

THE BROOKLYN NAVY YARD:
A MISSION-ORIENTED MODEL OF INDUSTRIAL HERITAGE REUSE

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1. INTRODUCTION

The Brooklyn Navy Yard (Maps 1.1 and 1.2) was operated as the New York Naval Shipyard by the Department of Defense from 1801 until its formal closure in 1966. In 1969, after several long years of complicated negotiations, its transfer to the City of New York was finalized.¹ The naval shipbuilding facility had served as an economic anchor for both local residents and the city at-large; during the years of World War II, for example, it is estimated that approximately 70,000 people were employed there. In preparation for the closure of the Yard, federal and local agencies alike worked under pressure to plan a smooth transition to municipal ownership that would buffer against detrimental impact on neighboring communities, as predicted in several reports published in response to the original 1964 shut-down announcement by the Navy. It was decided that the site, then officially called the Brooklyn Navy Yard, would become an industrial park.²

¹ Lynda Tepfer Carlson, "The Closing of the Brooklyn Navy Yard: A Case Study in Group Politics," (PhD diss., University of Illinois at Urbana-Champaign, 1974), 1-11

² Richard L. Madden, "City is Given Formal Contract to Buy Brooklyn Navy Yard," *The New York Times*, December 11, 1969, 30; City of New York, "Urban Renewal Plan Objectives," *Brooklyn Navy Yard Urban Renewal Project*, 1971, 1



Map 1.1. Red frame highlights location of the Brooklyn Navy Yard within the City of New York.

By 1971, the federal government and the City of New York granted authority to the Commerce Labor Industry Corporation of Kings (“CLICK”), a nonprofit development corporation directed by local businesspeople, to lead the redevelopment of the site. In order to address the economic void left by the disposition of the Yard, CLICK engaged with large private shipping companies to make immediate use of the facilities – these companies were effectively the private sector equivalent of the former government occupants of the site. The replacement efforts, however, quickly proved to be in vain: the Yard, bound by its geography, could not accommodate the larger ships and containers necessary to keep up with advances in the shipping industry. Seatrain, one of the largest tenants at the Yard, declared bankruptcy and discharged hundreds of employees by the end of the decade. The Yard once again faced the prospect of becoming obsolete, and CLICK was dismantled amidst allegations of corruption and resistance to government oversight.



Map 1.2. Red frame highlights the Brooklyn Navy Yard located along the East River.

In 1981, the not-for-profit Brooklyn Navy Yard Development Corporation was formed by the City of New York directly, and efforts to revitalize the Yard were renewed. This time, however, a different approach was taken under the direction of a mixed public-private board and executive staff: rather than rely on a few large private companies, interiors of existing structures were subdivided to meet contemporaneous manufacturing needs, thereby attracting a diverse range of small-industry tenants who could in turn employ a diverse population. The idea proved to be a success, and has since evolved into the large-scale adaptive reuse of the historic built environment of the Brooklyn Navy Yard, facilitated by government investment and incentives, non-profit leadership, and partnerships with private investors.

This thesis analyzes recent initiatives undertaken at the Brooklyn Navy Yard by its management, and in doing so creates a framework for understanding how historic preservation can be positioned to serve broad urban redevelopment goals. Four sites of

intervention (Map 1.3) will be reviewed in detail to illustrate the types of preservation strategies realized at the Yard: Building 92, the Building 128 Complex, Admirals Row Plaza, and the Naval Cemetery Landscape. These projects have been selected as a representative sample of the diverse range of transformed spaces and places that the Yard has redeveloped in order to engage both public and private interests.



Map 1.3. The perimeter of the Brooklyn Navy Yard Historic District is designated in red. The shapes within the bounds of the district are contribution historic resources. The areas overlaid with green are redevelopment sites reviewed in this thesis.

It is concluded that public-private partnerships (PPPs or P3s), specifically in their emergent form of the mission-oriented corporation, are particularly effective management structures for the redevelopment of historic assets in urban areas. The model of the Brooklyn Navy Yard illustrates several ways in which PPPs have been able to merge historic preservation initiatives with the delivery of other public benefits. To varying degrees of success, the Brooklyn Navy Yard Development Corporation has balanced its

organizational mission “to fuel the City’s economic vitality by creating and preserving quality jobs, growing the City’s modern industrial sector and its businesses, and connecting the local community with the economic opportunity and resources of the Brooklyn Navy Yard”³ with its role as a steward of a 300+ acre historic district listed on the National Register of Historic Places.

Background

The federal disposition of the New York Naval Shipyard, announced in 1964, required federal oversight and approval. First, a survey of the site was completed in the same year as the closure declaration. Next, a series of reports were commissioned by the federal government as well as the City of New York to measure the impact of the closure and propose redevelopment plans. When a preferred strategy was identified in 1968, the sale to the City gained momentum and was finalized the following year.

This paper explores the consequent development history of the Brooklyn Navy Yard against the backdrop of urban renewal in further detail in a later section. It then focuses on the current operations at the Yard: the site has been managed by the Brooklyn Navy Yard Development Corporation since 1981. BNYDC is the reformation of a preceding management entity at the Yard known as the Commerce Labor Industry Corporation of Kings.

Today, the Brooklyn Navy Yard Development Corporation advertises a vision of itself as a model for urban industrial resilience; it positions the two hundred-year history of the

³ Marks Paneth Accountants & Advisors, “Brooklyn Navy Yard Development Corporation – A Component Unit of the City of New York - Financial Statements and Supplementary Information (Together with Independent Auditors’ Report),” June 30, 2018 and 2019, 11-14

Brooklyn Navy Yard to reinforce that narrative. In order to achieve its vision, the organization has laid out a three-pronged mission of job creation, industrial growth, and community engagement.

BNYDC outlines its organizational mission in three parts as follows:

- 1) “Creates and preserves quality jobs”
 - Builds and maintains the real estate and physical infrastructure required for modern, urban industrial business activity.
 - Brings additional space on line through rehabilitation, subdivision, and new development.
 - Pursues tenant businesses that have the potential to be robust employers, across a spectrum of skill levels.

- 2) Anchors New York City's modern industrial sector and its businesses
 - Provides a stable and predictable real estate environment, and offers services that allow tenant businesses to invest and flourish.
 - Cultivates a thriving industrial tenant base by retaining and attracting manufacturing businesses, and fostering strategic growth in other key sectors such as technology, design, artisanal, production, and film/media.
 - Partners with tenants to accommodate and support their plans for growth.
 - Advocates for small and industrial businesses and their unique needs and benefits.
 - Demonstrates that—in the right environment—industry can still thrive in urban America.

- 3) Connects the local community with the resources and economic opportunity at the Yard
 - Reaches out to and partners with the local community to create meaningful connections between residents and the jobs and other economic opportunities (such as direct placements, internships, training, and mentorship) available at the Navy Yard, focusing on groups with significant barriers to employment.
 - Collaborates with stakeholders to expand the types and quality of opportunities available.
 - Ensures that local, minority, and women-owned businesses have access to the development and construction opportunities the Yard presents.
 - Employs sustainable practices in our development and operations.
 - Honors and celebrates the history and heritage of the Yard through preservation, adaptive reuse, and public access.
 - Delivers public programming and services that directly contribute to the local community.”⁴

⁴ “Mission,” Brooklyn Navy Yard, accessed February 1, 2020, <https://brooklynnavyyard.org/about/mission>

Historic preservation – in its various forms as restoration and reuse, stability and security, and as heritage and community – is embedded within the three core aspects of the organizational directive outlined by the Brooklyn Navy Yard Development Corporation. It is the aim of this research to illustrate in close detail how BNYDC has delivered on each of its multifaceted goals, with special emphasis on its use of public-private partnerships to maximize the benefits extracted from historic resources. By leveraging the investments of multiple key actors and dispersing both risks and rewards, BNYDC has been able to achieve success when analyzed through multiple perspectives.

The case study of the Brooklyn Navy Yard is examined through four specific project sites within a defined area that was designated as a National Register of Historic Places Historic District in 2014.⁵ Each example provides unique insights into the ways in which historic resources can be revitalized to accommodate new uses, allowing historic preservation to support other goals such as economic development and increased public access leading to a broad vision of holistic urban management that is sustainable and resilient.

At first glance, these projects may not immediately strike a viewer as preservation projects, per se. And it is true that they aren't, necessarily: each project ultimately must serve one of the mission-stated purposes of BNYDC in order for the organization to maintain its nonprofit status and relative autonomy from the city government. However, when evaluated through the conceptual framework of the Historic Urban Landscape Approach, recommended by UNESCO in 2011, in which the goal is to bring historic preservation into equilibrium with other urban management initiatives, an analysis of the

⁵ Lindsay Peterson, "National Register of Historic Places Registration Form: Brooklyn Navy Yard Historic District," 2014

Brooklyn Navy Yard finds that the site serves is indeed quite successful, and thus serves as a valuable model of redevelopment. BNYDC has structured its projects to embed more values and functions into its historic resources through a process of adaptive reuse. In doing so, BNYDC fosters an increased number invested interest holders; the diversity of this group of interest holders ultimately becomes a litmus test for assessing the success of a preservation strategy.

Municipalities around the world are increasingly faced with the challenges of managing an aging building stock. They must also legitimately represent the interests of their communities, honoring narratives of history, memory, and identity. It is the intention of this paper to provide information that might support the continuity of industrial heritage for manufacturing, specifically. Though historic commercial and manufacturing structures were once overlooked as candidates for reuse, they now accommodate mixed-use, residential, and commercial functions. The Brooklyn Navy Yard is somewhat of an outlier, having maintained its original industrial purpose.

The Brooklyn Navy Yard is zoned by the City of New York for the heaviest of manufacturing uses. Housing is specifically restricted. While not all industrial heritage assets may be under such stringent regulations, the relatively unique restraints imposed upon the Yard do result in the provision of an array of examples of industrial heritage reuse strategies that might be useful for other urban management entities looking to incorporate a diverse range of uses to revitalize historic areas.

Further assessment of the projects at the Brooklyn Navy Yard attempt to identify how BNYDC is able to leverage stakeholders to maximize delivered benefits. This research focuses specifically on the role and structure of the mission-oriented corporation as a public-private partnership. Mission-oriented corporations are fast becoming a

hallmark of 21st century business practices, as evidenced by the focus placed on their organizational structure at the 2016 G20 Hangzhou summit.⁶ Because historic preservation initiatives by their nature sit at the tense intersection between public good and private benefit,⁷ it is argued in the conclusion of this paper that mission-oriented corporations are particularly well-suited public-private partnership vehicles for achieving preservation outcomes within the historic urban landscape framework.

Scope of Study

This study offers a detailed survey and assessment of the site redevelopment strategy employed by the Brooklyn Navy Yard Development Corporation as they relate to the management and continued use of heritage resources. The Brooklyn Navy Yard is an especially interesting case as it is situated within the boundaries of an M-3 zone, reserved for the heaviest industrial use in New York. I believe that there should be future research that focuses on the intersections of industrial heritage and its use in the 21st century and beyond, particularly within the constraints of issues such as climate change and proposed definitions of sustainability.

The Brooklyn Navy Yard has proven to be a popular interdisciplinary case study, with several publications focused on its redevelopment produced in recent years.⁸ The

⁶ World Bank Group for the G20 Global Platform on Inclusive Business, "Policy Case Studies on Inclusive Business: Mission-Oriented Legal Structure," 2016, 1-15

⁷ Randall F. Mason, "Economics and Historic Preservation: A Guide and Review of the Literature," *The Brookings Institution Metropolitan Policy Program*, 2005, 1-4

⁸ Andrew Kimball and Danielle Romano, "Reinventing the Brooklyn Navy Yard: A National Model for Sustainable Urban Industrial Job Creation," *WIT Transactions on the Built Environment* Vol. 123 (2012): 199-206; Pratt Center for Community Development, "Brooklyn Navy Yard – An Analysis of Its Economic Impact and Opportunities for Replication," 2013, 1-113; Benika Morokuma and Aya Kubota, "Study on the Revitalization of the Brooklyn Navy Yard, New York City – Retention of the Manufacturing in the Historic Environment in the Fringe Areas of Big Cities," *Journal of the City Planning Institute of Japan* Vol. 51, No. 3 (October 2016): 1189-1196

projects that have taken place at the Yard have garnered attention from audiences focused on politics, economics, social justice, public history, transportation, and more. Within the parameters of the study laid out here, the Brooklyn Navy Yard is examined through the lens of historic preservation and related discourse. The following paragraphs further explain the limitations of this study.

This research first proposes a framework for understanding the object to be preserved. It conceptualizes the structures within the Brooklyn Navy Yard as components of a larger system, one that includes the Yard itself, but also ripples out into the borough of Brooklyn and New York City as a whole. Thus the focus on this aspect of the work presented here within is limited to notions of, specifically, the historic urban landscape and the unique challenges of managing it. While some lessons may be gleaned for rural or other preservation strategies, the information referred to in this paper does not address other landscape “types.”

The Brooklyn Navy Yard is presented as follows as a model for specifically industrial heritage reuse strategies in urban areas. This is not to suggest, however, that this is the only typology to situate the Yard within. Although the research required for the compilation of this thesis does not offer an in-depth comparison of the Brooklyn Navy Yard to other deaccessioned naval shipyards across the country and world, the potential to do so is rich. Additionally, the decision has been made in this work to not focus on connections with other military defense sites, domestically or abroad. The history of the Brooklyn Navy Yard itself, despite its strategic location and key contributions to wartime efforts, is not one that is deeply defined by tangible conflict. The narrative of the Brooklyn Navy Yard is rather characterized by its role as a producer and economic anchor for local residents.

This paper leaves the specific issues of waterfront development largely for others to research in greater depth. Furthermore, the scope of the study presented as follows does not attempt to consider the implications of the tactical positioning of the Brooklyn Navy Yard along the East River. The history and reuse of the Yard are, of course, defined by its location at a bend in the river – the depth of Wallabout Bay would no longer accommodate the scale of ship typically used for commercial shipping in the 20th century and beyond. Despite this, the Brooklyn Navy Yard has not completely departed from its connection to the water; its dry docks still welcome vessels when they can and a new ferry stop and service have been established at the northeast edge of the Yard.

Finally, this paper focuses on public-private partnerships as an effective vehicle for governance, capable of working towards the achievement of preservation outcomes at the scale of adaptive reuse and the historic urban landscape. Public-private partnerships are an organizational type that balance responsibilities and rewards across sectors in order to accomplish capital projects; they have gained popularity in recent years, and continue to be an attractive option for preservation projects that can accommodate enough change as to be interesting to private investors.

Public-private partnerships are typically understood as relatively new vehicles for historic preservation. In the past, historic preservation has largely existed in the realm of private management, with societies, trusts, and associations acting as stewards of historic houses. This research does not provide much detail on how these types of groups were formed or the ways in which they funded the maintenance of their resources. This paper focuses instead on public-private partnerships because interest holders today are demanding more in return from their heritage resources. The expectation of the delivery of more diverse benefits at the resolution of a project demands the investment of more

diverse parties from the outset.⁹ A heightened understanding of public-private partnership structures specifically thus becomes necessary in response to this trend.

