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Abstract

A small but growing literature is investigating the benefits of urban agriculture (UA) in North America, but there has been little analysis of the practical planning and policy implications of these practices. A review of the recent literature and an analysis of UA in Detroit, Toronto, and Montreal based on interviews with practitioners and other actors suggest that UA practices vary significantly and face cultural as well as legal and technical challenges. These findings support the view that UA belongs within planning and that municipalities have an important role to play in facilitating its development.

Keywords

land use, sustainability planning, urban agriculture

Introduction

There is growing recognition among local government officials, scholars, community leaders, and food activists that urban agriculture (UA) is a valid approach to improving community health, largely writ. There is also a budding literature (both academic and nonacademic) about the actual and potential benefits of UA—whether in the developed or the developing world (Campbell 2004; de Zeeuw et al. 2007; de Zeeuw and Dubbeling 2009; Hinrichs and Lyson 2008). What is more, a number of municipal governments in North America are either drafting new policies or revising their current policy framework around food and UA as a response to the groundswell of grassroots UA initiatives.

What is lacking, however, is an understanding of the practical planning and policy implications of UA interventions (grassroots or otherwise), particularly in the North American context. Indeed, urban planners and City officials do not always understand the diversity of practices within the UA movement and are often ill prepared to deal with such exploitations. When UA has been addressed, it has often been folded into "comprehensive food planning," which is typically everyone's and therefore no one's responsibility. Planners are increasingly called upon to react to UA, but often lack the analytical tools to do so.

The aim of this paper, then, is to answer the three following questions:

- 1. What is the relevance of UA to urban planning?
- 2. What are the actual and potential challenges to integrating UA into planning practices and implementing UA policies?
- 3. What is the actual and potential role of local governments in this process of integration?

Through a survey of the relevant literature and semistructured interviews with key community organizers, food activists, and UA practitioners in Detroit, Toronto, and Montreal, the paper provides an overview of the current issues in UA policy as they pertain to planning. Specifically, I argue that (1) UA should not be relegated to food planning, as one does not exhaust the other; (2) the main challenges to UA are cultural as well as legal and technical; and (3) local governments and planning authorities have an important role to play in *integrating* UA within existing planning frameworks and *enabling* UA through appropriate regulatory measures.

The following section aims to investigate the theoretical as well as practical implications of UA, working toward a usable definition that reflects the way UA is actually practiced in North America. The third section examines the main challenges to UA that have been identified by practitioners and outlines the potential role of local governments in *enabling* urban agriculture. Finally, the conclusion discusses a few ways forward in the field of UA, both for research and policy-making. The specific contribution of this paper is in considering the specific challenges and opportunities involved in the operationalization of UA as seen both from a policy perspective and from the ground.

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A Case for Urban Agriculture

There is currently much hype about UA in Canada, the United States, and internationally. In effect, UA is discussed widely in such varied media outlets as aggregate news sites, blogs, social media sites, and traditional media outlets. As a way to quantify the current interest in this topic, one may take note that the expression "urban agriculture" turns up (as of January 2011) in more than four thousand Google hits, eight hundred YouTube videos, and some sixty Facebook groups. This popularity, however, does not necessarily say very much about what constitutes UA as a *praxis* or its potential risks and benefit. Indeed, from a policy perspective, UA is often treated as a normative "good"—but there have been relatively few attempts to find out *what it implies*.

Urban Agriculture in North America

It is interesting to note, after Mougeot (1994), that the decoupling of food production from food consumption in cities is a recent phenomenon—one that took place in most countries, but to varying degrees. In the developing world, not only has food production never been completely decoupled from food consumption in urban areas, it has in fact become a necessity of life in many places. It is therefore interesting to start our investigation by asking what lessons can be drawn from the experience of cities located in less developed countries. Based on the work of de Zeeuw and Dubbeling (2009), who have reviewed urban agriculture initiatives worldwide and more particularly in developing countries, we can infer the following: (1) UA can, under certain conditions, contribute to food self-reliance and food security by increasing both the quantity and the quality of fresh foods consumed by the urban poor; (2) UA presents both potential benefits and potential risks and it is important to manage these risks carefully.

