Neighborhood Revitalization through Catalyst Projects:
Capacity Building and Urban Design in the West Philadelphia Landscape Project and the Bronx River Project

By

Desiree A. Sideroff
B.S. Conservation and Resource Studies, 2000
B.A. Peace and Conflict Studies, 2000

SUBMITTED TO THE DEPARTMENT OF URBAN STUDIES AND PLANNING
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER IN CITY PLANNING

AT THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2003

© 2003 Desirée A. Sideroff. All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly
paper and electronic copies of this document in whole or in part.

Signature of Author:

Certified by: University.

Accepted by: University.
DISCLAIMER OF QUALITY

Due to the condition of the original material, there are unavoidable flaws in this reproduction. We have made every effort possible to provide you with the best copy available. If you are dissatisfied with this product and find it unusable, please contact Document Services as soon as possible.

Thank you.

Best photographic reproduction copy available.
# Table of Contents

Abstract .................................................................................................................. 7  
Acknowledgements .................................................................................................. 11  

1 Neighborhood Revitalization Catalysts, & Capacity Building ........... 15  

3 West Philadelphia Landscape Project ............................................................. 51  

4 The Bronx River Project ..................................................................................... 89  

5 Lessons Learned ................................................................................................. 105  

6 Conclusion ........................................................................................................... 121  

7 Bibliography ......................................................................................................... 125  

8 Glossary .................................................................................................................. 131
Neighborhood Revitalization through Catalyst Projects: Capacity Building and Urban Design in the West Philadelphia Landscape Project and the Bronx River Project

by

Desirée A. Sideroff

Submitted to the Department of Urban Studies and Planning on May 15, 2003 in Partial Fulfillment of the Requirements for the Degree of Master in City Planning

ABSTRACT

Achieving meaningful neighborhood revitalization remains a perennial challenge for urban planners, as problems facing inner-city neighborhoods are complex and interconnected. Most recently, both the practice and literature of neighborhood revitalization emphasized a comprehensive approach. Within this context, the concepts of capacity building and catalyst projects are gaining momentum. This thesis explores the emergence of and points of synergy between these concepts through a review of the literature and analysis of two urban design and capacity building projects: the West Philadelphia Landscape Project in Philadelphia, Pennsylvania, and the Bronx River Project in New York City, New York.

Underlying this inquiry is the fundamental question: do catalyst projects represent a departure from the status quo or a strategic repackaging of past practices? The primary questions addressed in this thesis are as follows:

- Is there a typology of catalytic effects within neighborhood revitalization projects? What types of circumstances foster the development of catalysts?
What role does capacity building play in the development of catalytic effects in urban design projects?

In what ways can project organizers become more deliberate about fostering catalytic effects?

This study revealed three types of catalytic effects within the case studies: projects can act as models, foster spin-off projects, or provide an overarching framework to enable other projects to engage. Capacity building and catalytic effects are indeed interconnected and mutually supportive. There is no precise recipe for creating catalytic effects within projects, as they can be unexpected as well as planned. Furthermore, catalytic effects often depend on mediating circumstances, such as timing and organizational capacity, to foster their development. The act of forming partnerships, in particular, builds constituencies, expands funding opportunities, and allows for the development of spin-off projects.

Most importantly, adopting a watershed framework as the lens through which to organize proved most significant as it encourages both institutional and neighborhood-level change. Watersheds transcend political, social, and institutional boundaries, and working in this realm necessitates the development and integration of grassroots and city-level actors. The extent to which catalyst projects lead to systems change remains to be seen, however they do present a powerful model for activating both institutional and neighborhood-level change through a single planning effort.

Thesis Supervisor: Anne Whiston Spirn
Title: Professor of City Planning
ACKNOWLEDGEMENTS

I can’t even begin to express how grateful I am for all of the friends and family who supported me during the thesis process, and this semester in particular. It has been a difficult time and I couldn’t have made it without you. Julie, Michelle, Aaron, Jeff, and Beth - many thanks for helping me frame and articulate questions, for reading drafts, and keeping me inspired on the topic.

I would also like to appreciate Lang and Susan, for your diligence, support and encouragement. Finally, I offer my deepest gratitude to Anne for your reflections, and insights as well as your guidance, encouragement and inspiration over the past two years. It has been a pleasure to work with you and I will value it always.
What is important is that suddenly some dreams that had been thought unrealistic seem possible

Attoe and Logan
Neighborhood revitalization aims to accomplish improvements in the physical quality of a neighborhood as well as the social well being of the residents. The physical quality refers to the streets, public spaces, housing, infrastructure, commercial activity, and general attractiveness of a neighborhood, while the social well being describes characteristics necessary for residents to live fulfilling lives, including health, education, and economic and social opportunities. Achieving such a broad set of goals requires the implementation of a wide range of activities on multiple levels by a diverse set of actors.

While most acknowledge the need for revitalization strategies that integrate "people" and "place-based" approaches, translating this goal into practice remains a perennial challenge. The history of urban planning efforts in the United States affirms this conundrum, as initiatives have alternated over the past hundred years between comprehensive approaches, such as the Model Cities Initiatives of the 1960s, and narrow endeavors, such as job training or housing. Whether narrow or comprehensive, each set of initiatives became a reaction to the failures of its predecessors to achieve an equivalent set of revitalization goals.

"The need to simultaneously address people and place remains one of the most daunting challenges in community development."

-PolicyLink

"What we need now is not more urban design styles, but rather, new ways of integrating city design with the process of economic and social change. We believe that the concept of catalytic urban architecture gives us what we need."

-Attoe and Logan

goals. Strategies addressing a singular solution are criticized for either an inability to focus on the larger picture or as a failure to address root causes of inequity. However, comprehensive approaches are plagued with inadequate funding, poor cooperation, and insufficient organizational capacity.²

In the early 1990s, the rise of Comprehensive Community Initiatives (CCI) represents another stage in this cycle. These initiatives strayed from earlier approaches to revitalization by recognizing the complex interconnections between economic, social, political, and physical circumstances within neighborhoods. Leaders of the comprehensive approach maintained that approaching the set of issues neighborhoods face as interconnected systems is the best way to achieve meaningful revitalization. Towards this end, they promised to avoid previous failures and foster improved people and place as well as systems change. Spearheaded by a group of foundations, these initiatives attempted to empower existing organizations or develop new ones to work towards these goals. The implementation of this objective, however, fell short, as organizations lacked the political, financial, and organizational capacity to actualize this comprehensive vision. In many such initiatives, there grew a disparity between the comprehensiveness of an organization's mission and its the specialized nature of it's actual programs.

Revitalization efforts of the 1990s did achieve much success in improving the physical quality of many inner-city communities. However, many such programs

failed to link physical improvements with meaningful reduction in incidence of poverty and its ensuing problems. Despite many years of targeted efforts, poverty continues to persist. “Unsuccessful” neighborhoods remain symbols of abandonment, plagued with vacant land, high concentrations of poverty, rampant drug-use, and crime, while “successful” inner-city revitalization efforts face pressures of gentrification and resident displacement. The challenge of ensuring resident benefit from revitalization continues.

As economic times grow worse, increasing pressure is put on communities to improve people and place through strategic means. Project organizers increasingly look to building capacity and developing catalysts and spin-off projects in order to generate greater impacts than the scope of their immediate work.

**Catalysts** The term *catalyst*, often used interchangeably with *spillover effect*, *spin-off*, and *multiplier effect*, describes the beneficial impacts of projects that extend beyond the immediate effects of the specific intervention. Unlike a spillover effect, which is incidental, a catalyst is a desired and intended effect that creates momentum and drives multiple forms of change at once.

---


**Capacity** refers to the ability for a community to identify, organize, and solve its own problems. Capacity building has been defined as “acquiring and using knowledge and skills, building on assets and strengths, respecting diversity, responding to change, and creating the future.” It is most often used in the context of social networks, institutional/organizational development, or community mobilization and empowerment.

While the literature on capacity building is quite developed, it discusses concepts of capacity in a vacuum and ignores the potential role that physical place can play in its development. The sparse literature on catalyst projects focuses solely on utilizing architectural interventions to achieve revitalization. This thesis explores the nexus between these two concepts as they play out in neighborhood revitalization projects.

While the concept of using a targeted planning intervention to stimulate urban revitalization is not new, addressing catalyst projects, as a separate class has not been systematically explored. Indeed, my literature review revealed very little examination of catalyst projects in a scope greater than specific project-based reports.

Because resources are scarce and urban problems are so endemic, many people and organizations attempt to “get the most bang for their buck” by creating urban catalyst projects. Building community capacity often becomes a...
strategy for producing catalytic impacts, although few project organizers make this link explicit. Documenting the process and success of a project's catalytic elements can provide insight into the effectiveness of various projects and to emerging themes in planning practice.

Through an assessment of literature and two case study projects, this study will demonstrate that the concepts of capacity building and catalyst projects, as applied to the practice of neighborhood revitalization, are intimately related and mutually supportive. These projects integrate people and place approaches by engaging in capacity-building endeavors, such as skills development and education, through improving the physical place. Each action becomes an opportunity to for the project to simultaneously achieve dual goals at once, yielding skilled, empowered residents and improved neighborhood places.

**Methodology**

Despite numerous claims within project reports of catalytic effects, I was surprised at the extent to which the use of the term was not explored or documented by the planning literature. So many people and organizations strive to generate broader impacts than the scope of a singular project or intervention that I had expected to find a well-developed body of literature characterizing and measuring catalytic projects and their impacts. Not only do catalyst projects lack a literature, they also fail to substantiate their claims of "this project was a catalyst" through data or detailed explanation. I came to realize the necessity of documenting, measuring, and categorizing catalytic effects — although such a thorough effort would entail the scope of a PhD dissertation. My master's thesis
project takes a small step towards this end. I narrowed this range of questions and chose to look closely at two case studies to tease out and document out the relationship between capacity building and catalytic effects.

Underlying this inquiry is the fundamental question: do catalyst projects represent a departure from the norm or are they strategic planning newly packaged? The primary questions asked by this thesis are as follows:

1. Is there a typology of catalytic effects within neighborhood revitalization projects? What circumstances foster the development of catalysts?
2. What role does capacity building play in the development of catalytic effects in urban design projects?
3. In what ways can project organizers become more deliberate about fostering catalytic effects?

Because I wanted to examine the role of catalysts and capacity building in achieving neighborhood revitalization, I focused on place-based approaches that aimed to transform both the social and physical landscape. I began by exploring a few projects recognized to be catalytic, such as the West Philadelphia Landscape Project (WPLP), in Philadelphia, Pennsylvania, and the Bronx River Project (BRP), in New York City, New York. I hypothesized that an important relationship exists between undertaking capacity building activities and achieving catalytic effects – that building capacity through improving the physical landscape leads to catalytic effects.
Through a review of both the well-developed capacity building literature and the sparse catalyst literature, I developed a framework for assessing capacity building and catalytic effects within the case study organizations and their activities. I analyzed the projects based on this framework, in order to evaluate how and why these projects were catalysts, and then used the lessons learned in practice to test, evaluate, and inform the literature itself.

Investigating catalytic effects of a project requires an intimate and detailed understanding in order to tease out the particular catalytic moments and chains of causation. In each case, the development of an urban design and landscape project became a central jump-off point upon which to focus community development, organizing, education and capacity building, and ultimately, catalytic activities.

WPLP and the BRP contain many similarities. The directing organizations in both projects acted as brokers coordinating efforts among and between grassroots groups and city agencies. Indeed, their respective titles grew to represent umbrellas for a variety of initiatives and partnerships. Both cases also organized around the improvement of an urban watershed, which constitutes the geographic area of land in which all surface and ground water flows downhill to common point. As such, it transcends urban, political, and social boundaries. Through these improvements, the projects fostered a range of community development activities as both direct and indirect effects of their efforts.

![Hydrologic Cycle Diagram]

*This schematic of the hydrologic cycle depicts the progress of water from the watershed boundaries to the surface outlet and the natural processes that occur along the way.*
The cases have significant differences as well. Most notably, WPLP presents a University-community partnership model, while the BRP is a non-profit venture. WPLP represents 17 years of work, while BRP is only 6 years old. Because of the relative differences in project length, and the varying access to project information and resources, this thesis will present considerably more information about the West Philadelphia Project and represent it as a series of stages. Analysis and conclusions will be supplemented by information from BRP.

Through examination of project archives, media reports, literature review, and series of interviews with key project leaders, stakeholders, and participants of two urban design projects, I developed an understanding of the successes, failures, and challenges involved in distinct examples of this capacity building and catalyst approach.
This chapter examines the capacity building and catalyst project literature. It presents, based on this literature, a model for assessing the case study projects. While the capacity and catalyst literature are treated separately, they demonstrate significant overlap as well as opportunity for symbiosis. Analyzing the two in the context of the case studies enables the development of an in-depth perspective.

The Emergence of Capacity Building

Capacity building is emerging in the planning literature as the primary response to the shortcomings of Comprehensive Community Initiatives as a strategy for acting comprehensively given limited resources. This section explores the rise of capacity building as a focus in the planning literature and practice. It provides an overview of the definition and strategies offered in the literature, and synthesizes them into a useful framework for assessing the case study projects.

Recent efforts to promote capacity building arise out of the movement advancing Comprehensive Community Initiatives (CCI) as a successful strategy to revitalize
[CCIs] aspire to foster a fundamental transformation of poor neighborhoods and the circumstances of individuals who live there. The change they seek is comprehensive, that is, inclusive of all sectors of the neighborhood—social, educational, economic, physical, and cultural—and focused on community building that is, strengthening the capacity of neighborhood residents, associations, and institutions.

Anne C. Kubisch

urban communities. CCIs emerged in the early 1990s, mainly supported by a group of funding agencies, such as the Ford Foundation, The Anne E. Casey Foundation, and the Pew Charitable Trust. In another evolution of the people vs. place debate, they once again argued that an integrated comprehensive approach is necessary for meaningful revitalization of distressed and marginalized urban communities.

In this way, advocates of CCIs recognized interconnectedness of urban problems—that physical form does not exist separate from social and economic circumstances—and sought to use these interconnections as the basis for community transformation. This approach represents a break from methods of prior decades.

The trend towards devolution of federal programs and decreased support for revitalization efforts during the 1970s and 1980s increasingly drove community-based organizations towards fewer and more specialized tasks, such as housing development, or workforce training in low-income communities. Programs such as housing development represent a straightforward strategy due to a clearly demonstrated need and the tangibility of results. It is far easier to measure number of units constructed and families housed than the intangible effects of empowerment. The persistence of urban problems, despite decades of work, led the initiators and funders of CCs to acknowledge that transforming distressed urban communities requires a far more integrated approach than prior planning efforts.
CCIs emerged largely as a tool by foundation funders to address the nexus of social, economic, and physical problems and sponsor the transformation of low-income communities.⁵ “CCIs attempt instead to foster a fundamental transformation of poor neighborhoods and to catalyze a process of sustained improvement in the circumstances and opportunities of individuals and families in those neighborhoods.”⁶

Responding to the failures of singular approaches, they attempt to provide an integrative strategy for revitalization in the recognition of the depth and interconnectedness of urban problems.⁷

Two general principles underlie these CCI goals: comprehensiveness and community building. Implementation of CCIs usually occur through expanding the capacity of existing organizations, creating new community-based organizations, and generating partnerships among organizations to create synergy across physical, social, economic, and political realms. Throughout this

⁵ For example Edna McConnell Clark Foundation, the Annie E Casey Foundation, the Surdna Foundation, the Pew Charitable Trust, and the Ford Foundation.


process, CCIs engage in community building through increasing the participation and capacity of all stakeholders, as defined by the directing organizations and foundations. Community development institutions must simultaneously address complex and interconnected issues such as housing, education, economic development, literacy, and job skills. However, "the need to simultaneously address people and place remains one of the most daunting challenges in community development."9

While the rhetoric of a comprehensive approach might encourage organizations to think more holistically, significant programmatic change does not always ensue. Organizations continue to face the challenges of developing the capacity, securing the funding, and determining how to evaluate the less tangible aspects of community development.10 Too often, the actual collection of programs do not reflect comprehensive visions promoted by the organization. Those who succeed in engaging in a comprehensive range of activities often do so in a segmented fashion, as both internal (such as organizational culture, specialized skills) and external factors (such as funding requirements) prevent meaningful integration.

