

9-28-2012

Zoned Out: The Potential of Urban Agriculture Planning to Turn Against its Roots

Carolin Mees

mees architecture, mees.carolin@gmail.com

Eddie Stone

NYC Department of Parks & Recreation, Edie.Stone@parks.nyc.gov

Recommended Citation

Mees, Carolin and Stone, Edie (2012) "Zoned Out: The Potential of Urban Agriculture Planning to Turn Against its Roots," *Cities and the Environment (CATE)*: Vol. 5: Iss. 1, Article 7.

Available at: <http://digitalcommons.lmu.edu/cate/vol5/iss1/7>

This Special Topic Article: Community Gardening Works! ACGA 2011 Conference is brought to you for free and open access by the Biology at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Cities and the Environment (CATE) by an authorized administrator of Digital Commons at Loyola Marymount University and Loyola Law School. For more information, please contact digitalcommons@lmu.edu.

Zoned Out: The Potential of Urban Agriculture Planning to Turn Against its Roots

The community gardening movement in urban areas across the United States has been rapidly expanding and changing since its beginnings over 30 years ago. Municipal and not-for-profit community gardening support programs like New York City's GreenThumb, started in the late 1970s at a time when American urban areas were largely financially bankrupt. In reaction, residents created community gardens on derelict land that had been abandoned by the government and private owners responsible for its maintenance. GreenThumb and other community gardening programs were created and funded by local [nfr1] governments to support and to regulate the growing community garden movement. Today these programs continue to provide funding, material, and technical support to gardeners nationwide. They have continued in spite of threats to the community garden movement occasioned by the real estate boom in the 1990s in New York and other cities, and in contrast to the perception in some gentrifying cities and neighborhoods that community gardening is an outdated solution that is no longer relevant. Numerous recent studies have demonstrated the benefits of community gardening and the gardeners themselves have continued to display conviction in their largely voluntary efforts. Favorable municipal attitudes towards community gardening programs in recent years are reflected in zoning and other government ordinances intended to support community gardening, now often defined as "urban agriculture".

In this paper we will discuss why the land use form "community garden" performs a specific function in the urban space and is thus to be treated differently from other urban agriculture projects. The analysis is based on a practitioners' analysis and conducted via the example of the development of community gardens and urban agriculture in New York City with a focus on publicly owned urban open space use.

Keywords

community gardens, urban agriculture, zoning, public land use, open space

INTRODUCTION

Community gardens have existed in New York City on public and private land for more than 30 years. These gardens were started through residents' grass-roots action and have continued to be maintained over the years by groups of gardeners, whether or not there was financial or legal support from the city. Public ownership of the land, community based management and active citizen participation is integral to the success of community gardening as a land use. Recognition of the importance of these community-based, public participatory and governmental aspects as an essential part of the definition of community gardens in public planning documents is also necessary to protect the future of community gardens as a specific land use in New York City.

In recent years, "urban agriculture" has become a growing trend in cities. Reasons cited for the developing interest in urban agriculture include the growing urban population globally, the ongoing economic crisis, rising food prices, lack of food security and inequity in food distribution, as well concerns about climate change. In response to these concerns, it has become increasingly compelling to businesses, urban planners and municipalities to use and provide space for food production in urban centers. There is undeniable potential for use of urban spaces like industrial and residential rooftops, undeveloped private and public lots and commercial properties for local food production. In this context, community gardens are often considered to be one and the same as urban agriculture - formerly vacant lots in the city that can be used to grow fruits, vegetables, and herbs - which is indeed the case in many gardens. But even if this is not an inaccurate categorization *per se*, this labeling has proved to bear conflict potential. Community garden land is not only used for food production, but its use varies depending on the neighborhood and the needs of the gardening group of residents. Some gardening groups do not grow food at all, but rather concentrate on providing a social meeting place for the neighborhood. The benefits to psychological health, social cohesion, crime reduction, and even adjacent property value provided by community gardens are well documented and occur regardless of whether the garden produces food (Stone 2009; Been and Voicu 2008; Krauser 2012; Svendsen 2009). Rather, these benefits seem to accrue as a result of gardens' community and collectively determined management structure (Stone 2009).

