

GREENING LEGACY CITIES

Recent Research on Local Strategies for Reclaiming Vacant Land

SUPPLEMENT: URBAN GREENING TYPOLOGY AND MATRIX

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Urban greening has multiple meanings but is often understood by the range and type of urban greening strategies, interventions, and treatments. As a supplement to the VPRN's Urban Greening Research and Policy Translation Brief, we offer a brief overview of urban greening research and describe in more detail six common types of urban greening strategies: 1) Parks, Trails, and Open Space; 2) Community Gardening and Greening; 3) Temporary Pop-Up Interventions; 5) Commercial Greening/Productive Harvesting; and 6) Green Infrastructure. Attached is a matrix of strategic considerations as a general guide to help determine the relative characteristics and strengths of various urban greening strategies. For the complete translation brief please visit the VPRN web site: www.vacantpropertyresearch.com.

I. The “Landscape” of Urban Greening Research.

Urban greening has been around as long as cities. During the industrial revolution, parks were seen as a means of addressing both environmental and social ills of living in congested, polluted cities. Noted urban experts and theorists such as Calvert Vaux and Frederick Law Olmsted recognized the critical relationship of parks and open space to the demands and dangers of urban life during the second half of the 19th century. Olmsted believed that the contemplation of nature and fresh air improved people's health and intellectual vigor, offering relief from the pressures and strains of everyday life. Talking about Central Park, he proclaimed that its main purpose was “to supply to the hundreds of thousands of tired workers, who have no opportunity to spend their summers in the country, a specimen of God's handiwork that shall be to them, inexpensively, what a month or two in the White Mountains or the Adirondacks is, at great cost, to those in easier circumstances”. [33] (p. 177). These discussions also supported social and policy movements to green the city (The City Beautiful) and a body of knowledge and practice that still influences urban planning and development today. Many of Olmsted's principles and practices surrounding green infrastructure and urban greening—ecosystem services and human well-being; environmental restoration, and comprehensive planning—serve as the foundation for the professions of urban planning and landscape architecture.[85]

This early parks movement is emblematic of the larger greening movement that has grown from it. Urban greening has generally been framed as the solution to a problem, and as cities have encountered new problems, new greening programs have been developed to address them. The push for creation of city parks was a direct response to the pressures on space and the environment caused by rapidly expanding and industrializing cities. Community gardens have a long history in both Europe and the U.S., but their popularity and prevalence have tended to resurge in times of crisis, such as in the establishment of victory gardens during World War II.

Current trends in urban greening research and practice have their roots in the rapid suburbanization of the mid-Twentieth century, which left many major cities with significant surpluses of vacant buildings and land. These high rates of vacancy created a series of problems including reduced property values for remaining homes and increased crime as well as giving the general appearance of neglect and disuse. Communities began to create community gardens and other green settings on the vacant land as a means of addressing its blighting influence. Several of today's most successful community greening programs grew from this movement and were officially established in the 1970's, including Green Guerillas in New York City, Tree People in Los Angeles, Philadelphia Green in Philadelphia, P-Patch in Seattle, and many more. [34-36]

Within the last five years there has been mounting interest by policymakers about how urban greening strategies can address long-term challenges from large inventories of vacant and abandoned properties often found in older industrial "legacy cities." Researchers have also renewed their examination of a wider array of urban greening interventions and treatments in such cities as Detroit, Philadelphia and Cleveland. Building on the early research about property value increases from basic greening of vacant land, contemporary research on urban sustainability examines environmental, public health, and social benefits of greening, including the use of green infrastructure to address new storm water mandates, of expansion and maintenance of healthy tree canopies as part of urban forestry strategies, and the once-again resurging urban agriculture movement, not to mention mitigating the effects of climate change. Much has been learned with each of these different urban greening policy waves about the impacts of greening and green spaces on surrounding communities.