In many cases, encouraging people, organizations, and institutions to work together was reported as the biggest challenge. Integrating a web of agencies, each with their own culture, hierarchies, funding sources, and missions was an awesome task that many CCIs found largely unattainable. Even when interdisciplinary teams were set up, additional challenges lay in promoting synergies between the various team members and disciplines represented. Grouping a housing specialist, an economist, and a social worker together might technically constitute an interdisciplinary team, but if each actor works in their own silo, the group cannot foster the synergies that form necessary elements of success. Not surprisingly, the failure of this style of comprehensive planning did not lie in the concept. Instead, failures stemmed from the inability of multiple institutions to work together towards common goals.

Most seriously, CCIs failed to bring about the significant structural or systems change which formed part of their mission. Distressed urban communities continued to persist despite more than a decade of CCI efforts. The Aspen Roundtable on Comprehensive Initiatives' report on CCIs entitled *Voices from the Field*, acknowledges the small capacity CCIs have to cause systems-change: "Community capacity building initiatives have little control over these larger systemic conditions, and it is unreasonable to place the burden of changing systemic inequities wholly on these efforts." In failing to address underlying structural inequities, such efforts may impede community transformation and could serve to affirm the status quo. In response to this critique, some argue that

---

11 Aspen Institute, 2002.
while capacity building cannot solve every problem, such efforts should take systemic problems into account as much as possible through programs, policies, and actions.\textsuperscript{12} Renewed efforts to link inner-city problems with regional planning issues represents an initial step in this direction.

Anne Kubisch acknowledges this conundrum in responding that “Neighborhood transformation may depend less on putting into place a model of comprehensive neighborhood-based activities than on developing the capacity of neighborhood residents and institutions to define and effect responses to local needs on a sustained basis.”\textsuperscript{13} In this way, capacity building has emerged out of these challenges and failures as one of the more tangible, successful, and sustainable elements of the CCI vision.

Also emerging in literature and practice is a new category entitled Community Building Projects. It forms another “new and integrative” approach that addresses both problems and opportunities in impoverished communities. Community building programs aim to “obliterate feelings of dependency and to replace them with attitudes of self-reliance, self-confidence, and responsibility.”\textsuperscript{14} This community asset-based approach, according to its organizers, sets it apart from other types of assistance over the last 50 years. Bill Pitkin, in a report entitled “The Politics of Neighborhood Planning and Collective Action,” identifies

\textsuperscript{13} Kubisch, 1996.
three general themes in the literature addressing community building: capacity building, asset-based, and comprehensiveness— a clear mirror of the values and principles inherent in Comprehensive Community Initiatives. As the literature is recent, this thesis will not address Community Building as a separate entity. The themes so closely resemble those of CCIs that this thesis will treat them together.

**CAPACITY BUILDING: LITERATURE REVIEW**

Capacity building analysis and terminology most often appears in projects and literature concerning organizational development, international development, public health, community development, and urban planning. It has recently emerged into prominence due to the popularity of Comprehensive Community Development Initiatives, which places capacity building as a fundamental building block for community transformation.

Many believe that community capacity forms a fundamental condition for the effective functioning of communities. They characterize capacity as a quality that both precedes and enables effective implementation. It, therefore, becomes both the first stage and the end goal of community revitalization effort—

---

17 Shields P.1.
depending on who is organizing the project and how they define their time frame and their goals. Goodman et al. agrees that capacity "is a process as well as on outcome: it includes supportive organization structures and processes: it is multidimensional and ecological in operating at the individual, group, organizational, community and policy levels, and it is context specific."\(^{18}\)

Robert Chaskin, Prudence Brown, Sudhir Venkatesh, and Avis Vidal, in their 2002 book, *Building Community Capacity*, provide the most comprehensive summary of the existing literature on capacity building and offer a framework for assessing capacity within a community. According to their research, community capacity consists of the:

\[
\text{interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of that community. It may operate through informal social processes and/or organized efforts by individuals, organization, and social networks that exist among them and between them and the larger systems of which the community is a part.} \quad ^{19}\]

In this context, capacity contains dual functions; the first concerns the successful realization of community goals while the second consists of sustainable


\(^{19}\) Robert Chaskin, et al. 2001.
community capacity. In their framework, capacity is only realized to the extent that it sustains itself and regenerates over time. While a variety of actions, such as receiving a major grant or political recognition, can increase capacity on a short-term basis, a community must contain a diversity of capacities for sustainability over time. A powerful person or one large infusion of funding might enhance capacities on a temporary basis, yet when the funding cycle ends, or one charismatic person leaves, the community must be left with enhanced abilities. Focusing on building capacity in this sense is particularly attractive in light of CCIs failures because it becomes a product and a process that aims to instill a mechanism for sustainability over time.

In order to more effectively explore this idea of capacity, most authors break this construct into a set of dimensions, indicators, or criteria, such as sense of community, leadership ability and empowerment, which attempt to capture both its concrete and intangible dimensions. There is neither consensus on one definition nor agreement on a single framework for measuring and analyzing community capacity. Still, the overarching themes remain similar even as the project-related definitions tend to explore sub-areas in more depth. Because of the complex landscape upon which community capacity exists, it is best to adopt a multi-dimensional framework for assessment.

In the Aspen Institute's *Voices from the Field*, an evaluation of Comprehensive Community Development Initiatives, the authors offer such an approach to community capacity building by proposing a set of solutions organized around a
hierarchy of actors, from residents up to policymakers. Goodman et al., however, explore this concept further through identifying seven dimensions of capacity building. The seven dimensions include participation and leadership, skills, resources, social and inter-organizational networks, sense of community, understanding of community history, and critical reflection. Chavis calls for a holistic approach to developing a community's human, economic, and environmental resources. Successful achievement of these resources will create the capacity within a community to identify and act to meet its own needs. As capacity develops, the relationship between “a sense of community and community competence (its problem-solving ability) through collective effort is reciprocal.” Each influences, informs, and catalyzes the other.

Chavis identifies three components of community for capacity building. Perception of the environment (one’s personal judgments and feeling about the environment), one’s social relations (type, frequency, and intimacy of interactions among neighbors and members of the community, including social networks), and one’s perceived control and empowerment (beliefs an individual holds regarding the “relationship between [their] actions and outcomes.”). Glickman and Servon break capacity into five categories: resource capacity, organizational capacity, network capacity, programmatic capacity (through ground-level actors,

---

21 Goodman et al., 1998, P.258-278.
such as local community groups and organizations). Building capacity enables these organizations to develop community power and act as intermediaries to help community members make connections within and outside of their neighborhood.\(^{23}\)

Whittaker and Banwell describe the pitfalls of operating with concepts that carry such diverse meanings; such terms tend to exist undefined and unquestioned in policy contexts. The definitions themselves are not value-free, but rather, represent concepts “discursively and historically constructed” embedded with norms, assumptions, and values of present society. The authors look critically at emerging ideas of capacity building and community participation and issue a warning about their potential to actually reinforce dominant social, economic, and governance structures.\(^{24}\)

The diversity of existing frameworks representing community capacity makes it difficult to adopt only one. However, adding another framework to the existing collection seem superfluous and muddling, instead of encouraging concurrence. Therefore, for the purpose of this thesis, I adopted Chaskin et al.'s framework and incorporated elements of others' frameworks. This combination provides a more holistic perspective of capacity building in order to understand how discourse about enhancing capacity is used to develop catalysts and promote institutional change.


CAPACITY BUILDING: A FRAMEWORK

Chaskin et al. create a three-part framework to analyze capacity building: Their analysis reveals that capacity building occurs on three levels of agency, individuals, organizations, and social networks, which act as the "vehicles through which community capacity operates."25

Individuals: Capacity building on the individual level increases human capital and develops leadership skills among individual community members. This includes "the skills knowledge and resources of individual residents and their participation in community-improving activities."

Organizations: Within the second, organizational level, "community capacity is reflected in the ability of such groups to carry out their functions responsively effectively, and efficiently, connecting to larger systems, both within and beyond the community, as appropriate." Organizations range from community-based organizations, neighborhood groups, and local institutions. Building capacity at this level additionally enhances programmatic effectiveness, as the skills, vision, and resources are developed to ensure sustainable success.

Social and Inter-organizational Networks: Social networks refer to the infrastructure of relationships among all levels of individuals and organizations

that form a community's social capital.\textsuperscript{26} Wolcock's critical paper "Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework," highlights some of the ways that social networks function to promote beneficial outcomes and offers a framework to assess social networks in this setting.\textsuperscript{27} He writes about the development of social capital and creates a conceptual schematic of the world in which actions are organized on two levels – the top and the bottom. Governmental and corporate and activities characterize the top while communities, grassroots organizations, and the like characterize the bottom. The success of the social network therefore, becomes a function of the ability for both levels to integrate and coordinate both with each other as well as in-between the two.

To this end, he names four different levels of integration. The first level measures the extent of ties within a community, its residents, community-level institutions and organizations. The second level reflects the ability of the grassroots-level organizations to create linkages with the networks outside of the community. The third and fourth levels act opposite of the first two and focus on the ties between the organizations (integrity) and the degree to which top-level organizations reach out to the grassroots level (synergy) respectively.

\textsuperscript{26} Chaskin, et al. 2001, P.19-21.

Much of the community capacity building literature refers to the need for such coordination and integration; the ability of communities to connect to organizations and resources beyond the bounds of their neighborhood is often used as a key indicator of community capacity. This view of the world is highly schematic and obviously oversimplified. However, it provides a useful perspective for analyzing the effectiveness of social networks in promoting neighborhood revitalization.

Characteristics of Capacity:

According to Chaskin et al.'s definition, communities with capacity contain the following characteristics:

**Sense of community:** measures connectedness, shared values, vision, ties, and attachment to the community. Goodman measures sense of community by the amount of “caring and sharing” among community members, mutual respect, generosity, and service to others, collective action to address local concerns and produce desired changes, and emotional connectedness among community members. According to Goodman, “when the four elements of membership, influence, fulfillment of needs, and emotional connection are present, then the community identity is reinforced and capacity to take constructive action is enhanced.” The authors feel that sense of community significantly contributes to empowerment, and therefore, the ability to meet personal and collective needs.

---

"When people share a strong sense of community, they are motivated and empowered to change problems they face, and are better able to mediate the negative effects of things over which they have no control." Clearly, this indicator is very difficult to measure.

Commitment to the community among its members: through both the responsibility members take for what happens in their community "viewed in both the act of envisioning oneself as a stakeholder as well as one's willingness to act/participate as such." Commitment may be reflected in participation in organizations, attendance in community meetings, or other type of organizing efforts.

Ability to identify and solve problems: transforms commitment into action, and is necessary to achieving success. This measure indicates how successfully and through what means a community can take charge of their collective future.

Access to resources: In this context, resources encompass financial resources, technological resources, political power, as well as and social capital. Communities with capacity can identify and utilize existing resources both within the community in addition to those which lay outside the community. In lower-income communities, success in this category may represent how creatively untraditional resources are recognized and utilized.

29 Charvis et al., 1990, P.73.
Resilience: reflects how a community can “bounce back from setbacks”, recover from failures, and continue to pursue its goals.\textsuperscript{30} Most efforts to improve distressed communities face awesome challenges. Handling failures in a productive fashion becomes critical to the momentum of a project and can even open up new avenues for success.

Strategies for Capacity Building

Finally, capacity building occurs through the following six types of strategies:

**Leadership development**: Represents the ability to lead others and develop a sense of agency within one’s own life. It encompasses the “skills, commitment, engagement, and effectiveness of individuals in the capacity building process. This individual-based strategy seeks to “bolster the ranks of local individuals who are willing and able to assume responsibility for the community’s well-being by being out front to facilitate and initiate action.” Additionally, “community leaders increase their contribution to community capacity when they learn and practice a style of leadership that is inclusive and collaborative.”\textsuperscript{31}

**Organizational development**: either through strengthening existing organizations or creating ones anew. Organizations act as the vehicles through which much community capacity building efforts occur. In the context of


\textsuperscript{31} Chaskin, et al. 2001, P.57.
neighborhood revitalization, organizations can range from grassroots community
groups, local businesses, and community-based organizations, to service-
providers, educational institutions, and finally, city governments and agencies.

Community organizing: addresses the education and mobilization of individual
community members towards a collective purpose.

Collaboration, partnerships, and organizational networks: “builds the
organizational infrastructure of communities through the development of
relationships and collaborative partnerships on the organizational level.” 32

Understanding local history: enables a community to expand their perspective
about what works, identify barriers to change, and gain a greater understanding
about the development of the physical and social environment in which they live.
Goodman claims that “awareness of community history also provides an
important backdrop for members in planning solutions to social problems and, as
such, is a key component of community capacity, process, and may influence its
views of the future. (Goodman P.8) Finally, history gives community members
an understanding of the physical, social, and economic forces that shaped the
present. As the landscape contains a physical record of the entirety of a
neighborhood’s history, understanding the history of a place significantly
contributes to the ability to meet local needs and have a positive impact in the
neighborhood. It can become a significant moment that leads to empowerment.

Critical reflection: represents undertaking deliberate efforts to look back and re-evaluate activities, addressing how well they met stated goals, analyzing what was learned.

Anecdotal evidence indicates a need for integration

According to the literature, this collection of strategies should enable communities to build the capacity they need to meet their needs. The capacity building literature succeeds in creating a useful framework for looking at people yet does not address the interaction or addition capacity building that occurs when grounded in a physical place.

Amidst the wide discussion surrounding the need to simultaneously act comprehensively and strategically, authors make anecdotal reference to additional benefits achieved through engaging in mutually reinforcing activities. For example, Chaskin discovers that “less obvious, but equally advantageous, are leadership development activities carried out in the context of community organizing, which commonly emphasizes the kinds of strategic thinking and relational skills emphasized above.”

Glickman quickly commends the advantages of mutually supportive programs. Given limited resources, he states that it is critical that “they recognize and capitalize on ways that they can make existing resources and skills do double duty.” However, he neither follows up on

---

this theme throughout the rest of his analysis nor uses these ideas in examining case studies. A Pew Foundation study concluded similarly in stating “it appears that when community building/organizing activities were linked with physical rehab projects, in a concentrated area, the impact was significantly more visible and commitment to sustain the improvements was more broadly owned.”

This evidence suggests that within the rubric of capacity building, physical projects or community organizing around physical places can become an avenue for increasing capacity. It also represents the need to build capacity in order to achieve certain objectives. “Financial and social skills that are taught as part of home ownership or cooperative ownership programs spill over and create a broader community spirit. These organic theories of community activities indicate how, by working with individuals, community based development organizations restore the community.”