New York City is a rapidly growing metropolis with a population expected to hit 10 million in 2030 (PlaNYC 2030, 2011) and available land in the five boroughs (particularly under municipal ownership) has become increasingly scarce. Thus, as urban agriculture advocates want to focus land use on food production, community gardens and other open space projects in New York City are competing for scarce land in the city, as well as for the limited resource support provided by existing community gardening programs and financial funding through grants.

In recent studies and planning proposals (New York City Obesity Task Force Report 2012; New York City Local Law 052 of 2011), public spaces used by community gardens are assessed based only on their potential for future urban agriculture uses – a development that is astonishing in view of the long-standing struggle of gardeners to make decision makers aware of community gardens as a socially, economically and environmentally beneficial urban public land use. The conflict is increasing as urban agriculture ordinances and zoning use categories that define the land use form "community garden" as focused on food production have been adopted in many US cities. The introduction of urban agriculture zoning is desirable, since it

acknowledges the need of local food production for a more sustainable city and region. However, the inclusion of community gardens in urban agriculture zoning and land use categories may inadvertently endanger self-sustainability and food security for the urban poor by redefining priorities for use of garden space in economic versus community development terms. Increased food production may eclipse other objectives for urban gardens, regardless of where the food is ultimately distributed and to whom. In addition, the existence of highly successful community managed urban public spaces in the United States may be lost as focus on food production supplants community building as the key goal of municipally sponsored community gardening programs.

In this paper we will discuss why the land use form “community garden” on public land performs a specific function in the urban space and is thus to be treated differently from other urban agriculture projects. The analysis is made via the example of the development of community gardens and urban agriculture in New York City with the focus on publicly owned urban open space use.

METHODS

This is a practitioners’ paper and, as such, first-hand practical experience as well as individual subjectivity plays an important role. The case study of community gardening in New York City is examined in depth in order to see what can be learned about land management, zoning, and jurisdiction. The analysis is based on the experience and research of Edie Stone, Director of the community garden program “GreenThumb” of New York City’s Department of Parks and Recreation since 2001, and on the experience and research for the dissertation on the development of community gardens in New York City currently being completed by the Carolin Mees at the Berlin University of Arts. In addition Carolin Mees worked as an architectural and research consultant for GreenThumb from 2007 until today. Consequently, the discussion is highly based on first-hand experience and participant observations conducted by the authors, and supported by a discussion of secondary literature.

DISCUSSION

Community Gardening on Public Land in New York City

There are about 581 active community gardens on private and public land in New York City today. Of these gardens, 264 community gardens are private gardens: 150 gardens situated on land owned by a private landowner, 68 gardens on land owned by the national non-profit organization Trust for Public Land (TPL), and 46 gardens on land owned by the privately funded local non-profit organization New York Restoration Project (NYRP). In addition, there are 317 community gardens located on public land in New York City. Most of these gardens are in the jurisdiction of the Department of Parks and Recreation (274 gardens). The rest of the gardens are in the jurisdiction of the Department of Housing and Preservation (36 gardens) and a very small number of them on land supervised by the Department of Transportation (7 gardens). The 121 school gardens on Department of Education property are not considered in this calculation of public community garden land, since these gardens are used by a specific part of the public only. In short, there are 317 public community gardens in New York versus 264 private community

gardens – that makes a large number of public gardens and a special situation that New York City owes to past political decisions and its specific course of urban development during the 1970s.

New York City artists and low-income residents first started to create community gardens during the 1970s' global economic crisis that forced the municipality to declare bankruptcy in 1974. During this time, tax-delinquent properties were transferred to the city after one year of non-payment of property taxes. Consequently, especially in low-income neighborhoods, many buildings were abandoned, burned down to collect insurance money, and demolished, leaving large tracts of vacant public land. Next to these tracts of vacant public land a few occupied apartment buildings remained standing. Some residents started to clean up vacant lots next to their buildings, to beautify their immediate surroundings with plants and turn the lots into safe, social meeting places in the outdoors. In self-help actions residents began to organize neighborhoods and to renovate buildings. Formerly blighted districts were slowly revived socially, economically and structurally and soon attracted media attention plus renewed interest by the real estate market. Residential buildings were re-erected, many of them on the well-maintained garden sites.