How do these lessons apply to the North American context? To answer this question, it is important to retrace the particular history of UA in this part of the world.

UA as a conscious economic or community development strategy is relatively new—even though UA as a practice is not. It is perhaps telling that the exact expression "urban agriculture" turns up for the first time in the *Journal of the American Planning Association* in 2008 only. The fact is that urban agriculture on a large scale was, until recently, a phenomenon prevalent mainly in the developing world; as such, as noted by Mendes and colleagues, UA "has become associated with underdevelopment, land squatting, ineffective urban management, and related socioeconomic problems" (2008, 436). Yet, it is now becoming clear that UA has already firmly taken roots in North American cities and, given mounting concerns about local food security and access to healthy food, is now discussed both within policy and academic circles and in the media.

It should be emphasized that urban food production and food self-reliance are not "new" topics; as shown in *The City* Bountiful (Lawson 2005), community gardening has been an integral part of urban life in North America since the nineteenth century. For example, Ebenezer Howard's "Garden City" proposal conceived of UA both as a way to feed the city and as a source of employment for the urban poor ([1902] 1946). In the 1940s, the Victory Gardens movement, which was mainly concerned with food security, was responsible for the creation of numerous garden plots both within urban areas and outside the urban core (Lawson 2005). However, Howard's proposal never fully materialized in North America and the Victory Garden movement quickly waned after World War II. Industrial agriculture outside of cities obviated the need for agriculture within cities—at least in people's mind.

In the past few decades, a number of urban-based community organizations have advocated for a "return" to self-reliance, in part as a reaction to the globalization of the food system and the appearance of so-called food deserts or food swamps in certain urban areas where healthy food options have become limited or simply nonexistent (Gallagher 2007; Rose et al. 2010). The Toronto Food Policy Council (TFPC), among others, has brought food self-reliance and food security back to the fore of policy in the early 1990s (although UA does not appear in its papers until 2001) and has since become one of the leading centers for policy development in the food policy world, along with the Community Food Security Network and other such organizations.

Despite the fact that UA now figures prominently in the North American food security debate, it is not considered to be a solution to food insecurity on a large scale. For instance, most of the community organizers and UA practitioners interviewed agreed that the potential contribution of UA to the nutrition of lower-income households is somewhat limited (interviews 2, 5, 6, 8, 9, 10, 12, and 14). North American urban food growers do not engage in UA strictly or primarily for food security reasons; they do so for a variety of reasons, including leisure, supplementary income from the sale of produce, youth training, neighborhood improvement, urban greening, as a form of community service, etc.

As for urban farming on a larger scale within city limits, it may not contribute to local food security either—at least not in the short or medium term. It is worth noting, for instance, that Hantz Farms' proposal for the "largest urban farm in the world" in Detroit, which could occupy up to approximately 100 acres, includes only 10 acres for food production per se—in the form of an orchard. The rest is reserved for growing hardwood trees (10 acres) and Christmas trees (80 acres). Thus, despite the claim that Hantz Farms will provide "a generous supply of fresh, local, safe produce for our families and the region" (Hantz Farm), the reality is that converted city lots in Detroit are rarely suitable for large-scale vegetable production (interviews 7, 11, and 13).



UA may not have the capability of transforming the produce supply chain fundamentally or solving the problem of healthy food access, but it may have the potential to change the relationship of people to food and to place. According to several interviewees, the single most important benefit of UA (whether in the form of school gardens, community gardens, or rooftop gardens) is education about food and the food system (interviews 1, 2, 5, 6, 9, 10, and 14). These interviewees agreed that UA can create an opportunity for people to enter into contact with agriculture and allow them to gain a modicum of control over their "food destinies." In other words, UA is not necessarily considered by practitioners to be a solution to food insecurity, but it is certainly seen as a step in the direction of food sovereignty, insofar as it gives people the opportunity to become involved in producing and to take ownership of—what they eat and how they eat it.