“Community leaders need to be both strategic and entrepreneurial. They may be working on only a few projects at any point, but they must be thinking constantly about how they can use their current work to catalyze action in other areas as next steps. They need to always keep the interrelationships between spheres of activity in mind so that as they work...


36 Ferguson, 1999 P.7.
on one of them they will quickly recognize strategic opportunities to motivate new "high-payoff" initiatives in others."\(^3\)

This anecdotal evidence speaks to the importance in combining efforts and using the improvement of a physical place to organize and cluster effects. Finally, it implies that these efforts to "do double duty" may produce catalytic results.

**CATALYST PROJECTS**

The idea of a catalyst, often used interchangeably with *spillover effect, spin-off,* and *multiplier effect,* describes the beneficial impacts of projects that extend beyond the immediate effects of the specific intervention. Unlike a spillover effect, which is incidental, a catalyst is a desired and intended effect that creates momentum and drives multiple forms of change at once.

The term catalyst stems from the Greek *Catalysis,* meaning dissolution, (e.g. of a government). In 1836, Berzelius gave this name to his discovery of a chemical agent which speeds up the reaction between two existing chemicals without becoming altered itself. This use of the word has traveled beyond its chemical roots to signify something that precipitates a process, or change without being changed by the consequences "one that causes an important event to happen."\(^3\)

\(^3\) Kingsley et al, 1997, P.34.

My literature search revealed that extensive use of the word catalyst in the non-science world is relatively new within the last 15-20 years.

In the context of limited funding, most urban projects aim to engender results greater than the scope of their actions. Urban catalysts represent a strategic approach to maximizing the impact of targeted interventions. One of the few publications directly characterizes a catalyst project as one that is that are “better than the sum of its ingredients”\textsuperscript{39} Catalytic design therefore “prescribes an essential feature for urban development: the power to kindle other action.

While the general notion of a catalyst appears to be a straightforward concept, its use as applied to the urban environment remains complicated. Because a catalyst describes more of an effect than prescribing a specific course of action, the concept adapts easily to various urban design contexts in which it is used. A quick Internet survey exhibits the use of catalyst language in a range of urban projects including downtown revitalization, real-estate development, youth education, urban arts, economic development, and historic preservation. While many claim their project acted as a catalyst, there is a dearth of literature examining how projects are designed to become catalysts, what makes an action or project catalytic, and whether there is a typology of catalytic projects. Indeed, a search of the literature revealed only one source documenting catalytic activity as a deliberate and prescribed process.

CATALYST PROJECTS: LITERATURE REVIEW

Attoe and Logan's 1989 book *American Urban Architecture: Catalysts in the Design of Cities* offers the only assessment of catalyst projects as a separate and unique class. In their definition, a catalyst "describes a positive impact an individual urban building or project can have on subsequent projects." They dedicate the totality of their focus to architectural elements and offer the catalytic approach as a middle option, which conveniently escapes the pitfalls of 1950s style of urban renewal while inherently containing more regenerative power than piecemeal approaches. The authors encourage designers, planners, and policymakers to consider the chain reactive potential of individual developments on civic growth and urban regeneration. Most importantly, catalysts projects are directed efforts. Instead of initiating random and uncontrolled series of changes, they focus the resultant changes in targeted locations. The catalyst is not a single end product but an element that inspires subsequent development.

Attoe and Logan highlight a process in which particular architectural elements - most often buildings - are strategically placed in urban environments needing revitalization. Instead of offering a grand vision or host of tools to use at will, they prescribe a "sequence of limited, achievable visions, each with the power to

---

41 Attoe and Logan, 1989, P.XI.
42 Attoe and Logan, 2003, P.5.9-1.
kindle and condition other achievable visions." Examples of success include Ghirardelli Square in San Francisco, California and the revitalization of downtown Milwaukee, Wisconsin. In each case, a strategic intervention – renovating a historic building, or new construction – acted to spark a series of additional interventions nearby - development of open space, streetscape improvements, and development of new buildings - resulting in a "successful" and popular urban place.

The authors also conclude that there is a dearth of theory on urban catalysts; the catalyst approach or idea is "partially established in practice, but not in theory." Furthermore, there is gross overuse of the actual term catalyst. Most urban projects aim to become catalytic, but in very few does this ideal reach fruition. In order to further explore this concept in their definition, they identify seven characteristics of catalytic design, which define catalyst projects:

**CATALYST PROJECTS: A FRAMEWORK**

Introduction of a new element causes a reaction that modifies existing elements in an area: Reactions can take on a variety of forms ranging from physical projects, to new relationships to change of image for the area.

Existing urban elements of value are enhanced or transformed: Often, this involves re-discovering elements of value or adding value to what currently exists

---

in the neighborhood, such as historic architecture, waterfronts, buried streams. However, it also encompasses the community itself and values both that outsiders place on the existing residents as well as new values they give to themselves.

The catalytic reaction is contained; it does not damage its context: The force of a catalyst is neither indiscriminate nor all encompassing. For the purposes of neighborhood revitalization, this means that a community is protected from the negative impacts of gentrification.

To ensure a positive, desired, predictable catalytic reaction, the ingredients must be considered, understood, and accepted: This includes thorough understanding of the context and local history as well as the nature and implications of interventions.

No specific formula can be specified for all circumstances: Each situation is unique and interventions must be tailored to local circumstance.

Catalytic design is strategic: “Change occurs not from simple interventions but through careful calculation to influence future urban form step by step.” Unlike opportunistic development, which is inherently short-term, strategic interventions embody a long-term approach. “The key is to keeping strategic and catalytic
design malleable is to have multiple rather than single-minded views of the future.\textsuperscript{44}

“A product is better than the sum of its ingredients” is the underlying intention for each action in a catalyst project. “Instead of a city of isolated pieces, imagine a city of wholes.” The goal becomes the realization of an “integrative urbanism, in which the parts reinforce one another and each is better for its association with others.”\textsuperscript{45}

Additionally, Attoe and Logan identify a series of elements within their case studies critical to the success of the catalyst projects:

- Develops a unique sense of place and restructures the image of the area.
- Establishes precedents for other developments in both the process and the product.
- Builds confidence within the neighborhood.
- Creates an atmosphere of Mutual influence, where the people and the place both shape and are shaped by each other
- Utilizes a “broker” to “move ahead and forge alliances. It sets up a positive climate in which the desired reactions take place.”

\textsuperscript{44} Attoe and Logan, 1989, P.67.
\textsuperscript{45} Attoe and Logan, 1989, P.69.
Attoe and Logan recognize the need for further research about the nature of urban catalyst projects – particularly in the areas of catalyst tools and processes. However, their vision is quite powerful: "If planners and policymakers acknowledged the process of urban catalyst, they could counteract the diminishing influence of individual design actions and thus shape and direct the design of remote as well as nearby development."\(^{46}\)

The limited focus on architecture as a method and indicator of revitalization, and lack of a mechanism for measuring the success or failures of a catalytic process represent some limitations of this framework. It advocates for the importance of context, but only in the terms of the existing structure of street grids, building heights, and land density. It concerns neither the existing local residents - their economic and social needs, nor the effects of development on the local population. Furthermore, social, economic, historic, and political forces are only presented as relevant to the extent that they can forward the catalytic process. This theory applies well to purely physical interventions but does not take into account the complex social needs of neighborhoods.

In a desire not to aimlessly or unnecessarily generate frameworks, I use the ideas elucidated in this approach to address the subject and goals of neighborhood revitalization. This catalyst project framework, normative as it is, can easily be adapted to more appropriately encompass the multiple goals inherent in a revitalization process. While some additional flaws of the

\(^{46}\) Attoe and Logan, 1989, P.XIII.
framework may be apparent, they are best elucidated through case study examples later in the thesis. The following chapters will test the usefulness of this framework to identify and measure catalytic effects through examination of the case studies.
The West Philadelphia Landscape Project (WPLP) is an action research project initiated in 1986 by a partnership between two organizations at the University of Pennsylvania (Penn) and Philadelphia Green, a project of the Pennsylvania Horticultural Society. Initially through neighborhood greening projects, this group aimed to improve the low-income neighborhoods of West Philadelphia, which suffered from neglect and abandonment.

After the initial phase (1986-1991), two partners dropped out, and additional partners were added over time. The project grew and evolved over the next 17 years and became an umbrella to house a multitude of physical design and community development projects. WPLP reflects a deliberate attempt to bring “top-down” and “bottom-up” activities together to revitalize a low-income neighborhood adjacent to Penn while additionally serving as a model for other
A faculty member acted as the primary project director though multiple and sustained spin-off projects arose from these efforts. The project director’s learning process guided the project’s development over time.

WPLP does not represent a comprehensive approach to solving the problems endemic to West Philadelphia. Rather, it offered a comprehensive framework – a landscape and natural processes perspective, around and through which to empower and mobilize change. Direct, indirect, and ripple effects of the efforts undertaken through WPLP sought to improve the lives of residents as well as incite change in the neighborhood, the local institutions, and the city.

A 17-year old project, WPLP is best analyzed in phase as each phase was carried out with different partners and types of activities. Therefore, it is helpful to discuss how capacity and catalyst projects were created during each phase.

**BACKGROUND**

Anne Spirn learned of the role that buried flood plains played in the deterioration of buildings and patterns of vacant land while she was a professor in the Graduate School of Design, at Harvard University. Through examining the history of Boston, Massachusetts’ Roxbury and Dorchester neighborhoods, and comparing spatial patterns of development with the location of waterways, historic streams, and topographic maps, she discovered not only the relationship

47 Anne Sprin, “Promoting Sustainable Development through University-Community Partnerships”, 1997
between the natural environment, and construction patterns, but also the way they disproportionately impacted low-income communities.

Historic maps established that settlers built the oldest homes at the highest elevations. Over time, development traveled down from these areas of higher elevation, with the low-lying areas built-up last. In many cases lowlands actually consisted of swampland which developers later filled in to make room for their buildings. The oldest buildings tended to be the most elaborate, while the lowlands featured apartment buildings and other forms of housing to serve the less affluent residents.

Numerous home-maintenance challenges ensue from the presence of underground water, requiring frequent and costly attention. Landlords with low-income tenants had few incentives to provide such costly services. Yet without such maintenance, foundations erode and basements flood.

The practice of mortgage “redlining” exacerbated these trends. Not only did federal programs, such as the GI Bill and Federal Housing Administration loans and insurance, facilitate the exodus of affluent residents, they prevented inner city or non-white communities to receive funds for home improvement. The result: significant decrease in value of a deteriorating housing stock largely owned by absentee landlords, and inhabited by people with low-incomes.

While some of the homes on the hills have survived for over a hundred years, buildings located in the lowlands sometimes disintegrated or were torn down much sooner.⁴⁹

Upon moving to Philadelphia to chair the Department of Landscape Architecture and Regional Planning at Penn, Spirn endeavored to continue this line of investigation. Initial research indicated that much of the development in West Philadelphia also lay atop a buried floodplain. The Mill Creek ran through West Philadelphia until the late 1880s, when the City buried it in a sewer. Subsequent years saw the construction of working-class neighborhoods atop the sewer and creek.

When constructed, the sewer contained plenty of capacity for Mill Creek, the city's waste, and the surface water collected during and immediately after storms. However, the subsequent development of the city put great stress on this system. Storms in particular cause troubles to the sewer system as significantly higher quantities of water flow from both from the storm drains and the enlarged creek. Once capacity is reached, the excess water and sewage can overflow into the streets and resident' basements.

West Philadelphia suffered from the same national trends of redlining, a middle class exodus, and disinvestments as Boston and other major cities across the

⁴⁹ A more thorough discussion of this process is described in Anne Spirn, The Language of Landscape, New Haven: Yale University Press, 1998.
country. The presence of vacant land provided additional opportunity for the development of public housing in the community. For example, the Mill Creek neighborhood featured the Mill Creek Housing Project, designed by architect Louis Kahn in 1958. After decades of disinvestments, vacant land and dilapidated homes littered the landscape. The neighboring and affluent University of Pennsylvania began to lose significant numbers of potential students due to the negative image of the surrounding community. The success of the Penn campus greening project in transforming the image of the university campus inspired then president, Sheldon Hackney, to look to similar avenues for the improvement of the larger West Philadelphia community.

**Phase I: 1986 – 1991: greening project**

Initially entitled the West Philadelphia Landscape Plan and Greening Project, (WPLP) began as a partnership between three organizations – Philadelphia Green, Penn's Organization and Management Group, and the Department of Landscape Architecture. The Pew Charitable Trust provided a four-year grant to fund and staff university involvement and greening projects throughout West Philadelphia. The money funded Philadelphia Green for staff and the hiring of a few local residents as well as research assistants and materials from the Department of Landscape Architecture and Regional Planning at Penn.

The project's directors originally sought to transform the landscape and improve community well being through physical interventions. Towards this end, the group constructed many gardens in the neighborhood's vacant lots while they also collected and mapped information about West Philadelphia. By the third...
summer, Spiri and her research assistants had mapped out each vacant lot, including the type of land cover. They developed a typology of vacant lots from single lots to multiple blocks. Spatial patterns began to emerge from overlaying the data with historic maps and it became clear that the large stretches of vacant land lay directly above the Mill Creek stream and sewer. During this phase, research assistants formalized this information into a GIS database with data on separate maps that could be overlaid to demonstrate the connections between vacant land and the landscape's history.

Meanwhile, Philadelphia Green worked with self-identified groups requesting assistance to construct garden projects on their block. As a method of leadership development and community organizing, they began this community partnership with small projects, such as a street tree block. The group would then build upon their success and move onto larger projects. Through this process, residents of a block organized and developed skills in advocating for their needs. Newly empowered groups would then take on more significant projects, such as vacant lot reclamation and garden development. Through the variety of actions required for implementation, such as obtaining city permits, executing each project helped the residents form contacts and learn how to navigate through and collaborate with the City.

The design and construction of both Aspen Farms community garden and Westminster Garden represented important landmarks in the WPLP's development. As the Penn landscape architecture students worked on their projects designing and constructing community gardens, WPLP research assistant and student John Widrick brought his sample drawings to Aspen Farms
to seek opinions of the gardeners. They immediately informed John that his design disregarded the existing relationships and social structure within the garden. In this interaction, he learned that Aspen Farms actually represented many smaller territories, relationships, and factions among the community of gardeners. He then worked with the residents to develop a final design that respected the smaller areas of private space within the garden. His design took only small amounts of space from the individual garden plots and provided a central meeting "street" as well as gateways into the different neighborhoods of the garden.

The residents could very clearly see their vision, their values, and their dreams represented by the design. I know that in this case, it was a powerful realization for them.

The framework created in Westminster garden provided the space for the residents and gardeners to add their own personality to the garden. This experience provided an important lesson in the value of community collaboration to the landscape architecture students. It reinforced the expertise that each participant brings to the table that a final design couldn't sustain success unless it mirrors stakeholders' voices, visions, and dreams.

51 Anne Spirn, conversation with author 4-21-03.
Successful landscape improvement projects improve the neighborhood, develop leadership skills, spark additional spin-off projects, and inspire other groups to imitate their success.


The designs for Westminster and for Aspen Farms really were an expression, an original kind of innovative expression of what those two designers heard that people wanted. I think it must have engendered more of a sense of pride in the gardens for having had more impact on the design.\(^5^2\)

The design process also signaled the start of a long-term personal and academic relationship between Spirn, her students, and the gardeners at Aspen Farms.