The municipality saw financial potential in selling off a great number of publicly owned lots during the 1990s economic boom, and former Mayor Rudolph Giuliani demolished many community gardens in favor of housing. In response, community gardeners began to organize politically – citywide and within their neighborhoods (Fox et al. 1985; Ferguson 1999; Hassel 2002; Stone 2009; Mees 2010). Then in 1999 Mayor Giuliani announced the auction of 112 community gardens situated on city land. After widespread protest by community gardeners and their supporters TPL and NYRP bought the garden land for \$4.2 million. Other gardens on public land continued to be demolished, and community gardeners continued to organize and finally forced the city government to reconsider its stance towards community gardening. In September 2002 the Community Gardens Settlement was published, protecting most gardens by transferring them to the jurisdiction of the Department of Parks and Recreation. The eight-year term of the settlement ended in September 2010.

With a combined effort of the city and community gardeners groups, in October 2010 the Community Garden Rules of New York City were established to protect community gardens in the jurisdiction of the Department of Parks and Recreation as well as community gardens in the jurisdiction of the Department of Housing and Preservation. These rules essentially guarantee the same protections for community gardens situated on public land as were granted by the 2002 settlement, i.e., they guarantee that gardens under Parks Department jurisdiction will be maintained as gardens as long as they are registered and licensed with the GreenThumb program. In addition the rules demand active and responsible use of community garden land by a gardening group of a minimum of 10 persons that has to keep the site accessible to the general public at least 20 hours per week - thus including a social aspect of gardening to prevent privatization and to secure public use of the city-owned land (New York City Community Garden Rules 2010). The term of a community garden license in New York City was extended from one year to four-year licenses in 2010. Only garden groups under default, i.e., who have violated rules, will not be granted license renewals. In such a case GreenThumb with help of the

New York City Community Garden Coalition or of the one of the city's 59 community boards will look for an alternative gardening group to take over management of the garden land.

During the 30-year development of community gardening in New York City, residents gardening on public land were not acting alone, but with support by local non-profit organizations like the Green Guerillas or GrowNYC and with support by the municipality through the GreenThumb program. This program was installed in 1978 by New York City's Mayor Edward Koch as a part of the Department of General Services to deal with the community garden movement and to regulate this new use of public land. GreenThumb remains the official program of the city that authorizes use of public and private land for community gardening and provides materials such as lumber and tools, soil, seeds and technical assistance to gardeners. Gardens on private land do not have to be registered with GreenThumb, but it is mandatory for gardens on public land. Without GreenThumb providing the administrative supervision and the link between potential gardeners and the City departments officially responsible for the public land community gardens are situated on, community gardening would not have thrived on New York's public land for over 30 years. Even if gardeners organize and make their political impact as a group known, an umbrella organization is needed that mediates between them and the municipality to ensure the collective use of public land. The existence of an organization like GreenThumb is thus good for both the gardeners and municipality.

Financially Supporting Community Gardening With a Municipal Program

GreenThumb is funded through the Community Development Block Grant (CDBG) program of the U.S. Department of Housing and Urban Development (HUD). This is "a flexible program that provides communities with resources to address a wide range of unique community development needs" (HUD 2012). Since the CDBG program is "intended to provide services to the most vulnerable in our communities" (HUD 2012) the community gardens situated in low-income neighborhoods have received the most support from GreenThumb. At the same time the program guarantees that community gardens are participatory projects in the sense of any other public space use, as the HUD webpage states:

"A grantee must develop and follow a detailed plan that provides for and encourages citizen participation. This integral process emphasizes participation by persons of low or moderate income, particularly residents of predominantly low- and moderate-income neighborhoods, slum or blighted areas, and areas in which the grantee proposes to use CDBG funds" (HUD 2012).