UA may also provide a terrain for trying out different ways of appropriating the city. In the Montreal Rooftop Garden Project, for instance, one of the goals was to "let the gardeners create and recreate the garden" using movable growers (e.g., bucket and half-barrel growers with water reservoirs as well as other movable containers). According the project's initiator, this involvement of gardeners in "laying out" the garden is one of the main benefits of the project as it allows citizens to take part in the creation of an actual urban space—which engages participants *as citizens*. Thus, as he put it himself, "the aim is not to grow vegetables, but to grow gardeners" who will then change their environment (interview 6).

Finally, other benefits reported by community organizers and UA practitioners in Detroit include community capacity-building, as garden programs often provide work training, and community safety, as community gardens constitute a naturally policed form of public space (interviews 9, 12, and 14).

This implies that UA for subsistence, as practiced in different parts of the developing world, is hardly comparable to UA in North America. Yet, it also implies that UA practices vary greatly from one context to another, even within North America. Another lesson is that UA is conceived by grassroots organizations as an outlet for transforming the city—through the reclaiming and reshaping of abandoned or underused urban spaces—and not necessarily as a means of increasing food security. If we accept such a conception of UA, there is no doubt that it is, indeed, relevant to urban planning.

Working toward a Definition of UA

Mendes and colleagues (2008) give a loose definition of UA: for them, UA includes private and community gardens as well as edible landscaping, fruits trees, rooftop gardens, aquaculture, farmers' markets, hobby beekeeping, and food composting. Mougeot's (2000) definition, however, is more restrictive: "An industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis,

which grows and raises, processes and distributes a diversity of food and non-food products, (re-) using largely human and material resources, products and services *found in and around that urban area*, and in turn supplying human and material resources, products and services largely to that urban area" (Mougeot 2000, 10, author's emphasis).

This latter definition may capture the *functional role* of UA but is inadequate if our goal is to describe UA as it is practiced in the North American context. Indeed, UA—as it is envisioned today by grassroots organization such as the TFPN, Foodshare in Toronto, the Detroit Black Community Food Security Network and the Greening of Detroit—is an enterprise aimed at transforming the city (which is not captured by these definitions). For some, it is primarily a way to improve food self-sufficiency and security,3 whereas for others it serves to "improve . . . communities by connecting neighbors, providing an attractive alternative to trash-strewn vacant lots, improving property values, and reducing crime." Another aspect that needs to be considered in defining UA is the role of authority: if we conceive of UA as a planning approach or strategy, we might assume that it should be planned and that the state has a role to play in its promotion (the role of government will be discussed more at length in the next section). Yet, embedded in the grassroots conception of UA is the notion that it is usually not state-sponsored; rather, it is for the most part a private or community-based enterprise.

This is where it is important to distinguish UA from "comprehensive food planning." UA is often conceived of as one of the axes of local and regional food planning, or as an objective thereof. As argued by Pothukuchi and Kaufmann (1999, 2000), it is essential to cultivate the connections between UA and other parts of the food system. However, I believe that UA, as an object of planning, also needs to be understood on its own terms, for a number of reasons: (1) UA as a planning strategy is undertheorized, as it usually refers to a wide range of practices in a wide range of contexts and not necessarily to an object of planning; (2) UA presents its own particular challenges and opportunities, which may be overlooked when approaching it as a component of food system planning; (3) UA is not always necessarily or primarily about food security or food.

Thus, a workable definition of UA as an object of urban planning in the North American context should have four parts: (1) UA includes a number of activities related to food production, processing, distribution, and composting (integrated within a food system or not); (2) These activities take place within or on the fringe of an urban area (although this paper is mainly concerned with UA within urban areas); (3) UA is not solely or primarily a recreational or an economic endeavor; rather, it responds to a variety of needs, including recreational, economic, social, environmental, and nutritional needs; and (4) UA as a movement is primarily a private or community-based enterprise. Implied in this definition is the prescription, found in the literature (see, for instance,



Pothukuchi and Kaufmann 1999; Campbell 2004), that UA policies should reflect the way UA is actually practiced and not the way planners think *it should* be practiced.