While Philadelphia Green and the Penn research assistants developed many successful gardens, there were failures as well. Indeed, Spirn has come to judge success and failure by the transformative effect of the garden on the physical community and its residents. Simple beautification was not enough - success reflected the ability for a redeveloped piece of land to initiate further transformations within the community. Both Aspen Farms and Westminster demonstrated success according to these criteria.

By the end of the initial granting period in 1991, WPLP had constructed numerous gardens, developed a GIS database based on the topographic, hydrologic, and vacant land data information they had collected in the neighborhoods, and had written a series of reports highlighting the research and learning that had occurred over the previous four years.

\(^{52}\) Anne Spirn, conversation with author, 2-13-03.
The WPLP reports presented a plan for addressing the vacant lots in the neighborhood as well as the issues of the buried floodplain. This set of proposals reflected their vision to transform a major neighborhood problem into an asset through integrating flood control and storm drainage with the development of public open space.53

Instead of the standard method of addressing this problem through significant underground infrastructure investments, WPLP proposed land-based interventions to provide the same benefits – reducing the amount of water flowing into the storm drain during a storm event - without the significant cost. The Philadelphia Water Department (PWD) could save money through providing benefits to the community in the form of physical improvements to the neighborhood.

The reports described the proposed plan, provided examples of successful precedents, and set up the framework for the rest of the project. Prior to publication, they were intended to serve as the foundation for conversations with community members (business, public, private, residents etc.) to launch a discussion, evaluate, and make the plans more robust. Unfortunately, the roundtable discussions, which would have allowed the group to reflect on the work never occurred, because an extra year was not funded. The reports were not published, however they developed a life of their own and helped WPLP become a national model for successful interventions in urban watersheds.

PHASE II: 1992-1994

As WPLP did not receive funding for a community feedback process, the second phase became a time of reflection for Spirn, the remaining project organizer. Phase II is best characterized in terms of information dissemination, network building, and personal reflection. It also represents the realization of some of the spin-off projects that originated in the first phase.

Although Spirn continued to develop her own skills and maintain relationships with Aspen Farms community gardeners, many elements of community capacity building were not carried out. She engaged in serious critical reflection to investigate the reasons WPLP was not able to influence city agencies, such as the planning department or the Philadelphia Water Department, and sought additional avenues to collaborate with the community.

During this time, Spirn and others wrote articles highlighting the project's vision, accomplishments, and lessons learned and visitors from all over the world took tours of the Mill Creek Watershed and community gardens. In this way, the West Philadelphia Landscape Plan began to capture the imaginations of others outside of the city and act as a model for urban watershed management. As much was published about WPLP - through writings, radio, and other media - effects of WPLP were additionally felt in the landscape architecture and planning professions. Indeed, during these years, the catalytic effects of WPLP may have been greater outside the community than within.
Phase II also represents the realizations of many spin-offs and catalysts that originated in Phase I. Once again, most of these spin-offs lay outside the Mill Creek neighborhood. For example the work in Phase I sparked significant increase in capacity of Philadelphia Green.\(^{54}\) It enabled them to consider the prevalence of vacant lots as part of a larger pattern occurring throughout the city. With this perspective, Philadelphia Green expanded their capacity, through hiring landscape architects, and securing a contract with the city to survey and develop action plans to address the system of vacant lots in Philadelphia. Blaine Bonham, director of Philadelphia Green became a Loeb Fellow at Harvard's Graduate School of Design.

**PHASE III 1994-1998: SULZBERGER MIDDLE SCHOOL**

In order to continue working towards the project’s goals, Spirn built on an existing relationship with Ira Harkavy, the director of the Center for Community Partnerships (CCP) at Penn, to develop an education program in a Mill Creek Middle school. Spirn chose Sulzberger Middle School for its location on top of the buried floodplain, one block from Aspen Farms.

\(^{54}\) As a project of the Pennsylvania Horticultural Society, Philadelphia Green primarily developed gardens and other types of greening projects in neighborhoods throughout Philadelphia. After their work in WPLP, they increased their organizational capacity and gained a more significant role in the city as a key organization addressing issues and strategies to manage vacant land in Philadelphia.
Local schools present an ideal opportunity to test innovative approaches to education as well as reaching to reach adults in a community. CCP provided funding for work-study research assistants as well as small seed grants for curriculum development. The Philadelphia Urban Resources Partnership (PURP) also provided a grant for WPLP to develop an urban watershed curriculum and an outdoor garden classroom at Aspen Farms Community Garden.

Throughout the next 7 years, Spirn and her students collaborated with Sulzberger Middle School teachers to teach about watersheds and natural processes, neighborhood history, and develop visions for the physical and economic improvement of Mill Creek and West Philadelphia.

Penn students researched the neighborhood’s history and led the middle school students to discover traces of this history in their neighborhood. Understanding how the physical, social, and political forces influenced the development and degeneration of the neighborhood enabled students’ attitudes to change from “disdain to pride” in their neighborhood. The development of such an intimate understanding of their community’s history influenced the students’ desires to transform it.55

Through WPLP’s education programs in the school, middle school students began to develop visions and advocate for what they wanted in their community.

55 Anne Spirn, conversation with author, 2-13-03.
They then learned and utilized media technology, and web design to demonstrate their visions. For example, students created a proposal to build a mini-golf course on a large swatch of vacant land to act as both a community amenity and economic development engine. As part of this project Sulzberger and Penn students worked together to develop business plans and site designs. To recognize their achievements, the middle school children were invited to make presentations to local and state officials regarding the state of Mill Creek and their visions for it.

The launching of the WPLP website in early 1996 acted as an important catalyst in many ways. It publicized WPLP to the world and, from 1997 on, opened a window for students in a marginalized community express their visions and dreams. The website provided a tangible physical demonstration of the considerable skills the middle school students developed as a part of the partnership with Penn. Finally, it captured the imagination of people across the world – bringing significant attention to the Sulzberger Middle School’s accomplishments.

Through this project, a number of community members, such as Hayward Ford, president of Aspen Farms community garden, teachers at Sulzberger Middle School, and the school children enhanced their leadership capabilities and developed a variety of other practical skills, such as grant writing and computing skills. In 1998, Pennsylvania Governor Tom Ridge recognized the leadership of Sulzberger Middle School’s teachers and students by inviting them to present the Mill Creek Project and website as part of his annual Budget Speech.
Sulzberger Middle School increased its organizational capacity as well. Through the partnership with Penn, Sulzberger teachers and principal acquired funding and resources, such as computers, garden space, and internet wiring. Additionally, the training that teachers and students received – particularly in the areas of GIS, web-design, and business development, enabled the school to expand existing, and develop new curriculum. For example, GIS and web-authoring training that SMS teachers received in the summer of 1997 directly influenced the lessons they taught in subsequent years.

This collaboration between Penn and Sulzberger Middle School additionally led to a transformation of the school and its educational structure. WPLP planted the seeds, which enabled teachers to develop new programs and curriculum. For example, the three-week program in business plan development, which Penn students taught as a small part of the mini-golf proposal, formed one of four small learning communities in the new structure of the school. The teachers received training as well as the impetus and significant support for innovative curriculum.

Through their children, parents of the Sulzberger students also learned about the buried floodplain and the issues that caused some of the problems in the community, which influenced them to start organizing around these issues. However, this level of organizing developed more fully in Phase IV of the project.

Network building occurred in many ways during this phase. On the community level, there developed an important relationship between Sulzberger Middle School and Aspen Farms, which brought numerous benefits to both groups. Connecting teachers from Sulzberger with the Aspen Farms gardeners enabled
the development of innovative educational practices. Bringing the Sulzberger kids into Aspen Farms fostered intergenerational connections between the mostly older community gardeners and the middle school students, forming ties that did not exist prior. The success of the work gained prestige and recognition by major institutions throughout Philadelphia, the country, and the world.

The successes from phase III had tremendous impact for all of the people involved. In addition to learning from classroom lessons, middle school students gained valuable skills and developed a greater sense of personal agency to influence the future of their community.

One of the more interesting catalysts from this phase was actually a failed grant proposal. Spirn, in consultation with the teachers and principal of Sulzberger Middle School had written a proposal to receive Environmental Protection Agency (EPA) funding for a program to integrate watershed projects and vacant land reclamation with education programs in the community. Although the EPA rejected the application, the proposal had effects that lasted for some time.

Sulzberger Middle School teachers and principle kept a copy of the application and used it as a model for developing their own grant proposals. In the ensuing years, they obtained hundreds of thousands of dollars in grants and became widely recognized for their fundraising successes.56

56 Anne Spirn, conversation with author, 2-13-03.
During this time, Aspen Farms community garden also redefined its role and increasingly became involved in youth education in the community. As a result of their involvement, many middle students began their own gardens in the neighborhood. Hayward Ford, president of Aspen Farms Community gardens recalls how both neighboring residents and students developed their own gardens. He claims,

Seeing youngsters starting their own garden projects is great because flowers are really the last thing on their minds, so if they're planting, it really means there has been a success and that you have really touched them.\(^{57}\)

**Phase IV: 1998-2000: Mill Creek Coalition**

While the partnership with Sulzberger Middle School continued to thrive, a local community organization, the Mill Creek Coalition (MCC), asked Spirn to join in their efforts to improve the conditions of the community. The new working group engaged each other to investigate ways to turn the significant community problem of the buried creek and sewer into an opportunity.

WPLP/MCC embarked on a study of neighborhood basements in the summer of 1999 to survey the extent of the damage caused by the buried floodplain. In many homes, they discovered that years of poor maintenance additionally

---

\(^{57}\) Hayward Ford, President of Aspen Farms Community Garden, conversation with author, 3-12-03.
contributed to the problems community members faced. For example, in some homes, the roof downspouts led directly into the basement. Much of these problems stem from the legacy of home mortgage redlining. Without a history of home mortgages, homes tended to pass from one owner to the next through more informal means, thus bypassing routine home inspection requirements that would have revealed damage in serious need of repair.

WPLP/MCC focused its community-organizing efforts around the prevalent issue of water in resident’s basements by developing a proposal for the Fannie Mae Foundation. The project proposed to empower youth and residents in a series of efforts to develop community capacity through ameliorating the problems resulting from the buried floodplain and poor home maintenance. While originally encouraged by Fannie Mae to submit the proposal, they declined to consider the proposal, because they reportedly were too alarmed by the scope of the problem at the national level.

This work distinguished MCC as an important voice in the community and increased the leadership capabilities of those involved in the organization. MCC and WPLP educated the community about watershed problems, created guidelines for collaborating, and developed proposals to address the water issues in the community.
PHASE V: 2000 – PRESENT:
PHILADELPHIA WATER DEPARTMENT

In the summer of 1999, the Philadelphia Water Department (PWD) became actively engaged in WPLP. Spirn had tried to involve the PWD since the early 1990s and included them in the discourse as much as possible. However, this phase reflects a significant turning point in the evolution of their relationship. During a tour of the watershed, PWD engineers experienced profound paradigm shifts as they realized that the ideas and proposals Spirn, her students, and the community had been advocating for years were not crazy and, indeed, potentially viable.

Spirn then consulted with PWD to develop and submit a grant application for a pilot project to determine best management practices for land-based watershed projects. They based their proposal on the same failed 1997 EPA grant application that Sulzberger Middle School had utilized earlier. The project "illustrates how storm water quantity and quality can be improved through the adoption of environmentally friendly best management practices that can be reproduced throughout the city."58 PWD, in partnership with Sulzberger Middle School and MCC, received the grant in 2000 and hired former WPLP research assistant, Sarah Williams, to work at PWD and become the project manager.

58 Philadelphia Water Department, Announcement of Dedication Ceremony for the Sulzberger Outdoor Classroom and Community Park, 10-9-01.
The grant initiated the Mill Creek Watershed Project, which aimed to “demonstrate potential alternatives for reducing storm water run-off in the urban environment, while at the same time enhancing the community that resides within the Mill Creek Watershed.” Through the grant, PWD aimed to develop best management practices, test the impact of above-ground interventions on storm water, while creating a community amenity and educational resource. Per the parameters of the grant, the PWD worked with the Mill Creek residents as well as Sulzberger Middle School students to identify and develop demonstration sites. The community chose a site and the PWD worked with the students on its development.

The first major challenge of this phase was that Spirn left Philadelphia to take a position at the Massachusetts Institute of Technology (MIT) in the fall of 2000. At the same time, MCC began to stand up to the PWD and demand that they address all of the problems related to the buried floodplain in their neighborhood.

Without their liaison, PWD had to quickly develop their abilities to communicate, build trust, and address serious problems in Mill Creek. Getting the community on board was very important to the PWD because they needed community support to complete and, more importantly, maintain the watershed projects. Residents mistrusted the PWD primarily because they blamed them for either

59 Sarah Williams, unpublished grant summary for EPA Watershed Department Grant, 2002.
causing or failing to fix the water problems their neighborhood faced. However, while the buried floodplain contributed to many of these troubles, it did not offer a complete explanation.

In order to build trust with the community, the PWD held homeowner education fairs, connected them with assistance organizations, and performed a sewer-scaping procedure to examine its condition. They additionally turned off the water in many abandoned buildings to prevent flooding and overflow into adjacent properties. Sarah Williams recognizes the development of PWD's relationship to Mill Creek,

*The water department took ownership of the neighborhood. I consider that a success. I think maybe before, they depended a lot on Anne Spirn for direction and now they were able to create their own direction and goals without her help, which helps to provide sustainability to the project.*

MCC gained additional community support as their efforts successfully brought about positive outcomes in the community. The PWD's efforts made strides

---

60 Sarah Williams, former PWD Project Manager and WPLP Research Assistant, conversation with author, 3-1-03.
61 Joanne Dahme, conversation with author, 3-12-03.
62 Sarah Williams, former PWD Project Manager and WPLP Research Assistant, conversation with author, 3-1-03.
towards building the community’s trust. However, it hindered the design process due to the short-cycle of the grant. In this context, the first demonstration project can be viewed as a success as well as a failure. For this project, residents chose a highly visible and notorious vacant parcel, located across from Sulzberger Middle School. They constructed an underground concrete basin that collected, filtered, and slowly released storm-water into the sewer.

While the site critically needed improvement, it was not ideal as a water retention demonstration project because the narrow site (14 ft. wide) sits on landfill and is flanked on each side by functioning buildings. The location did enable owners of adjacent homes to channel downspout runoff onto the site, diverting additional water and helping to improve the conditions of surrounding homes.