Consequently it is in the interest of GreenThumb not only to provide tools to promote gardening on public land, but also to install processes to encourage citizen participation.

The cuts put into effect by the US Congress in 2011 reduced the funding of the Community Development Block Grant program from its fiscal year 2011 funding level of \$3.34 billion to \$2.85 billion in 2012 (Lowe 2011). This means a reduction in the funding of GreenThumb. The cut in the budget will not be felt immediately since community gardeners maintain their gardens voluntarily and often invest their own money to make improvements on this publicly owned land, but eventually a greater municipal budgetary commitment and major

improvements like new fencing, lumber to replace structures or soil will be needed. CDBG as a direct investment in communities and a leverage to other private and government dollars has proven over the years to be an effective tool to sustain public community gardening in New York City without making the program dependent on a widely fluctuating municipal budget as has been the case with traditional parks in New York City that were ill-maintained during in the last 30 years due to city budget cuts.

Other Means of Financially Supporting Community Gardening

Other means of financially supporting community gardening in New York City would be the formation of a public-private partnership, i.e., the acquisition of financing through private corporations as it is the case with other public spaces such as public plazas or some public parks. Some community gardens in New York City are already operated in this manner, including those 112 community gardens situated on former public land that had been sold at a city auction at the end of the 1990s for \$4.2 million to NYRP and TPL. In 1999 TPL bought 62 community gardens at the auction for \$3 million (TPL 2012). At the same auction NYRP bought 50 gardens, paying \$1.2 million. Both organizations hired staff members to supervise the gardeners maintaining the land and to provide materials and technical assistance. The city subsequently donated an additional five gardens to TPL for preservation and the nonprofit purchased two additional gardens, making a total of 69 TPL gardens (TPL 2012) and 119 community gardens owned privately by TPL and NYRP in New York City today. In the last five years TPL established two nonprofit organizations, the Bronx-Manhattan Land Trust and the Brooklyn-Queens Land Trust, to manage community gardens on nearly eight acres of former public land in New York City (TPL 2012).

The privatization of public land and creation of a public-private partnership to take care of community gardening land is a concept that has existed in New York City since the 1960s. Privately owned public spaces such as public plazas appeared when the city introduced "incentive zoning" in the 1961 zoning resolution as a means to allow property owners to make their buildings taller or bulkier than ordinarily permitted by the zoning code in exchange for providing a public space nearby. The public accessibility of these spaces is in many cases questionable, so that these privately owned public spaces like public plazas have received a lot of scrutiny and critique when they are not operated with full public access. The city requires that public plazas are equipped with a certain number of tables, chairs, trees and trash bins; otherwise these plazas follow rules set by the private owner. Consequently, the activities and hours of access to these so-called public spaces are dependent on owner preferences.

Community Gardening, Urban Agriculture and The Public and Private Spheres

In recent years public-private collaboration has become a popular technique used in New York City to maximize the urban agriculture potential of existing community gardens and construct new urban gardens in public spaces. A highly visible form of "green washing" by corporations is branding community gardens or urban agriculture projects with cooperate names in order to increase profits by associating the corporation with an apparently environmentally friendly green land use. This is usually done by granting the garden a maintenance endowment which often replaces grassroots, neighborhood-sustainability focused gardeners with paid staff. The

“locavore” movement popular in upscale urban restaurants and markets has encouraged the development of private for-profit urban agriculture ventures geared towards providing high priced produce for this market. Although programs run by non-neighborhood based groups may provide some benefits, particularly in the form of education and training for youth, these programs have proved, in many cases, to be unwelcoming to local communities: Produce grown in urban areas as a for-profit venture is generally inaccessible to lower income populations both due to price and lack of stores featuring fresh produce

With private financial investment community gardens are maintained and sustained, but public land is often privatized by transferring it from municipal ownership to that of a trust or not-for-profit organization, governed by a board of appointed trustees and not elected by the general public. This changes the organizational structure of the garden, moving it away from a generally democratic common management by a group of residents. We believe that common management by gardeners is definitive for the specific land use form community garden, and that gardens managed by staff, corporations, for-profit ventures, or appointed boards are antithetical to this land use as it derived from the gardens’ historical development through grass-roots activity. In addition, corporations and not-for-profit organizations are subject to “mission drift” as the public relations value of urban gardens wanes in favor of a new topic.