What follows from the preceding discussion is that UA is both conceptually and practically distinct from other objects of planning. Planners are used to thinking about community gardening, on the one hand, and about the "encroachment" of urban development into agricultural lands, on the other, but rarely have they been asked to frame UA as a comprehensive and long-term strategy to address issues of food security, food access, community-building, and/or environmental education *within* urban areas. Clearly, these emergent praxes deserve to be understood on their own terms.

Defining the Role of Municipalities and Planning Authorities

The UA movement in North America did not appear as a result of planning; rather, it emerged as a social and environmental movement in spite of planning. Urban agriculturalists—whether private entrepreneurs, community organizers, or simple participants—have had to operate, in most contexts, in what Lachance describes as "a policy vacuum" (2004, 10). This is both a challenge and an opportunity for municipal authorities: a challenge because we don't really know what policies are likely to be effective and an opportunity because we can more easily identify those areas where government intervention through planning is actually needed. Indeed, if our objective is to integrate UA practices into planning and promote UA as an urban revitalization and public health strategy, we need to know about the potential costs (and benefits) of a "no policy" approach.

This section presents the main challenges (potential or realized) to UA identified in the legal, policy, and academic literature. In order to bring the experience of cities in less developed countries to bear in this discussion, I also draw on the findings of the International Network of Resource Centres on Urban Agriculture and Food Security (RUAF) on challenges to UA as they apply to the North American context. The main argument is that although the regulatory planning framework does present a number of challenges to the development of UA in North America, the primary obstacles are not strictly technical or legal but cultural as well.

Land Tenure

The problem of land-use security is particularly acute in the developing world, as urban farmers often occupy and cultivate land that they do not own and could be taken away at any moment (de Zeeuw and Dubbeling 2009). Given that agriculture generally requires long-term investment, land-use insecurity is especially problematic when trying to promote UA.

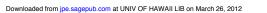
Despite the fact that there is usually less uncertainty in land tenure in the North, the prevalent modes of land tenure for UA in North America present their own set of challenges. As described by Gillon and colleagues (2006), urban farms are often installed on land that is either leased or "borrowed" from public or private landowners. But the leasing process with public authorities can be long and difficult, and farm-a-lot programs in cities with an abundance of vacant sites like Detroit generally offer only one-year leases (Mendes et al. 2008). There are certainly organizations on the ground, such as Earthworks Farm or The Greening of Detroit, which are building community gardens on lots leased from the city for one year at a time, and they do not necessarily perceive the lack of stability in tenure as a problem (interview 9). However, if the city eventually allows commercial farming on a medium scale and agrees to sell city land for this purpose, these exploitations could be at risk (interview 7).

As for private leases, they are also usually year-to-year or for periods of less than five years, which discourages longer-term investment in land and undermines the sustainability of the UA enterprise (Mogk 2010). Not all UA practitioners may want to establish a long-term project, but even for short-term projects, the investment in time and energy is considerable; thus, security of tenure is important. Gillon and colleagues report that an urban farm in Sacramento, California (which has a year-to-year lease), has received many offers from landowners with one to twenty acres who want to trade in food for the ability to farm or lease their land. However, landowners usually offer short-term leases and as expressed by the urban farmers in search of land, "a few years is not enough lease time for someone looking to establish a long-term project or farm" (16).