Meanwhile, PWD educator Joanne Dahme and Camp Dresser & McKee (CDM) consultant, Peter Godfrey, worked with school children in a summer site design and watershed education program. Godfrey designed the first site and worked with the kids throughout the process. The kids aided in the design of the site as well in developing the concept for the murals on the side of the building adjacent to the site. The design of the site represents the topography of the area, using Philadelphia’s famous Fairmount Park as a model. It slopes towards the sidewalk, and symbolizes the transition from the natural watershed to the urban watershed, at the front of the site. PWD developed its plan with the Sulzberger Middle School as a key partner in the ongoing use and maintenance of the sites, but has found the school to be delinquent in their commitment to maintenance.
These activities represent a significant transformation in PWD's operational strategy from implementing significant infrastructure projects to developing land-based alternatives. Working above ground introduced a host of new opportunities, partners, and challenges. As one of the earlier projects of this nature, their efforts in west Philadelphia also indicate the beginning of their learning process about partnering with urban communities. Joanne Dahme, educator at the PWD indicated that prior to this project, their primary method of interacting with the community involved posting a sign and digging up the street. Actually collaborating with a community and sharing power with neighborhood stakeholders was a new and untried territory. For the PWD, this form of community involvement was significantly greater and far more creative than anything they had experienced prior.\footnote{Joanne Dahme, Watershed Programs Manager for the Philadelphia Water Department, conversation with author, 3-12-03.}

PWD remains challenged in determining how to foster greater community ownership and maintenance of the watershed sites. They have spent considerable effort reflecting on why, despite apparent physical successes, the issue of long-term maintenance and stewardship remains unresolved. To this end, they will engage in further constituency building. Instead of relying on an overcommitted institution to take charge, they intend to work with a network of community groups and non-profit organizations to build ownership and take control of the projects upon completion.
Daylighting Mill Creek is not an option as it still resides in the city sewer, yet uncovering the path that water travels through West Philadelphia remains a viable plan. In PWD is currently working the second phase of demonstration projects, one of which calls for the construction of a Mill-Creek greenway directly above the buried creek/sewer. The greenway will link to a network of greenways tracing the path of the watershed, which PWD also plans to initiate. This PWD plan echoes the 1991 *West Philadelphia Landscape Plan* proposal that also calls for the construction of greenway on top of the buried creek and sewer.\(^{64}\) Both projects have similar goals: to provide a community amenity, to educate about natural processes, to demonstrate the way the watershed interconnects communities in Philadelphia, and to increase the land area which can absorb water during a storm event, thereby reducing the flow of storm water to the sewer, and preventing overflow into surrounding homes. To establish this greenway, PWD must coordinate and collaborate with other communities that also house sections of the buried Mill Creek and negotiate with property owners and city agencies to develop a greenway. PWD continues to learn how to approach such projects and achieve success.\(^{65}\)

Despite such challenges, PWD's activities in Mill Creek sparked great interest both inside and outside the community and are transforming the way PWD approaches watersheds. PWD employees' initial experiences have encouraged them to partner with a variety of organizations of differing sizes to develop new

\(^{64}\) Spirn, 1991.

\(^{65}\) Joanne Dahme, conversation with author, 3-12-03.
projects and ensure adequate citizen involvement. PWD provides technical assistance to other communities and is actively seeking partnerships with many city agencies, such as the Philadelphia Redevelopment Authority, to promote watershed-friendly landscape design in all building projects. PWD now views collaborating with local resident groups as central to the success of such projects. As PWD develops greater capacity and builds partnerships throughout the city, it is becoming a model for how a city can integrate sustainable watershed management with neighborhood revitalization, though project leaders still struggle to improve the involvement of local citizens.

Present

Spin’s relocation to Boston ushered in a new phase for Mill Creek. With the departure of this “glue” that bound the sizeable WPLP network together, many of the relationships were not maintained and leadership within the WPLP umbrella split. The void left by Spin’s absence encouraged others to emerge into leadership positions but also left some projects and partnerships by the wayside.

From MIT, Spin continues explore ways to stay involved with Mill Creek. She currently teaches and writes about lessons learned from WPLP from MIT. For example, in the spring of 2002, she co-taught Media Technology and City Design and Development with Caesar McDowell at MIT. Through this course students developed a new website for WPLP to better reflect the community vision, project’s partnerships and social networks that developed over time. Spin aims to further collaborate with Sulzberger Middle School through developing a program in digital storytelling.
Hayward Ford and the Aspen Farms community gardeners continue to use the gardens to educate youth for a diversity of local schools and day care programs. Other WPLP participants received transferable skills and sense of empowerment that they have taken elsewhere. For example, Frances Walker of the MCC left Mill Creek to participate in a program with the Center for Reflective Community Practice at MIT in 2000-2001. She subsequently relocated to New Orleans, Louisiana, where she continues to work on pressing community issues.

Sulzberger Middle School received numerous grants to continue their activities. However, the progress the school made in terms of securing funding and developing innovative curriculum has been thwarted by the privatization of the Philadelphia School System in late 2001. Now as one of many schools under the direction of Edison, a private Educational Management Organization (EMO), resources have been redistributed and many teachers since left. WPLP collaborators and Sulzberger teachers Glenn Campbell and Don Armstead no longer teach there, but continue to work developing curriculum based on the WPLP model.

PWD is taking charge of the storm water management and further development of vacant sites in Mill Creek. It plans to develop a variety of sites in the second phase of the Mill Creek project, including a playground that the children designed part of the Hope VI redeveloping adjacent to Sulzberger Middle School. PWD's

---

efforts are an important and sustainable spin-off as it took over running and funding the summer programs.
**ANALYSIS**

**Capacity Building**

Within WPLP, capacity building did not end with the neighborhood. WPLP built capacity, leadership abilities, and educated all who were involved in the project. WPLP engaged in much capacity building, on both the network and individual levels, but as an action research project, did not initiate a community organization or full-time coordinator to develop and promote this community vision. WPLP provided a landscape and watershed framework for community groups to put their community revitalization goals, dreams, and visions into.

**Leadership development:** One of WPLP’s major strengths is that it has fostered and encouraged leadership development amongst all project participants — residents, Penn students, middle school students, and professionals. The projects themselves enabled those involved to develop their own capabilities, take on new positions of responsibility, and demonstrate success — whether through an implemented physical design, the development of new curriculum, or through web authoring. Involved participants received transferable skills and sense of empowerment that they then took elsewhere. Frances Walker and Blaine Bonham sought additional education at MIT and Harvard, respectively, Glenn Campbell is working for the Philadelphia School District to develop curriculum based on WPLP. Former Penn students also went on to develop related programs in other cities. Providing this space enabled individuals involved in the project to develop and reach personal and career goals. Had the project included follow up with children involved, it would be useful to determine

**WPLP’s Strengths**

- Promoting a powerful vision of opportunities inherent in the watershed and buried floodplain
- Connecting institutions with local community around issues of the watershed and buried floodplain.
- Developing individual capacity, education, and leadership among students (Penn and Sulzberger Middle School), teachers, and other project partners.
- Creating sustainable spin-offs projects within local and city institutions.
- Becoming a national model
long-term impact of such a series of efforts – particularly in the areas of youth education and developing.

Organizational Development: WPLP was run mainly by one professor who provided many key functions, such as, visionary, project director, institutional memory, community liaison, and development director. Professor Spirn directed a staff of research assistants and partnered with community-based, city, and university agencies to carry out the project agenda. While community needs were central to all efforts, student, course, and research needs and timeframes also factored in and influenced the pace and extent of accomplishments. Organizational development therefore does not represent a major strength of WPLP.

Community Organizing: Within WPLP, community organizing reflects the nexus of leadership development and network building. In a sense, community organizing represents a spin-off within the project. Unlike the Saul Alinsky model of community organizing, where the issue at hand is only relevant to the extent that it enables a community to develop power, community organizing within WPLP explicitly focused on a particular issue and integrated the goals of empowered residents and improved place.

Network Building: Perhaps one of the most successful ways to promote institutional change that WPLP acted as a broker to connect grassroots organizations and city institutions with each other, fostering neighborhood empowerment as well as significant institutional change. The continual work to promote the watershed ideas and bring neighborhood and city efforts together
enabled the development of spin-off projects at both the community and institutional level.

**Local History:** The power of local history to transform perceptions of neighborhood residents encouraged subsequent leaders of the project to use it as a backbone from which to develop goals, visions, and plans. Beginning in the third phase, local history became critical to all actions, as the physical and social well-being of the community is intimately tied to the forces of the past. Understanding the legacy of the past—whether through the course of the historic stream or though the physical and social impacts of home mortgage redlining—became the first step in transforming the community and empowering members to create positive futures. “It was a powerful part of the capacity building.”

**Critical Reflection:** formed another operational principle of WPLP. Critical reflection was particularly important during the first phase because funding required the group to simultaneously implement, collect information, and assess built projects. They had many opportunities to analyze successes, failures, and lessons learned throughout a project while still in the process of implementing others. This rapid pace accelerated the learning process and strengthened the quality of later projects. Through this process, garden designs evolved from standard cookie-cutter projects to truly reflect the context of the surrounding area, the values, and dreams of the local residents.

67 Anne Spirn, conversation with author, 4-26-03.
A variety of disappointments, setbacks, and challenges required constant reevaluation, and reassessment. One common response to such setbacks throughout the project was to include additional partners and seek new avenues for reaching target audiences – whether it be the adults in the community or city agencies. Expanding project partners built constituencies through educating about issues related to the buried floodplain – demonstrating that the urban watershed affects everyone. In this way, critical reflection often led to the development of new forms of capacity building as well as spin-off projects.
<table>
<thead>
<tr>
<th>CAPACITY</th>
<th>PARTNERS</th>
<th>PHASE I</th>
<th>PHASE II</th>
<th>PHASE III</th>
<th>PHASE IV</th>
<th>PHASE V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership Development</td>
<td>Students</td>
<td>Penn/Phil/ Green</td>
<td>SMS/ Aspen Farms</td>
<td>MCC</td>
<td>PWD</td>
<td>Individuals in Water Dept. Water department as community agency Students from summer education project.</td>
</tr>
<tr>
<td></td>
<td>Project organizers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Philly Green; capacity in community around development of vacant lots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Development</td>
<td>Groups organized to build gardens</td>
<td>Philadelphia Green develops new role in city</td>
<td>School; re-organization, proposal writing</td>
<td>MCC's capacity strengthened by the partnerships</td>
<td>PWD learns new ways of operations, gains credibility in the community and city</td>
<td></td>
</tr>
<tr>
<td>Community Organizing</td>
<td>Helped residents mobilize for purpose of landscape improvement ideas that originated with them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Building</td>
<td>Helped resident groups develop contacts and relationships w/ city agencies and the university</td>
<td>Relationship between Aspen Farms and Penn enhanced</td>
<td>Connecting Teachers w/ Aspen Farms, Visibility within school district, Website launched</td>
<td>Connecting to the water department and city agencies</td>
<td>Connecting community members to outside agencies as well as other community agencies</td>
<td></td>
</tr>
<tr>
<td>Local History</td>
<td>Landscape history research</td>
<td></td>
<td>Fundamental and powerful part of education</td>
<td>Work had significant Educational component</td>
<td>Landscape history reflected in the story of the watershed and community</td>
<td></td>
</tr>
<tr>
<td>Critical Reflection</td>
<td>Yes</td>
<td>Blaine Bonham goes to Harvard to reflect</td>
<td>Why failures? How to make city agencies listen?</td>
<td>Evaluation of successes and failures throughout the phase</td>
<td>Why failures? How to prevent from happening in the future. Must address neighborhood issues head-on. MIT Class - encourages leaders to reflect</td>
<td></td>
</tr>
</tbody>
</table>
WPLP as a Catalyst

Catalytic effects that occurred in WPLP have not followed the controlled logic that Attoe and Logan prescribe in their theory of urban catalyst. Instead, catalytic effects tend to develop more organically within the framework that the project created. In WPLP, catalysts were both intended and unintended and followed along the same lines that project organizers built capacity.

WPLP created catalysts in a number of ways that were both intended and unintended. First, many spin-offs projects developed from the original project. Additionally WPLP acted as a model that inspired projects outside of the community. Finally, and most importantly, WPLP and the landscape plan acted as a framework and provided an agenda for incorporating and developing new initiatives and projects.

Not all of these catalysts were intended or known at the time. The failed EPA proposal provides a good example of an unintended catalytic effect. Even though it was not originally funded and considered a failure, the proposal actually had great positive consequences. On their own initiative, the Sulzberger Middle School teachers and principal used it to learn the process of grantwriting and securing significant funding. When the same proposal was used to develop the PWD grant, the consequences were intended. PWD used the ideas developed by Spiri and the community to direct the development of their collaborative project.
The parameters of the grant challenged PWD’s entrenched way of operations and have catapulted them into a new way of doing business in the community and interacting with the physical environment. The recognized success of the initial pilot project has created additional projects throughout Philadelphia and the state of Pennsylvania. On the other hand, the failures of the pilot project in Mill Creek have caused MCC to emerge into a role of greater leadership and at the same time are forcing PWD to develop new partners and stakeholders and improve how they interact with the community.

**Act as model**

Through making information about a project available to the public, others can use successes of a project to inform their own projects and designs. Such projects can also serve to expand one’s idea of what is actually possible. The WPLP acted as a model in many ways. First, it pioneered in demonstrating a relationship between subsurface water and neighborhood conditions. Furthermore, it reveals the catalytic effects of connecting the development of community gardens, physical improvements in the neighborhood, and community development. It challenges traditional ideas of education both in the subject matter (local history, local environmental education, etc.) and in the process (participatory, hands-on learning). Most importantly, it encouraged people to think differently about the capabilities of middle school children in a disadvantaged neighborhood. Finally, it utilized new applications of information technology – specifically GIS and the web – to improve and empower the local community.
Recent web queries revealed a diversity of organizations claiming to use WPLP as a model and inspiration for the efforts of non-profit organizations, governmental agencies, and academic institutions. For example, the city of Ottawa cites WPLP's integration of “environmental issues, education, and heritage,” as a model for the Canada Growth Management Plan while WPLP’s success promoting community planning acts as a model for the National Housing Institute.  

Instigate Spin-Off Projects

Spin-off projects became a critical way for WPLP to expand its impact within community without significantly enhancing its own organization capacity. The numerous spin-off projects carried out the project’s agenda, increased the number of partners, and achieved greater success than could have been possible under the direction of Spirn alone. Currently, WPLP has actually branched into four separate spin-off projects, headed by Spirn, PWD, Aspen Farms community gardeners, and teachers at Sulzberger Middle School. PWD is now in charge of developing the vacant land into watershed-friendly community amenities, while the others gravitated towards youth education to various extents. Other spin-off efforts, such as Philadelphia Green's vacant land projects continue to thrive as well.