New York City is mandated to maintain its property and, as a result, gardens on public land run by volunteers and supported by municipal programs such as GreenThumb seldom fail. This reality is recognized in the Community Garden Rules legislated in October 2010, since it is centered around the active and legal use of gardening land through a group of residents (New York City Community Garden Rules 2010). By contrast, in the past funders and corporations have sometimes lost interest in gardening initiatives, causing support organizations to decrease staff. Consequently, mainly because of the missing strong volunteer base, several privately owned and managed gardens suffered or were lost.

Preserving and Maintaining Community Gardens as Public Spaces

If community gardens are to be maintained and preserved in New York City and used as they have been for over 30 years, they need to be defined as community managed public spaces: open social spaces that are accessible to all, regardless of gender, race, ethnicity, age or socio-economic level for a range of uses by individual members. In most cases, community gardens must be situated on public land and supported by a government funded community garden program in order to continue functioning effectively under this definition. This should be recognized in the discussion of urban agriculture zoning in New York City along with other urban agriculture priorities focusing strongly on food production and for-profit operation.

Urban Agriculture Zoning and Community Gardens

In recent years several US cities like Portland, OR, Kansas City, MO, or Chicago, IL have started to discuss and to introduce urban agriculture into zoning codes. Community gardens are included, because of their potential to contribute to local food production. Many of these zoning ordinances include urban agriculture projects like rooftop farms, aquaponic projects and hydroponic greenhouses. But do community gardens fit in this zoning category at all? The term

urban agriculture was first defined in 1996 at the United Nations International Conference on Human Habitats in Istanbul as

“an industry that produces, processes, and markets food, fuel, and other outputs, largely in response to the daily demand of consumers within a town, city, or metropolis, on many types of privately and publicly held land and water bodies found throughout intra-urban and peri-urban areas. Typically urban agriculture applies intensive production methods, frequently using and reusing natural resources and urban wastes, to yield a diverse array of land-, water-, and air-based fauna and flora, contributing to the food security, health, livelihood, and environment of the individual, household, and community” (Smit et al. 1996).

Under this definition, community gardens certainly do not fit, since they are not industrial land uses and are typically not designed to produce food on a commercial scale, though they have the potential to be used for this purpose. Still the inclusion of community gardens in zoning, urban agriculture zoning or other, has been advocated for years since this first definition.

Since land use in the city changes rapidly depending on the demands of the population or external influences such as the up and down of economic trends, zoning and land use categories were invented at the end of the nineteenth century to regulate the type and intensity of land use and to protect specific uses of urban land. In New York City land use forms have been organized into zoning districts since 1916. Zoning laws determine the size and use of buildings, where they are located and the densities of the city’s diverse neighborhoods. Public parkland is excluded from zoning and parks can be situated in all districts (New York City Department of City Planning). In New York State, the Agricultural Districts Law was enacted in 1971 in order to preserve farmland for agricultural production. In 2001 there were “343 county-level agricultural districts, encompassing nearly 22,000 farms and more than 8.5 million acres” (American Farmland Trust).

In New York City, beekeeping and chicken keeping are allowed, if handled according to the applicable laws and if no nuisances are created. In general, the sale of agricultural products that were produced on a private lot is permitted in residential and commercial districts (New York City Zoning Resolution Sections 22-14, 32-13, 42-11). Community gardeners are allowed to sell food harvested in their gardens at farmers markets alongside regional commercial farmers selling their produce if the money made is re-invested in the garden. These activities are however regulated by local laws, and agricultural districts smaller than 500 acres (which would include all urban agriculture and community garden projects possible within New York City) are not recognized by either city or state level legislation.

