



<http://oredesign.org/projects/farm.html>

Jacob Russo

9/3/13

russo.jacob7@gmail.com

Advisors:

1. F13: Christine Mondor, Jeff King
2. S14: Dana Cupkova
3. Azizan Aziz

Rooftop Agriculture for Middle Class New Yorker's:

Stuyvesant Town as a large-scale prototype for
the future of urban agricultural infrastructure

SUBJECT:

The general subject area for this investigation falls under the category of historical and preservation based work as well as site and contextual and programmatic and typological study. Stuyvesant Town has a long history in the context of New York City as a middle class neighborhood and the history of this unique site will play an important role in my research and design. The goal is to preserve the existing rooftops in the neighborhood but redefine them in terms of program and typology: to create a new or revised paradigm for urban agriculture in New York City. This will be done through the specific investigation of the rooftop, the history of rooftop farming in the city, its implications, necessities, benefits, liabilities, and opportunities for new and unique design ideas.

THESIS:

By utilizing the collective potential of Stuyvesant Town's rooftops for urban agriculture, not only will Stuy Town's population be able to significantly decrease its amount of outsourced food sources, but Stuy Town will become a working prototype for food, water, and energy management for other cities with the goal of symbiotically merging new paradigms for incorporating technological infrastructure and social infrastructure into an existing context.

METHODS and SCHEDULE:

A lot of the groundwork will be extensive research, both library and online research, in consultation with my thesis advisors. It is essential to my process that I understand the historical background of my site and typology and familiarize myself with as many precedents as possible, specifically which have been successful or unsuccessful and why. By the final thesis proposal submission on **9/23**, I intend to have the bulk of this research completed and by **9/30** begin brainstorming ideas for a new or revised paradigm. In conjunction with this initial research will be a parallel research string on statistics and data surrounding food consumption, produce, urban agriculture and rooftop farming. Being able to quantify my findings and arguments to a certain extent will help justify my theories. I hope to have a good amount of data collection and analysis done by **9/30** as well. By midreview, during the week of **10/21**, I plan to have a series of working diagrams illustrating my research and my ideas for design possibilities. The purpose of the diagrams will be to illustrate programmatic, typological, historical, social, and design processes and syntheses. This compilation in the form of the Thesis book will propel me into the second half of the semester in which I will continue refining the diagrams, research and analysis and begin proposing design strategies in the form of drawings, models, and prototypes. By **11/4**, my goal is to have initial representation of part of the design strategy. Individual strategies, related to various aspects of the proposal, will be worked to integrate with each other and the larger scheme. By **11/18**, I hope to have some representation of how the strategies will relate to an individual rooftop. While writing this, I am realizing that during the first semester, it may be beneficial to focus on one of the rooftop "modules", or templates, and figure out a strategy for one, and the second semester could focus more on applying strategies to the whole of Stuy Town and the larger context of NYC and its processes. I would like to discuss this more with my advisors. The last weeks leading up to final review on **12/8** will be dedicated to creating exceptional drawings, models and prototypes to help illustrate my progress. The final review in a sense will be an overall thesis midreview and a confirmation that I am headed in the right direction. I will work very rigorously and thoughtfully with my advisors to make sure the argument is as clear and concise as possible and that I have sufficient quantitative as well as qualitative description to justify my position.

PRECEDENTS:

<http://rooftopfarms.org/>
<http://www.terreform.org/>
<http://gothamgreens.com/>
<http://www.brooklyngrangefarm.com/>
<http://www.cityharvest.org/>
<http://www.solar1.org/>
<http://farmroof.com/rooftop-farming/>
<http://oredesign.org/projects/farm.html>

ANNOTATED BIBLIOGRAPHY:

Urban Sustainability

Katrini, Eleni. "Addressing Food, Water, Waste and Energy yields in Urban Regenerative Environments." 2012.

