just begin to see little traces of how they're helping one another. So over this 6-month period is when I finally feel that people are gaining ownership. [At a recent garden meeting I thought], “they've just taken over the meeting, what do I do here?” Not in a bad way, in a good way . . . So it was like, ok this is really nice now. Each of them now is taking responsibility. If you have 10 people like that, and each of them has three more people they get involved, then it helps. (Interview 20)

Gardeners who have developed a strong sense of community also want to instill the same work ethic in others. As one garden leader said, what really matters is that gardeners contribute to the broader garden: “It could be as simple as cleaning, we don’t really care . . . We just want them to give something back to the garden. And you can see, it’s pretty successful in terms of people giving back, not 100 percent successful, but you know it’s a group, a group dynamic, what are you gonna do?” (Interview 1).

Gardeners can become surplus-distributing subjects in unexpected ways, as in the following example from my community garden. Although we held official monthly group workdays during the growing season, a network of gardeners went above and beyond this official group work. In the plot next to mine, I often saw new people working in it every few weeks. Over time, it became clear that there were internal networks of gardeners who cared for each other’s plots when one person was away. Together, they each had their own plots but also spent as much time working in their friends’ plots. The amount of food produced through this method was impressive—these gardeners did not purchase vegetables during the growing season, they produced food into the early winter of December, and produced enough to share among themselves, their extended families, and other gardeners, such as myself, who were not in their informal network. “At least half [of what I grow] is shared with people,” one gardener told me (Interview 35). These practices emerged alongside—or perhaps, in spite of—the push and pull strategies we used to encourage shared labor.

The longitudinal observations by gardeners reflect how individuals not only become community gardeners but also subjects that appropriate and distribute surplus. Many gardeners start out as the self-interested utility-maximizing subject of the free rider problem—and indeed, some remain that way—but there can be a shift to a subject that recognizes the equity involved in distributing surplus labor to others. This shift is never easy or complete but is ongoing and emergent. The techniques discussed above, such as time accounting and rotations of duties, help this to happen.

### **Distributing Surplus Food beyond the Garden**

The preceding vignette highlights another manifestation of surplus labor in community gardens: surplus labor thus manifests in a variety of forms, whether it is pulling weeds, processing paperwork, or in surplus food that gardeners must decide how to distribute. This extra food can result from a bumper crop of a particular vegetable that the gardeners do not have the capacity to consume. It can also come from intentional practices to produce food that will be distributed to nongardeners.

Several different food distribution models illustrate how community gardens intentionally engage in surplus production. At one end of the spectrum, the entire garden site can be dedicated to produce food for external distribution—gardeners do not take home any of the food. Church and community members work at the community garden at Christ Church in New Brunswick; the on-site food pantry receives everything produced there. Camden Children’s Garden, a citywide network of community gardens, operates some of their sites in a similar manner. At these locations, gardeners contribute all of their labor to producing food for external distribution.

It is more common for community gardeners to donate and distribute a portion of their produce. Appearing in many forms, gardens may set up dedicated beds for external distribution or ask gardeners to simply donate a portion of their food. In Camden, gardens in areas with pedestrian traffic set up tables on the sidewalk for passersby to simply take food. In other cases,

community gardens build donation bins that are placed near garden entrances, as in Morristown and East Brunswick. As people leave the garden, any surplus food is dropped into the box; a designated person—again, contributing surplus labor—then transports food to agreed-upon clients such as senior centers or food pantries. Whereas some gardens exclusively produce all food for external distributions, as in the paragraph above, staff from service organizations can also use garden plots for their own consumption. Likewise, gardeners can set up plots within the garden that they exclusively use to distribute food to external clients. Gardeners can also invite nonmembers to participate and harvest by deliberately choosing not to put a fence around the garden. Members of a church in Atlantic City built a community garden but wanted it to be open for anyone to use. Parishioners wanted there to be no fence; through their own community outreach, residents and some of the homeless population helped maintain the garden and take food.