While early assertions of the value of parks and green spaces rested largely on comparisons of urban and rural settings, as urban parks were developed, research began trying to quantify their impacts. As greening strategies have evolved over time in response to changing economic, regulatory, and social conditions, researchers have attempted to explore the impacts of these various programs. The wide range of program types has been both a boon and a challenge for researchers, as it provides both a lot of subjects to study and makes it quite hard to generalize from any single study. Most research in this domain focuses on a single program and the benefits or drawbacks of any one program may not be generalizable to all such programs given inevitable differences in context and implementation. That being said, we of course still think it is useful to take a look at the research to see where patterns emerge that might help to guide future greening efforts.

II. What is Urban Greening? A Typology of Urban Greening Strategies.

Practitioners and researchers use the term urban greening to refer to a wide range of projects – from minor and temporary landscaping improvements using plants to the development of large-scale projects, permanent parks, and recreation areas. Greening initiatives can vary significantly from each other, but their common theme is the explicit use and maintenance of vegetation to improve urban environments. Urban greening initiatives may also involve other

Greening Legacy Cities

Supplement: Urban Greening Typology and Matrix

natural assets and systems, such as urban river restoration and often connects to the built environment, such as roads and buildings, but the primary focus is how vegetation improves and enhances urban environments. Because this brief focuses on greening vacant land (as opposed to other interventions such as street tree-planting), it must be noted that greening strategies may be seen as short-term or interim activities with the expectation that the lots on which they are implemented will ultimately be developed in some fashion, or they may be seen as long-term or permanent uses of the space. The types of interventions that would be feasible for a space will differ based on this distinction.

Among the many potential interventions that meet the definition of urban greening, a number of strategies are commonly used to activate underutilized lots in urban settings (note these urban greening strategies are not necessarily mutually exclusive as particular projects or programs may involve one or more of these treatments/interventions). Below we identify six common types of urban greening strategies that communities are using to reclaim vacant land:

- 1) Conversion of neglected urban parcels and public rights-of-way into parks, trails, and open space. The abundance of underutilized land offers great potential to create new permanent parks and green spaces. Particularly in densely populated cities or low-income areas with scarce access to parkland, repurposing of small vacant lots to green space can provide important social and ecological benefits for urban residents. NGO's, private and public entities are increasingly engaging in a wide variety of greening projects that create public spaces, parks and greenways for community use and passive and/or active recreation out of underutilized lots, alleys and even abandoned rail lines. Organizations such as Groundwork USA have local trusts in cities such as Groundwork Lawrence (Massachusetts) that have transformed under-used alleyways into community green spaces. Groundwork Denver engaged neighborhood residents to redevelop a vacant industrial site (Brownfields) into a community park. Another example is Philadelphia's Liberty Lands Park which was created on a contaminated vacant lot. The land was officially acquired by a CBO which worked with neighborhood residents, various NGOs, and the city government to get the area cleaned up and it is now a vibrant community gathering space with a community garden, playground, water feature designed for stormwater retention, and a mural.

Several cities have recently converted former highways and abandoned railways into linear parks and open space. Perhaps the most celebrated example is The High Line in New York City, a linear park built on an elevated section of a disused New York Central Railroad track. This once derelict structure has been turned into one of the most innovative public spaces in New York City that is part promenade, part town square, and part botanical garden. Two other similar projects are the Bloomingdale Trail (now called The 606), currently under development in Chicago, and the Reading Viaduct Rail Park in Philadelphia. Opened in May 2009, [the Detroit's](#)

Greening Legacy Cities

Supplement: Urban Greening Typology and Matrix

[Dequindre Cut](#), a 1.35 miler recreational path built on a former rail way line, also illustrates creative greening features and public graffiti art.

- 2) Community gardening or greening (e.g., street landscaping, tree plantings, etc.). Community gardens are not a new concept as they have been around since the late nineteenth century, and often arose because of economic depression or war. More recently, community greening or gardening has been used as a strategy to address the abundance of vacant land within cities and to provide access to fresh produce to urban residents underserved by access to fresh and healthy food options (e.g., a gardens as a food security intervention) Community gardens are often owned or managed by civic organizations, public entities, or community-based organizations and maintained by volunteers often on property without clear legal authority to do so. Cities such as Buffalo, Cleveland, Philadelphia, Baltimore and Pittsburgh have long standing urban gardening initiatives and programs. Community gardens can be implemented as short-term or long-term strategies depending on lot ownership, local public policies and capacity of gardening NGOs.