Even more specifically, constraints of time and attention have limited in-depth review of the various models of public-private partnership to the one specifically used at the Brooklyn Navy Yard, which is the mission-oriented corporation. The mission-oriented corporation is a very new form of public-private partnership, in which the policies and initiatives of the corporation are structured by goals that are responsive to community needs. In some ways, it may be argued that this focus on introducing “people” into the mix extends the very concept of the partnership into a new form, being public-private-people partnerships. PPPs or P3s thus become PPPPs or P4s.¹⁰

Parties to the mission-oriented corporation agree to adhere to an overarching social obligation, rather than market-driven forces, in formulating its policies and initiatives. It is suggested through this research that the mission-oriented corporation may be particularly well-suited for achieving preservation outcomes because its organizational philosophy is one that aims for sustainability rather than profit. Other public-private partnership arrangements, such as concessions, build-own-operate (BOT), design-build-operate (DBO) projects, or joint ventures are given only a brief review. Literature on the various alternative possibilities of forming public-private partnerships is readily available.¹¹

Ultimately the scope of the study is limited to highlight the factors and frameworks necessary to effectively integrate historic preservation into broad urban management

⁹ Donella Meadows, *Thinking in Systems: A Primer* (United Kingdom: Earthscan, 2009), 189-191

¹⁰ Patricia Marana, Leire Labaka, Jose Mari Sarriegi, “A Framework for Public-Private-People Partnerships in the City Resilience-Building Process,” *Safety Science* Vol. 110, Part C (December 2018): 39-50

¹¹ Susan Macdonald and Caroline Cheong, *The Role of Public-Private Partnerships and the Third Sector in Conserving Heritage Buildings, Sites, and Historic Urban Areas* (Los Angeles: The Getty Conservation Institute, 2014), 1-75

plans. It advocates for the reformation of the traditional process of historic preservation which conserves first, and finds use later. Rather, the model provided by the Brooklyn Navy Yard is a constructive one in which possibilities for use are placed at the forefront of the conservation process.¹² In this way, the Brooklyn Navy Yard case study is generally replicable though at first glance it may appear to have a narrow focus.

Methodology

This paper illustrates the anatomy of an urban management model that has embraced historic preservation as a part of its vision for economic regeneration. It builds upon existing research in three distinct areas: the integration of urban conservation into broad urban management, the Historic Urban Landscape Approach, and strategies for the adaptive reuse of surplus industrial property. A literature review for each of these topics is thus provided. The paper goes on to generally explore how public-private partnerships have effectively understood and envisioned a future for industrial heritage assets. These sections thereby provide an analytical framework for the case study of the Brooklyn Navy Yard.

The methodology applied in this thesis is based on data drawn from archival investigation, review of organizational policies, master plans, and financial statements, newspaper clippings, and interviews. Each resource has provided valuable insights into the operations of the Brooklyn Navy Yard Development Corporation and the management of the Yard itself.

¹² Eduardo Rojas, "Social Actors in Urban Heritage Conservation: Do We Know Enough?," *Preservation and the New Data Landscape* (New York: Columbia Books on Architecture and the City, 2019), 166-168

Archival investigation began in summer 2019, relying heavily on the wealth of documents organized and managed by the archivist of the Brooklyn Navy Yard Development Corporation. While completing a Graduate Research Fellowship seated at Building 92, I had ample opportunity to become familiar with these records and gain a deep understanding of the development history of the Yard since its inception.

In the same season, preliminary interviews about the redevelopment of the Brooklyn Navy Yard and its successes were conducted. Interviewees included Andrew Potts (former Legal Counsel at BNYDC), Kate Daly (formerly of the New York Economic Development Corporation and Landmarks Commission), Shani Leibowitz (Senior Planner at BNYDC), Chris Mason (Executive Director, Operations at BNYDC). As the thesis gained more structure, a further interview with Regina Myer (Downtown Brooklyn Partnership) was conducted in the early months of 2020. Direct quotes are not included in this thesis.

While attempting to understand the factors that made the Brooklyn Navy Yard a national model¹³ for orienting an historic urban landscape towards serving other urban management goals beyond material conservation, it became clear that it was necessary to retrieve organizational documents. The Articles of Incorporation for the Brooklyn Navy Yard Development Corporation, along with the numerous reports and plans leading up to its formation and guiding its growth through the latter half of the 20th century, helped to illuminate where historic preservation fit into the bigger picture of redevelopment at the Yard.

Since February 2020, the COVID-19 pandemic has resulted in the restriction of physical access to resources and people. To ameliorate the knowledge gap resulting from this loss, digitized newspaper clippings retrieved from the time of the shut-down

¹³ Kimball and Romano, 199-206

announcement of the Brooklyn Navy Yard in 1964 and earlier to the present day have been positioned to illustrate critical reception to the Yard and its projects. Economic impact studies conducted in recent years proved to be valuable sources as well.

Within this thesis, a multi-pronged approach is taken towards the evaluation of the Brooklyn Navy Yard case study. First, while the closure of the Brooklyn Navy Yard created an issue of historic resource stewardship, the economic outfall of the shutdown took precedence as the primary concern of the City of New York when it received the property. While historic preservation and economics are often viewed together in tension, the concept of a “wicked problem” provides a framework in which both can be addressed under the umbrella of holistic urban management.

From the core of recent historic preservation discourse, the Historic Urban Landscape Approach allows for an evaluation of the redevelopment at the Brooklyn Navy Yard that can appreciate both economic regeneration and heritage conservation. The methodology it recommends is comprised of a toolkit that helps resource stewards to define their goals and find collaborative methods towards accomplishing them. The Historic Urban Landscape Approach calls for a search for an equilibrium of values, needs, and benefits, which is particularly useful for the redevelopment of industrial heritage assets.

This paper hypothesizes that one of the keys to the success of the Brooklyn Navy Yard Development Corporation is its mission-orientation and non-profit status. This public-private partnership structure limits expectations on returns for all parties, sets out clear parameters for future visioning, and allows for the leveraging of both public and private financing. The mission-oriented corporation appears to be a particularly adaptable governance structure because of its inclusive and forward-thinking nature.

The case study of the Brooklyn Navy Yard is thus compartmentalized into several sections. First, a site description and general history of the ownership and management of the Brooklyn Navy Yard set the scene. Then, the four reuse strategies are individually introduced in detail. Finally, they are evaluated collectively and in comparison to each other, thereby revealing the relative strengths and weaknesses of each reuse plan. From the assessment conducted, it is possible to glean information about the contributing factors to the success of a project.

Finally, the thesis concludes with recommendations for the replicability of management model implemented at the Brooklyn Navy Yard. It will highlight the most successful aspects of the management structure of the Yard that might be useful for approaching issues that involved the preservation of existing structures at other industrial sites, underscoring the goal of the Yard to become a “national urban model for sustainable middle-class job creation.”¹⁴

2. LITERATURE REVIEW

In order to study the case of the Brooklyn Navy as a model of public-private partnership, literature from several distinct fields was reviewed to facilitate understanding of the development and management of the site. Three major themes emerged through the readings: the challenges of defining and managing historic assets within a layered network of urban fabric as conveyed through “wicked” problem theory, best practices for the integration of historic preservation goals with urban planning values as suggested

¹⁴ “Development at the Yard,” Brooklyn Navy Yard, accessed February 1, 2020, <https://brooklynnavyyard.org/about/development-at-the-yard>

within the Historic Urban Landscape Approach, and the unique issues of adapting industrial resources for contemporary use.

The sale of the Brooklyn Navy Yard came at a time when society was grappling with the effects of urban renewal projects, criticized for their heavy handed approach. In 1961, Jane Jacobs published *The Death and Life of Great American Cities*, her famous critique of the urban renewal and planning policies of the years following World War II. In 1963, demolition work on the original Penn Station began in New York. In 1965, Landmarks Law was signed into city code in response. In the following year, the federal government would follow suit by passing the National Historic Preservation Act, just as the Brooklyn Navy Yard was officially closed.

Amidst the process of its deaccession, government, private sector, and community stake holders underscored the interdependency between the Brooklyn Navy Yard and its surrounds. Parallel sentiments regarding networks of city resources were expressed by architects, planners, and others invested in the historic urban built environment around the world as they became increasingly concerned with its management and growth. In 1966, three books were published that signaled changes in the theory and practice of urban planning and design: *Architecture of the City* by Aldo Rossi, *The Territory of Architecture* by Vittorio Gregotti, and *Complexity and Contradiction in Architecture* by Robert Venturi. While Gregotti focused on the linkage between architecture and geography and Venturi examined the intersection of architecture with the visual culture of consumerism, Rossi proposed a philosophy centered on the notion of the “historic, consolidated city” compromised of “primary elements.”¹⁵

¹⁵ Antonello Marotta, “Aldo Rossi: The ‘Autobiography’ and Its Fragments,” *City, Territory and Architecture* Vol. 6, No. 9 (December 2019): 1-6

“Wicked” Problem Theory and the Historic City

In the aftermath of the urban renewal efforts of the mid-twentieth century, the multidimensional quality of historic cities conveyed by Rossi paralleled practical discussions of best practices to sustain such complex places. Scholars and professionals alike grappled with the challenges of defining the city as well as managing it. By 1967, Horst W. J. Rittel had coined the idea of “wicked” problems while teaching at the University of California, Berkeley, as documented through a guest editorial by C. West Churchman in the journal *Management Science*.¹⁶ In his article, Churchman reiterates the definition of such problems as presented by Rittel: “wicked” problems are types of social system problems “which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing.” Problems of this type are “wicked” because of their teasing nature, and the fact that they seem to evade comprehension or lasting resolution.¹⁷

In 1973, Rittel then collaborated with Melvin M. Webber, a professor of city planning also at the University of California, Berkeley, to publish a paper titled “Dilemmas in a General Theory of Planning.” In what is effectively a manifesto calling for a new framework for decision-making as it applies to the remediation of social issues, Rittel and Webber formally present the concept of wicked problems. The authors argue that wicked problems are those that are inadequately addressed through traditional scientific method. Wicked types of problems are inherently difficult to define, and in equal measure they are

¹⁶ C. W. Churchman, “Guest Editorial: Wicked Problems,” *Management Science* Vol. 14, No. 4 (1967): B141-B142

¹⁷ Churchman, B141-B142

difficult to resolve with a single, streamlined solution.¹⁸ Rittel and Webber identify social governance and policy issues as wicked: resolutions to such problems that exist at the intersection of public and private interests almost always require compromise, and almost always fail to satisfy everyone fully. The authors proceed to provide the following ten distinguishing properties¹⁹ of wicked “planning-type problems:”

- 1) “There is no definitive formulation of a wicked problem
- 2) Wicked problems have no stopping rule
- 3) Solutions to wicked problems are not true-or-false, but good-or-bad
- 4) There is no immediate and no ultimate test of a solution to a wicked problem
- 5) Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial-and-error, every attempt counts significantly
- 6) Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan
- 7) Every wicked problem is essentially unique
- 8) Every wicked problem can be considered to be a symptom of another problem
- 9) The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution
- 10) The planner has no right to be wrong”²⁰

Rittel and Webber, much like Rossi and Jacobs before them, published “Dilemmas in a General Theory of Planning” as a response to the cultural and societal manifestations of the modern movement in the post-war era. Rittel and Webber suggest that, in the realm of urban management and planning, the very complex wicked problems that they were facing were a direct evolution of the foundational social policies and large-scale infrastructure projects that had been completed earlier in the twentieth century. The properties identified by Rittel and Webber begin to explain the inherent resistance of

¹⁸ Horst Rittel and Melvin Webber, “Dilemmas in a General Theory of Planning,” *Policy Sciences* Vol. 4 (1973): 155-169

¹⁹ Rittel and Webber, 155-169

²⁰ Rittel and Webber, 155-169

wicked problems to resolution. They also enumerate how urban conservation might be understood as a wicked problem.

Wicked problems, like many historic preservation issues, often arise in circumstances in which it is not possible to test potential remedies in advance. The range of potential mediations in wicked problems and historic preservation projects alike are indefinite; each stakeholder will hold their own opinion. Wicked problems absorb interventions, and are irreversibly changed thereafter; this echoes conservation concerns regarding the reversibility of treatments made to original fabric and consequent challenges to integrity and authenticity.²¹

Yet wicked problems never find a perfect “solution,” as scientific problems might, as a result of the complex individual circumstances of each one. Wicked problems, and historic resources too, are embedded with so many socio-cultural, economic, memorial, and other values upheld by numerous stakeholders; in fact, as Rittel and Webber describe, wicked problems are identified by the very many people invested in them and impacted by them. Therefore, preservation projects, as a form of wicked problem, require comprehensive interventions that find balance through compromise, and points of overlap between the diverse values of all parties interested in their resolution.²²

Issues surrounding historic urban resources often evolve out of neglect or obsolescence driven by social or economic hardships.²³ Like wicked problems, they are symptoms of other challenging circumstances. Rittel and Webber hold the professional

²¹ Michael Petzet, “Principles of Preservation: An Introduction to the International Charters of Conservation and Restoration 40 Years after the Venice Charter,” *International Charters for Conservation and Restoration* (Munich: ICOMOS, 2004), 26-27

²² Rojas, 2019, 166-167

²³ André Thomsen, *Obsolescence and the End of Life Phase of Buildings*, (Amsterdam: Management and Innovation for a Sustainable Building Environment, June 20-23, 2011), 1-15

addressing a wicked problem accountable for the way it is characterized and resolved. Just as “the planner has no right to be wrong,” preservation professionals must also seriously take into consideration the ramifications of their applied plans, interpretations, and treatments. The notion of professional ethics is one that has recently gained increasing attention in the historic preservation field as well.²⁴

Rittel and Webber located wicked problems at the intersection of complex and overlapping “goal-formulation, problem-definition, and equity issues.”²⁵ The authors challenged the sustainability of the urban renewal “solutions” that had been applied in the decades leading up to their article. In their identification of wicked problems, Rittel and Webber called to light that urban management professionals needed to reform their approach to the built environment. Rittel and Webber essentially advocated for a more holistic and long-term approach to matters of urban management, planning, and design.

In the years that followed the publication of “Dilemmas in a General Theory of Planning,” urban planning, design, and policy professionals turned to assess their approaches to the built environment.²⁶ From this self-evaluation emerged two complementary halves of a comprehensive conceptual framework: design thinking and systems thinking. On one hand, design thinking, structured by a “reconsideration of problems and solutions,” allowed designers to understand issues through compartmentalization and to take stock of the tools at their disposal: symbolic and visual communications, material objects, activities and organized services, and complex

²⁴ Erich Hatala Matthes, “The Ethics of Historic Preservation,” *Philosophy Compass* Volume 11, Issue 12 (December 2016), 786-794

²⁵ Rittel and Webber, 156

²⁶ Richard Buchanan, “Wicked Problems in Design Thinking,” *Design Issues* Volume 8, No. 2 (Spring 1992): 5-21

systems or environments for living working, playing and learning.²⁷ Systems thinking, on the other hand, functions as a big-picture way of seeing how collections of components work together and are organized by flows of value.²⁸ Best practices seek to understand the interrelatedness of these two modes of thinking by balancing the bottom-up methodology of design with a systematic top-down approach to implementation.²⁹

Those invested in the built environment, from fields of conservation, planning, design, and both real estate and economic development, would continue to assess their methods for applying interventions at the urban scale. Increasingly, professionals have recognized the need for interdisciplinary approaches, acknowledging that no one entity has the perfect solution for the complex “wicked” problems that are observed in cities. The ways of understanding that have grown out of wicked problem theory help to reframe traditional positioning of historic preservation in opposition to visions of inclusive growth and innovation, and of heritage resources as obstacles to progress and much-needed change.³⁰ One example of such a methodology as it applies in the conservation fields takes form in the Historic Urban Landscape Approach.

The Historic Urban Landscape Approach

The Historic Urban Landscape Approach, following the publication of the 2011 *Recommendation on the Historic Urban Landscape* by UNESCO, has gained increasing

²⁷ Buchanan, 9-10

²⁸Derek Cabrera and Laura Cabrera, *Systems Thinking Made Simple: New Hope for Solving Wicked Problems* (Odyssean Press, 2015), 24-25

²⁹ Peter Rowe, *Design Thinking* (Cambridge: The MIT Press, 1987), 71

³⁰ Binyamin Appelbaum, “Why Historic Preservation Hurts Cities,” *The New York Times*, January 26, 2020, 22; Sarah Hill, “Constructive Conservation – A Model for Developing Heritage Assets,” *Journal of Cultural Heritage Management and Sustainable Development* Vol. 6, No. 1 (2016): 34-46

popularity for its holistic stance towards the maintenance and management of cities.³¹ The approach, as both a definition and a practice informed by preservation and planning movements alike, merges available concepts and tools from multiple fields in order to position historic resources to serve shared social goals of sustainability and resilience. The Historic Urban Landscape Approach emphasizes the symbiotic potential of conservation and development, disrupting traditional discourse that frames conservation and development as polar forces.