Land-Use Designations and Zoning

Municipalities dispose of a number of tools that they can use to protect existing urban farms or promote the development of UA on private land, such as designating specific areas as "agricultural district" or the down-zoning of specific lots to encourage creation of urban farms and discourage speculation. As argued by Lacroix (2010), however, municipalities should be cautious in using such tools as any municipal action that might be interpreted as down-zoning or spot zoning is likely to be legally challenged. After reviewing the relevant jurisprudence, she concludes that municipalities must be able to show two things in order to justify the designation of specific areas or specific lots as "agricultural": first, it must be shown that the specific area and/or lot is suitable for agriculture and that agriculture in said area or lot is potentially commercially viable; second, it must be shown that each specific agricultural designation was "carefully planned" and is part of a comprehensive UA plan.





In sum, she argues, cities *can* decide to designate as "agricultural" unused or underused land and *can* use zoning to discourage speculation around agricultural land, but should do so only in areas where UA is viable *and as part of larger plan*.

Planning Culture

Given the important media attention that UA has received in the past few years,⁵ one might expect UA to be somewhat integrated into the planning discourse about sustainability, if not into planning practices. The reality is that UA as an object of planning education, practice and research is still relatively marginal within planning institutions—although it is becoming less so at a rapid pace. The predominant culture with in the field of municipal (land-use) planning in North America may be partly responsible for the slow acceptance of UA as an *object* of planning.

First, it bears mentioning that agriculture has always occupied an uncomfortable place within the practice of urban planning, which is still premised upon the segregation of "incompatible" land-uses and the elimination of potential "nuisances." More importantly, the "expanding metropolis" has long been perceived as a threat to agriculture and the preservation of rural landscapes—as exemplified by the early campaigns of the Council for the Preservation of Rural England (CPRE) and the Regional Planning Association of America (RPAA). As described by Lowe and colleagues (2001), the CPRE's intent in advocating for the creation of a greenbelt around London was always—and still is—to "keep the city in the city." In the United States, the writings of Benton MacKaye and other members of the RPAA also suggest that the planning dogma at that time was to keep agriculture as far away as possible from urban areas (Spann 1996).

Second, the concept of "highest and best use" is a core idea of land-use planning and remains so today, even as a number of cities are shrinking in size and there is growing recognition that the land-use framework needs not be conceived of as something rigid to serve the sole purpose of segregating different uses of land. Thus, ambiguous UA land-use designations, which might blur the distinction between traditional zoning categories (rural vs. urban, residential vs. commercial vs. park, etc.), run counter to the prevalent planning "frame of reference" (interviews 2, 7, and 10). As argued by Mogk (2010), UA requires cities like Detroit to create an entirely new regulatory framework, which some planners may resist.

Third, given the trans-disciplinary nature of UA policy making, it does not fit neatly into any planning subfield and, as a result, often falls between the cracks. For instance, "sustainability planning" has emerged in recent years as an important subfield of urban and regional planning. Interestingly, promoters of sustainability planning have taken an active interest in urban transportation, energy efficiency, water quality, biodiversity protection, housing affordability, and recreation (among other things) but have sometimes eluded UA

altogether—as exemplified by the absence of UA from ICLEI's sustainability planning toolkit as well as from the recently adopted PlaNYC 2030 (ICLEI 2010; City of New York 2010). Likewise, the U.S. National League of Cities (2010), which proposes more than fifty "City Practice Resource" documents on its website on a variety of subjects ranging from city—developer relations to green roofs, has still not made anything available on the specific subject of UA. Of course, UA is an integral part of the subfield of local and regional food planning; however, as argued earlier, UA is not (and should not be) the exclusive purview of food planning.

Fourth, a number of authors have asked why food has not been considered to be an important area for local policy and planning by urban planners and local governments and the simple answer is, because planners do not generally consider food policy to be part of their job description. In a study by Pothukuchi and Kaufman (2000), which summarizes the findings of a survey of twenty-two U.S. city planning agencies, it is reported that many planners do not think of food policy as their "turf" and do not feel qualified to intervene in food planning. Moreover, a number of planners perceive food and agriculture as rural rather than urban issues and, more importantly, they do not generally perceive food system issues to be particularly problematic. This suggests that there is both a problem of competence and a problem of perception within the planning community.