- 3) Vacant land/lot greening as neighborhood stabilization strategies. Basic cleaning and greening strategies applied to urban vacant lots, including removing debris and trash, overgrown vegetation, and planting grass and flowers to make the parcel green and beautiful, add beauty and amenities to the community, fight urban blight, and provide neighborhood stabilization. As a temporary strategy, land greening is a short-term holding strategy for future redevelopment, whether as new development or a more permanent form of urban greening design, such as a park. Several cities partnered with NGO's and other entities to provide support and guidance for vacant lot greening projects. Perhaps the best known model, is the Philadelphia LandCare Program—a collaborative effort led by the City of Philadelphia and the Pennsylvania Horticultural Society (PHS) that aims at reducing the appearance of neglect and providing an interim treatment for land until it can be redeveloped. It is also expected to improve property values in the neighborhood surrounding the greened area. At each parcel, PHS removes debris, disposes of waste, plants trees and grass to improve blighted conditions adds a post rail fence along the perimeter, and then contracts seasonal maintenance crews.

- 4) Temporary pop-up interventions. Pop-up gardens, parklets, guerilla interventions, “open streets” are forms of community-focused tactical urbanism strategies that aim to activate vacant spaces, connect people and places, and transform the identity of the city. Many of these strategies have green elements or involve urban greening activities while others focus more on neighborhood revitalization, community engagement, and economic development. A common strategy for developing a temporary use is starting with a special event or experience. In Buffalo's Larkinville neighborhood, for example, the site of a long-demolished soap manufacturing plant now includes a green square that hosts the annual Live at Larkin series of summer

concerts. In Cleveland, the Cleveland Urban Design Collaborative of Kent State University runs Pop-Up City, a program that uses transient intervention strategies to bring vacant urban space to life. The initiative aims to demonstrate that vacancy can be an opportunity to improve local neighborhoods and city gathering places. Past projects include an ice sculpture garden and public outdoor performance venue, complete lawn seating, local food concession stands and a fountain pond growing lettuce. In Philadelphia, the nonprofit Pennsylvania Horticultural Society began planting its PHS Pop Up Garden on a vacant lot around the city four years ago. Every summer and fall, PHS creates an urban oasis decked out with flowers, hammocks and umbrellas where urban dwellers can enjoy drinks and food and a variety of activities such as concerts, movie nights and many other celebrations. As the name suggests, these are intended as short-term interventions, lasting sometimes for a matter of days or months.

5) Business/Productive Harvesting, such as Urban Agriculture and Urban Forests.

Larger parcels of vacant land can be put to use for developing commercial enterprise that grow fresh food to be sold to local restaurants, retailers or the general public. Urban agriculture is becoming a way to increase access to locally grown food and a mean to reconnect urban dwellers to the food system and to the different aspects of food productions. While some urban farms may focus on community development goals, such as community education, consumption or workforce training, others are created to improve food access in a particular neighborhood. Because food production and selling are almost always regulated activities, zoning laws dictate the environment for urban agriculture, and urban farms may require special land use, health, and business permits and licenses. Several cities, such as Detroit, Cleveland, and Baltimore, have taken measures to include urban farms in their planning documents. In Pittsburgh, Braddock Farms and the Frick Greenhouse and Shiloh Farms, managed by Grow Pittsburgh, provide access to locally-grown fruits and vegetables while providing opportunities for training and education. Because of the nature of the harvesting and the time to establishment, these are primarily long-term or permanent urban greening interventions.

