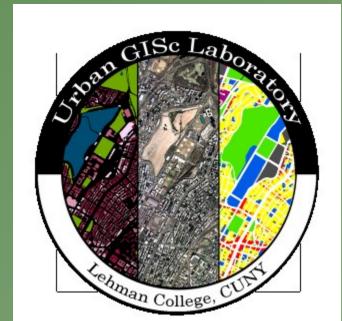




Community Gardens: An Exploration of Urban Agriculture in the Bronx, New York City



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Introduction

Urban agriculture/community gardening in the Bronx has multiple roles, including health-promoting, economic, environmental, and cultural. These roles are particularly important in light of urban sustainability issues and environmental justice concerns, such as differential access to open space, recreation, and fresh produce in poorer communities and communities of color, as well as differential environmental and health impacts of unsustainable practices on these communities. The gardens generally help promote a sense of place - a focus for communities - which often have little access to safe parks or recreational space within their neighborhoods, and create a center for community cultural and educational activities. The Bronx currently has about 175 community gardens administered by Operation Green Thumb, as well as a number of community gardens operated by nonprofit entities, such as the Parks Council, and community gardens on private property (Maantay, accessed 2008).

In view of these facts, the scope of this project is to study, explore and describe the Urban Agriculture and Productive Landscaping as an alternative way to face urban problems and to reveal the gardeners' perception of quality-of-life improvements. The work is focused in the Community Gardens of the Bronx, New York, and is part of a comparative multi case study of different urban realities: the Bronx, New York, and the Fanny Neighborhood community, located in Curitiba, PR, Brazil. In this Brazilian neighborhood the study targeted urban agriculture as practiced in home gardens.



Gardeners having a meeting

Garden growing mostly trees

Gardener showing

the garden's composting



Gardeners from The Bronx Community gardens showing their gardens







Garden with private plots

Gardeners working together

Garden as a place for active recreation



Garden as a place for active



Gardeners having fun

Gardener showing her collard green produce

Bronx Community Gardens **Bronx Community** Gardens Gardens Visited **Qualitative Study** Major Roads rden data from the Council on the Environment of New York City (CENYC), 2008

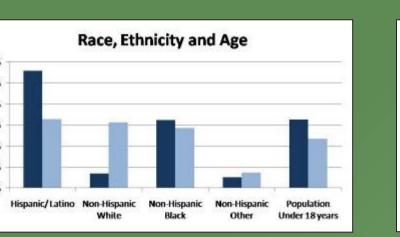
Methodology

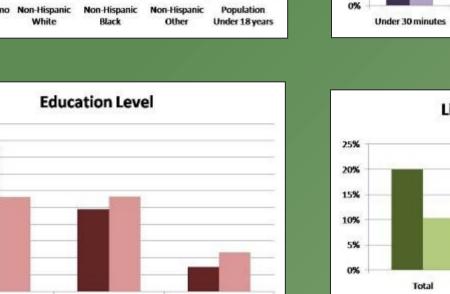
The study is being conducted through semi-structured interviews with the gardeners and by visiting and observing the Community Gardens. The analyzed domain will be a self-selection sample (only the gardeners willing to accept being interviewed) out of the 93 active non school Community Gardens listed as under the jurisdiction of the NYC Park Department's Operation Green Thumb. In addition, survey data (bibliographic research); analysis of documentation (reports, laws, etc.); and mapping and spatial analysis of the Community Gardens' proximate neighborhood socio-demographic characteristics using GISc (Geographic Information Science), are included as parts of the research. The study is currently on-going and presents the data from the 19 Community Gardens visited and interviews with 32 gardeners.