This being said, it is important to note that this landscape is changing rapidly. For instance, none of the top five U.S. planning schools (as ranked by *Planetizen* in 2009), namely MIT, UC Berkeley, UNC Chapel Hill, Rutgers, and University of Illinois at Urbana-Champaign, offered a course on UA in 2009-2010 (Massachusetts Institute of Technology 2010; UC Berkeley 2010; UNC Chapel Hill 2010; University of Illinois at Urbana-Champaign 2010; Rutgers University 2010). However, both MIT and Rutgers offered classes touching on UA in the Spring of 2011 and many other schools are no doubt following suit. Moreover, we are in the midst of a paradigm shift on the issue of planners' reluctance to engage with food (interview 10, Ibid.). Given that planners are specially trained to analyze connections between systems (as argued by Pothukuchi and Kaufmann 2000, and Clancy 2004), UA will no doubt quickly become integrated into planning theory and practice.

Whatever the case may be, there still seems to be a gap between what scholars think planners and municipal government *should* do and what they *actually* do in practice; most planners accept that UA is relevant to planning, but many are still not willing to accept that it is a "valid" approach to urban development.

The Perception of Urban Agriculture in Lower-Income Communities

An important issue concomitant to the perception that planners might have of UA is that of people in lower-income

communities. As reported by Malik Yakini (interview 14) of the Detroit Black Community Food Security Network (DBCFSN), there has been and there still is resistance on the part of several members of the African-American community in lower-income communities in Detroit to embrace UA as a form of livelihood or even as a way to increase food security or supplement other sources of income. The fact that a large number of African American families in Detroit have moved only a few generations ago from the South where they were engaged in sharecropping is one of the reasons cited by Yakini as to why UA is not seen as "innovative" or "transformative." Rather, it is seen by many as regressive.

Although African Americans living in disadvantaged neighborhoods in Detroit and other cities of the American Midwest have a unique and particular history that may explain their skepticism toward UA, members of other communities may also view UA as antithetical to development (their own and that of their community). The cultural view of agriculture in distressed urban areas may therefore be a real challenge to the development of UA.

Opportunities for Municipal Action

As described in the preceding sections, there exist a number of obstacles to the integration of UA into municipal planning; however, a number of cities across the United States and Canada are currently moving to overcome them. According to Roberts (interview 10), a dozen or more cities are either revising their UA policies or drafting entirely new policies from scratch in an effort to integrate UA into the purview of planning and/or to allow for the further development of UA. In addition, approximately 150 food policy councils (FPCs) are in the process of being formed across the continent (as of November 2010). In other words, there is a growing recognition that UA is policy-sensitive; that is to say, UA initiatives can effectively be supported by policy and planning (Roberts 2001) and municipal institutions can play an important role in enabling UA in general (Campbell 2004; Pothukuchi 2009). What, then, should be the role of municipalities—through planning or otherwise—in developing UA? In this section, I illustrate the ways in which cities can support the development of UA by highlighting their roles as landowners and land-use regulators.

Municipal Governments and Public Agencies as Landowners

Municipal governments as well as public agencies in most North American urban regions own land, which they can make available for UA or not. On one hand, UA currently often takes place in parks, utility corridors, or public housing grounds. On the other hand, many cities in the United States have become large landowners: it is estimated, for instance, that the City of Detroit owns upward of fifty thousand tax-reverted lots, whereas the City of Camden owns approximately twelve thousand and the City of Cleveland approximately six thousand (interview 7; Vitello et al. 2010; Dewar 2008). Despite the fact that tax-reverted lots are not always contiguous, they provide an opportunity for the development of UA. Adopta-lot programs with one-year leases already exist in most urban areas with a large number of city-owned lots, but as discussed earlier it takes more than one year to develop a garden and not all lots are suitable for agriculture. To encourage the development of UA, municipal authorities can therefore identify those lots that can be cultivated (including in green spaces, utility easements, etc.) using an urban-land inventory and offer renewable leases with threeyear, five-year, or ten-year terms to encourage investment in the land. Alternatively, they could allow urban farmers to move the soil they have produced with them, so that their investment is not lost.