6) Green infrastructure. The term green infrastructure (or green stormwater infrastructure) refers to greening projects designed for the primary purpose of reducing stormwater runoff. There are many types of green infrastructure projects, ranging from simple contouring to redirect and hold the flow of stormwater to highly-engineered rain gardens with complex infiltration or holding systems. They can even be configured to collect stormwater from surrounding buildings, sidewalks, and streets. The ultimate goal of these programs is improved water quality through reducing the frequency of combined sewer overflow events, during which stormwater overwhelms the sewer system leading to the discharge of raw sewage into waterways. Cleveland encourages creating rain gardens and bio-retention areas as possible reuse designs for vacant lots and as a means of reducing runoff, filtering

stormwater, and decreasing impervious surfaces, thus enhancing water quality of streams and other water bodies. In Philadelphia, the city Water Department (PWD) is working with other city agencies and community groups to identify vacant lots that have green stormwater management potential. By focusing on underutilized lands that are not suitable for development or other community uses and by prioritizing vacant parcels that maximize capture of stormwater runoff, the city's goal improve and protect watersheds by managing stormwater runoff with innovative green stormwater infrastructure, maximizing economic, social, and environmental benefits for local communities. In 2013, the city of Detroit received a \$1 million Great Lakes Restoration Initiative grant from the EPA for two green infrastructure projects. One of the projects involves transforming publicly owned vacant lots on Detroit's Lower Eastside into green space consisting of meadows, trees and other vegetation. By doing so, the discharge of untreated stormwater into the city's combined sewer system will be reduced by approximately 100,000 gallons during significant storms, thus improving the Great Lakes water quality. [37] These can be short- or long-term projects based largely on the nature of the intervention.

References

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Greening Legacy Cities Supplement: Future Research Topics

Strategic considerations for common urban greening programs, initiatives, and treatments

Types of Urban Greening Strategies & Interventions	Park, Open Space and rails (development, maintenance, and use)	Community Gardening or Greening	Vacant Lot Greening as Stabilization	Pop-up Uses	Productive Harvesting: Urban Ag and Forests	Green Infrastructure and Sustainability
Who does it and Why (what are the goals or intended benefits?—enviro, social, community and/or market stabilization; community development.	Usually municipality, though sometimes community organization or private entity	Usually community groups with support of either nonprofit or city.	Philly Land Care still the model example – officially run by city but subcontract to nonprofit; land banks support through side lot disposition	Usually community organizations, arts organizations,	Usually community organizations	Metro sewer authorities and city water depts., sometimes done with CBOs
Examples	Liberty Lands Park, High Line	NYC gardens supported by Operation Green Thumb, Reimagining Cleveland; Baltimore’s Vacants to Value program (v2v)	PLC, Cuyahoga and Genesee Cnty land banks	PHS pop up gardens, CUDC projects in Cleveland	Buffalo’s Mass. Avenue Project; Braddock Farms and the Frick Greenhouse and Shiloh Farms, managed by Grow Pittsburgh	Philly, Milwaukee, and Detroit Sewer & Water use for stormwater management
Costs	High – land ownership, landscaping, maintenance	Low – most work done by community members, though cities and nonprofits may have costs associated technical support and management of leases	Low – PLC program ~\$1 per square foot			

Greening Legacy Cities Supplement: Future Research Topics

Land Ownership and management?	Land must be owned either by government or organization establishing park	Legal forms usually on land owned by municipality, though squatter or guerilla gardens often established on privately owned land. Recently conservatorship law in PA allows gardening on land that had been privately owned.	Can be legally used for both publicly and privately owned lots, though privately owned properties must have code violations or other means to legally allow access	?	Long term leases	Ownership
Tenure	Permanent	Short to long term, depending on ownership and lease terms. Short-term leases are often problematic for gardeners because they discourage investment in infrastructure. Long-term leases may be problematic for municipality if gardens are not properly maintained or if sites become desirable for development.	Short term to long term, depending on lot ownership	Intended to be short-term projects to raise awareness		
Access	Public	Sometimes public and sometimes limited to select group of participants	May technically be restricted to staff, especially for privately owned properties	Public	Private or NGO as these are intended for commercial enterprises?	Private ownership, but could be hybrid, that allows public access for recreation?