Gardeners can produce much more than their own personal consumption needs in order to distribute it elsewhere. One location, which placed coolers near the garden entrance for gardeners to donate out of their own volition, yielded over one ton of produce over four years that was delivered and prepared daily at a nearby senior center. Other gardens look for a variety of destinations for their food—“We deliver it to the senior centers, where they have exercise classes. Food pantries, churches. You know, in the height of it in the summer we must have been taking . . . 200 pounds a week. It's amazing what a little bed can give you” (Interview 36). This community garden went one step further and installed garden beds at locations around the town. Expanding outside the bounds of the garden site, members have built raised beds at the local senior center to respond to requests for garden space.

Lastly, community gardens take on more formal aspects of market production when they sell food and agricultural products. The Jardín de Esperanza in New Brunswick grows marigolds for the annual Day of the Dead, a Mexican holiday; garden members have sold flowers directly to local bodegas and through a farmers' market. All proceeds are brought back into the community garden. Among a network of community gardens in the towns of Elizabeth and Linden, plans are in place to distribute food equally between gardeners, community donation, and sales. Such sales are made possible through connections to farmers' markets and also through commercial urban agriculture firms that not only grow their own food but purchase other locally grown crops for sale to restaurants. In sum, although informal exchanges between gardeners, and between gardeners and their extended family and friends, is likely to be the most frequently pursued food distribution method, organized efforts to distribute are becoming increasingly common, as shown here (see also Vitiello et al. 2010).

## **Discussion**

This case study set out to examine the unpaid work that takes place within urban agriculture from a diverse economies perspective—how work is organized, where and to whom surplus goes, and the subjective effects of this work on urban cultivators. It leads to two main conclusions that contribute to better understandings of urban agriculture work, and more broadly on the relationship between surplus labor and subjectivity. First, the analytical lens of surplus labor sheds light on the contested work that goes into sustaining an urban agriculture site. Second, these practices must also be understood through the ways that producing, appropriating, and distributing surplus labor changes gardeners' outlooks on work in the garden.

## **Contested Work Practices**

Surplus labor in urban agriculture arises through contested work practices but enables the urban garden or farm to reproduce itself. Starting from the definition that surplus labor is any work that goes beyond what gardeners do to take care of their own plots, this study found community gardens to be a form of the commons where gardeners are expected to maintain shared areas and shared resources. They mow grass, pull weeds, manage compost, remove trash, and repair tools, power equipment, fencing, and water supplies. At any site, people must decide how much work to put in and to appropriate from others, how to get the resources needed to do that work, and when and where to distribute the food. As such, this work is unevenly distributed and can create tensions.

Contested work practices are significant because the continued appropriation of surplus labor sustains urban agriculture. Land access has garnered most scholarly attention regarding permanence, but surplus labor is crucial for long-term operation. Even if land, water, and supplies are in place, there still must be a group of people who are interested in growing their own crops and contributing to the shared tasks of site maintenance. Gardeners perform labor necessary for their own enjoyment and personal harvest of the garden—most often, this means tending to one's own plants grown for household consumption. If one simply tends to one's own plot within the garden, one appropriates the surplus labor of everyone else who is working to gain and secure access to land and resources. Such appropriation is generally frowned upon by other gardeners, and as a result they come up with ways to encourage communal class processes. This echoes the conclusions of Wright (2010, 315) that the diverse economy is “always and already socially constituted and contested.” For any workplace in a diverse economy, the processes of surplus appropriation and distribution depend in part on the ways that work is encouraged and enforced.

## **Changes in Subjectivities**

Throughout this research, nobody stated that they joined their community garden in order to give away their food to other people or to perform physical labor that benefited other people more than themselves; yet, numerous models of surplus labor appropriation and distribution were found in this study. Upon first inspection, it might appear that this is simply due to the push-pull strategies initiated by garden leaders described above. However, the variety of food distribution models suggests that there is something more to gardeners' relationship to surplus labor than a grudging acceptance of how they must work to sustain their gardens. Otherwise, it seems unlikely that various ways to intentionally plan, grow, and distribute food beyond the garden would flourish. Rather, I argue that it is evidence that unpaid urban agriculture work is not only organized through leaders' strategies to appropriate surplus labor but also that individuals come to see themselves as agents capable of appropriating their own surplus labor.