It is important to mention that municipal authorities in urban areas where land is scarce also have an important role to play as UA does not need to happen on vacant land. On one hand, the premise of the Rooftop Garden Project in Montreal (and other such projects) was precisely that UA can be adapted to any urban context, even where there is very little land available (interviews 1 and 6). Municipal authorities can therefore encourage the development of UA in such settings by allowing UA projects on the roof of publicly owned buildings. On the other hand, municipal authorities can use UA as a strategy to reclaim public spaces (parks, playgrounds, municipal parking lots, etc.) that have been abandoned or "hijacked" by certain groups who have excluded other groups from them (interviews 10 and 12). This does not imply that these public spaces need be turned over entirely to UA; it simply suggests that spaces can sometimes be transformed and reclaimed through UA.

Municipal Governments as Land-Use Regulators

In the second discussion paper published by RUAF in 2007, which is titled "Key Issues and Courses of Action for Municipal Policy Making on Urban Agriculture," de Zeeuw and Dubbeling suggest that cities should (1) create an enabling environment for UA and (2) integrate UA into urban development and land-use plans.

Campbell (2004), who discussed the potential role of planners in community food planning, arrives at the same conclusion: cities must "revise local land-use plans and regulations to promote the local food system" (349). Municipal authorities, she argues, can encourage the development of UA through (1) the removal of regulatory barriers, (2) the naming of community gardening as a permitted use in certain areas and as a conditional in other areas, and (3) the incorporation of UA in comprehensive land-use plans. In a similar line of argument but a somewhat more radical

proposal, Condon and colleagues (2010) put forward "municipal enabled agriculture" (MEA) as a structured approach to UA that is based on bio-regional rather than geopolitical boundaries and proposes (among other things) a new zoning designation crossing municipal boundaries and the integration of human-scale agriculture with urban dwellers.

Both these proposals suggest that there is indeed a need and an opportunity for municipalities to adopt a regulatory framework that *enables* UA—rather than *constrain* it. A number of commentators have echoed the concern that the absence of a policy framework around UA may eventually bring about land-use conflicts (see Lachance 2004), as verbal agreements with city officials may not pass the test of time. But some also pointed out that enabling UA is not enough: the city needs to enable *the right kind of agriculture* in *the right kind of neighborhood* (interview 14). It follows that the city's role is not simply to deregulate but rather to regulate appropriately, and in consultation with those who are already farming.

Conclusion

Despite the recent adoption of a policy guide on the subject of regional and local food planning and the publication of a briefing paper on UA by the *American Planning Association* (2007), the practical implications of UA as an object of urban planning have yet to be fully fleshed out—in large part because UA has often fallen through the cracks of comprehensive land-use plans and so-called sustainability plans. The aim of this paper, then, was to identify the actual and potential challenges and opportunities of operationalizing UA as an object of urban planning and to outline how municipalities might contribute to its development.

A survey of the literature on the subject of UA and the results of interviews conducted with community organizers, UA practitioners, and food activists in three major North American urban regions suggest that UA is pertinent to planning and that the most important challenges to the development of UA are cultural as much as they are technical or legal. Indeed, there is evidence that the municipal land-use planning culture is partly to blame for the general lack of integration of UA into comprehensive land-use plans and policies. More importantly, however, the interviews suggest that the cultural perception of agriculture among certain groups may also play an important role in determining the success of UA policies.