The Historic Urban Landscape Approach has a dual structure. First, it defines the subject of its application: the historic urban landscape. The Approach suggests that historic cities contain many layers and values, much in line with the post-urban renewal discussion that has matured over the past fifty or so years. The second half of the Historic Urban Landscape Approach addresses the toolkit necessary to develop holistic, regenerative urban conservation and management plans. UNESCO suggests the following course of action in order to implement the Approach:³²

- 1) “Comprehensive surveys of all resources
- 2) Determine values and attributes through participatory planning and stakeholder consultations
- 3) Assess vulnerability of resources due to social, economic, and environmental shifts
- 4) Integrate data gathered into planning for urban development
- 5) Prioritize actions for conservation and development
- 6) Establish partnerships and governance structures between public and private sectors”³³

³¹ UNESCO, *The HUL Guidebook: Managing Heritage in Dynamic and Constantly Changing Urban Environments – A Practical Guide to UNESCO’s Recommendation on the Historic Urban Landscape*, 2016, 6

³² UNESCO, *The HUL Guidebook*, 13-15

³³ UNESCO, *The HUL Guidebook*, 13-15

The 2011 UNESCO *Recommendation on the Historic Urban Landscape* describes the historic urban landscape as “the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of “historic centre” or “ensemble” to include the broader urban context and its geographical setting. This wider context includes notably the site’s topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary, its infrastructures above and below ground, its open spaces and gardens, its land use patterns and spatial organization, perceptions and visual relationships, as well as all other elements of the urban structure. It also includes social and cultural practices and values, economic processes and intangible dimensions of heritage as related to diversity and identity.”³⁴

A diverse range of perspectives and skillsets are needed for the application of the aforementioned steps and the effective management of the urban built environment. Broadly categorized, the historic urban landscape is one that must be sustained through the application of community engagement tools, knowledge and planning tools, robust regulatory systems, and financial tools. Community engagement tools are defined as activities that foster dialogue among different parties. They can be investigative in nature, initiated to survey a range of values and resources. On the other hand, they may also be positioned to promote sustainable development. Knowledge and planning tools provide a technical basis for the interpretation of gathered data, and they should balance the permission of development with the protection of the integrity and authenticity of intangible and tangible historic assets. Regulations may take the form of special ordinances, acts,

³⁴ UNESCO, *Recommendation on the Historic Urban Landscape* (Paris: Proceedings of the International Conference, 2011), 4-5

or executive orders. Finally, financial tools encompass both government support as well as private investment. Each of these tools may be adapted to the unique circumstances of the project in which they are employed, as suggested in the broad guidance from UNESCO.³⁵

The Historic Urban Landscape Approach is inherently interdisciplinary as it moves the conservation and development fields towards each other, with a common goal of creating an inclusive management structure for the maintenance of heritage resources. The Historic Urban Landscape Approach is wholly defined by its foundational concept of layering; its method is to activate the elements that allow for the greatest multitude of values in a city to be acknowledged. The actions that characterize the Historic Urban Landscape Approach are integrated in order to respond to a built environment that is a complex network of layers, extending from natural features to social and economic functions. In its emphasis on the depth of the spatial and temporal dimension of urban areas, the Historic Urban Landscape Approach orients urban conservation towards the sustainability and resilience, finding a balance with its traditional sole focus on the material preservation alone.³⁶

It is currently estimated that over half of the world's population inhabits an urban area. Cities have concentrated stores of diverse identities and enterprises. As the world becomes increasingly globalized and urbanized, the management of the built environment becomes more complex: how will cities manage change while responsibly stewarding their tangible and intangible resources?³⁷ The Historic Urban Landscape Approach suggests

³⁵ UNESCO, *The HUL Guidebook*, 15

³⁶ Francesco Bandarin and RonVan Oers, *The Historic Urban Landscape: Managing Heritage in an Urban Century* (New York: John Wiley & Sons), 2012, 71-73

³⁷ UNESCO, *The HUL Guidebook*, 5

that it is these very resources that contribute to the distinct and unique characters of every municipality, and therefore aims to ensure the survival of those resources into the future.

At the Brooklyn Navy Yard, historic preservation is not an explicit goal of the Brooklyn Navy Yard Development Corporation that manages the site. However, the rehabilitation of the Yard and the community engagement positioned around its historic resources found serve the present-day mission of BNYDC to stimulate employment opportunities, support industrial sector growth, and maintain connections to its neighbors. The Historic Urban Landscape Approach advances similar “culture-led” regeneration strategies that prioritize and protect communities first.³⁸ It is a method that is relatively new and while aspects of it have been implemented in part in many cities around the world with promising results, the Historic Urban Landscape Approach remains to be explicitly adopted by many urban management professionals. At the level of governance, there is plenty of room for professionals and organizations to make conservation an integrated part of their strategy rather than simply a means to an end of material preservation and staid interpretation.

For over two hundred years, the Brooklyn Navy Yard has served as a socio-cultural and economic anchor for its neighboring communities and New York City as a whole. Its operation fosters a sense of continuity for multiple stakeholders, linking not only a diverse contemporary population of employees and visitors but an intergenerational one, too. The historic urban landscape of the Brooklyn Navy Yard is one that is complex and far-reaching. Thus, the Historic Urban Landscape Approach provides a structural and evaluative lens on decision-making for urban management from the historic preservation perspective. It promotes a standard guide for best practices in sustainable preservation

³⁸ UNESCO, *The HUL Guidebook*, 5-6

and serves as a touchstone for later assessment of the success of redevelopment at the Brooklyn Navy Yard in this thesis.

Industrial Heritage Reuse

When the New York Naval Shipyard was deaccessioned, several reports were commissioned by interested parties to detail the impact of its closure. These reports identified the role of the Yard within the broader context of New York City. The New York Naval Shipyard had been a major employer for skilled laborers, providing a channel towards middle class stability for multiple generations of New Yorkers. It also had a manufacturing and shipbuilding capacity that was really unmatched by other navy yards in the region. Therefore, it was determined that the Yard would be converted to civilian manufacturing as it transferred to the ownership of the City. Referred to then as the Brooklyn Navy Yard, the site would continue to be a source of stable employment as well as cutting-edge technology, as it had for so long.

The buildings within the Brooklyn Navy Yard reflect a history of responsive development, formed by changing needs to accommodate industrial innovations over time. The significance of the Brooklyn Navy Yard, as clearly explicated in the nomination for designation of the site as a National Register of Historic Places Historic District, is bound in its industrial heritage.³⁹ An overview of the ways in which industrial historic resources have been conserved, reused, and managed is helpful in understanding the initiatives implemented at the Yard.

³⁹ Peterson, Section 7

In 2011, the 17th ICOMOS General Assembly was held in Paris. At this meeting, experts recognized the opportunities and challenges of preserving industrial heritage through the declaration of the *Joint ICOMOS-TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes*, simply referred to as “The Dublin Principles.” The Dublin Principles define industrial heritage as “sites, structures, complexes, areas and landscapes as well as the related machinery, objects or documents that provide evidence of past or ongoing industrial processes of production, the extraction of raw materials, their transformation into, and the related energy and transport infrastructures. Industrial heritage reflects the profound connection between the cultural and natural environment, as industrial processes – whether ancient or modern – depend on natural sources of raw materials, energy and transportation networks to produce and distribute products to broader markets. It includes both material assets – immovable and movable – and intangible dimensions such as technical know-how, the organization of work and workers, and the complex social and cultural legacy that shaped the life of communities and brought major organization changes to entire societies and the world in general.”⁴⁰

Industrial heritage assets tend to fall out of service as a result of functional, economic, or physical factors. Functional obsolescence occurs when buildings and spaces have become inadequate for their original purpose; physical obsolescence indicates advanced deterioration of the structure; economic obsolescence is a result of prohibitively expensive operation of a building.⁴¹ The adaptive reuse of obsolete or vacant industrial

⁴⁰ ICOMOS-TICCIH, *Joint ICOMOS – TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes* (Dublin: Proceedings of the 17th ICOMOS General Assembly, 2011)

⁴¹ Eduardo Rojas, *Old Cities, New Assets: Preserving Latin America’s Urban Heritage* (Washington, DC: Intern-American Development Bank, 1999), 11

heritage buildings has become a popular preservation strategy. Though such building stock may present challenging issues at first, those challenges can be transformed into “opportunities for development that could be environmentally, economically, and social advantageous.”⁴²

Enterprising developers and conservators have proven that industrial heritage can serve as a catalyst for urban regeneration, accommodating a range of new uses from residential housing to short-term workspace.⁴³ Places like the Brooklyn Navy Yard have also shown how industrial heritage sites can maintain their historic function and serve contemporary manufacturing purposes as well. While industrial heritage assets can be a challenging type of building stock to deal with because of negative histories, environmental pollution, and other factors, they are also often sites that stimulate collaborative, creative resolutions to complex redevelopment issues.⁴⁴ The adaptive reuse of industrial heritage assets can indeed generate the creation of new jobs, train skilled labor, and renew the sense of stewardship a community feels for a site.⁴⁵

The adaptive reuse strategies implemented for industrial heritage are not without criticism. Failures have been identified at sites where newly adopted functions are far removed from the realities of their industrial past.⁴⁶ As Daniel Bluestone notes, building facades should not be treated as the primary loci of significance; the efficacy of adaptive

⁴² Michael Louw, *Industrial Heritage Protection and Redevelopment* (Mulgrave: The Images Publishing Group, 2018), 5

⁴³ Daniel Campo, “Historic Preservation in an Economic Void: Reviving Buffalo’s Concrete Atlantis,” *Journal of Planning History* Vol. 15, No. 4 (2015): 318-323

⁴⁴ John I. Gilderbloom, Matthew J. Hanka, Joshua D. Ambrosius, “Historic Preservation’s Impact on Job Creation, Property Values, and Environmental Sustainability,” *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* Volume 2, Issue 2 (2009): 85-99

⁴⁵ Louw, 6-8

⁴⁶ Daniel Bluestone, “Tobacco Row: Heritage, Environment, and Adaptive Reuse in Richmond, Virginia,” *Change Over Time* (Volume 2, Number 2) Fall 2012, University of Pennsylvania Press, 132-154

reuse strategies for industrial sites depends on the mindful and complete acceptance of the narratives embedded – positive and negative – in a place.⁴⁷ Some may argue that adaptive reuse initiatives indeed obscure history, rather than centering it as a guide for future use. Therefore, reuse strategies may undermine their own intent. The loss of connection between the heritage of a place and its use after rehabilitation may be identified as a sign of an ineffective adaptive reuse plan.⁴⁸

Adaptive reuse strategies for industrial heritage that are informed by a sense of place, authenticity, and a cohesive identity have become an increasingly popular topic of interest in the historic preservation field. Unique challenges arise from a tension between impulses to foster functional continuity in industrial heritage resources and to remediate aspects of past use that have driven economic and social disparities. A sense of continuity at an industrial site requires creative interpretation and sustainable management; within the bounds on an urban area, an informed adaptive reuse of industrial resources becomes even further complicated.⁴⁹

The success of the redevelopment of the Brooklyn Navy Yard is driven by the commitment of its mixed-sector management to its shared social and economic mission. That mission has served to structure the adaptive reuse strategies implemented at the site, providing a common goal for representatives of different interests. Each project is oriented around one of the stated organizational goals of job growth, industrial sector support, or community engagement. By placing the purpose of the site in these terms, Yard management is able to make critical rehabilitation decisions that achieve integral

⁴⁷ Bluestone, 134-135

⁴⁸ Bluestone, 134

⁴⁹ Thomas E. Leary and Elizabeth C. Sholes, "Authenticity of Place and Voice: Examples of Industrial Heritage Preservation and Interpretation in the U.S. and Europe," *The Public Historian* Vol. 22, No. 3 (Summer 2000): 49-53

results extending far beyond material conservation alone, even in despite of the hundreds of years of history at the site. The industrial heritage of the Brooklyn Navy Yard has been internalized at an organizational level and positioned to serve as a foundation towards other mission-stated urban management goals.

3. IN FOCUS: PUBLIC-PRIVATE PARTNERSHIPS, PRESERVATION OUTCOMES

The transformation of the Brooklyn Navy Yard from a federally-operated naval shipbuilding yard into a civilian industrial park represented a major challenge to government, private, and community stakeholders alike. The local government had invested millions in the purchase of the Yard. Business owners eyed the financial potential of waterfront property zoned for the heaviest of manufacturing uses. The Yard was a workplace to thousands of people in New York City, and was an economic lifeline for residents of neighboring communities. It had also served as a nationally-recognized backdrop to significant scientific, military, and industrial advancements for centuries.⁵⁰

Finding balance amongst all of these interest holders did not come easily. In the first iteration of Brooklyn Navy Yard management, Commerce Labor Industry Corporation of Kings was quickly plagued with allegations of corruption and the City of New York was heavily criticized for relinquishing so much control over the Yard to private and federal representatives.⁵¹ Following the disbandment of CLICK, equilibrium was consciously embedded into the formal organization of the Brooklyn Navy Yard Development

⁵⁰ Peterson, Section 7

⁵¹ Joseph B. Treaster, "Goldin Fears Navy Yard Abuses May Cost the City 'Even Millions;,' First Hints in March High Expenses Uncovered," *The New York Times*, July 7, 1980, 3; Alan S. Oser, "About Real Estate: Revitalization at the Brooklyn Navy Yard," *The New York Times*, April 19, 1978, 14

Corporation: BNYDC maintained the same nonprofit status that CLICK had carried, but its corporate board membership was assembled with an increased amount of city oversight. Furthermore, while tax incentives for BNYDC could be passed to tenants in the form of affordable rents, any revenue made through lease or redevelopment of the site had to be redirected towards the newly defined organizational mission of creating jobs, supporting industrial businesses, and community engagement.

Furthermore, the Brooklyn Navy Yard was organized as a discretely presented component unit of the City of New York. Component units are legally separate organizations which must complete financial reporting to the city. They may be described further as either blended or discretely presented. Blended component units provide services exclusively to the City of New York and must therefore report their financial information within the comprehensive financial reporting completed by the City itself. On the other hand, discretely presented component units, as their name implies, report their financial information separately from that of the City because they do provide service exclusively to it.⁵² Other discretely presented component units in New York include the New York City Economic Development Corporation and the Queens Borough Public Library. This highly visible and independent structure encourages organizations like BNYDC to manage their assets in an entrepreneurial way while establishing accountability at the same time.

The BNYDC board is comprised of thirty-three local government officials and private sector members appointed by the Mayor. Of those, the Mayor is required to appoint three board members who are City Council Members representing districts adjoining the

⁵² "NYC Component Units Financial Statements," Office of New York City Comptroller, accessed April 20, 2020, <https://comptroller.nyc.gov/services/financial-matters/nyc-component-units-financial-statements/>

Yard and one member must be the Borough President of Brooklyn.⁵³ On-the-ground management was otherwise authorized to make self-sufficient operational day-to-day decisions in order to restrict the influence of personal politics. Representation from government, private, and community populations is mandated in the organizational documents for BNYDC. Embedding the concept of public-private partnership into the governance structure of BNYDC has been a major factor in the successful redevelopment of the Yard, and has fostered the ability of BNYDC to incorporate preservation into its project outcomes too.