66 City of Ottawa, CA 2020 Heritage Plan, 2003,  
Setting an Agenda and Providing a Framework for Action

Perhaps most significantly, WPLP created a framework for action, which reflected community goals, desires, and needs as well as expert knowledge. Project organizers created a structure and venue to discuss community issues as well as a framework for other people and organizations to get involved. This agenda differs slightly from a strategic plan in that rather than being directed and dictated by the parameters of a plan, a myriad of people and groups could fit their activities and goals into this larger vision and work towards its realization. Such a framework becomes a more organic way to foster integration and build constituencies. The urban watershed provided the physical framework around which to organize. Physical elements were tangible, easy to grasp, with visible effects in the community.
<table>
<thead>
<tr>
<th>Catalyst</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>Phase IV</th>
<th>Phase V</th>
</tr>
</thead>
<tbody>
<tr>
<td>New element causes Rx</td>
<td>Gardens led to positive changes in the community: Community-driven physical improvements</td>
<td>Landscape Plan reports became national model</td>
<td>School curriculum, Garden building in Aspen, SMS writes grant and secures thousands of dollars, Website</td>
<td>Failed EPA proposal used to develop additional community proposals</td>
<td>Failed EPA grant becomes model for PWD grant, Spil goes to MIT</td>
</tr>
<tr>
<td>Existing elements of value are transformed</td>
<td>Vacant land, Architectural heritage, Community identity, Voice improved</td>
<td>Many improvements to aspen farms, Value given to neighborhood's history, Students attitude towards neighborhood improved</td>
<td>Exploring how to turn a community problem into an asset</td>
<td>Vacant land, Home maintenance, Mill creek housing project</td>
<td></td>
</tr>
<tr>
<td>Context not damaged</td>
<td>No gentrification, helped stabilize neighborhood</td>
<td>No</td>
<td>No, gardens improved neighborhood</td>
<td>No</td>
<td>Low income housing was actually torn down</td>
</tr>
<tr>
<td>Ingredients understood</td>
<td>Ingredients = Residents visions and realized in physical form</td>
<td>Education aimed to help community understand context and determine how to improve</td>
<td>Local context played important role, each member brought significant neighborhood understanding to the table</td>
<td>PWD did not start out as aware of community context, yet learned quickly at their insistence Watershed history and processes understood</td>
<td></td>
</tr>
<tr>
<td><strong>Catalyst</strong></td>
<td>Phase I</td>
<td>Phase II</td>
<td>Phase III</td>
<td>Phase IV</td>
<td>Phase V</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>----------</td>
<td>-----------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Partners</strong></td>
<td>Pew Grant</td>
<td>Fallow/Publicize</td>
<td>SMS/Aspen</td>
<td>MCC</td>
<td>Water Dept</td>
</tr>
<tr>
<td><em>No set formula</em></td>
<td>Some gardens had a set formula while others did not. All were very context specific</td>
<td>No set formula</td>
<td>No set formula</td>
<td>Efforts were tailored to issues that arose through work with the community</td>
<td>Interventions tailored to specifics of each site</td>
</tr>
<tr>
<td><strong>Strategic</strong></td>
<td>Chose groups based on opportunities to build capacity</td>
<td>Teachers specifically chosen based on levels of engagement. Aspen Farms chosen strategically</td>
<td>Pilot research project works strategically</td>
<td>Web development and digital storytelling users chosen strategically</td>
<td></td>
</tr>
<tr>
<td><strong>Catalyst remains identifiable</strong></td>
<td>Many gardens still remain</td>
<td>Aspen Farms expands its role</td>
<td>Aspen Farms expands its role</td>
<td>Aspen Farms expands its role</td>
<td></td>
</tr>
<tr>
<td><strong>Other Catalysts:</strong></td>
<td>Blaine Bonham goes to Harvard Philadelphia Green expands capacity to take on city vacant lots Reports use to promote national model</td>
<td>Grant writing in school School restructures and develops small learning communities</td>
<td></td>
<td>Frances Walker goes to MIT and then to New Orleans, Louisiana Glen Campbell develops programs for Philadelphia School District</td>
<td></td>
</tr>
</tbody>
</table>
4 The Bronx River Project

Overview

The Bronx River Project (BRP) grew out of the department of Catalyst Projects within the Partnership for Parks (PFP) in New York City. The Catalyst Projects department uses organizing around the improvement of parks to become a focal point for the transformation of the community. Its employees test and document innovative approaches to building community stewardship of neighborhood parks. These activities catalyzed other community initiatives and continued efforts to maintain the existing park.

In 1997, PFP began a project to clean and revitalize the neglected Bronx River. BRP used the river as a tool to organize local neighborhoods, mobilize city agencies, and promote an overarching agenda for the improvement of area. Over the ensuing 6 years, this initiative attracted the investment and involvement of numerous public, private, non-profit organizations, and community groups. The alliance generated millions of dollars towards physical improvements and programming and garnered the recognition of New York’s chief political leaders. Through these efforts, the Bronx River and its waterfront underwent a significant transformation. Previously an inaccessible wasteland, PFP engaged in numerous projects to clean, restore, and connect the community to the

"The Bronx River Project is the key to how you make change happen."

Michelle Caulfield, former director of Catalyst and Special Projects at Partnership for Parks

69 Jenny Hoffner, unpublished information paper about Partnership for Parks’ Catalysts Projects Program.
The only access point to the Bronx River

The river can be seen as a metaphor for the Bronx' history. It symbolizes the degeneration and neglect that occurred as well as the promise of regeneration. It demonstrates the power of a physical place and improvements in that place to mobilize both local and institutional change. BRP is a targeted effort, connecting residents with natural process. It is large in scale, but strategic in action, promoting a comprehensive vision.

BACKGROUND

As New York City’s only freshwater river, the Bronx River stretches for 23 miles through southern Westchester and the Bronx. It flows through one of the country’s most populated, culturally diverse, and economically marginalized area. Years of abutting industrial development and abandonment diminished the river’s natural beauty and prevented local residents from gaining access.

The river has suffered from neglect, litter, and contamination such that its aquatic species nearly disappeared. Low-income communities adjacent to the river, such as Hunt's Point, have disproportionately shared their space with noxious and industrial land uses.

**The Project**

In 1997, PFP, received funding from the New York Urban Resources Partnership to initiate the BRP. The goals of this project consist of promoting the restoration of the river, increasing activity along the river, helping surrounding communities gain access to the river, and providing community benefits throughout the activities of the project. PFP immediately hired a Bronx River Coordinator, who oversaw the activities, organized projects, and brought a variety of public, private, nonprofit, and community organizations together to initiate the Bronx River Working Group (BRWG), which in-turn facilitated the river's restoration and revival.

One of PFP's first actions in the community involved educating the local residents and existing organizations about the presence the river in their neighborhood. When Jenny Hoffner, director of Catalyst and Special Projects out of PFP, originally contacted a Hunt's point resident and non-profit director to discuss BRP, the woman replied that no river ran through her community. After completing a river mapping project, they learned that the river was located only a block away. In partnership with the National Park Service-Rivers & Trails program and the Appalachian Mountain Club efforts began build capacities to reclaim and restore the Bronx River. The coalition sponsored clean-ups of the
water and surrounding forests all along the river and is guiding efforts to restore its ecosystem. 71

The Bronx River Working Group is accomplishing significant watershed restoration and protection objectives by acquiring land, restoring river channel hydraulics, stabilizing eroding riverbank with native vegetation, reclaiming wetlands and floodplains, improving habitat and increasing public access to the river. Many projects and actions are underway, including a mile-long greenway project in the Sound view section of the watershed, a combined sewer overflow abatement project, composition of a comprehensive watershed management plan, and establishment of new parks and introduction of community stewardship initiatives. 72

As part of the project, PFP initiated Water Works: Bronx River Grant Program in 1998, which provided small grants to local organizations to restore and promote activity along the river. These grants became a tool to help organizations working with youth and adults relate to the river in a multitude of ways. Grantees engaged in a wide range of activities from direct ecological restoration work to community garden building as well as youth development and arts programming. BRP recruited, coordinated, and partnered with numerous organizations that

engaged in **leadership development**, through education of youth and employment development, using the river as an organizing tool. Initially, some of the active participants were only tangentially related to parks and river. This deliberate choice to fund organizations with such a diversity of missions and constituencies **expanded and developed the network** of people invested in the river and increased the number of voices active in the process of shaping the river.

Through this process, the network of groups began to develop priorities and vision for the future of the river and the surrounding neighborhoods. With an agenda of community improvement they organized around the restoration and activation of the rivers, organizations were able to develop a sense of shared responsibility and involvement, representing a significant step towards goal of sustainable stewardship.

PFP created access to the river and space for an environmental education center. They also helped organizations to develop environmental programs or expand their programs to encompass issues of the environment. For example, the minority worker-training program now trains in the skills of ecological restoration and uses the Bronx River as place to practice. Such initiatives
additionally created jobs for youth, who were also educated to become advocates for the river.73

Through the BRP, community groups and residents created a waterfront plan that illustrated their vision for the future of the peninsula, including waterfront access, connection from the water into the community, and the development of new parks. The plan became quite powerful because it armed the residents with a response against proposals to build noxious facilities in their neighborhood. Instead of only fighting a negative influence, they could proactively provide their plans, goals, and visions for the neighborhood and connect efforts to prevent negative facilities to positive physical transformation. Some elements of the plan include visions for sustainable industry and the development of green-collar jobs – an agenda that continues to gain momentum in the Bronx.

*These efforts have also led to the development of new programs and organizations like Sustainable South Bronx and Rock the Boat. While we are not solely responsible for everything that followed, we certainly did provide a spark to initiate a host of activities. The Bronx River Alliance is the next step in the effort to restore and protect the Bronx River*74

---

73 Jenny Hoffner, director of Catalyst and Special Projects, Partnership for Parks, conversation with author, 2-17-03.

Community organizing around the river fostered support for the river and built partnerships towards the realization of a revitalized and well-utilized river corridor. The community visioning processes enabled community members and groups to organize against negative influences in the community and advocate for projects that realize their vision.

In addition to physical restoration and community organizing, PFP created the Bronx River Golden Ball festival in 1999, which developed into a signature event to garner popular support of the river while demonstrating significance of the river in the natural environment. PFP organized other events, such as River fest 2000 and Amazing Ball Flotilla and river clean-ups, to re-activate and build support for the waterfront. These events received significant publicity as political leaders, such as Governor Pataki, and celebrities, such as Bette Midler, participated; they provided an avenue to develop and showcase political capacity.

PFP formed a successive series of new organizations to oversee the river improvements. First, they hired an administrator to direct and convene the Bronx Working Group, and later they formed the Bronx River Alliance. The administrator monitored successes, continually evaluated the program's ability to reach stated goals, and modify actions accordingly. They funded existing organizations and helped them expand their scope to incorporate the river and watershed into existing activities.75

75 Bronx River Timeline, 2002.
Direction for these efforts were formalized into a new group, called the Bronx River Alliance that facilitated the network of organizations to direct actions occurring along the Bronx River. The coordinator played a key role in attracting funding, providing institutional memory, keeping the projects alive, and ensuring that they fit into the larger agenda and vision. The coordinator served as the point person, facilitating the range of necessary connections. Over 65 groups with their own capacities acted as a collective, to attract even more resources, both through connecting to the larger concept and image of the river and through the partnerships resulting from working together. ⁷⁶

⁷⁶ Jenny Hoffner, director of Catalyst and Special Projects, Partnership for Parks, conversation with author, 2-17-03.
ANALYSIS

Capacity Building

Unlike WPLP, BRP’s capacity building strengths lay in organizational development. While WPLP affected organizations through building individual capacity, BRP influenced individual capacity through organizations that engaged individuals. BRP’s activities led to the development of new organizations as well as the expansion of agendas and programs within existing organizations to encompass issues of the river.

BRP’s success in developing organizational capacity also demonstrates interplay between organizational development and network building. Expanding programmatic and organizational capacity around the river created partnerships and built a strong network. The BRP acted similar to WPLP in building network capacity. This network enabled the development of spin-off projects, and allowed for the community to create linkages to city agencies and vice versa. The numerous partnerships provided a framework for institutions to work together and achieved great success in creating change on local and institutional levels.

The complexity of the project and the multiple objectives it grew to encompass acted as both a hindrance and an advantage in securing funding. The Lila Wallace Readers Digest Fund provided initial seed grant for the Catalyst Project department of the PFP. The foundation very deliberately conducted an experiment and took a chance with this catalyst concept. While some other

Bronx River’s Strengths

- Promoting a powerful vision of a revitalized Bronx river
- Providing a framework to fit smaller projects into long-term, vision
- Network building through connecting institutions with local community around issues of the watershed and river.
- Developing organizational capacity and building networks among the various organizations
- Breaking large vision into component parts in order to gather financial support
funding agencies understood the catalyst vision and idea, most did not. Project managers often had to break down the project into its component parts.\textsuperscript{77}

The multiple objectives made support difficult, yet they also attracted significant funding and capacity. The numerous partner organizations all carried their own relationships, capacities, and funding sources and brought additional abilities to the initiative. While some suspected that the partnering would limit funding possibilities, project participants were surprised at how wrong this assumption turned out to be; corporations as well as agencies within the city and state of New York have since dedicated millions of dollars and contributed in-kind support. The more significant sources of funding and motivation on the part of city agencies would not have been possible without the overarching vision for the river and its adjacent communities as well as the strong networks that supported.

To the extent that this watershed agenda enabled the development of networks, the capacity building literature addresses its significance. However, the role that water systems played in organizing, building capacity remains largely ignored. Coming together around the river allowed city agencies to form new partnerships amongst themselves and come together around issues of the river.\textsuperscript{78} The broad

\textsuperscript{77} Jenny Hoffner, director of Catalyst and Special Projects, Partnership for Parks, conversation with author, 2-17-03.

\textsuperscript{78} Michelle Caulfield, former director Catalyst and Special Projects, Partnership for Parks, conversation with author, 3-25-03.
agenda that the BRP created enabled not only the development of significant capacity, it fostered catalysts as well.

**BRP as a Catalyst Project**

The BRP acted as a catalyst in many ways. It spawned many new organizations and expanded the capacity of existing ones. BRP enabled them to develop a vision and implementation for sustainable Bronx initiatives. The project additionally fostered new ways of integrating city agencies with community-level organizations. Furthermore, it enabled community empowerment as residents began to shape the development of their neighborhoods, stopping noxious uses and promoting an agenda of sustainability.

In the case of the Bronx River, catalytic reactions stem both from introducing new elements, such as community art installations and habitat restoration, but also through the removal of elements, such as cars, trash, and debris from the river. For example, they partnered with the Army corps of engineers to remove 36 cars from the river.

> The day they removed the cars from the river really drove home to me how broad the project’s impact was. This grassroots organization transformed the city enough to get the Army Corps of Engineers to send
their enormous machines down and take 36 cars out of the Bronx River – that was a very significant event. 79

The success of each project helped build momentum and support for existing projects as well as draw additional organizations, residents, and agencies to action.

The emphasis on the environment and river also helped spark initiatives to promote green building practices and green job development in the Bronx. BRP acted as a broker to develop relationships and foster change on both grassroots and city levels. BRP united a diverse set of organizations around the issues of the river, demonstrating both their relationship to, and vested interest in, the river. The Bronx River as a catalyst for additional activities and organizing remains a visible and powerful form on the landscape.

The successes and widespread support achieved during the project led New York Commissioner Stern to declare 1999 the “Year of the Bronx River.” Additionally, the project gained structural changes within city agencies and in the way it approaches the river. A number of city and federal agencies, such as the Army Corps of Engineers, the Department of Forestry and Agriculture, learned to coordinate their activities and work together through the BRP. The city

79 Michelle Caulfield, former director Catalyst and Special Projects at Partnership for Parks, conversation with author 3-25-03.
developed the Bronx river administrator position that oversees and integrates efforts of a number of city agencies.

The project has also changed the way people groups work together within the city. The forestry division, capital projects, urban park rangers (educational), Natural Resources Group, key people from the variety of areas – changes in the way people work together. "Some groups do see all of the connections in these multi-objective projects and when they do it's very powerful."  

The BRP provided an agenda that allowed the community to mobilize around. Working on the parks, helped to expand the resident's vision of their community, and enabled them to create visions and plans for their area. The act of organizing around one physical place also empowered them to shape the development of their neighborhood. Through the process, they learned that forming multiple partnerships actually created new resources and human capital to make change happen. Many elements of the project were clearly understood and planned – the importance of partnerships, the need to help residents connect to the River, the benefit of targeted efforts and organizing a diversity of residents and activities around the river. However, the precise results were not fully determined in advance. While there was a clear idea that benefits would ensue, the specifics of second-tier partnerships, funding opportunities, and spin-off projects were unexpected. The project's success has captivated the imagination

---

80 Jenny Hoffner, director of Catalyst and Special Projects, Partnership for Parks, conversation with author, 2-17-03.
of many. As word spreads through media another avenues, new cities look to BRP as a model for watershed improvement. For example, Chicago, Los Angeles, and Portland, Oregon all are pursuing BRP's model.