This excellent source, which I hope to engage directly (Eleni at CMU), is a toolkit for understanding how to address key issues related to my thesis in urban contexts. I haven't read it all yet but the literature and diagrams will be good references and helpful in establishing baselines as well as methods of further research. I hope that Eleni may agree to advise me to a certain extent and hopefully can attend some crits and reviews.

Sustainability

Friedman, Thomas L. Hot, Flat, and Crowded: Why We Need a Green Revolution - and How It Can Renew America. Penguin Books Limited, Nov 5, 2009.

This is a great read and details some specific aspects of sustainability that will be essential for the future of the U.S. This source will also give me good background ideas to look into further.

Urban Agriculture:

Gorgolewski, Mark. Carrot city : creating places for urban agriculture. New York : Monacelli Press, 2011.

J Smit, J Nasr. "Urban agriculture for sustainable cities: using wastes and idle land and water bodies as resources." Environment and Urbanization, 1992 - eau.sagepub.com

Mougeot, Luc J. A. Growing Better Cities: Urban Agriculture for Sustainable Development. International Development Research Centre, 2006.

<http://cityroom.blogs.nytimes.com/2013/05/26/urban-farm-by-barron/>

http://topics.nytimes.com/top/reference/timestopics/subjects/a/agriculture/urban_agriculture/index.html

This is a link to many articles on urban agriculture, conceptual ideas and actual projects.

<http://cityroom.blogs.nytimes.com/2012/07/18/the-business-of-urban-farming/>

This video has a unique insight on the business aspects of urban agriculture.

Rooftop Farming:

Dr. Sam C. M. Hui. "Green roof urban farming for buildings in high-density urban cities." 2011.

This source highlights interesting relationships and factors at play in urban agriculture and showcases studies on specific real-world scenarios.

Mandel, Lauren. Eat Up: The Inside Scoop on Rooftop Agriculture. New Society Publishers, Limited, 2013.

<http://www.nytimes.com/2012/07/12/nyregion/in-rooftop-farming-new-york-city-emerges-as-a-leader.html>

<http://www.nytimes.com/2012/04/06/nyregion/rooftop-greenhouse-will-boost-city-farming.html>

<http://eastvillage.thelocal.nytimes.com/tag/rooftop-farming/>

<http://www.nytimes.com/2009/06/17/dining/17roof.html?pagewanted=all>

Stuyvesant Town:

http://www.nytimes.com/2011/11/30/nyregion/stuyvesant-town-and-peter-cooper-tenants-hope-to-buy-apartments.html?_r=0

<http://www.nytimes.com/2010/10/27/nyregion/27stuytown.html>

<http://www.nytimes.com/2010/01/26/nyregion/26stuy.html?pagewanted=all>

<http://cityroom.blogs.nytimes.com/2010/12/15/large-gulf-remains-in-stuyvesant-town-rent-case/>

The above sources relate to the economic development of Stuy Town in the recent past and discuss issues of rent and middle class status, which will come into play in terms of the viability, economics, and social infrastructure aspects of my thesis.

Cities:

Evenson, Norma. Le Corbusier: The Machine and the Grand Design. George Braziller, 1969.

It will be important to my argument to understand historical pretexts and this book, especially with reference to Radiant City, will give me some good background to compare with.

Jacobs, Jane. The Death and Life of Great American Cities. Random House, Inc., 1961.

Wood Dan, Andraos Amale. 49 Cities. Work Architecture Company, 2010.

This book is a comparison of various conceptual cities throughout history that have grappled with ideas of urban sustainability in one form or another. This will help me understand where and how NYC and Stuy Town fit in the historical picture regarding the issue discussed in the book.

New York City:

Caro, Robert. The Power Broker: Robert Moses and the Fall of New York. Knopf, 1974.

Koolhaas, Rem. Delirious New York. The Monacelli Press, Inc., 1994.

Many of the sources listed in my working bibliography are texts that I have not completed reading so I have not listed how they will relate specifically with my thesis, but at this point I believe they may be relevant. I will continue to revise and update the list with my advisors and add/subtract as necessary.



<http://oredesign.org/projects/farm6.html>