An Overview of Public-Private Partnerships

Public-private partnerships have been implemented at the municipal level since the 1970s; it is perhaps not so coincidental that these organizational and financing structures became increasingly popular as urban management professionals began pushing for more participatory approaches to capital projects. The acceptance of public-private joint ventures reflected a policy shift in planning and development practice. Public-private partnerships offered local officials more flexibility and more efficiency in the use of resources. They have been applied to downtown revitalization efforts and infrastructure updates alike.⁵⁴

Lynne Sagalyn lists the numerous ways in which public-private partnerships have been used for “transforming industrial waterfronts, building new infrastructure, converting aging school facilities, restoring historically significant buildings, developing brownfields,

⁵³ Brooklyn Navy Yard Development Corporation, “By-Laws of Brooklyn Navy Yard Development Corporation as Amended July 1, 2015,” 2-3

⁵⁴ Lynne Sagalyn, “Public/Private Development: Lessons from History, Research, Practice,” *Journal of the American Planning Association* (Volume 73, No. 1) January 2007, 7

revitalizing neighborhood commercial centers, and transforming former military bases.”⁵⁵ It is thus inferred that the Brooklyn Navy Yard had a rich set of precedents to refer to in the creation of its own public-private development model.

The National Council on Public-Private Partnerships defines PPPs as “a contractual agreement between a public agency (federal, state, or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.”⁵⁶ The World Bank in 2003 took note that “the term PPP has taken on a very broad meaning, the key element, however, is the existence of a ‘partnership’ style approach to the provision of infrastructure as opposed to an arm’s length ‘supplier’ relationship...Either each party takes responsibility for an element of the total enterprise and work together, or both parties take joint responsibility for each element...A PPP involves a sharing of risk, responsibility and reward, and is undertaken in those circumstances when there is value for money benefit to the taxpayers.”⁵⁷

Successful public/private projects often share the common characteristics of cooperative partners with aligned interests, formal contracts that distribute reward, risk, and responsibility fairly for mutual gain and social benefit, and long-term visions.⁵⁸ The definition of public-private partnership relevant to this paper goes beyond concessions of privatized public service, or simple capital investment in public projects. The key to

⁵⁵ Sagalyn, “Public/Private Development,” 7

⁵⁶ “Public-Private Partnership (P3) Basics,” The Construction Association, accessed April 20, 2020, <https://www.agc.org/public-private-partnership-p3-basics>

⁵⁷ The World Bank, *World Bank Group Private Sector Development Strategy Implementation Progress Report*, (Washington, DC, 2003)

⁵⁸ Sagalyn, “Public/Private Development,” 8

effective public-private partnership, as explained by Brooks in 1984, is “joint decision-making according to criteria formally embodied in the agreement instrument.” Sagalyn further notes that “contemporary public/private partnerships arose to remedy problems with federal urban renewal efforts,”⁵⁹ very much in parallel to notions of the historic city discussed earlier.

Early forms of public-private partnerships, as described by Charles L. Schultze at Harvard University in 1976, incentivized private investment in public projects, replacing older centralized, bureaucratic development strategies and regulations.⁶⁰ In the 1980s, public-private strategies were used by savvy local officials who recognized the potential to capitalize on a booming commercial real estate market. Arrangements between municipal governments and private developers leveraged the economic potential of strategically located public lands while sharing the benefits and burdens of development amongst multiple parties. By the 1990s, standards for best practices in structuring and operating public-private partnerships had been established from a diverse set of case studies that had played out over the prior couple of decades.⁶¹ ⁶² Finally, by the early 2000s the public-private partnership appeared to be fully codified into professional practice: in 2005, the Urban Land Institute released its publication *Ten Principles for Successful Public/Private Partnerships*.⁶³

⁵⁹ Sagalyn, “Public/Private Development,” 9

⁶⁰ Lynne Sagalyn, “Public/Private Development – Lessons from History, Research, and Practice,” *Journal of the American Planning Association* Vol. 73 No. 1 (January 2007): 3

⁶¹ Sagalyn, 3-5

⁶² Mark Sherman, “Cities Move to Develop Unused Land,” *The New York Times*, May 13, 1984, 53-54

⁶³ Mary Beth Corrigan, Jack Hambene, William Hudnut III, Rachelle L. Levitt, John Stainback, Richard Ward, and Nicole Witenstein, *Ten Principles for Successful Public/Private Partnerships* (Washington, DC: Urban Land Institute, 2005), 1-34

And, of course, public-private partnerships are not an American phenomena. The history of their use in other developed countries echoes the same trends as the American narrative. International cases of public-private partnerships provide further lessons that underscore the importance of cultural context, risk assessment, and finding a suitable partner. From the case of Manchester, England, it is suggested that redevelopment in peripheral urban areas with small lot sizes, multiple tenancies, and diverse uses tended to attract developers who could “recognize the links between such social complexity and the urban vitality, which is central to regeneration processes and ultimately to rising rental values.”⁶⁴

Typologies of Public-Private Partnerships

The highly context-specific nature of public-private partnerships results in their general categorization by “degrees of decision rights, costs, and risks held by each partner and designed to meet the needs of the specific partners and the desired outcomes.”⁶⁵ Alternatively, public-private partnerships can be characterized by their delivery type or by their contractual agreement.

The role of the public, private, and third sectors in delivering public goods and services may range from full delivery by a governmental agency to total privatization. Public-private partnerships, however, tend to appear in schemes such as build-operate-transfer (BOT), buy-build-operate (BBO), and design-build-operate (DBO).⁶⁶ Seen through

⁶⁴ Simon Guy, John Henneberry, and Steven Rowley, “Development Cultures and Urban Regeneration,” *Urban Studies*, 39(7), 2002, 1181-1196

⁶⁵ Macdonald and Cheong, 15

⁶⁶ Macdonald and Cheong, 18-20

the lens of delivery type, the degree of private sector involvement is proportional to the level of risk that the private sector takes on.

On the other hand, public-private partnerships can also be categorized in terms of their arrangements: they are broadly seen as institutionalized or contractual. Institutionalized public-private partnerships are those in which a special purpose vehicle or entity is formed to insulate the individual partners from risk. The special purpose vehicle or entity is typically the public-facing project representative, but in some rare cases it takes on increased power by serving as an advisory board for development projects. Meanwhile, contractual public-private partnerships are agreements made between the public and private sector for the private sector to deliver a public service for an extended period of time. In these types of partnerships, the private sector often is tasked with design, build (or conserve), and facility management. Contractual PPPs are further subcategorized as concessions, in which user fees are a main revenue stream, or private financing initiatives, in which the public sector agrees to pay the private sector to deliver a service over a period of time.

Public-Private Partnerships for Historic Preservation

UNESCO's *Recommendation on the Historic Urban Landscape Approach* advises that public-private partnerships induce greater collaboration and tend to deliver more broad sweeping benefits, allowing for preservation to be integrated into comprehensive urban management plans. This section aims to characterize the ways in which public-private partnerships have been arranged in order to deliver outcomes that satisfy historic preservation values. Research surrounding this niche activity of public-private partnerships has only recently started. In 2014, the Getty Conservation Institute has called

for further study into the “practical means and methods” by which multiple private, governmental, and other third party groups might be involved in the continued care of cultural heritage.⁶⁷ The information here within responds directly to this request for enhanced understanding of how public-private partnerships might be well-suited for integrating values projected on to the built environment.

Macdonald and Cheong note in the 2014 Getty Conservation Institute publication *The Role of Public-Private Partnerships and the Third Sector in Conserving Heritage Buildings, Sites, and Historic Urban Areas* that urban revitalization strategies have incorporated conservation of historic resources. The unique identity that can be derived from the character of elements that compose an historic urban area can also be used to attract investment. However, the perceived challenges of historic preservation – additional costs, increased regulatory oversight, and limitations on capacity for change – can scare private investment away. Through examples of urban regeneration schemes implemented since the 1970s, it can be observed that public-private partnerships have been used to deliver conservation directly, but in these case preservation must also come with other tangible incentives.⁶⁸

The work of Eduardo Rojas for the Inter-American Development Bank in particular highlights the ways in which urban regeneration and urban conservation can work in tandem. He suggests that it is impossible for the public sector to carry the burden of historic preservation alone. “Sustainable, long-term preservation of the multitude of monuments, historic buildings, public spaces, and residential and commercial

⁶⁷ Macdonald and Cheong, vi

⁶⁸ Macdonald and Cheong, 9-10

structures...can only be achieved with the support and participation of property owners, communities, real estate investors, and private philanthropists.”⁶⁹

Rojas urges for a sustainable preservation that integrates the protection of heritage resources with other social and economic goals of urban management.⁷⁰ As such, conservation of urban heritage assets has been emphasized within broader redevelopment schemes. Historic buildings are adapted for reuse, while public space or infrastructure improvements are completed in parallel. The generally positive reception towards these types of projects work to attract further investment, culminating in the eventual self-sufficiency of the historic area. This type of approach requires long-term commitments and openness to compromise from all involved parties. Public sector parties must accept “a private sector style of decision-making and risk-taking in the use of public funds,” while private sector parties must acquiesce to operate for the public good. Public investment is a signal to attract private interest; private interest mitigates government risk. The symbiotic relationship between urban preservation and revitalization is driven by the fact that preservation of urban heritage improves the functional capacity of a city, while the economic and social benefits of urban renewal support expenditures for preservation.⁷¹

As governments have been limited by insufficient budgets for the conservation of heritage resources in recent years, the Council of Europe has called for an examination of further private sector involvement in resource management and the creation of a guide

⁶⁹ Rojas, 1999, 8

⁷⁰ Rojas, 1999, 5-26

⁷¹ Rojas, 1999, 23

for best practices in establishing public-private partnerships.⁷² At the same time, the private sector has organized behind the conservation of heritage assets when driven by market and profit. In the most recent assessments of public-private partnerships, the private sector has proven to be driven by an expanded set of economic, social, and environmental values required by triple-bottom line reporting.⁷³

Increasingly, the third sector or “people sector” or community is demanding its own position within public-private partnerships. Literature around this expanded concept of public-private-people partnerships (sometimes referred to accordingly as PPPPs or P4s) has grown significantly in recent years and will without doubt be worthy of independent study in the near future. Rojas has observed that this third sector is particularly difficult to define because of the gradation of interest this group of stakeholders actually holds.⁷⁴

Though nonprofit involvement in itself is not new, the emergent phenomenon of the private and third sectors working together with minimal governmental intervention is, in fact, new. Such partnerships may be due to the reduction in direct government subsidies for the conservation of privately owned heritage places. The increased emphasis on engaging local communities in a wide range of activities related to the conservation process has also created opportunities for the third sector to provide a formal mechanism for such engagement. As identity-building public assets, heritage buildings, sites, and areas play a vital role in the community’s social, cultural, and economic health. For city planners and developers, PPPs have the potential to revitalize neighborhoods and

⁷² European Conference of Ministers Responsible for Regional Planning (CEMAT), *Guiding Principles for Sustainable Spatial Development of the European Continent* (Council of Europe, 2000), 7-9

⁷³ Macdonald and Cheong, 11-12

⁷⁴ Rojas, 2019, 165-170; Marana et al, “A Framework for Public-Private-People Partnerships,” 39-50

produce revenue through long-term leases and other income-generating activities. For conservationists, PPPs can attract funding and focus attention on the value of conserving a community's past. When the third sector is involved, PPPs may also provide a mechanism for engaging local communities in the care and conservation of their heritage places.

An Emerging Institutional Type: Mission-Oriented Corporations

Wicked problems, like the challenge of redeveloping the New York Naval Shipyard into the thriving Brooklyn Navy Yard seen today⁷⁵, are best addressed by collaborative resolutions formulated through compromise and structured by reasonable, clear goals. The Brooklyn Navy Yard Development Corporation has implemented its commitment to a public-private strategy at the level of its management, allowing it to remain on task – which is to deliver on its mission to support its community through job and business resources. This fully integrated organizational philosophy falls into a category of public-private partnership that has recently emerged: the mission-oriented corporation.

The G20, in its 2016 publication “Mission-Oriented Legal Structure: Policy Case Study on Inclusive Business,” identifies the mission-oriented corporation as a business that has integrated its social mission into its legal status. The G20 has explored the notion of the mission-oriented corporation for its strength and vulnerabilities as an inclusive business practice.⁷⁶ The mission-oriented corporation is posited to be an outgrowth of the mixed-capital company, a recent development in the use of public-private partnerships for

⁷⁵ Jane L. Levere, “Brooklyn Navy Yard, a Roomy Haven for Industry, Once Again is Booming,” *The New York Times* August 29, 2007, C6

⁷⁶ World Bank Group, “Mission-Oriented Legal Structure,” 1-13

urban revitalization.⁷⁷ Mixed-capital companies have gained attention for the financing and management tools they are able to leverage in order to facilitate urban rehabilitation projects. They sometimes take the form of a distinct organizational entity or special purpose vehicle of the institutional type of public-private partnership.⁷⁸ Mission-oriented corporations push the mixed-capital company a step further by orienting their activities towards delivering a shared social benefit and formalizing that mission into their organizational management documents.

Mission-led policies have guided organizations since the 1940s, as companies rallied to support the military efforts in World War II.⁷⁹ The Brooklyn Navy Yard, known as “The Can-Do Ship Shipyard” for its role in wartime production, was a central part of such history, too. As the complex issues of social planning and policy came into focus in the 1960s, organizations began adopting missions that address those challenges instead. These missions take a long-term approach and typically aim to continuously deliver public benefits over time. The missions of organizations oriented to addressing social benefits are not structured to deliver goods or meet simple targets. They are specifically suited for producing innovative policies and interventions through multidisciplinary research and a multi-actor approach.⁸⁰

Organizations driven by an industrial strategy in particular have recently been examined as vehicles for serving societal benefits as their mission. Laurie Macfarlane and

⁷⁷ Borraine, 2009; Davies, 2001; Guarneros-Meza, 2008; Lawless, 1994; Mutal, 2004; Nijkamp, Van Der Burch, & Vindigni, 2002; Van Boxmeer & Van Beckhoven, 2005

⁷⁸ Caroline Cheong, “Instruments for Urban Regeneration: Mixed Capital Companies”, Unpublished paper, Philadelphia: Historic Preservation Program, Weitzman School of Design, University of Pennsylvania, 2-4

⁷⁹ Gassler et al, 2018

⁸⁰ Effie Amanatidou, Paul Cunningham, Abdullah Gök, and Ionna Garefi, “Using Evaluation Research as a Means for Policy Analysis in a 'New' Mission-Oriented Policy Context,” *Minerva* (Volume 52, No. 4), 2014, 421-424

George Dibb write about how contemporary wicked problems must locate value in their purpose beyond turning a profit. They argue that economic activity needs to be brought closer to and integrated with the public good, especially following financial crises in recent years. Rather than pursuing economic activities towards the fulfilment of a wealth creation narrative, the creation of value can be a collective process facilitated by inclusive mission-oriented organizations.⁸¹ As the authors write, “a mission-oriented approach to industrial strategy can respond to these grand challenges [a synonym for wicked problems] by identifying and articulating concrete goals that can galvanise production, distribution and consumption patterns across various sectors.”⁸²

Macfarlane and Gibb have worked with the University College London Institute for Innovation and Public Purpose to establish the Mission Oriented Innovation Network (MOIN) to share experience and produce a book of case studies. Through their research, it has been found that the success of mission-oriented corporations is not about governance alone. Such organizations must also expand the tools they use to accomplish their goals and deliver social goods; activities should be motivated by evaluative methods beyond a market-based cost-benefit analysis.⁸³ As old practices have proven themselves to be unreliable due to systemic disparities, the strategy of mission-oriented corporations present a sustainable alternative.

The Brooklyn Navy Yard Development Corporation displays characteristics typically expected of a mission-oriented corporation, evolving out of the tradition of mixed-capital institutionalized public-private partnerships. The social mission of BNYDC is

⁸¹ Laurie Macfarlane and George Dibb, “Delivering a Mission-Oriented Industrial Strategy,” *IPPR Progressive Review* (Volume 26, No. 1), 2019, 31-33

⁸² Macfarlane and Gibb, 32-38

⁸³ Macfarlane and Gibb, 31-37

figured into its legal framework on two levels: through its nonprofit status (and consequently on its public financial statements) and through its articles of incorporation. The managing board membership of BNYDC, comprised of both government, private, and community representatives, is able to democratically advocate for shared benefits and risks on behalf of their sectors, creating a pathway towards inclusive, participatory planning and redevelopment.