There is scope for municipal intervention in UA, as the lack of coherent planning may itself become a barrier to the further development of UA. However, as suggested by such eminent figures of the food policy world as Wayne Roberts, the role of municipalities in developing and implementing UA policies should be understood as "choice architecture": as outlined in Toronto's policy, which was adopted in May

2010, municipal governments should (among other things) integrate food and UA into comprehensive plans and frameworks, expand opportunities for UA interventions and, more generally, enable the production of food within urban areas through appropriate zoning and regulation (City of Toronto 2010). That being said, although the role of municipal government is not to lead the UA movement, cities should commit resources (such as dedicated city staff) to follow through with UA policies—otherwise UA will likely continue developing in a policy vacuum, for better or for worse. Thus, with acommitment on the part of municipalities to facilitate the development of UA while harnessing the strength of the existing grassroots initiatives, we may see a movement away from "municipal hindered agriculture" toward "municipal enabled agriculture"—a much-needed change. It should be noted here that UA is also an integral component of "comprehensive food planning," which is another area where cities can play a leadership role—for example, by providing resources for the creation of a regional Food Policy Council.

Finally, it is important to recognize that UA is not just about food; it is, first and foremost, about people and their relationship to their food and to their environment. UA is not a panacea and the "view from the ground" suggests that it should not, in fact, be conceived of as a solution to urban decay; distressed cities need not but to convert to agriculture to "dig themselves out of the hole." However, UA practitioners seem to agree that UA can be—and should be—conceived of as an outlet for the (re)appropriation of the urban environment by citizens. Future research might therefore investigate the role of UA not only in increasing the consumption of fresh foods, but also in affecting such things as collective efficacy and social cohesion.

Appendix

List of Interviews

Interview 1

Rotem Ayalon

Former Coordinator, Rooftop Garden Project, Montreal, Quebec, Canada. Phone interview conducted on October 29, 2010.

Interview 2

Dan Carmody

President, Eastern Market Corporation, Detroit, Michigan. On-site interview conducted on November 5, 2010.

Interview 3

Randall Fogelman

Vice President of Business Development, Eastern Market Corporation, Detroit, Michigan. On-site interview conducted on November 6, 2010.

Interview 4

Meredith Freeman

Program Director, Fair Food Network, Ann Arbor, Michigan. On-site interview conducted on November 5, 2010.

Interview 5

Meredith Hayes

Schools Programs and Student Nutrition Senior Manager, FoodShare, Toronto, Ontario, Canada. Phone interview conducted on November 3, 2010.

Interview 6

Ismaël Hautecoeur

Founder, Rooftop Garden Project, Montreal, Quebec, Canada. On-site interview conducted on October 29, 2010.

Interview 7

Ronald Markoe

Manager II, City of Detroit, Planning & Development Department, Planning Division, Detroit, Michigan. On-site interview conducted on November 5, 2010.

Interview 8

Tim Murphy

Green Projects Coordinator, Santropol Roulant, Montreal, Quebec, Canada. On-site interview conducted on November 2, 2010.

Interview 9

Lisa Richter

Outreach Coordinator, Capuchin Soup Kitchen and Earthworks Farm, Detroit, Michigan. On-site interview conducted on November 4, 2010.

Interview 10

Wayne Roberts

Former Coordinator, Toronto Food Policy Council, Toronto, Ontario, Canada. Phone interview conducted on November 8, 2010.

Interview 11

Mike Score

President, Hantz Farms, Detroit, Michigan. On-site interview conducted on November 5, 2010.

Interview 12

Riet Schumack

Coordinator, Brightmore Alliance and Brightmore Gardens, Detroit, Michigan. On-site informal interview conducted on November 6, 2010.

Interview 13

Helen Sharpley

City Planner, City of Detroit Planning and Development Department, Detroit, Michigan. On-site interview conducted on November 5, 2010.

Interview 14

Malik Yakini

School Principal and Chairman, Detroit Black Community Food Security Network, Detroit, Michigan. On-site interview conducted on November 5, 2010.

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Notes

- These three sites have been selected specifically because they
 differ significantly in terms of socioeconomic makeup, urban
 form, and current urban agricultural landscape. The interviewees were selected on the basis of their direct involvement in
 urban agriculture (UA) policy and/or current UA projects, using
 the snowballing technique. The interviews themselves were
 conducted semiformally, following a standard questionnaire
 (except for one informal interview in the field, with the activist
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