Urban Agriculture Zoning in New York City

On a municipal level, urban agriculture has been included in urban planning discussions such as the current comprehensive plan for the development of New York City, called PlaNYC 2030, as well as in food policy proposals such as FoodWorks and FoodNYC which advocate changes to the building code to facilitate development of green roofs, rooftop farms, and greenhouses atop

industrial and other buildings. However, none of these reports discuss changes to the existing zoning code and most New York City elected officials consulted in the course of this research consider changing the code an excessively lengthy and complicated process.

In recent legislative and funding actions by the New York City government, the turn towards a focus on food production and away from community development is evident. For example, Local Law 48 of 2011 has a provision on urban agriculture requiring the city to “identify municipal properties potentially suitable for urban agriculture.” The law does not mention community management or provide guidance on the selection of community based groups (volunteer or otherwise) to operate these new “farms.”

Urban Agriculture Zoning in Other US Cities

Other cities have already introduced urban agriculture zoning or are about to do so. Cities that are comparable to New York in terms of population size, density, and growth, including San Francisco, Chicago and Seattle, serve as examples in this discussion, as opposed to de-populating cities with problematic quantities of vacant land like Cleveland and Detroit, which have also promulgated urban agriculture legislation in recent years.

The City of San Francisco passed an urban agriculture ordinance on April 14, 2011 regulating the sale of food grown in the urban area and introducing the land use definitions “neighborhood agriculture” and “urban industrial agriculture”. “Neighborhood agriculture” refers to sites that are less than one acre in size that are permitted in residential zones. This category includes community gardens, community supported agriculture, market gardens, and private farms. “Urban industrial agriculture” refers to food production or horticultural crops grown on a site of one acre or larger in commercial and manufacturing zones, or on small plots that do not meet the physical and operational standards of the category “neighborhood agriculture”.

The City of Chicago has proposed amendments to the zoning code that would include the categories “community gardens” and “commercial gardens”. The amendment would define “community gardens” as neighborhood-based developments, i.e., as sites owned and managed by public or civic entities, non-profit organizations, or other community-based organizations, that provide space for the community to grow plants for beautification, education, recreation, community distribution or personal use. Community gardens would be allowed in residential, commercial or special purpose districts, if limited to an area of about half an acre, and cannot be located in manufacturing districts. There is no size restriction for community gardens in parks or other public, open-space districts. The category “commercial gardens” is to be subdivided into indoor and outdoor commercial gardens: indoor commercial gardens and greenhouses are to be allowed in manufacturing districts, commercial gardens in the outdoors are to be allowed in commercial districts and in certain manufacturing districts with lack of local food provision. Interestingly, some urban agriculture advocates in Chicago have opposed this designation, finding it too restrictive to the development of large-scale urban agriculture projects.

The City of Seattle has a 20-year comprehensive plan, which encompasses all existing community gardens and setting specific goals for the creation of one community garden for

every 2,500 households. In September 2010 Seattle's city council passed a zoning ordinance making a distinction between the categories "community garden" and "urban farm". The new urban agriculture zoning allows the general land use categories of community gardens, urban farms and farmers' markets as well as the sale of food grown within the city limits, rooftop greenhouses and chicken farming in almost all zoning districts. In this zoning law "community gardens" are defined as land managed by a public or non-profit organization or a group of individuals and as land that is used to grow food or ornamental crops for donation or use by those maintaining the land. Community gardens are permitted uses in all zones, with some limitations in industrial zones. "Urban farms" are defined as places where plants are grown for sale and in which the plants or their products are sold at the site and/ or off-site. Urban farms are permitted as a principal or accessory use in commercial districts with size restrictions. In addition, urban farms are permitted in residential zones as an accessory use without a permit if they no more than 4,000 square feet. If they are larger in size, an administrative conditional use permit for residential zones is required.

The example of these three cities shows that the municipalities' concern in urban agriculture zoning is primarily to define the scale of food production in specific urban areas while limiting food production in residential areas and pushing it to commercial districts – possibly because of tax income benefits. Secondly, all of these cities make the effort to define categories that make distinctions between the involvements of neighborhood based groups and that of commercial businesses.