Two examples of other similar mission-oriented corporations that have leveraged historic resources towards achieving broad urban management goals are described in detail below.

Stadsherstel Amsterdam

Stadsherstel Amsterdam was founded in 1956 as a company devoted to the restoration of both urban and rural heritage assets in the Netherlands. Stadsherstel is both a limited liability company and a public housing corporation, which does illustrate a difference between it and the Brooklyn Navy Yard Development Corporation, whose focus is purely on commercial and manufacturing use. The essential structures of both organizations are resonant, however, and Stadsherstel was one of the first to position itself as mission-oriented and mixed-capital. Stadsherstel Amsterdam has remained committed to preserving the character of historic resources with careful consideration of the capacity for change of a site. The organization has completed rehabilitation projects and manages properties with more than 500 houses and 30 multi-tenant buildings (including churches and industrial structures).

In the Netherlands, laws require limited liability companies to be income-producing, while public housing corporations are not allowed to make a profit. Therefore, Stadsherstel

occupies a very unique position in which the national Ministry of Housing and Planning and the Ministry of Finance agreed to allow the formation of the organization to proceed, with limitations. The size of the annual dividend disbursed to shareholders must be regulated, and any surplus profit must go into a fund to be used for the mission of the Stadsherstel, which is to pursue conservation activities. Later, the national government agreed to waive taxes on the dividend for businesses, but not private individuals.

Stadsherstel played a major role in combatting the obsolescence and demolition that was pervading the city of Amsterdam in the mid-twentieth century. In the 1990s, with much of the work completed by Stadsherstel in the residential inner city considered a success, the organization began a formal merger process with Amsterdam Monument Fund (NV Amsterdams Monumenten Fonds or AMF). AMF was focused on tackling the challenges of restoring large industrial buildings and churches, but resisted the common trend of using these sites for housing or offices. As of 2010, the expanded Stadsherstel has restored 14 churches and 16 large buildings such as a shipyard, a storehouse, a mill, pumping-stations, and schools. While these assets do contain some housing, they also contain about 300 commercial tenants supervised by Stadsherstel itself.⁸⁴

Pakhuis De Zwijger is one such property restored by Stadsherstel for purposes other than housing. This impressive concrete-building built in 1934 was once used as a refrigerated warehouse, which by the early 2000s was vacant and altered to accommodate the passing of a bridge through it. In 2004, Stadsherstel and private architects and advisors devised a plan that allowed the constraints of the original building design to determine its ultimate reuse. The exterior façade and footprint of the building were retained, while the interior underwent sometimes radical transformation to incorporate the

⁸⁴ Stadsherstel Amsterdam N.V., "The Company for City Restoration," 2011, 5-11

placement of a large events hall, a television studio, another smaller multi-functional hall, and workspaces all outfitted with reliable audiovisual and technological utilities. Thus the tenants attracted to the building were by and large those from the media, entertainment, and other creative fields, as well as start-ups and young entrepreneurs in need of affordable studios.⁸⁵

Greenpoint Manufacturing and Design Center

The Greenpoint Manufacturing and Design Center (GMDC) is a nonprofit industrial developer based in New York City, also positioned as a mission-oriented company. GMDC was incorporated in 1992, and its first purchase and redevelopment concerned 1155-1205 Manhattan Avenue, in Greenpoint, Brooklyn. GMDC had expressly focused on the adaptive reuse of an historic industrial building, leveraged public and private financing, and created a site occupied by over 70 businesses employing almost 400 people.

GMDC lays out a clear vision for itself, aiming to spur economic revitalization through employment in low-income communities. The mission of GMDC is articulated as follows:

“The Greenpoint Manufacturing and Design Center creates and sustains viable manufacturing sectors in urban neighborhoods through planning, developing, and managing real estate and offering other related services.

GMDC’s proven method includes:

- Acquiring, rehabilitating, and managing neglected industrial properties
- Acting as advocates through collaboration and coalition building among key stakeholders
- Creating and influencing industrial development policy

⁸⁵ Stadsherstel Amsterdam, 12-17

- Building the field and promoting its model by publishing, presenting at conferences, and providing technical assistance to other communities”⁸⁶

The Greenpoint Manufacturing and Design Center wants to be replicated, as it sees itself as a model aimed at supporting local small businesses by providing long-term leases and affordable rents. GMDC estimates that its manufacturing-sector tenants employ over 700 skilled workers. As of 2019, the average salary of employees at GMDC buildings was \$50,704, significantly higher than the average salary of \$30,290 in the retail sector or the \$27,770 for food prep and service workers.⁸⁷ Finally, it is notable that the vast majority (74%) of the workers employed at GMDC properties are residents of adjacent and nearby neighborhoods in Brooklyn and Queens.⁸⁸

GMDC has progressed from its initial project in Greenpoint to seven more “industrial centers.” Like their first space, GMDC has specifically pursued redevelopment at the intersection of the preservation of jobs and the preservation of places. Their success has been recognized through awards such as the Ernst and Young Entrepreneurship Award, Rudy Bruner Award for Urban Excellence, HUD Economic Excellence Award, Governor’s Award for Small Business Advocacy, New York State Office of Historic Preservation Project Achievement Award, and Brooklyn Chamber of Commerce’s Building Brooklyn Awards.⁸⁹

⁸⁶ “About,” Greenpoint Manufacturing and Design Center, accessed May 1, 2020, <https://gmdconline.org/about-2/>

⁸⁷ “About,” Greenpoint Manufacturing and Design Center

⁸⁸ “2019 Tenant Survey,” Greenpoint Manufacturing and Design Center, accessed May 1, 2020, <https://gmdconline.org/wp-content/uploads/GMDC-Tenant-Survey-Report-2019.pdf>

⁸⁹ “About,” Greenpoint Manufacturing and Design Center

4. CASE STUDY: THE BROOKLYN NAVY YARD

The Brooklyn Navy Yard thus understood as a mission-oriented type of institutionalized public-private partnership provides an organizational model for integrating historic preservation into a broad mission of economic regeneration. Using an inclusive, participatory approach to address wicked problems like that of industrial-sector urban revitalization, the Brooklyn Navy Yard has delivered public benefits backed by social and cultural values: conservation of historic resources, creation of greenspace, food access, and more. The redevelopment initiatives implemented by the management of the Brooklyn Navy Yard have found and capitalized on the synergies that link thriving communities and the achievement of economic goals. Historic resources at the Brooklyn Navy have been specifically positioned to support the societal mission set out for the site.

What kinds of preservation outcomes have been achieved by the Brooklyn Navy Yard Development Corporation? How successful are they? When and how can historic preservation initiatives be structured to work in lockstep with other urban management targets?

Site Description

The Brooklyn Navy Yard, formerly known as the New York Naval Shipyard, is situated at Wallabout Bay on the East River in Brooklyn, New York. It is bordered by Sands Street to its west, Flushing Avenue to its south, and Kent Avenue to its east. The entire site encompasses more than 300 acres, and is classified in its entirety as an M3 industrial area. This designation reserves the Yard for the heaviest of industrial uses. While it has been permitted by exception to host cultural and educational initiatives, residential uses and short-term accommodations are barred from being placed within the perimeter of the

Yard. The use of the site as a civilian industrial park was a condition of its transfer from the federal government to the City of New York.

The 1964 New York Naval Shipyard survey takes stock of all the documented structures built on-site, recording demolished sites as well. By the time the 2014 National Register of Historic Places Historic District nomination was written, sixty-eight buildings, two sites, twenty-three structures, and five objects (for a total of 98 resources) were identified as contributing to the significance of the Yard. These resources are representative of the historic defense, industry, health, and funerary functions of the site; the diverse building stock found at the Yard is informed by styles spanning centuries, from Greek Revival to Modern.⁹⁰ The vast majority of these resources are extant and continue to be used for a wide variety of industrial and commercial functions today. Twenty-three resources in the Naval Hospital section of the Yard, however, still await the start of forthcoming rehabilitation initiatives.⁹¹

The history of the Brooklyn Navy Yard is made evident in both the material conservation that has been achieved through rehabilitation projects as well as in its marketing and community engagement initiatives. The long history of the site and the central role it has played in the lives of many generations of New Yorkers and Americans more broadly has been transformed into a living, cohesive identity. While the public-private management of the Brooklyn Navy Yard has been able to leverage its heritage assets to qualify for historic rehabilitation tax credits, it has also been able to leverage them to attract long-term investors and a diverse population of tenants whose businesses are largely manufacturing-based. The varied positioning of the site history at the Brooklyn Navy Yard

⁹⁰ Peterson, Section 7

⁹¹ Julie Satow, "Film and Technology Hub Planned in Brooklyn Navy Yard," *The New York Times*, August 17, 2012, A16

shows the breadth of innovative ways mission-oriented corporations like BNYDC can holistically interpret value beyond market-based factors.

History

1964-1968: From Base Closure to Urban Renewal

In 1964, Secretary of Defense Robert McNamara announced the closure of three major military sites in New York: the New York Naval Shipyard (as the Brooklyn Navy Yard was then known), Fort Jay (located on Governors Island), and the Brooklyn Army Terminal. This decision came as a cost-cutting measure following many months of study exploring the comparative budgets of shipbuilding and repair work at private shipyards versus public navy yards across the country.

While shipyard employees made great attempts to contest the closure of the Yard from a political angle by engaging their local government representatives and organizing demonstrations, they failed to prove to the Department of Defense that they could increase productivity or end organizational corruption. The closure of the Yard would result in the loss of tens of thousands of jobs.⁹²

A later report describes the surrounding environment of the Yard in 1964. “Williamsburg, Bedford-Stuyvesant, and Fort Greene, the communities surrounding the Yard, exemplify the urban ghetto. The area is characterized by decay and dilapidation in physical facilities, inadequate city services, severe social problems, numerical decline of small service business and industrial firms, high unemployment, and low income.”⁹³

⁹² Kimball and Romano, 199-206

⁹³ Economic Development Administration, *An Analysis of Economic Development Administration Activities in Chicago (Stockyards), Los Angeles (Watts), New York (Brooklyn Navy Yard)*,

In the same year, the Navy produced a survey of both extant and demolished buildings and structures found at the New York Naval Shipyard. This “Historical Review” report provides spatial measurements, a construction history and remarks, and relevant newspaper clippings or archival materials for each. It also includes a plan showing the footprint of each building or structure; interior details are, mostly, omitted in the illustrations, though they are reviewed in textual site summaries.

1969: Finalizing The Sale to the City of New York

The Brooklyn Navy Yard was formally closed with a ceremony on June 25, 1966 and the Navy officially decommissioned it on June 30, 1966. The City of New York expressed its interest in purchasing the site the following month. Coincidentally, the National Historic Preservation Act was passed the same year. The sale, however, would not be finalized until several years later.

On December 10, 1969, Mayor Lindsay of New York received a formal contract to receive 262 acres of the Yard for a total of \$22,482,965, with the agreement to convert the shipyard into an industrial complex that would drive the economy of the city – a role that the naval shipyard had once itself filled.⁹⁴ Such an agreement was inspired by pending legislation prepared at the direction of Vice President Spiro Agnew, allowing for surplus federal property to be sold below market value if the property was be used to create new jobs. Many, however, felt that the City of New York, in any case, paid beyond a fair market-

Oakland, Pittsburgh, Providence-Pawtucket (Washington, DC: US Department of Commerce, 1970), 43-59

⁹⁴ Madden, 30

value price for the Yard, considering the deteriorating conditions of a majority of the buildings there.⁹⁵

This initial transfer of the Brooklyn Navy Yard property to New York encompassed the core of what had historically functioned as the naval facility (Map 4.1). It included the sites within the Yard that we recognize today as Building 92 and the Building 128 complex, also called “New Lab.” The Navy retained the eastern section of the Yard that had served as the campus for the Naval Hospital. The Navy also retained western sections of the Yard which included admirals’ quarters, tennis courts, and other officer amenities,⁹⁶ that would be placed under the stewardship of the National Guard Bureau in later years.



Map 4.1. The Brooklyn Navy Yard Historic District is outlined in red. The projects reviewed in this thesis are outlined in green. The white overlay indicates the area transferred to the City of New York immediately following the closure of the Yard.

⁹⁵ Madden, 30

⁹⁶ Homer Bigart, “Aide Says ‘Admirals’ Will Not Keep Amenities There,” *The New York Times*, March 24, 1966, 42

Much of the negotiation that took place prior to the finalization of the Yard's sale focused on the price to be paid by New York to the federal government, and the amount of property that would be transferred. Several economic impact reports were thus produced during this period, to inform both sides of the sale. The 1968 Urban Redevelopment Plan produced by the Institute for Urban Studies at Fordham University would serve as the guiding framework for the Brooklyn Navy Yard's transition from military site to industrial park. Financed by the federal Economic Development Agency, this report found that the areas surrounding the Yard had an unemployment rate of 13%, high levels of income below the poverty line, and was 72% Puerto Rican and black.

1969 to 1981: Commerce Labor Industry Corporation of Kings (CLICK)

The Commerce Labor Industry Corporation of Kings was the first group organized to manage the Brooklyn Navy Yard property on behalf of the City of New York. Comprised of local business owners, CLICK aimed to create jobs by leasing the shipbuilding facilities of the Yard to private shipping and other industrial companies. The plan was to be anchored by its largest tenant, Sea Train, a private commercial shipping enterprise.

CLICK's Overall Economic Development Program contained goals as follows:

1. "To reduce unemployment in the area around the New York Naval Shipyard
2. To convert the shipyard to a diversified industrial complex providing efficient facilities for labor-intensive types of business activity
3. To rehabilitate or reconstruct obsolete buildings and related industrial facilities in the area surrounding the Shipyard
4. To stem the exodus of business firms and jobs from the area around the Shipyard
5. To attract new business activity and jobs to the Shipyard and its environs
6. To provide facilities in and around the Shipyard which will permit firms in the area to stay there
7. To train new entrants into the labor force to perform semi-skilled jobs in the electrical products manufacturing industry

8. To train employed workers for higher skilled worked in the enterprises in which they are now employed in the Shipyard area
9. To train unemployed workers for semi-skilled and skilled jobs in types of industrial work which provide better opportunities for employment than their present job interest provide
10. To stimulate sufficient economic activity in the Shipyard area to generate 10,000 jobs in the immediate future, and eventually 30,000 jobs as derivative employment directly or indirectly related to the jobs in the Shipyard area.”⁹⁷

As early as 1970, however, it was recorded that members of CLICK were unable to productively collaborate with the City of New York. CLICK felt that city policies did not support the organization’s mission of providing jobs to residents of neighboring communities; later on, some members of CLICK would be accused for corruption and money laundering.

The issues stemming from the limited accountability of CLICK, the poorly defined role of the City, and perhaps the excessive oversight of the Economic Development Agency (i.e., federal government) in the redevelopment of the Yard would be compounded by the closure of SeaTrain in 1979.

1981 to Present: Brooklyn Navy Yard Development Corporation (BNYDC)

In 1981, the Brooklyn Navy Yard Development Corporation, a not-for-profit organization, took control over the leasing, management, and development of the Brooklyn Navy Yard after its predecessor, CLICK was, plagued by corruption and dismantled. Saving the Yard from near-bankruptcy, BNYDC began to turn a profit in 1986. The 1990s and 2000s saw increased investment in the development of the Yard. In 2014, the site was listed as a National Register of Historic Places Historic District. This section

⁹⁷ Economic Development Administration, “Federal Financial Assistance to Seatrain Shipbuilding Corporation (“Seatrain”),” 1975, 3

will explore how historic preservation has evolved at the Yard, with its designation as a pivotal moment.