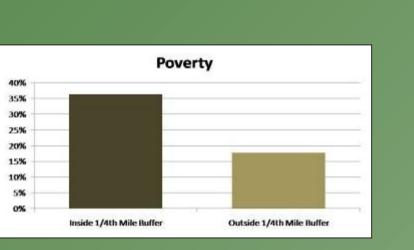
Results

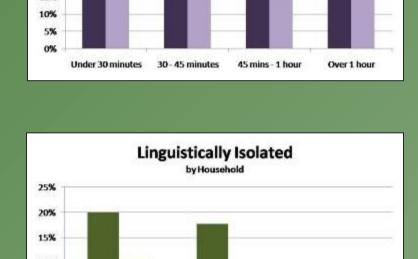
For the Community Gardens that have been visited so far in the Bronx (n=19): 53% of them grow predominantly vegetables, 32% cultivate mainly flowers, 11% grow flowers and vegetables in approximately the same amounts, and 5% have mostly trees in the garden. Just two of the 19 Community Gardens visited sell their produce in farmers markets located in the community. Most of the 32 gardeners interviewed (62%) share out less than half of their harvest, and 31% of the interviewed gardeners shared more than half. Usually they share with friends, neighbors, people from community or other members of the garden. When asked about the benefits they have in their lives by participating in urban agriculture in the Community Gardens, 96% of the gardeners answered "stay closer to the family," "neighborhood beautification," and "family health,". The gardeners' perception about how the Community Gardens have improved their quality-of-life is very positive, indicating that they use the garden for many purposes: growing food, enjoying nature, and active recreation. When they were asked about the challenges they are facing to keep the gardens viable, most of them answered that they have problems with maintaining the volunteers, vandalism and the constant threat of potential eviction from the garden by the City. The lack of secure tenure and long-term protection of many Community Gardens was also pointed as a problem by Tanaka and Krasny (2004) in a study about the Latino Community Gardens in NY.

The socio-demographic analysis of the community gardens yields some interesting results as well. While some of the variables seem not to suggest any potential relationships with respect to proximity to community gardens (such as commuting times and birthplace and citizenship), other variables, such as ethnicity, linguistic isolation, educational attainment, and poverty, are worth further exploration. There is a significantly higher Hispanic/Latino population living in proximity to community gardens and a higher white population living further away. The rates of linguistic isolation and poverty are both higher within walking distance to the community gardens, and a large part of the population living within walking distance to the gardens did not finish high school.