CONCLUSION

Integration of community gardens in urban agriculture zoning in New York City must recognize the unique aspects of this land use, and create important distinctions between different types of urban food growing ventures. Community gardens should continue to be provided for in all zoning districts, and be treated in the same way as parks and public spaces, i.e., outside of zoning. They also need to be defined as being commonly managed by residents' groups according to the Community Garden Rules with support by a government-funded program such as GreenThumb. By thus defining the public land use community garden, urban open spaces that can be used flexibly by resident groups according to their needs will be protected in the future. Community gardens will continue to serve as public spaces that demand practicing participatory democracy. In addition, the funding of a community garden program like GreenThumb through a federal Community Development Block Grant (or equivalent urban development oriented grant) will guarantee that community gardens are supported, especially in low-income neighborhoods, and do not become privatized amenities for the rich. Licensing and management of community gardens by a governmental agency also provides for continued mediation between residents groups and the city administration.

LITERATURE CITED

- American Farmland Trust, www.farmland.org/resources/publications/documents/NewYorkLandownerGuide.pdf, accessed 15 December 2011
- Bills, N.L., J.P. Cosgrove. 1998. *Agricultural Districts: Lessons from New York*. 33 pp. Department of Agricultural, Resource and Managerial Economics, Cornell University, Ithaca, New York. http://dyson.cornell.edu/faculty_sites/nlb4/publications/SP98-01.pdf (accessed 03/09/12).
- Been, V. and I. Voicu. 2008. The effect of community gardens on neighboring property values. *Real Estate Economics* 36: 241-283.
- Ferguson, Sarah (1999) *The Death of Little Puerto Rico*. Oakland, CA: New Village Journal, Issue 1. www.newvillage.net/Journal/Issue1/1sacredcommon.html (accessed 03/09/12).
- FoodNYC: A Blueprint for a Sustainable Food System. 48 pp. http://www.mbpo.org/uploads/policy_reports/mbp/FoodNYC.pdf (accessed 05/16/12).
- FoodWorks New York. http://council.nyc.gov/html/action_center/food.shtml (accessed 05/16/11).
- Fox, T., I. Koepfel and S. Kellam. 1985. *Struggle for Space: The Greening of New York City, 1970-1984*. NYC: Neighborhood Open Space Coalition, 165 pp.
- GreenThumb. <http://www.greenthumbnyc.org>. (accessed 05/16/12).
- Krauser, M. 2012. *The Urban Garden as Crime Fighter*. <http://americacity.org/daily/entry/the-urban-garden-as-crime-fighter>. (accessed 09/15/12).
- Land Stewardship Project. 2010. *Land Stewardship Project Fact Sheet #21: How U.S. Cities are Using Zoning to Support Urban Agriculture*. <http://www.landstewardshipproject.org/pdf/factsheets/21-Urban-Ag-Zoning.pdf> (accessed 03/09/12).
- Lowe, E.T. 2011. *Senate Appropriations Committee Cuts CDBG, HOME*. U.S. Mayor Newspaper, The United States Conference of Mayors. http://www.usmayors.org/usmayornewspaper/documents/10_03_11/pg12_cdbg_home.asp (accessed 01/15/2012).
- Mees, C. 2010. *Community Gardens in New York City: Privat-gemeinschaftlich genutzte öffentliche Gärten für innerstädtischen Wohnraum im Freien*. In: "Kunst-Garten-Kultur", Groening, Dr. rer. hort. habil. Gert and Hennecke, Dr. Stefanie (eds.) Berlin: Dietrich-Reimer Verlag. pp. 197-220.
- New York City Community Garden Coalition. www.nyccgc.org. (accessed 03/09/12).

New York City Community Garden Rules. 2010. http://www.nycgovparks.org/sub_about/rules_and_regulations/rr_6.html#licenses (accessed 05/11/11).

New York City Composting Project. New York City Department of Sanitation. www.nyc.gov/html/dsny/html/collection/refuse.shtml. (accessed 03/09/12).