Following the disbandment of CLICK, it became clear that the management of BNYDC required greater oversight and a well-defined mission in order to productively function. In its Articles of Incorporation, it is stated that BNYDC must operate “exclusively for the charitable or public or quasi-public purposes of relieving and reducing unemployment; promoting and providing for additional and maximum employment; bettering and maintaining job opportunities and instructing or training individuals to improve or develop their capabilities for such jobs; carrying on scientific research for the purpose of aiding the City of New York, particularly the Borough of Brooklyn, by attracting new industry thereto and by encouraging the development and retention of industry therein; and lessening the burdens of government and acting in the public interest.”

Towards this purpose, BNYDC as a corporation was granted powers specifically regarding the management of its built environment, including:

- a) “To develop, construct, acquire, rehabilitate and improve for use by others industrial or manufacturing plants and commercial and other types of structures, buildings and facilities in the City of New York, particularly the borough of Brooklyn; to assist financially in such development, construction, acquisition, rehabilitation and improvement; to maintain, manage and administer such plants, structures, buildings and facilities for others; and to disseminate information and furnish advice, technical assistance and liaison with federal, state and local authorities with respect to the fulfillment of its purposes;
- b) To acquire by purchase, lease, gift, bequest, devise or otherwise real or personal property or interests therein;
- c) To borrow money and to issue negotiable bonds, notes and other obligations therefor...”⁹⁸

⁹⁸ Brooklyn Navy Yard Development Corporation, “Articles of Incorporation,” (New York: Brooklyn Navy Yard Development Corporation, 1993), 2-3

Thus reformed as a non-profit local development corporation, BNYDC itself took shape as a public-private partnership: the Yard is managed day-to-day by an executive staff, which in turn operates in consultation with a city-appointed Board of Directors comprised of up to thirty-three government, private, and community representatives, of which up to 29 may be appointed by the Mayor of New York. The remainder four members may be carried over from previous years. The Board today includes members from a diverse range of backgrounds, such as Adam Friedman from the Pratt Center for Community Development, Wendy Rowden from Building for the Arts NY, and Lisa Davis from PGIM Real Estate, amongst others.⁹⁹

BNYDC has remained true to its mission of job creation, and has been successful at delivering on its aims. The company, realizing the rarity of a continually operating urban manufacturing site, has created a cohesive identity for itself that is structured by its motivational future vision of adaptation and innovation. In taking a long-term view, BNYDC has also fulfilled some of the City's earlier goals: in 2008, it acquired the Naval Hospital campus (Map 4.2), and in 2011, it acquired the area around Admirals Row from the National Guard Bureau (Map 4.3).

⁹⁹ "Board of Directors," Brooklyn Navy Yard, accessed February 1, 2020, <https://brooklynnavyyard.org/about/mission>.



Map 4.2. This map builds upon the preceding. The purple overlay highlights the Naval Hospital campus acquired by the City of New York in 2008.



Map 4.3. This map builds upon the preceding. The blue overlay highlights Admirals Row Plaza & 399 Sands acquired by the City of New York in 2011.

Projects

Any undertaking at the Brooklyn Navy Yard must serve the mission of the organization to spur job creation, support industrial businesses, and connect neighboring communities with all the resources at the Yard. Therefore, preservation outcomes achieved through redevelopment projects at the Brooklyn Navy Yard take many forms. While they may be seen as precise conservation projects executed to gain tax credits, The Brooklyn Navy Yard has also built its twenty-first century identity through the activation of its own industrial heritage. It has fostered a narrative of continuity, linking its past as a naval shipbuilding yard that employed tens of thousands to its contemporary status as a manufacturing campus with spaces leased to over 400 businesses that sustain jobs for over 9000 people. Despite variances in its interpretation, the history of the Yard frequently plays an integral role in the activities that take place there.

In this section, four case studies are presented to illustrate what preservation outcomes at the Yard look like. The first case study focuses on Building 92, a 2014 expansion of the 19th-century Marine Commandant's residence designed by Thomas Ustick Walter. It now serves as the site for a permanent exhibition about the history of the Yard as well as an employment center. The next case study examines the controversial partial preservation and demolition of Admirals Row, a series of residential structures, in order to construct a grocery store and office spaces in response to community needs. The third case study looks at the recently opened Building 128 complex, a tax credit project that merged several historic resources together into a contemporary manufacturing facility. The final case study concentrates on the publicly-accessible open space now known as the Naval Cemetery Landscape. Formerly a potter's field, it currently serves as a memorial as well as a functional site dedicated to health and well-being, ecology, and education.

These projects have been selected for the diverse range of reuse strategies they represent. A residential structure is transformed for public access; new structures sit adjacent to the historic; historic buildings are adjoined to create a new complex; sacred grounds are treated with a gentle, restorative hand. The project descriptions that follow offer insights into the ways in which historic assets have been adapted and transformed to address the needs of a diverse group of stake holders, and how the public-private organization of the site has made these interventions possible. As John Gendall writes, “The Brooklyn Navy Yard Development Corporation has set out to transform the hulking district into a 21st century exemplar of U.S. manufacturing. Unlike the monolith of the past, today’s Navy Yard is filled with a bevy of smaller, diverse practices. Outfits that produce sugar packets and subway signs are interspersed with areas for filming movies and even a handful of architectural offices.”¹⁰⁰ This represents the natural next step for a place that has, for over two hundred years, developed in response to whatever needs were most urgent at the time.

¹⁰⁰ John Gendall, “Brooklyn Navy Yard Center: Building 92,” *Architect Magazine*, September 11, 2012

Building 92



Map 4.4. Building 92, located along Flushing Avenue, is outlined in green.



Figure 4.1. Building 92 in 2011.

Description

Building 92 is located along Flushing Avenue between Carlton Avenue and Adelphi Street. Designed by Thomas Ustick Walter and constructed by 1858, this “three-story, square-planned, hip-roofed Greek Revival style” building is the last remaining of the United States Marine Barrack Grounds that once occupied several acres along Flushing Avenue within the Yard. The cast-iron quoins that feature at the corners of Building 92 draw a direct link to the work Walter completed for the dome of the United States Capitol building.

The 2011 glass and steel addition at the rear of the building allows for a café, terrace, green roof, meeting space, classrooms, an employment center, and leasable office spaces. It is clad in corrugated metal, with a perforated metal screen curtainwall designed by DIRT Studio over its south elevation. The perforations in the screen create an image derived from a 1936 photograph of the naval ship USS Brooklyn. The design intent was to juxtapose the contemporary character of the addition with the original residence, while also recalling the long history of the Yard and the reach of its significance.¹⁰¹ The perforated screen itself contrasts old and new, conjuring a vision of history with innovative laser-cutting techniques.

History of Use

1858 – Marine Corps. Officer’s Quarters
1862 – Commandant’s House (Marine Corps)
1911 – Commissioned Officer’s Marine Barracks
1918 – Officer’s Quarters
1925 – P. W. Storage
1933 – Marine Officer’s Quarters
1965 – Marine Officer’s Quarters
2012 – Brooklyn Navy Yard Center

¹⁰¹ Gendall, “Building 92”

Project Summary

Following a significant investment initiated by Mayor Michael Bloomberg, Building 92 was transformed from a residence into a visitor center, the first step by the Brooklyn Navy Yard Development Corporation towards cementing its identity and opening the Yard to the public.

Design firms workshop/apd and Beyer Blinder Belle were contracted to lead the redevelopment of Building 92. The original nineteenth century 9,500 square foot structure was restored using both locally produced (as local as within the Yard itself) and salvaged materials, and a new 24,500 square foot addition was connected at its rear, connected by a three-story lobby. Working from historical documents kept in the extensive archives of the Yard, the architects stabilized the shell of the structure and designated the interior as an exhibition space for a permanent display of the Yard's history.

Building 92 has been the catalyst for transformation at the Yard. "Positioned along Flushing Avenue, a busy thoroughfare, the structure is sited at one of the Yard's closest points to the creative-class enclaves of Fort Greene and DUMBO. And its combination of cultural programming and leasable space for business can be a model for future development. With the Navy Yard Center, the neighborhood has become publicly—and unprecedentedly—accessible."¹⁰²

Key Actors

New York City and the Brooklyn Navy Yard Development Corporation, Plaza Construction Corp., Beyer Blinder Belle and Workshop/apd, Langan Engineering and Environmental Services, Robert Silman Associates, and AKF Engineer

¹⁰² Gendall, "Building 92"

Building 128 Complex: The Green Manufacturing Center



Map 4.5. The Building 128 Complex, located in the south central core of the Brooklyn Navy Yard, is outlined in green.



Figure 4.2. Building 128 Complex: The Green Manufacturing Center in 2016.

Description

Over a span of nearly one hundred years, the Building 128 complex that we see today developed from several large, open floorplan structures that were destroyed, rebuilt, expanded, and adapted to meet the directives of the shipyard.¹⁰³ The complex as a whole, typically referred to as the Green Manufacturing Center, now serves as a multi-tenant manufacturing facility. It adjoins structures once individually identified as Building 28, Building 123, and Building 128 rebuilt on the site of the original U-shaped machine shop, which was destroyed by a fire in 1899.

History of Use

1895 – Boiler Shop (Building 128)
1940 – Boiler Shop, Sub-Station No. 9
1963 – Machine Shop
2012 – Vacant

1899 – Machine Shop, Erecting Shop (Building 128)
1940 – Machine Shop
1946 – Machine Shop, Central Tool Shop, Sub-Station No. 9
2012 – Vacant

1900 – Power House (Building 123)
1911 – Storeroom and Machine Division Office
1920 – Copper Shop, Machinists Office
1938 – Outside Machine Shop
1943 – Central Tool Shop
1963 – Machine Shop
2012 – Vacant

Project Summary

In May 2012, Governor Andrew Cuomo, Mayor Michael Bloomberg, and Borough President Marty Markowitz announced the \$46 million redevelopment of Building 128 as

¹⁰³ US Navy, “New York Naval Shipyard Survey,” (Washington, DC: Department of Defense, 1964)

a “Green Manufacturing Center” project. Markowitz hoped “The Green Manufacturing Center...will show the world how to successfully incorporate green manufacturing and sustainable practices into a state-of-the-art facility that will create hundreds of permanent and construction jobs.” New York City Council Speaker Christine C. Quinn further proclaimed, “The Navy Yard is a testament to New York City’s resilience and creativity. Through thoughtful redevelopment efforts, what was once a thriving shipbuilding facility is now a model urban industrial park that houses some of the City’s most cutting edge companies, and now soon, a Green Manufacturing Center. We are proud at the Council to have partnered with the Governor, Bloomberg Administration, Borough President Markowitz, and the Brooklyn Navy Yard to ensure that the Navy Yard continues to thrive and create more jobs for New Yorkers.”¹⁰⁴

The development of the Green Manufacturing Center became the touchstone for the fact that the Brooklyn Navy Yard was undergoing its largest growth phase since World War II. ¹⁰⁵ The three World War II-era structures on the site would provide 220,000 square feet of LEED Silver-certified high tech manufacturing space. Funding for the project was sourced from the Empire State Development (\$6 million), the New York City Council (\$7.5 million), the Brooklyn Borough President (\$2.5 million), and the Economic Development Administration (\$2.5 million). The Brooklyn Navy Yard Development Corporation financed the remainder costs through the federal EB-5 capital program.¹⁰⁶ The EB-5 program was

¹⁰⁴ European American Chamber of Commerce, “NYC is building A Green Manufacturing Center at Brooklyn Navy Yards,” accessed May 1, 2020, <https://eaccny.com/news/nyc-is-building-a-green-manufacturing-center-at-brooklyn-navy-yards/>

¹⁰⁵ “NYC is building A Green Manufacturing Center at Brooklyn Navy Yards,” European American Chamber of Commerce

¹⁰⁶ “(Re)Construction Underway at Navy Yard’s Building 128,” *Brownstoner*, July 2, 2012, accessed May 1, 2020, <https://www.brownstoner.com/brooklyn-life/reconstruction-underway-at-navy-yards-building-128/>

established in 1991 by Congress to stimulate economic development through foreign investment, and is administered by USCIS, a division of the Department of Homeland Security.¹⁰⁷

The EB-5 loan provided \$60 million to the Brooklyn Navy Yard Development Corporation from the New York City Regional Center. Its repayment was completed by the Brooklyn Navy Yard in 2016. The New York City Regional Center and the Brooklyn Navy Yard determined that the investment had enabled 359 individuals (investors and family members) to receive permanent residency in the United States under the EB-5 Immigrant Investor Program. The capital was not only used to restore the historic site, but was also used to support nearby infrastructure improvements including new roads, water and sewer lines, pile foundations, and bulkhead walls to facilitate ongoing maritime activity.¹⁰⁸

At the time of the 2012 announcement, two tenants were already on board to lease 80,000 square feet and 50,000 square feet, respectively: Crye Precision and Macro Sea, a sustainable design firm. Each committed \$10 million of their own funds to invest into the build-outs of their spaces.¹⁰⁹

Crye Precision, a designer and manufacturer of body armor and apparel for the US military as well as law enforcement agencies, received \$1 million through the New York State Consolidated Funding Application process to consolidate its four spaces within the Yard into the Green Manufacturing Center. Crye had been considering expansion

¹⁰⁷ "EB-5 Program," New York City Regional Center, accessed May 1, 2020, <http://nycrc.com/eb5-program.html>

¹⁰⁸ "New York City Regional Center Announces Repayment of \$60 Million EB-5 Loan In Its Brooklyn Navy Yard Phase 1 Offering," New York City Regional Center, accessed May 1, 2020, <http://nycrc.com/press/88/new-york-city-regional-center-announces-repayment-of--60-million-eb-5-loan-in-its-brooklyn-navy-yard-phase-i-offering.html>

¹⁰⁹ <https://www.brownstoner.com/brooklyn-life/reconstruction-underway-at-navy-yards-building-128/>

options, including a move to New Jersey; it now anticipated creating 100 new jobs within the next 5 years, and starting a new product line using locally-sourced materials.¹¹⁰

Macro Sea founders David Belt and Scott Cohen intended to occupy their space with “New Lab”: a shared workspace for emerging manufacturing enterprises, modelled on the format of the MIT Media Lab.¹¹¹ New Lab was positioned to act as a “business incubator, maker culture hotspot, and adult playroom.”¹¹² The founders hoped to engage with a range of universities and firms to collaborate within their space. They proposed that these emerging, innovative and often small fabrication start-ups and design labs would inevitably grow and expand into other bigger spaces at the Yard. Both the developers and tenants of the Green Manufacturing Center took long-term approaches to their investments: they angled to provide a “strong foundation to help companies grow and create jobs.”¹¹³

“The Green Manufacturing Center is a striking example of how Governor Cuomo’s Regional Council initiative is helping to forge the innovative public-private partnerships we need to create jobs and grow our economy,” said Lieutenant Governor Robert J. Duffy. “By investing in the expansion of our high-tech manufacturing industry, we are literally building the tools for a sustainable economy that’s prepared to last.” Senator Daniel Squadron expressed, “The Brooklyn Navy Yard continues to prove that no matter how difficult the times, success is possible. The new Green Manufacturing Center will provide

¹¹⁰ “NYC is building A Green Manufacturing Center at Brooklyn Navy Yards,” European American Chamber of Commerce, accessed May 1, 2020, <https://eaccny.com/news/nyc-is-building-a-green-manufacturing-center-at-brooklyn-navy-yards/>

¹¹¹ “(Re)Construction Underway at Navy Yard’s Building 128,” *Brownstoner*, July 2, 2012

¹¹² Ian Volner, “Renaissance Plan,” *Surface Magazine*, September 16, 2016

¹¹³ “NYC is building A Green Manufacturing Center at Brooklyn Navy Yards,” European American Chamber of Commerce

Brooklyn with even more jobs and creatively put to use this historic space in a sustainable way – all while helping to drive our community’s growth and revitalization.”¹¹⁴

Key Actors

Economic Development Administration, New York City Regional Center, Brooklyn Navy Yard Development Corporation, Crye Precision, Macro Sea, Subtenants

¹¹⁴ “NYC is building A Green Manufacturing Center at Brooklyn Navy Yards,” European American Chamber of Commerce

Naval Cemetery Landscape



Map 4.6. The Naval Cemetery Landscape, in the southeast corner of the Brooklyn Navy Yard, is outlined in green.