The embodied experience of surplus production is key to understanding these changes. There are two sides to this experience that stand out—physical labor and the observations of gardeners doing that labor (or not doing it). Gardeners become physically exhausted, get sweaty, endure insect bites, and so on, as they mow grass, shovel compost, haul away green waste and perform surplus labor in other ways. They also observe others (and themselves) either doing this work, too, or shirking these responsibilities. It is at the junction of these two sides of the work experience that people must make an ethical decision—how to address the perceived inequity in surplus labor. Some might withdraw from the garden altogether. Based on the variety of outcomes presented here, as well as the geographic magnitude and historic persistence of



community gardening more broadly (Lawson 2005; Drake and Lawson 2015; WinklerPrins 2017), many gardeners do not withdraw, but rather come to realize that they are subjects capable of producing and appropriating surplus. Gardeners who began their tenure not producing surplus labor but benefiting from others' came to see the inequity and started to put in extra work. Gardeners, who began by producing surplus labor but were angered when observing others not doing their share, came to see their surplus as a gift. For both responses, time spent in the garden was cited as a factor. Taken together, the embodied experience occurs through investments of time, labor, and the observations of gardening work.

## Conclusions

This case study thus provides insights into the mechanisms of surplus and subjectivity. Here, people who are directly appropriating the fruits of their labor have to make decisions about its distribution. There is an ethical decision about what to give away—in other words, appropriate and distribute—to others. Gardeners could focus on themselves entirely, and perhaps some remain that way, but many instead choose to distribute their surplus to others because they are faced with a decision of what to do. The work practices of community gardens are thus transformed through those ethical moments that gardens force people to face. It lays bare the moment, for instance, when gardeners must acknowledge that they produced and harvested food with their own hands and then must decide whether to take it home or give it away, or when they only have a few minutes to work at the garden and choose to reorganize the shared toolshed rather than pull weeds in their own plots. The relationship between decision-making and surplus has been examined in worker and consumer cooperatives (Cornwell 2012; Cameron 2015), but a difference between cooperatives and this study is that there is usually little or no monetary reward for community gardeners.

This study was concerned with the internal dynamics of urban agriculture sites and the scale of analysis was the individual site. It responded to a gap in the literature in which, although much had been written about the relationship between groups of urban cultivators and external entities, little was known about the embodied labor that produced surplus value. Understanding urban agricultural processes at local, regional, or larger scales will contribute to further knowledge of noncapitalist economic dynamics. Indeed, the conclusions drawn here about the various models of food distribution provide a stepping stone to move beyond the individual site. Concepts, such as networks and trans-local assemblages (McFarlane 2009; McCann and Ward 2011; Sonnino forthcoming), paired with diverse economies theory, are a promising and potentially innovative way to theorize broader scale economic dynamics outside of a capitalocentric lens. This is because producing, appropriating, and distributing surplus labor—getting people to do extra work—is a process of power relations. How this process manifests in broader-scale dynamics requires a framework that does not ascribe inherent power to certain scales because doing so would obscure the relational dynamics of power (Gibson-Graham 2002; Born and Purcell 2006; Müller 2015). This debate has been taken up elsewhere, but the point here is that broader contextualization of urban agriculture normally starts from a position that it exists within a capitalist system; examining this context outside of a capitalocentric lens could lead to novel findings about noncapitalist processes.

In closing, this study has explored work and surplus production in unpaid urban agriculture from a diverse economies perspective. It examined some of the mechanisms through which work is performed, and surplus is produced and distributed, in nonmarket, unpaid work. Work can be organized around the equitable appropriation and distribution of surplus within the

garden. The outcomes, though, are shaped by gardeners' desire (or reluctance) to distribute surplus. This does not mean that all gardeners and gardens cooperate in such ways or are free of conflicts; indeed, the entry of ethics into these decisions often emerged from the contested, lived experience of surplus production. The conclusions extend beyond this case study to a range of unpaid workplaces, because it is important to understand the relationship between ethical decisions and surplus in building equitable economic spaces (Gibson-Graham 2006). Beyond the case of urban agriculture, the conceptual tools provided by antiessentialist class analysis could be used to examine how other sites of noncapitalist work are sustained and how innovation takes place within them. Such research would continue to expand the empirical and theoretical knowledge base of the decision-making processes around producing surplus and to where and whom to distribute it.

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