New York City Council, Intro. 248, sponsored by Council Member Lewis Fidler, <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=664294&GUID=A36AA8E0-D75D-4CAB-B335-2170AC62EBC4&Options=&Search> (accessed 03/09/12).

New York City Department of City Planning Zoning Glossary. <http://www.nyc.gov/html/dcp/html/zone/glossary.shtml>. (accessed 03/09/12).

New York City Local Law 48 of 2011. <https://nycopendata.socrata.com/Government/Local-Law-48-Of-2011-Report/2b6x-2bw6> (accessed 09/12/12).

New York City Local Law 052 of 2011. <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=917941&GUID=52DAF6BB-3710-4840-98ED-07AEA1EFC9AD&Options=ID|Text|&Search=metrics> (accessed 09/12/12).

New York City Obesity Task Force Report May 31, 2012: Reversing the Epidemic. The New York City Obesity Task Force Plan to Prevent and Control Obesity. 23 pp. www.nyc.gov/html/om/pdf/2012/otf_report.pdf (accessed 08/10/12).

New York City Zoning Resolution Sections 22-14, 32-13, 42-11. <http://www.nyc.gov/html/dcp/html/zone/zonetext.shtml> (accessed 03/09/12).

New York City Zoning Resolution Section 22-14 B. <http://www.nyc.gov/html/dcp/html/zone/zonetext.shtml> (accessed 03/09/12).

Just Food. 2010. City Chicken Guide. 4. Follow City, State and Federal Regulations & Codes. New York Health Code § 161.01b[11] and 161.19 <http://www.justfood.org> (accessed 03/09/12).

New York Health Code §161.11. <http://www.nyc.gov/html/doh/downloads/pdf/zoo/zoo-animal-healthcode.pdf> (accessed 03/09/12).

New York Restoration Project. <http://www.nyrp.org> (accessed 03/09/12).

Office of the Attorney General. 2010. Community Gardens Settlement. http://www.ag.ny.gov/media_center/2002/sep/sep18a_02.html (accessed 05/16/11).

PlaNYC 2030. 2011. A Greener, Greater New York City. p. 37, 184. <http://www.nyc.gov/2030> (accessed 05/16/11).

- Smit, J., A. Ratta and J. Nasr. 1996. *Urban Agriculture: Food, Jobs and Sustainable Cities*. UNDP, Habitat II Series. New York, NY: UNDP.
- Stone, E. 2000. *Community Gardening in New York City Becomes a Political Movement*. Paper presented at the conference *Perspectives of Small-Scale Farming in urban and rural areas - about the Social and Ecological Necessity of Gardens and Informal Agriculture*. Berlin, Germany, In: Meyer-Renschhausen, E. and A. Holl. (eds.): *Wiederkehr der Gärten. Kleinlandwirtschaft im Zeitalter der Globalisierung*, Studien- Verlag, Innsbruck, Austria.
- Stone, E. 2009. *The Benefits of Community-Managed Open Space: Community Gardening in New York City*. In: Campbell, L. and A. Wiesen. 2009. *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. United States Forest Service Northern Research Station, New York, USA.
- Svendsen, E.S. 2009. *Cultivating Resilience: Urban Stewardship as a Means to Improving Health and Well-being*. In: Campbell, L. and A. Wiesen. 2009. *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. United States Forest Service Northern Research Station, New York, USA.
- Trust for Public Land (TPL). 2012. *Thirty-Two Community Gardens Tuned Over to Local Land Trust*. <http://www.tpl.org/news/press-releases/2012-press-releases/thirty-two-community-gardens-go-to-landtrust.html> (accessed 03/09/12).
- U.S. Department of Housing and Urban Development (HUD). http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs. (accessed 03/09/12).
- U.S. Code Title 21, Chapter 15: Egg Products Inspection Act Section 1044. <http://uscode.house.gov/download/pls/21C15.txt> (accessed 03/09/12).
- von Hassel, M. 2002. *The Struggle for Eden: Community gardens in New York City*. Bergin & Garvey, Westport, CT.