Figure 4.3. The Naval Cemetery Landscape in 2018.

Description

The Naval Cemetery is located within the larger Naval Hospital campus that was known as Naval Station Brooklyn, and was officially closed by the Navy in 1993. The whole campus comprises approximately 29 acres along the East River waterfront, with 36 buildings and structures within it. The Navy finalized its survey of the parcel in order to complete its transfer to the City of New York in 2001. As a disposition of federal property, the sale was subject to the National Environmental Policy Act and the National Historic Preservation Act. In order to comply with federal regulations, the Navy as the property owner was compelled to make a survey of the environmental (including historic) resources that would be impacted by the sale of the Yard.

History of Use

1831 – Cemetery

Project Summary

The Navy began an Environmental Impact Statement as required by NEPA in 1997, in preparation for the sale of the site. The Navy analyzed the impact of the disposal and reuse of the Brooklyn Navy Yard. It culminated in a 2001 Record of Decision that identified a “Preferred Alternative” for the future management and use of the Naval Hospital campus. The Preferred Alternative planned to use the area for “industrial, institutional, non-profit, and commercial activities and to develop open space and recreational areas.” On behalf of the City of New York, the Brooklyn Navy Yard Development Corporation was designated as the Local Redevelopment Authority, as required by the Department of Defense Rule on Revitalizing Base Closure Communities and Community Assistance.

The Navy found that the proposed redevelopment plan submitted by the City of New York would adequately meet goals for local economic redevelopment, creating new jobs, and providing additional recreational resources while limiting adverse environmental impacts. The plan called for the reuse of the existing industrial facilities and cohesion with the Yard as a whole, thereby minimizing impact to the historic assets. The plan further did not call for the construction of any new structures on the property.

Furthermore, the Preferred Alternative called for the 18.3 acres that comprised the historic Hospital campus to be dedicated for “institutional and non-profit activities and to open space and recreational activities.” Within these bounds it called for the preservation of the Naval Hospital Cemetery, covering around 1.7 acres. While it was believed that the remains here were relocated in 1926, it became clear with later research that the number of burials exceeded records of remains that were moved, and the cemetery grounds were restored.

Plans from a second “Residential Alternative” and a third alternative “Museum Alternative” respectively proposed residential uses or cultural and education uses for the Hospital campus, while retaining the Cemetery as open space. A final “As-of-Right Alternative” envisioned the area developed to its maximum extent, preserving only four buildings: Buildings 1 and 2, Building R-1 (the Surgeon’s House), and Building R-95 (the Naval Hospital). It allowed the demolition of all other buildings, though it maintained the Cemetery as open space.¹¹⁵

The Preferred Alternative was determined to be such by the Navy through an analysis of the various scenarios according to impact on “land use and zoning, socio-economics,

¹¹⁵ Department of the Navy, “Record of Decision for the Disposal and Reuse of Naval Station Brooklyn, New York,” (Washington, DC: Department of Defense, 2001), 5-7

community facilities and services, transportation, air quality, noise, infrastructure, cultural resources, natural resources, and petroleum and hazardous substances.” It was estimated that this alternative would generate about 1,630 new jobs, and indirectly an additional 870 jobs. It would substantially increase open space and public access to approximately 8.8 acres, including the 1.7 acres of the Cemetery.¹¹⁶

The Naval Hospital Cemetery functioned as a burial ground from 1824 to 1910. In 1926, the Navy removed 987 remains and reburied them at Cypress Hills National Cemetery. During the 1930s and 1940s, the area was converted into recreational athletic fields. While conducting research for the Environmental Impact Statement, the Navy discovered records confirming the removal of only 517 burials. The decision was thus made that the site be restored to a cemetery landscape. The Preferred Alternative proposed to include a protective covenant in the deed for the Cemetery property.¹¹⁷

Replanted as a meadow and linked with the Brooklyn Waterfront Greenway, the rehabilitation of the landscape project cost \$2 million. Its restoration was largely lead by the Brooklyn Greenway Initiative with financing in the form of a grant from the TKF Foundation, based in Annapolis, Maryland. The Brooklyn Greenway Initiative is a coalition of community, business, and government partners dedicated to the vision of a 26-mile landscape trail for pedestrianas and cyclists from Greenpoint to Bay Ridge, Brooklyn.¹¹⁸The TKF Foundation aims to cultivate sanctuaries of public green space – “sacred space” – in order to foster health and wellness through nature.¹¹⁹

¹¹⁶ Navy, “Record of Decision,” 7-9

¹¹⁷ Navy, “Record of Decision,” 13

¹¹⁸ “Frequently Asked Questions,” Brooklyn Greenway Initiative, accessed May 1, 2020, www.brooklyngreenway.org/about-bgi/faqs/

¹¹⁹ “Our Work,” Nature Sacred, accessed May 1, 2020, <https://naturesacred.org/our-work/>

The designers at Nelson Byrd Woltz Landscape Architects sought a light, self-sustaining intervention; to mitigate the disruption of the soil and the remains that lie there within, a boardwalk was constructed so that visitors walk above the site. “You have some people who are discouraged that they can’t ride their bikes through here or bring their dogs,” Khahim Shakir, who is in charge of site operations and security, said. “But they appreciate that there is not *another* 20- to 30-story building and that the space is being respected.”¹²⁰

Key Actors

Brooklyn Navy Yard Development Corporation, Brooklyn Greenway Initiative, Nelson Byrd Woltz Landscape Architects, TKF Foundation, Steiner Studios

¹²⁰ David Dunlap, “Prairie Heals an Old Wound at a Former Brooklyn Cemetery,” *The New York Times*, July 11, 2016, 21

Admirals Row & 399 Sands



Map 4.7. The area in the southwest corner of the Brooklyn Navy Yard outlined in green is Admirals Row Plaza and 399 Sands.



Figure 4.4. Admirals Row Plaza in 2019.

Description

Construction on Admirals Row began in 1864, resulting in the creation of six buildings that housed both separate and attached residences for officers. Built in a mix of Greek Revival, Italianate, and French Second Empire styles, these houses served as an incentive for high-ranking naval officials. They remained occupied until well into the twentieth century. A timber shed, originally built in 1841, is adjacent to Admirals Row. This long brick and timber-framed building was used for the preparation and storage of shipbuilding materials, but lost its original purpose in the twentieth century after the sale of the Yard.

By 1970, following the closure of the Brooklyn Navy Yard, residents began to vacate Admirals Row and the buildings on the site fell into advanced stages of deterioration. After many years of review, all the buildings in the area were demolished except for the Timber Shed and Building B. These two structures would be rehabilitated, while the newly open space would be developed for offices and a grocery store, the latter of which would provide hundreds of jobs to nearby residents as well as address food access for neighboring communities.

History of Use

1872 – Residence of Captain of the Yard (Building B)

2010 – Vacant

1841 – Timber Shed

1946 – Lumber Storage, Police Station

1952 – Storage

1962 – Storage, Garage

1979 – Vacant

Project Summary

Admirals Row was finally acquired by the City of New York from the National Guard Bureau in 2011. The transfer of the site to the City had long been contentious. When the New York Naval Shipyard was officially closed by the Navy, it retained the tennis courts, residential assets, and clubhouse that had served upper-middle class naval officers since the early 19th century despite wishes for otherwise from city officials who envisioned all corners of the Yard as an industrial park. In 1966, Dr. Donald F. Shaughnessy, assistant to the Mayor for economic development, predicted that in the fight to retain this corner of the Yard as it was, “The admirals will lose.”¹²¹

In 2009, the National Guard transferred \$2 million to the NY District to stabilize Building B and the Timber Shed at Admirals Row; through consultations, it had been determined that these two structures would be rehabilitated as directed in a Memorandum of Agreement. By the winter of 2009 to early 2010, no stabilization initiatives had taken place. During this period of time, significant deterioration of the Timber Shed took place; only the shell could be salvaged. Likewise, no efforts to stabilize Building B took place until March 2011. The deteriorating conditions at Building B had been observed since 2007.¹²²

While the architectural value of Admirals Row was recognized as early as 1966, the plot was a key area for access to the Yard.¹²³ Thus the redevelopment of the area focused on finding a balance between public access, community benefit, and economic regeneration. The 2011 Executive Summary of the Final Environmental Impact Statement included the proposal of a redevelopment project would “provide a full-service

¹²¹ Bigart, 42

¹²² Advisory Council on Historic Preservation, “Disposal of Admirals Row at the Former Brooklyn Navy Yard: Status of Building B (Brooklyn, New York),” May 11, 2011

¹²³ Bigart, 42

supermarket to residents and workers in the study area, which is underserved by grocery stores carrying fresh food. The project would also provide light industrial space for small businesses, which is consistent with adjacent land uses within the Brooklyn Navy Yard industrial park and the mission of the BNYDC. Finally, the proposed project would provide for the rehabilitation and/or reconstruction and adaptive reuse of two historic structures, which are currently in a deteriorated structural condition.”¹²⁴

The Environmental Impact Statement further found that the proposal was in compliance with the policies of the City of New York, including the Waterfront Revitalization Program, New York City Industrial Policy and Industrial Business Zones, and Food Retail Expansion to Support Health. Consultation was conducted with the National Guard Bureau, resulting in the production of a Memorandum of Agreement. While this Memorandum would not compel the City of New York to preserve any existing structures, the Brooklyn Navy Yard Development Corporation agreed to rehabilitate and reuse Building B and the Timber Shed located within the Admirals Row parcel according to the Secretary of Interior standards. The Brooklyn Navy Yard Development Corporation’s commitment to seeing these projects through to completion was included in its lease with the City of New York. It further committed to including a requirement for sensitive design in its requests for proposals. These measures were made to mitigate the impact of the demolition of the remaining structures on the project site. Other mitigation measures included in the draft MOA for the Section 106 process for the disposition of the site include¹²⁵:

¹²⁴ The City of New York, *Final Environmental Impact Statement: Executive Summary*, 2011, 4-5

¹²⁵ The City of New York, *Final Environmental Impact Statement: Executive Summary*, 2011, 19-20

1. Preservation of existing mature trees on the project site along Nassau Street, where possible;
2. Photo documentation of the outbuildings on the site;
3. Update of the Historic American Buildings Survey (HABS) Level II documentation;
4. Architectural salvage from Officers' Quarters;
5. Site commemoration plan; and
6. Additional archaeological work including further investigations of the front and rear yards of the Officers' Quarters and archaeological monitoring of all ground disturbing activities.

Key Actors

National Guard Bureau, Advisory Council on Historic Preservation, State Historic Preservation Office, City of New York, Brooklyn Navy Yard Development Corporation, Wegmans

Evaluation

Table 1: Summary of Selected Brooklyn Navy Yard Projects				
	Building 92	Building 128	Naval Cemetery	Admirals Row
Built	1858	1902	Unknown	1864-1901
Architect	Thomas Ustick Walter	Unknown	Unknown/None	Various
Sold By	US Navy	US Navy	US Navy	National Guard Bureau
Date of Sale	1968	1968	2001	2008
Completed	2011	2017	2016	2019
Original Use	Quarters, Marine Corps Officers	Machine Shop	Burial Ground	Married Officers Quarters
Current Use	Visitor center, exhibition space, employment center, per diem rentals	Small manufacturing, hardware development	Memorial, public park, educational programs	Grocery store, parking lot and garage, offices
Table 2: Stakeholders				
Current Owner	New York City	New York City	New York City	New York City
Lead Developer	BNYDC	BNYDC	Steiner Studios	BNYDC
Private Actors	Unknown/None	Macro Sea, Small business tenants	Steiner Studios	Steiner Studios, Wegmans
Community Actors	NYCHA	Unknown/None	Brooklyn Greenway Initiative	Municipal Arts Society, Individuals
Table 3: Mission-Styled Goals Achieved				
Job Creation	Yes	Yes	Yes	Yes
Industrial-Sector Growth	No	Yes	No	No
Community Engagement	Yes	No	Yes	Yes
Table 4: Preservation Outcomes Achieved				
Material Conservation	Yes	Yes	Yes	Yes
Public Access	Yes	No	Yes	Yes
Interpretation	Yes	No	Yes	No (as of May 2020)

In order to determine if a redevelopment project at the Yard has been successful, an assessment must first ask if the Yard management has met at least one of the three goals outlined in its mission – that is, job creation, industrial sector growth, or community engagement with site resources (interpreted broadly). Job creation appears to be the most frequently achieved target; BNYDC has cleverly occupied its space with services that support job creation like the Building 92 Employment Center, if long-term direct hires are not possible.

Businesses firmly entrenched in the industrial manufacturing sector have not flocked to the yard as they may have in the decades following the deaccession of the site, but a number of manufactures focused on producing hardware and other “small” objects have settled into the available workspaces. Other forms of production, such as coffee bean roasting and rooftop farming, take place elsewhere at the Yard but are not covered in the scope of the projects reviewed here. Community engagement and access to site resources has proven to be somewhat of a complex challenge, too – business tenants prefer the privacy and security of the site that allows only employees into some buildings and areas. Otherwise, where it has been possible, BNYDC has taken down fences and incorporated community-facing programming. This is particularly visible at Admirals Row Plaza and Building 92.

Each of the projects reviewed is unique; they each have come with individual preservation outcomes as well. To varying degrees, material conservation and the salvage of architectural materials played a major role in redevelopment. Specially trained contractors with a sensitivity for historic materials were hired to facilitate rehabilitation. These initiatives in turn stimulate eligibility for historic rehabilitation tax credits. It is also observed that the Brooklyn Navy Yard has found success in achieving both its mission

and preservation by populating rehabilitated space with a diversified range of functions. In doing so, a greater mix of tenants may be attracted, and thus a broad population of employees with varied skills can turn to the Yard as their workplace. As the focus of the Yard turned away from the East River and its core activity of shipbuilding and shipping use, it has been able to accommodate a wider swath of people.

Finally, historic resources are preserved at the Yard so that its history may be positioned to also impart a sense of purpose and a sense of place to its neighbors and visitors. The history and heritage of the Brooklyn Navy Yard is woven in various forms through each vision established for a redevelopment project, whether that is in the marketing to attract new tenants or in the narrative of continuity that justifies the use of the site.

The following section reviews in further detail the specific benefits achieved through redevelopment at the Brooklyn Navy Yard:

Job Creation

In 2013, the Pratt Center for Community Development completed a report of the economic impact generated at the Brooklyn Navy Yard. By the time of the publication of the report in 2013, the output of the Brooklyn Navy Yard had reached nearly \$2 billion. It was recorded that in 15 years, the Yard had created over 10,000 jobs and \$390 million in paychecks. The effect of the economic success of the Yard rippled outside of its boundaries, too: another \$2 billion of measurable earnings had been observed in the local economy, and an additional 15,500 jobs could be traced back to projects at the Yard. At the time the Pratty study was finished, the Brooklyn Navy Yard Development Corporation had projected the creation of another 30,000 direct, indirect, and induced jobs.