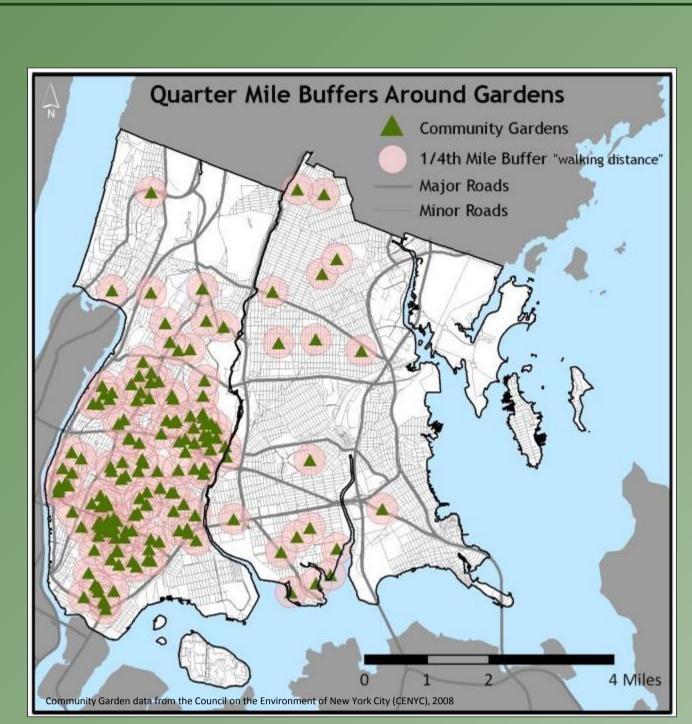




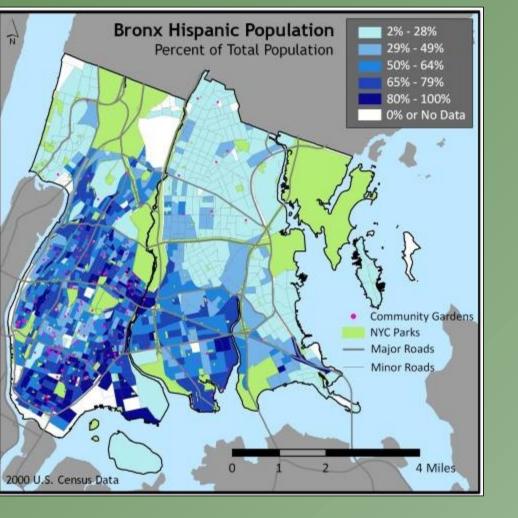


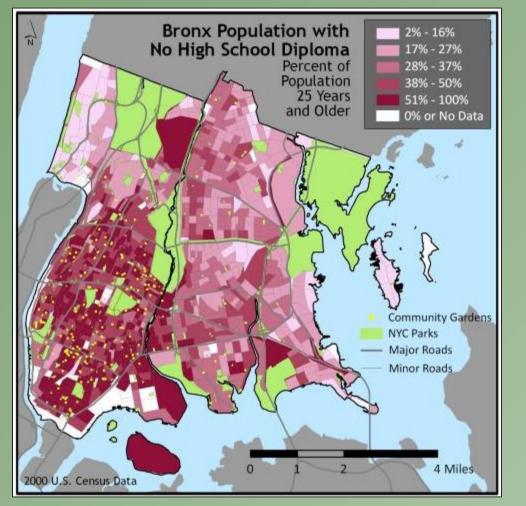


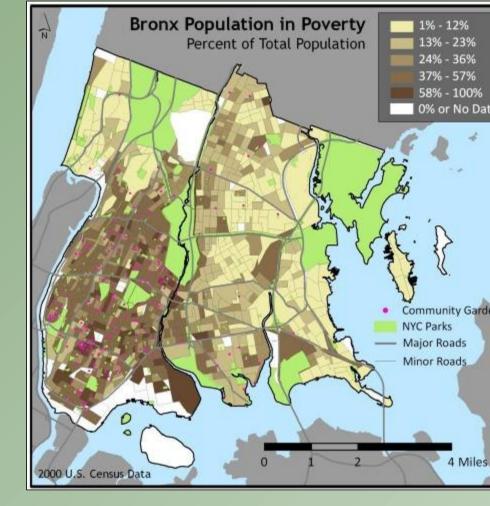




distance") surrounding community gardens. The lighter-colored bars represent areas located outside of the buffers.







Conclusion

The study is on-going, but so far we can conclude that the activity of growing vegetables and other plants is also a way to socialize within their neighborhood, and it is very important for the social reproduction of the community in the Bronx, NY. Regarding the gardeners' perceptions, it was unanimous that the garden is a place to: stay together, enjoy nature, and as "therapy." Some gardeners have spoken about their fears of losing the gardens due to insecure tenure. The Community Gardens program is beneficial to the community, not only to grow plants and contribute to the urban environment but also to create a place where the gardeners and others in the community "feel at home." There is a strong need to continue the conversation with all the stake-holders involved about how these places can be protected and how the community can increase volunteerism.

Socio-demographic variables that characterize areas in close proximity to community gardens may also help to better understand who uses community gardens and why. Further analysis of these data may offer additional resources critical for promoting and protecting these important community spaces.

References

Ashman, L. Seeds of Change: Strategies for Food Security for the Inner City. 1993. Southern California Interfaith Hunger Coalition, Los Angeles, CA.

Boukharaeva, L. M.; Chianca, G. K.; Marloie, M.; Machado, A. T.; Machado, C.T. de T. Agricultura urbana como um componente do desenvolvimento humano sustentável: Brasil, França e Rússia. *Cadernos de Ciência e Tecnologia*: Brasília. v. 22, n. 2. P, 413-425, 2005. Boulianne, M. L'agriculture urbaine au sein des jardins collectifs Québécois. Empowerment des femmes ou domestication de l'espace public?

Anthropologie et Sociétés, vol. 25, n. 1. p. 63-80, 2001. FAO (1999). Issues in urban agriculture - Studies suggest that up to two-thirds of city and peri-urban households are involved in farming. Available: http://www.fao.org/ag/magazine/9901sp2.htm Access: October 23, 2007.

Landman, R. H., Creating Community in the City: Cooperatives and Community Gardens in Washington, DC, 1993, Bergin and Garbey,

Maantay, J. Urban agriculture/urban oases in the "concrete jungle": The Culture of Community Gardening in the Bronx. Available: http://www.lehman.cuny.edu/deannss/geography/urban_agriculture.htm Accessed: November 29th, 2008.

Madaleno, I. Urban agriculture in Belém, Brazil. Cities. v. 17, n. 1, p. 73-77, 2000. Martin, A.; Oudwater, N.; Gündel, S. Metodologias para el análisis situacional em la agricultura urbana. *Urban Agriculture Magazine*, n. 5, 2001. p

Mougeot L. J. A. Urban agriculture: concept and definition. *Urban Agriculture Magazine*. v. 1, n. 1, p. 1-22, 2000.

Nelson, T. Urban Agriculture: Closing the Nutrient Loop. World Watch, vol. 9, 1996. Tanaka, L. S.; Krasny, M. E. Culturing Community Development, Neighborhood Open Space, and Civic Agriculture: the Case of Latino Community Gardens in New York City. Agriculture and Human Values: Netherlands, v. 21, 2004. p 399-412.

von Hassell, Malve, 2002, Struggle for Eden: Community Gardens in New York City, Greenwood Publishers. Warner, Sam Bass, 1987, To Dwell is to Garden: Histories and Portraits of Boston's Community Gardens, Northeastern University Press, Boston,

Weissman, Jane, ed., Tales From the Field: Stories By Greenthumb Gardeners, 1995, NYC Dept. of Parks and Recreation, New York, NY.