Considerable improvements have been realized along the river, yet the changes that have occurred are incremental. Neither one sweeping motion, nor one decision maker dramatically restructured the Bronx. This incremental approach reflects and is strengthened by the vision of the community as well as the considerable support provided by a network of city agencies and local groups.
## Bronx River Capacity and Catalysts Analysis

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Catalyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>New element causes Rx</td>
</tr>
<tr>
<td>Development</td>
<td>Clearing river</td>
</tr>
<tr>
<td></td>
<td>Development of public open space</td>
</tr>
<tr>
<td></td>
<td>New organizations develop Existing organizations expand their scope and agenda</td>
</tr>
<tr>
<td>Organizational</td>
<td>Existing elements of value are transformed</td>
</tr>
<tr>
<td>Development</td>
<td>Community is valued</td>
</tr>
<tr>
<td></td>
<td>River is valued</td>
</tr>
<tr>
<td></td>
<td>Vacant land seen as opportunity</td>
</tr>
<tr>
<td>Community</td>
<td>Context not damaged</td>
</tr>
<tr>
<td>Organizing</td>
<td>Depends on how one defines context</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Building</td>
<td>Ingredients understood</td>
</tr>
<tr>
<td></td>
<td>Understanding of natural processes and local history</td>
</tr>
<tr>
<td></td>
<td>Operated with knowledge of results from previous catalyst projects</td>
</tr>
<tr>
<td></td>
<td>Importance of forming partnerships as well as other tools were recognized</td>
</tr>
<tr>
<td>Local History</td>
<td>No set formula</td>
</tr>
<tr>
<td></td>
<td>FFP utilizes a series of tools, but tailor them to specific needs</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td>Strategic</td>
</tr>
<tr>
<td></td>
<td>Flexible implementation</td>
</tr>
<tr>
<td></td>
<td>Series of opportunistic actions taken in a framework of long-term strategy</td>
</tr>
<tr>
<td></td>
<td>Catalyst remains identifiable</td>
</tr>
<tr>
<td></td>
<td>Improvements to the river are visible</td>
</tr>
</tbody>
</table>
5 Lessons Learned

The cases reveal a cyclical process where building capacity around improving the watershed creates catalysts, which then incite change and build more capacity on individual, neighborhood, and institutional levels. The capacity building literature underestimated the importance of a physical landscape, as opposed to buildings, to organize and mobilize residents as well as to capture the interest of outside parties. The following lessons about capacity are particularly important from the cases. They address how the organizations develop capacity and foster catalysts through enhancing their organizational capacity, developing leadership capabilities, building networks, and grounding capacity building activities in the improvement of a physical place.

How Projects Acted as Catalysts

The catalyst criteria derived from the literature did not help to predict or identify catalytic effects or activities within either project. The first two criteria offer a vague definition of a catalyst rather than provide an ingredient to foster catalytic effects, while the remaining criteria form a collection of normative values for an urban design project. The cases reveal preliminary categories of catalytic effects as well as a set of mediating circumstances that support their development. Catalysts within projects can act as models, foster spin-off projects, or provide an overarching framework to enable other projects to engage. These categories are neither mutually exclusive nor hierarchical, rather they work together and support on another.

Attlee and Logan’s Catalyst Criteria

- New element modifies existing elements in an area
- Existing urban elements of value are enhanced or transformed.
- Context is not damaged by the catalytic reaction.
- Ingredients are considered, understood, and accepted.
- Design of catalyst projects are strategic.
Types of Catalytic effects within Projects

- Become a model
- Generate spin-off projects
- Provide a agenda/framework

Additionally, catalytic effects cannot be precisely engineered to deliver a predetermined outcome, as they can be unexpected as well as planned. Furthermore, catalytic effects often depend on mediating circumstances, such as timing and organizational capacity, to foster their development: their nature depends on a variety of situations coming together at once. However, there does emerge a set of conditions and actions that support the generation of catalysts, which are elucidated later in this section.

Any examination of urban catalysts must take into account catalytic effects that may not be intended or specifically prescribed. For example, in WPLP, a failed EPA grant produced important, yet unintended consequence,

Therefore, it becomes necessary to always look for potential catalytic moments. Many such instances arise throughout the life of any project or organization, however, they are not always followed upon. Becoming cognizant of potential catalysts and developing the supporting circumstances to capitalize on those moments becomes an important part of expanding project impact and catalyzing change.

Act as Model

Through making information about a project available to the public, others can use successes of a project to inform their own efforts. Innovative projects also expand others' perceptions of what is possible. Both the WPLP and BRP act as models in many ways:
WPLP has pioneered in demonstrating a relationship between subsurface water and poor neighborhood conditions. It reveals the catalytic effects of connecting the development of community gardens, physical improvements in the neighborhood, and community development. It challenges traditional ideas of education both in the subject matter (local history, local environmental education, etc.) and in the process (participatory, hands-on learning). Most importantly, it encouraged people to think differently about the capabilities of middle school children in a disadvantaged neighborhood. Finally, it utilized new applications of information technology – specifically GIS and the web – to improve and empower the local community.

The BRP also serves as a national model for coordinating a large-scale river restoration project connecting and such an intervention with community development efforts. For example, both Los Angeles and Chicago are looking to the BRP to inform their river restoration projects. Unfortunately, while certain program elements frequently inform other’s program decisions, the integration of capacity building efforts with physical urban design has not caught on to the extent that other project elements, such as youth and technology education has. There remains much need to translate the benefits and strategies for large-scale integration to a greater audience.

Through acting as a model, the ideology, processes, and/or subject matter of projects inspire others outside of the neighborhood to pursue similar objectives. It also builds outside recognition and support for efforts within the neighborhood.

Lessons Learned
Develop spin-off projects

Spin-off projects have been fundamental to the long-term survival of both WPLP and BRP and enabled them to act in a far-reaching fashion despite initial limited resources. In both projects, numerous spin-offs grew from the initial efforts. Indeed, the projects themselves became an umbrella for the variety of spin-off projects initiated over time. The presence of spin-offs additionally allows for a diversity of voices to work together and promote a collective agenda.

WPLP has actually branched into four separate spin-off projects. PWD is now in charge of developing the vacant land into watershed-friendly community amenities, while the others gravitated towards youth education to various extents. Sulzberger Middle School houses many spin-off projects, such as the entrepreneurship small learning community. As WPLP strongly focused capacity building efforts on individual development, many individuals from the project, many of such folks, such as Frances Walker, Glen Campbell, Blaine Bonham, and Hayward Ford developed their own spin-offs.

The BRP helped to enable the development of spin-off projects and organizations through working with, funding, and providing an agenda for organizations to expand their programs to address issues of the river. Many initiatives promoting sustainable development in the Bronx are directly and indirectly related to the BRP.

Spin-off projects have tended to develop in the areas where capacity building is strongest. Paying attention to the interconnections between the two encourages
the generation of spin-offs and additionally builds a strong and inter-connected network of actors.

Form a Framework or Agenda

One of the most successful aspects of each project is that they provide a structure for additional spin-off projects to participate, and an agenda to mobilize community members and city officials. With such a structure and agenda encourages the participation from local residents, organizations, and city agencies, thus fostering the development of a network of stakeholders involved in a critical issue. The ensuing network can lean to collaborate to enact change on both the grassroots and institutional levels. In the case of both projects, the watershed proved powerful tool to organize, mobilize, and create change. This crucial role is explored in further detail in later sections of this chapter.

Catalysts have additional needs to spark action

Like their chemical counterparts, catalysts cannot work in a vacuum. Instead, they require an existing set of circumstances that allow them to initiate change. For example, the PWD’s ownership of the Mill Creek neighborhood and watershed represents a significant catalytic effect, yet a set of mediating circumstances enabled this transformation to occur.

In 2000, PWD also organized into the Office of Watersheds. This organizational restructuring provided an ideological basis for approaching water quality and issues from the perspective of natural systems. While still entrenched in an

"Our watershed philosophy has been a simple one based on common sense: understand our environmental challenges and priorities use good science and advanced technologies, and lead through local and regional partnerships. It has been exciting watching this approach take root over the past year and to see how positively our regulators, the public, and other environmental organizations are responding to this program."

Howard Nuekrug, Manager, planning and technical support for PWD
www.werf.org/press/Winteroo/philadelphia.cfm
engineering and technical paradigm, the structure of the watershed also encouraged new types of thinking. Howard Neukrug, the new director of the Office of Watersheds lived in the Mill Creek watershed. The EPA, through its "Growing Greener" grant program, provided the funding for the first round of demonstration projects in Mill Creek. While the grant and work with Spirn and the Mill Creek community enabled PWD to make the commitment to land-based approaches and take ownership of the neighborhood, it is difficult to predict what the outcome would have been had the other factors not been in place.

Both New York City and Philadelphia additionally give much importance to their parks and natural spaces. They contain some of the most famous public spaces in the country, which act as sources of civic pride and, consequentially, can be seen as the indicator of the health of the city. The wide public support for initiatives to improve green space enables the allotment of funding and resources even when more pressing problems plague the city. The presence of a park-supporting culture acted as a backdrop to support the efforts both of WPLP and Bronx River.

**Power of Place:**
The value of the watershed framework.

Both projects benefit from the creation of a powerful watershed agenda or framework for action. Both cases examined in this thesis used the urban watershed as the primary physical tool to concentrate both physical and community development. Watersheds describe both a geographic area and set of natural processes. Geographically, they define a land area bounded by
topographic features and height that drains water into a shared destination. Within the watershed lies the path water travels from its origins at the headwaters as a raindrop, through a series of streams and rivers, until it reaches its final outlet – most often a large lake or ocean.

Modern cities were designed to control rather than to coexist with the watershed and its natural functions. However the peace struck between the built and natural environments has been tenuous, as water tends to pursue its natural course regardless of what lies in its path. In this way, city planning and institutional frameworks have been placed on top of this natural context without regard to the nature of their functions or the logic of their organization. Such natural systems therefore, transcend urban, political, and social boundaries.

Efforts to improve and transform urban watersheds naturally require multiple levels of integration in order to effect change. Since upstream activities (both positive and negative) directly impact the conditions and qualities down the river and beyond, it provides a framework for a variety of communities to work together and reach common goals. The “logic” of the watershed, then requires interaction, cooperation, and the development of partnerships within the grassroots, the government, and the state.

For WPLP and the BRP, the urban watershed provided a powerful physical framework around which to organize. The physical elements were tangible, easy to grasp, with visible effects in the community, such as flooded basements. Rivers run through numerous constituencies, agencies, and good management forces a range of organizations to work in partnership therefore, focusing on

Implementing a watershed management approach is a complex task. It requires land use planning and coordination; resources to understand and model the pollution sources in a water body; mutually agreed upon goals for the water body; a cooperative regulatory climate; city and suburban dialogue and agreement; and a consensus on the solution and the sharing of the costs. To accomplish this, the Office of Watersheds is taking advantage of a new wave in the environmental movement, which is supported by initiatives endorsed by leaders such as President Clinton and Pennsylvania’s Governor Ridge and supported by regulators, including state and federal EPAs and the Delaware River Basin Commission.

www.werf.org/press/Winteroo/philadelphia.cfm

Lessons Learned
watersheds enables a diverse groups of people to collaborate, understand each other, develop a shared vision.

Issues of water also provides a neutral territory around which to organize because it affects a wide range of residents and reflects a fundamental human need. Residents can identify with features in their own backyard as well as connect with a larger system. As cities developed around water, it also becomes a tool to educate and demonstrate the history of the place and explain how a community developed into the present circumstance.

In WPLP, the watershed allows residents to connect to urban history and frame individual capacity building. Adopting this framework has also resulted in significant change in PWD and requires it to become more responsive to the community. Through BRP, the watershed agenda enabled diverse groups to connect to a place, work together, develop, and implement a broad vision for the transformation of their community. It additionally changed the way city and federal institutions related to each other, the river, and the local communities.

The watershed framework reflects the nexus between community needs, goals, desires, and expert knowledge. Project organizers created a structure and venue to highlight community concerns as well as a framework for other people and organizations to get involved. This agenda differs from a strategic plan in that, rather than being directed and dictated by the parameters of one document, a myriad of people and groups allied their activities and goals into this larger vision and work towards its realization. As such, the agenda provides a more
organic way to foster integration, build constituencies, improve local conditions, and bring about institutional change.

**Capacity Building and Catalyst Projects are Interrelated and Mutually Supportive**

Catalysts develop where capacity building is strongest

Type of catalyst project instigated reflects the goals and values of the people or organization in which the project or efforts are carried out. The catalyst symbolizes and becomes the spark that instigates more of what a person, group, organization, or company aims to achieve. In this way, catalytic effects tend to develop in the areas where the projects build the most capacity. For WPLP, capacity building and spin-off projects focused on individuals, while in the BRP, they primarily concentrated on organizations. Both projects were successful in creating, expanding, and building the capacity of networks. The ways in which each organization built capacity on an individual or organizational level also served to enhance the network capacity this interaction helped to foster the development of catalysts.

Affiliating projects with established institutions builds capacity and fosters catalysts.

Both projects grew out of relationships with other organizations and institutions. These partnerships enable a myriad of support for fledgling projects, enabling
them to both survive and thrive through in-kind support, such as staff time or resource sharing, as well as through network building.

In both cases, the directing organizations acted as successful broker between grassroots and government. Both WPLP and PFP organized citizens in the local communities, brought together a variety of partnerships, and changed the way the city agencies related to each other and managed the watershed. The networks each organization developed provided the framework, which enabled the development of catalysts.

Relationships that form between community members and institutions open the door for further collaboration as well as providing contacts that enable neighborhood residents to advocate for their needs. Additionally, initiating community-based efforts while housed in an institution imbeds in the organizational culture, links between grassroots and city levels. Informal networks that develop within an organization promote the generation of knowledge spillovers, where employees from different departments share information about projects, operations, or partners. It helps others in the institution see the benefits of such collaborations, increasing the likelihood of embarking on similar projects in the future.81

In this way institutions become a good incubator for developing spin-off projects and institutionalizing new policies changes. In Philadelphia, the work in

---

81 Joanne Dahme, conversation with author, 3-12-03.
Sulzberger Middle School had many catalytic effects, from restructuring the development of the small learning communities, to expanded teacher capacity. The PWD was additionally able to develop a variety of spin offs.

BRP embedded much of the work through existing institutions, such as through the department of parks, the city, and a variety of non-profit organizations. Through grants, they were able to expand other organization's programs to encompass issues of the river.

Institutions can also thwart potential catalytic effects before they have a chance to grow. For example, the restructuring of the Philadelphia School System made it impossible for Spirn to go ahead with plans to work with teachers in 2003. Edison's take over of Sulzberger Middle School in 2002, resulted in the redistribution of many resources teachers had worked hard to secure, and drove several key teachers away.

Project administrator provides critical support for running complex projects and acting on potential catalyst opportunities

The existence of a coordinator or staff person to maintain institutional memory and follow-up on actions is particularly instrumental in integrating implementation plans amongst a diverse group of individuals, organizations, funding sources, and governmental agencies. Dedicating 40 work hours per week to an initiative guarantees that phone calls are returned, commitments are followed up and that
people have an accessible person to talk to. Most importantly, an administrator can act upon catalytic opportunities as they arise.

This administrator has been key for the Bronx River Alliance as the project is implemented through numerous public, private, and nonprofit agencies. The administrator retains the overarching vision, actively forms partnerships, and minimizes the number of opportunities that fall through the cracks. Because BRP has implemented various parts of the overarching vision according to organizational and funding preferences, the ability of the coordinator to retain and promote the larger and longer-term vision is ensures overall project cohesion and long-term sustainability over time. WPLP has not benefited from such a coordinator. Indeed the desire for such a position made the 1997 grant so appealing and its direct failure so disappointing.