This economic activity in the form of revenue and job creation can be tied directly to the completion of the aforementioned projects. Not only were funds distributed and people hired during the rehabilitation process, but the inclusion of Wegmans at Admirals Row Plaza quickly added hundreds of positions to the local economy; Building 92 houses the Brooklyn Navy Yard Employment Center, which places nearly 200 job seekers – many of whom are residents from nearby public housing, military veterans, and formerly incarcerated individuals.¹²⁶

Industrial Sector Growth

In the 1960s, New York began to lose many thousands of its manufacturing jobs as urban renewal projects drove employers away. The manufacturing sector became nearly invisible in comparison to the predominance of finance, real estate, tourism, the arts, and health care. Since then, however, manufacturing has not disappeared from, but while out of focus, it has transformed. The category of manufacturing has indeed expanded since the mid-twentieth century. “Artisanal” manufacturers, providing skilled positions in fabrication, entertainment and media, and food production, amongst others, contribute to the output of the Brooklyn Navy Yard.

The manufacturing capability of the Yard due to its diverse mix of resilient, small businesses¹²⁷ has, even today proven to be essential to the city. It is rather spectacular to note that a 300-acre historic district could play such a critical role in providing necessary equipment to healthcare workers and others responding to the current COVID-19 pandemic. As New York City mayor Bill de Blasio observed, “We’re seeing once again,

¹²⁶ Pratt Center for Community, *Brooklyn Navy Yard Economic Impact Assessment*, ix

¹²⁷ Jane Margolies, “At the Brooklyn Navy Yard It’s Full Steam Ahead,” *The New York Times*, March 12, 2020, F8

the Brooklyn Navy Yard as a symbol to this city and this whole nation of extraordinary and selfless service leading the fight against the coronavirus. So history has come around in a very, very powerful way.”¹²⁸

As the Pratt report further observes, “Property management provided by an organization whose primary goal is to retain and grow industrial jobs not only protects the long-term industrial use of the property but also enables the nonprofit manager to make strategic decisions about tenant selection, capital improvements, rents, and services that encourage growth. Manufacturing tenants have the long-term security they need to reinvest and grow. In addition, the presence of a nonprofit, mission-driven manager can facilitate adaptive reuse of historic buildings as well as new green construction. Infrastructure combined with tenant-support services such as workforce development, local procurement, and tenant-to-tenant business activity can also create a unique sense of community within the Yard campus.”¹²⁹

Community Engagement

The designation of the Brooklyn Navy Yard as a National Register of Historic Places Historic District in 2014, pursued by BNYDC itself, reflects the respect that management has for its site. While some buildings, like the dilapidated residential houses at Admirals Row Plaza have required demolition, the greater impact perceived at the Yard as a whole has been the safeguarding and rehabilitation of many other important buildings.

¹²⁸ Devin Gannon, “Once a WWII Ship-Building Site, Brooklyn Navy Yard Returns to its ‘Wartime Factory’ Days,” *6sqft.com*, April 7, 2020; Todd Maisel, “Brooklyn Navy Yard Companies Producing PPE for Medical Workers Applauded by Mayor,” *AMNY*, April 1, 2020; Corey Kilgannon, “A ‘Wartime Factory’ in Brooklyn Is Fighting Coronavirus,” *The New York Times*, March 31, 2020, A17

¹²⁹ Pratt Center for Community Development, xiii

In discussions with BNYDC staff, it was confirmed that management was acutely aware of the value of the resources that occupied the Yard. Connecting neighboring communities with these resources is one of three goals of BNYDC.

Community engagement is found in the form of increased public access in recent years, both directly into building and including transportation connections. The Brooklyn Navy Yard is publicly owned, and many argue it should be fully available for public benefit. This logic motivated the restoration of the Naval Cemetery Landscape into a “memorial” park, providing new greenspace in a formerly inaccessible place. Furthermore, MTA bus routes now connect to the Yard run with greater frequency to accommodate workers, a new ferry stop that connects the site to Manhattan and Queens was opened in 2019, the Yard has invested in the creation of improved bike lanes, it provides its own shuttle to connect workers with subway lines, and the Yard has been the site of experimentation with “driverless” cars.

Additional Historic Preservation Outcomes

Sustainable Materials Conservation and Development

Not only has the Brooklyn Navy Yard taken the lead on pursuing materials conservation as a vehicle towards obtaining tax credits, but in the process it has provided leading examples for environmentally-friendly rehabilitation. Building 92, at its completion, became LEED-Platinum-certified. Even the interior of Building 92 was rehabilitated with locally produced or regionally-sourced salvaged architectural materials like old Pine floorboards from a site in Pennsylvania. The Green Manufacturing Center housed in the Building 128 complex, as its name implies, was also designed with its environmental impact in mind. The site meets the requirements for LEED-Silver certification. With

environmentally-aware adaptive reuse projects in its portfolio, the Brooklyn Navy Yard has been able to brand itself as an “eco-industrial park” and a model for contemporary urban manufacturing.¹³⁰ Furthermore, these initiatives reflect the importance of investing in long-term infrastructure and sustainability as an integral counterbalance to urban conservation.

Sense of Place

One sign attached to the fence of the Brooklyn Navy Yard along Flushing Avenue reads, “We used to launch ships. Now we launch businesses.” Another advertises to those passing by, “A Place to Build Your History.” The savvy management of the Brooklyn Navy Yard has recognized that the conservation of its historic resources provides the site with a distinct character that can be leveraged to attract a diverse mix of private investment, tenants, and visitors. The designation of the Brooklyn Navy Yard as NRHP Historic District not only allowed management to reap the benefits of historic tax credits, but it also gave the site a distinct identity. As Donovan Rypkema notes, “The creation of a National Register historic district is, nevertheless, a frequent early action taken in a community’s economic development strategy—particularly in the downtown. Why is this? There appear to be two reasons: 1) National Register status permits the use of the historic rehabilitation tax credit which can substantially improve the economic return for an individual investor; and 2) being awarded National Register listing gives a community self-confidence and a sense of unique character and presents the opportunity to begin planning the economic future of the community.”¹³¹

¹³⁰ Pratt Center for Community Development, ix

¹³¹ Donovan D. Rypkema, *The Economics of Historic Preservation: A Community Leader’s Guide* (Washington, DC: National Trust for Historic Preservation Press, 1998)

Areas for Further Research

The case study of the Brooklyn Navy Yard illustrates how one city-backed organization has found innovative ways to rehabilitate its historic assets while achieving broad urban management goals, yet there is room for continued research into how historic preservation initiatives might support job creation, industrial growth, and community engagement. Of particular interest is how heritage might be used to support the industrial sector by accommodating the needs of small-scale technology manufacturers. Also of interest is the intersection between the industrial heritage of the Brooklyn Navy Yard and its entertainment and film industry tenant, Steiner Studios.

Steiner has been a consistent and reliable partner to BNYDC, though other developers like Macro Sea have played major roles in projects, as well. Steiner Studios is the lead developer for the Naval Hospital campus, which is currently in the initial stages of rehabilitation. Their primary activity at the Yard has been to provide filming and production space to the entertainment industry, a burgeoning trend in New York City exemplified by other organizations like Milk Studios, Spring Studios, and Red Hook Labs. The fact that historic resources can be leveraged to attract media, fashion, and other creative and production-based industries is becoming apparent.

The Brooklyn Navy Yard presents a model adept at pursuing synergies between historic resources and the kind of economic regeneration that are spurred by more than market values alone. This type of synergistic model is centered in the status of BNYDC as a mission-oriented corporation, an emerging type of public-private partnership. This organizational management type is one that has only begun to gain traction in recent years as those with access to resources become increasingly motivated to direct their

investments toward individuals at the community-level.¹³² Further research would be useful to illustrate how social missions, like the public good of historic preservation, and business practices may overlap, and how a mixture of public and private elements in all facets of the organizational structure drive greater outcomes.

5. CONCLUSION

The Brooklyn Navy Yard has been noted as an anchor for the City of New York, the Borough of Brooklyn, and neighboring communities including Downtown Brooklyn and Fort Greene. The Yard has fostered a sense of continuity through its positioning as an intergenerational touchstone. By extracting narratives from the history of the Brooklyn Navy Yard that support sustainable visions of job creation, industrial sector growth, and community engagement, the Brooklyn Navy Yard Development Corporation has found success in including historic preservation initiatives into its broader redevelopment plan.

Cheong and Macdonald refer to research by Fox, Brakarz, and Alejandro Cruz that attributes the success of projects like those surveyed at the Brooklyn Navy Yard, where private, government, and community sectors are involved, to the following factors:

- “The public sector acts as catalyst—there is strong vision by government for revitalization, an investment of public resources, and facilitation of dialogue with local communities.
- There is sustained political will.

¹³² Tracy Mayor, “Impact investing is hot right now. Here’s why,” MIT Management Sloan School, accessed May 15, 2020, <https://mitsloan.mit.edu/ideas-made-to-matter/impact-investing-hot-right-now-heres-why>; Heritage Fund, “New Impact Investment Fund for Culture and Heritage,” accessed May 15, 2020, <https://www.heritagefund.org.uk/news/new-impact-investment-fund-culture-heritage>; Nesta, “Nesta Launches World’s Biggest Impact Investment Fund for Creative Arts, Cultural and Heritage Organisations,” accessed May 15, 2020, <https://www.nesta.org.uk/news/nesta-launches-worlds-biggest-impact-investment-fund-for-creative-arts-cultural-and-heritage-organisations/>

- There is sustained government financial support, with up-front estimation of investment needs, quantification of potential returns, and secured financial investment.
- There is good communication between the three sectors and local communities.
- Efforts are focused within a defined geographic area.
- Passive measures (such as laws and regulations) must be backed by action plans and concrete investments.
- Social rehabilitation needs are addressed.
- Housing needs are addressed through financial mechanisms.
- The private sector is incentivized.
- Banner projects are initiated that generate support, show short-term results and commitment, and trigger investment.
- Multilateral agencies are involved that can provide technical support and continuity outside local political cycles”¹³³

Furthermore, the Pratt report identifies eight key factors to the success of the Yard:

- 1) “Mission-driven, on-the-ground nonprofit management
- 2) Publicly owned property
- 3) Consistent City capital
- 4) Ability to reinvest its surplus and leverage its rent rolls
- 5) Campus setting
- 6) Industrial land use & priority
- 7) Diverse tenant base
- 8) Green development”¹³⁴

This thesis focused primarily on the management at the Yard as a contributing factor to its general success; BNYDC has proven to be particularly adept at balancing stakeholder values and finding synergies between the conservation of the site and its mission. An examination of the redevelopment projects at the Brooklyn Navy Yard reveal a spectrum of ways in which the history of a site can be interpreted and integrated into its rehabilitation and maintenance. BNYDC is unique for the structure of its public-private

¹³³ Macdonald and Cheong, 69-71

¹³⁴ Pratt Center for Community Development, xiii - xiv

partnership, one that is specifically oriented towards delivering a social mission that strikes a balance between public and private benefits.

BNYDC is the second iteration of management at the Brooklyn Navy Yard since its conversion to civilian use. The site was originally managed by CLICK on behalf of the City of New York, but that group was dismantled following reports of corruption that prioritized private interests. That perceived and practiced imbalance, however, was corrected through the restructuring of site management in the form of BNYDC. Rather than hand over control of the Yard to private interests, the federal government, or the city government in any sole form, an alternative that distributed the risks and responsibilities of conservation and revitalization over multiple sectors was pursued. In doing so, the Brooklyn Navy Yard was framed as a community asset, occupying a position at the intersection of public good and private profit.

The transformation of the Brooklyn Navy Yard from a federal shipbuilding facility to a thriving manufacturing hub did not happen overnight. It has taken decades for the organizational structure of the Yard to mature and tap into the rich synergies that exist between its asset portfolio and its mission. However, by implementing a mindful, participatory, holistic approach to redevelopment at the site, BNYDC has bolstered the role of the Yard as an anchor for its community.¹³⁵

Thus, the Brooklyn Navy Yard Development Corporation has leveraged the historic resources of the Yard to drive its vision of community-led economic regeneration, allowing the authentic character of the place to lead its contemporary redevelopment. Each of the projects reviewed in this paper illustrates the necessary process of weighing values

¹³⁵ Paul Hardin Kapp, Paul J. Armstrong, and Richard Florida, “The Death and Life of Great Industrial Cities,” *SynergiCity: Reinventing the Postindustrial City* (Chicago: University of Illinois Press, 2015), vii-viii

against one another. The case study shows that an explicit organizational mission can facilitate the process of decision-making and ultimately determine the final outcome of a project. The mission of BNYDC to stimulate job creation, industrial growth, and local engagement is one that has facilitated a 300+ acre National Register of Historic Places Historic District that is flourishing and continues to adapt and grow. The Brooklyn Navy Yard provides an example for understanding how historic resources and the ways they are interpreted and conserved can be used to specifically support both economic values and community values.

The model of management and innovative stewardship at the Brooklyn Navy Yard has achieved success by stoking the synergies that exist between conservation initiatives and both economic and community visions. Certainly not all historic preservation values have been maintained through redevelopment projects at the Yard. Some might be critical of the Brooklyn Navy Yard Development Corporation for not doing enough to preserve the history of the Yard, for allowing the demolition of some structures, and for restricting access to most of the publicly-owned lands. However, the vast majority of historic structures core to the cohesive identity of the site as a place of production and innovation for over two hundred years have indeed been saved.

While compromises have been made, BNYDC has done so in the interest of making sustainable decisions that include the introduction of new greenspace, a grocery store in a food desert, increased transportation options, and educational and vocational centers. Well-paying, and in some cases union-supported, jobs for hundreds of local residents have been generated. Employees expressed on several occasions that the opportunities they had received at the Yard had been “life-changing”, and the community they had found in their peers at the Yard had become family. These types of links made

between people, the tangible resources at the Yard, and the intangible traditions of job security, skilled labor, and collective identity have been retained with considerable success by BNYDC.

By recognizing the multidimensional character of the Yard and the many values embedded within it, BNYDC has pursued a strategy that locates and realizes values from its resources that go beyond the market. It positions heritage to underscore a narrative of continuity and resilience.¹³⁶ The mode of interpretation of that heritage however, varies. In some cases, it takes the form of the conservation of building fabric. In other cases, it provides a story to attract tenants and morale to entrepreneurial small businesses. At the foundation of its ability to find synergies between its resources and its mission is the inherently inclusive nature of the public-private management structure of BNYDC. Because governance of the organization embodies private, government, and community interests, compromises are anticipated from the outset and expectations are well-managed from project conception to delivery. As a mission-oriented corporation, the decision-making of BNYDC management is concerned with the common good.

This thesis highlights the status of BNYDC as a mission-oriented corporation, a primary driver behind the relatively successful adaptive reuse of the Yard. Fox, Brakarz, and Cruz as well as Pratt place governance at the top of their lists of primary characteristics of successful public-private partnerships, in general and in specific relation to the Yard. Furthermore, both identify a clear future vision and a consistent mission as the foremost determinants of the success of a project. A project guided by a collaborative, multi-actor approach with clear parameters is likely to be more well-received by

¹³⁶ Luigi Fusco Girard, *Toward a Smart Sustainable Development of Port Cities/Areas: The Role of the "Historic Urban Landscape" Approach*

stakeholders than a project that polarizes viewpoints by prioritizing some values and needs over others. The Brooklyn Navy Yard Development Corporation has found ways to merge interests by exploring how different values and urban conservation and management toolkits can support each other. The Brooklyn Navy Yard illustrates and gives insight into how historic preservation can do more than simply conserve building fabric; historic resources can be leveraged to support innovation and identity, too.

Despite the “wicked” nature of the problem initially presented by the deaccession of the Brooklyn Navy Yard in the 1960s, the site managed by the Brooklyn Navy Yard Development Corporation today is lauded for its redevelopment efforts and its consequent achievements in locating and fostering the synergistic relationship between historic preservation and urban management. The Brooklyn Navy Yard is a national model for industrial heritage reuse that has inspired similarly innovative plans in other cities across the country. While the Yard has doubled the number of people employed there, added millions of square footage of workable space, and fostered the relevancy of the site amongst generations of New Yorkers, it has also carefully conserved significant historic assets. Ultimately, the lessons to be learned from the Brooklyn Navy Yard are founded on compromise and balance.

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