Creating partnerships develops capacity and enables catalysts

Through developing partnerships projects build constituencies, expand the scope of their impact, create networks, and attract significant levels of resources. This process reflects the symbiotic relationship between capacity building and catalytic effects.

Partnerships: Appealing to the issue of the watershed demonstrated how everybody had a stake in the planning efforts. The power of the watershed to build constituencies is reflected in the Bronx River's success in uniting diverse groups over issues of the river. The diversity of skills that participants and
organizations contribute to a project further expands its capabilities and opportunities. It encouraged folks to make connections between seemingly unrelated topics, such as gardens, art, and youth development.

Setbacks or failures within the projects were used as opportunities to gain more stakeholders and enrich the project. For example, in WPLP, when the Pew Grant failed to fund a fifth year for WPLP to hold community round tables, Spirn sought other avenues to reach the community. During an interview, she said,

I had no way to get these ideas out. How do you get to people in a neighborhood? How do you have a conversation with them? And I didn't have any official standing. I couldn't get the people with official standing to pay attention to any of these ideas. 82

As Sulzberger Middle School currently lacks the resources to maintain the newly-constructed watershed gardens, PWD is responding to this challenge by looking to partner with as many organizations as possible to develop support and ownership of the sites. Through these partnerships, PWD is garnering additional support for projects and improving its chances of long-term sustainability.

**Funding:** WPLP and the BRA attracted significant resources to the projects. Both projects were challenged by limited scope of funding agencies, which often

---

82 Anne Spirn, conversation with author, 2-13-03.
When you go to funding sources looking for social or educational outcomes—they don't want to spend money on bricks and mortar. You tend to have single-purpose funding. And that's plagued me always, from the outset. It's very difficult to find funding that cuts across multiple objectives when funding institutions and organizations are purpose-specific... The multiple objectives don't fit. Even if they like the idea, they say, 'Oh, no, We don't pay for that. We can't pay for that. That's our policy, we don't pay for any materials. We can't pay for bricks and mortar.' Anne Spirn

hinder an organization's ability to incorporate a variety of different activities within a project.

To circumvent this challenge of funding a variety of activities, such as education and construction through a single grant, both organizations utilized intermediary agencies, such as the Urban Resources Partnership, which would collect funds from a variety of federal agencies and distribute them to projects to be used for broader purposes. In addition to the Urban Resources Partnership funding The NYC department of Parks acted as an intermediary source for PFP and the Center for Community Partnerships (CCP) played this role for WPLP. Such sources enabled projects to succeed without compromising their goals or operational strategies.

Constrained by the legal limits of the City's hiring processes, PWD must also act through intermediaries, such as non-profit organizations in order to provide youth employment and other activities creatively. This type of behavior often runs counter to the culture of city institutions because it incurs as much cost through additional staff time in partnering, coordinating, and convincing as it does to quickly contract out and complete a project. With such a strong disincentive, it becomes necessary for such agencies to see the benefit of an integrated approach to motivate them to stray from "business as usual."

Such challenges often overshadow the reality that both groups have found significant increases of funding due to their engagement in these integrated watershed projects. Hoffner discusses the funding climate in NYC:
In New York City there are a lot of resources, almost an embarrassment of resources available to groups interested in urban work. Part of putting efforts into place is the ability to attract the various levels of funding, coordinating, and attracting.

For example, in the BRP, over 65 groups with their ensuing varieties of resources were able, in partnership, to attract even more resources through connecting to the larger concept of the river. Highlights include significant financial participation from corporate adopt-a-river sponsors, the city's allotment of $500,000 for fishery rehabilitation as well as $11 million dollars for a Bronx River Greenway.83

WPLP also attracted significant levels of funding to the Mill Creek neighborhood, its schools, and its vacant lots. Because of their efforts, SMS received computers and thousands of dollars in grant funding. The PWD has also attracted significant funding and other resources to the community.84

Capacity building and catalyst projects have a symbiotic relationship; both support the other and incite change when they function in tandem. Both successful capacity building and catalyst strategies rely on the use of partnerships and networks to foster change. This relationship indicates that simple physical design is not enough to ensure success. When the design

---

83 Bronx River Project Timeline, unpublished, 2002
84 Joanne Dahme, conversation with author, 3-12-03.
reflects an empowered and involved community, it has a much more powerful impact, and likelihood for long-term success. Catalytic reactions are particularly strong when the physical improvements actually reflect the building of capacity, the hard work and efforts local residents.
6 Conclusion

There exists much opportunity to enhance the impact of urban revitalization efforts through planning for and taking advantage of catalytic opportunities. Understanding the interrelations between capacity building and catalysts may help project organizers capitalize on such opportunities to awake change both in neighborhoods and institutions.

The case studies did reveal that catalysts tend to follow in the same areas where projects built the greatest capacity. The West Philadelphia Landscape Project (WPLP) and the Bronx River Project (BRP) were particularly successful in building capacity on the scale of individuals, organizations, and networks and, thus, have fostered significant transformation on both the community and institutional levels. In each case they grounded planning efforts in a pressing community issue and agenda of the watershed.

The watershed framework demonstrates a promising model for producing simultaneous neighborhood development and institutional change. As urban watersheds transcend social, political, and institutional boundaries, implementation of improvement efforts requires coordination and integration among a variety of players, from the neighborhood to the state. This inherent integrating “bottom-up” and “top-down” efforts become the modus operandi for the project as well as the variety of spin-offs it generates. Water additionally, provides a neutral ground around which to organize because it affects all residents’ lives in a city.
The case study projects initiated significant institutional change and created a host of new initiatives. Naturally they have experienced many failures along the way. Indeed, success often lay in the ability of project organizers to learn and adapt from these impediments. Such resilience effectively increased their capacity to achieve and sustain success. Instead of giving up, setbacks most often led to developing new partnerships, attracting more resources, ultimately enriching project efforts, and making them more robust.

It is still unclear what the long-term impacts will be on the neighborhood level. The two projects examined in this thesis did not “fix” poverty or “solve” the problem of gentrification. While they represent marked successes, these communities remain underserved, neglected, with residents still experiencing high levels of poverty. Both time and additional study, particularly of the impacts of youth education and development, will enable more significant conclusions.

Therefore, it becomes impossible, within the scope of this thesis, to definitively answer the underlying question driving the research — are catalyst projects a departure from the norm or are they just a repackaged form of strategic planning. The extent to which these projects can provide a way out of the conundrums of planning is left undetermined, as integrating people and place oriented solutions remains a daunting task. Project directors acknowledge that overturning years of disinvestment, racism, and economic exclusion will require considerable efforts on the part of many more stakeholders. Clearly, such a complex and historic set of problems cannot be fixed overnight, or in 17 years.
These projects do, however, hold great promise as they have successfully achieved neighborhood and institutional-level change. The expanding networks of empowered actors continue to develop additional spin-off projects, create new frameworks for action, and provide inspiration to others. As second and third degree catalytic effects are difficult to measure, the extent of the projects impacts may never be fully known. Creating meaningful neighborhood revitalization, where improvements last and the existing residents thrive, will require significant dedication by a multitude of actors. This concept of catalyst projects offers a potential approach and powerful model for activating both institutional and neighborhood-level change through a single planning effort.
BIBLIOGRAPHY


Kingisley, Thomas, McNeely, Joseph, Gibson, James, "Community Building Coming of Age," Urban Institute Report www.urban.org/community.combuild.html


Spirm, Anne, The West Philadelphia Landscape Plan: This Garden is a Town, 1990.

Sprin, Anne, "Promoting Sustainable Development through University-Community Partnerships", 1997

Williams, Sarah, unpublished grant summary for EPA Watershed Department Grant, 2002.


8 GLOSSARY

AREA
Origins: Latin rea, open space possibly akin to re - to be dry.
1. General descriptor of a place or region
2. Indicator of general proximity

BUILD
1. To order, finance, or supervise the construction of.
2. To develop or give form to according to a plan or process; create: build a nation; built a successful business out of their corner grocery store.
3. To increase or strengthen by adding gradually to: money building interest in a savings account; build support for a political candidate.
4. To establish a basis for; found or ground: build an argument on fact.
5. To develop in magnitude or extent: clouds building on the horizon.
6. To progress toward a maximum, as of intensity:

CAPACITY
The fullest extent one can reach. Invoking the greatest of capabilities in regard to that which one is reference. Holding/containing and ability/capability
Origins: Latin *capax, capacitás*, containing much, wide, large, spacious, roomy, capable, fit, competent; has right to inherit

1. The maximum amount that can be contained: a trunk filled to capacity.
2. Ability to perform or produce: capability
3. The power to learn or retain knowledge; mental ability.
4. Innate potential for growth, development, or accomplishment
5. The quality of being suitable for or receptive to specified treatment

**Capacity Building**

Improving the abilities of people, organizations, institutions, and/or networks to develop or acquiring the skills, competencies, and tools, processes and resources that are needed to solve problems and achieve sustained success.

The interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of that community. It may operate through informal social processes and/or organized efforts by individuals, organization, and social networks that exist among them and between them and the larger systems of which the community is a part.  

---

CATALYST

1. (chemistry) a substance that initiates or accelerates a chemical reaction without itself being affected [syn: accelerator] [ant: anticatalyst] Chemistry. A substance, usually used in small amounts relative to the reactants, that modifies and increases the rate of a reaction without being consumed in the process.

2. One that precipitates a process or event, especially without being involved in or changed by the consequences.

Unlike a spillover effect, which is incidental, a catalyst is a desired and intended effect that creates momentum and drives multiple forms of change at once.

CITIZEN

In this thesis I will use citizen as a synonym for person/people. It means a person or set of persons that live within a particular country and implies an inherent set of rights.

Origins: from the old French, citeien related to the OF word for city - cité

1. An inhabitant of a city or (often) of a town; esp. one possessing civic rights and privileges, a burgess or freeman of a city.

2. A member of a state, an enfranchised inhabitant of a country, as opposed to an alien; in

3. U.S., a person, native or naturalized, who has the privilege of voting for public offices, and is entitled to full protection in the exercise of private rights.
COMMUNITY

While the word takes on many different meanings, I will use it primarily to describe a group of people living in a particular neighborhood. This takes on both physical and social attributes.

Origins: Middle English communite, citizenry, from Old French, from Latin commnits, fellowship, from commnis, common, which indicates relation to the common people (as opposed to nobility)

1. A group of people living in the same locality and under the same government.
2. The district or locality in which such a group lives.
3. Group of people having common interests: the scientific community; the international business community.
4. A group viewed as forming a distinct segment of society: the gay community; the community of color.


COMMUNITY DEVELOPMENT

The collection of the activities (physical, and social) that organize and promote the well-being and development of a community and that contribute to its goals for sustained livability

DEVELOP(MENT)

To advance; to further; to improve; to make to increase; to promote the growth of.
Origins: Latin dis-) voluper, voleper, to envelop, perh. from L. volup agreeably, delightfully, and to make agreeable or comfortable by enveloping, to keep snug

1. To free from that which enfolds or envelops; To unfold or to lay open by degrees or in detail;
2. To produce or give forth
3. To go through a process of natural evolution or growth, by successive changes from a less perfect to a more perfect or more highly organized state;
4. To advance from a simpler form of existence to one more complex either in structure or function

ECONOMIC DEVELOPMENT

Creating opportunities for economic activity
Improving the job skills, access to jobs, or connections to job-related resources

EDUCATE)(-ION)

Origins: Latin educare to educate
1. To develop the innate capacities of, especially by schooling or instruction
2. To provide with knowledge or training in a particular area or for a particular purpose:
3. To provide with information; inform: a campaign that educated the public about the dangers of smoking.
4. To bring to an understanding or acceptance: hoped to educate the voters to the need for increased spending on public schools
5. To stimulate or develop the mental or moral growth of.
6. To develop or refine (one's taste or appreciation, for example).

**Empower(ment)**

Origins: Latin *potere* meaning power
1. To invest with power, especially legal power or official authority.
2. To promote the self-actualization or influence of
3. Enable: To equip or supply with an ability

**Design**

Origins: Latin *designare* to designate
1. The purposeful or inventive arrangement of parts or details:
2. A basic scheme or pattern that affects and controls function or development:
3. A plan; a project
4. Purpose or intension
5. To conceive or fashion in the mind; invent
6. To plan out in systematic, usually graphic form:

**Gentrification**

Origins: This word was coined in the 1960s in England with the phenomenon of the gentry moving into London's lower class neighborhoods
1. The process of middle and upper income people moving into low-income neighborhoods and displacing the current residents.

2. Physical improvement in a particular place, or neighborhood that fails to benefit the surrounding neighborhood/community

**Landscape**

From Spirn, Anne *The Language of Landscape*, New Haven: Yale University Press, 1998:

“Landscape connotes a sense of the purposefully shaped, the sensual and aesthetic, the embeddedness in culture. The language of landscape recovers the dynamic connection between place and those who dwell there, (Spirn 1998,p. 17).

Origins: English *land* meaning both the place and the people who live there with German *saffen* and Dutch *skabe* meaning “to shape” and English suffix “-ship” meaning partnership or association.

**My Simple Definition:** The combination of people, plants, animals, and natural process that occupy or move through area of land. This relationship is dynamic and ever changing – each actor both shapes and is shaped by the others and the interactions between them.

**OED Definition:** Landscape, first recorded in 1598, was borrowed as a painters’ term from Dutch during the 16th century. The Dutch word landschap had earlier meant simply “region, tract of land” but had acquired the artistic sense, which it brought over into English, of “a picture depicting scenery on land.”

*Bibliography* 137
1. An expanse of scenery that can be seen in a single view: a desert landscape.
2. A picture depicting an expanse of scenery.
3. The aspect of the land characteristic of a particular region

**NEIGHBORHOOD**

1. Geographic residential area which identifies as a group
2. Group of people who live in this defined geographic residential area
3. A district or area with distinctive characteristics: a neighborhood of fine homes; an ethnic neighborhood.

**NEIGHBORHOOD REVITALIZATION**

Improving the physical quality of a neighborhood as well as the social well-being and opportunities of its residents.

**PEOPLE**

Origins: Middle English peple, from Old French pueple, from Latin populus, of Etruscan origin.

The body of persons who compose a community, tribe, nation, or race; an aggregate of individuals forming a whole; a community

1. Humans considered as a group or in indefinite numbers:
2. Nationality: A body of persons living in the same country under one national government;
3. A body of persons sharing a common religion, culture, language, or inherited condition of life.
4. The Populace: mass of ordinary persons.
PLACE

Origins: Latin. *platea* a street, an area, a courtyard, from Greek. *plateia* a street

1. Any portion of space regarded as measured off or distinct from all other space, or appropriated to some definite object or use; position; ground; site; spot; rarely, unbounded space.

2. A locality, such as a town or city: *visited many places*.

PROJECT

Directed group effort aimed to improve or promote change within a place.

TRANS DISCIPLINARITY

As opposed to interdisciplinary, which implies the simply connecting separate disciplines, transdisciplinary reflects a positive-sum situation in which synthesis and fusion resulting from the interaction among disciplines.

URBAN DESIGN

- The form and physical layout of an urban area, including the built and natural environment.

URBAN DESIGN PROJECT

Project, which alters the physical form of a place on a scale greater a single building.

Bibliography