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Rooted in History: Historic Preservation as a Foundation for Community Engagement Along the Lower Schuylkill

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Rooted in History: Historic Preservation as a Foundation for Community Engagement Along the Lower Schuylkill

Abstract

Once the centerpiece of a rolling pastoral landscape, punctuated by some of the most important ornamental and botanical gardens of the colonial and early national eras, the Lower Schuylkill metamorphosed over the next century into one of the most polluted and environmentally degraded waterways in the country. In this thesis I will discuss the historical, environmental, and political themes that have shaped the evolution of the Lower Schuylkill region. Reviewing analyses and critiques of neoliberal urbanism, particularly in the context of waterfront revitalization projects, I identify ways in which preservation and related fields might support or resist a development-driven agenda. I then consider PIDC's Lower Schuylkill Master Plan, which outlines a long-term vision for the extension of the Schuylkill river trail, and identify ways in which it fits within the neoliberal framework. Through further analysis of Executive Summaries, Master Plans, Reports, public meeting notes, and other public documents, I discuss how aspects of the Lower Schuylkill Master Plan utilize historic resources to promote a development agenda. I then propose ways in which the preservation of a broad range of resources related to various eras of the region's history might facilitate deeper community engagement with the space.

Keywords

waterfront revitalization, public history, community engagement, horticultural history, industrialization

Disciplines

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ROOTED IN HISTORY: HISTORIC PRESERVATION AS A FOUNDATION FOR
COMMUNITY ENGAGEMENT ALONG THE LOWER SCHUYLKILL

Starr E. Herr-Cardillo

A THESIS

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II. Introduction

The landscape of the Lower Schuylkill River reflects the many ways in which we have valued, and de-valued, our waterways over the past three centuries. Once the centerpiece of a rolling pastoral landscape, punctuated by some of the most important ornamental and botanical gardens of the colonial and early national eras, the river metamorphosed over the next century into one of the most polluted and environmentally degraded waterways in the country. Now, in the so-called “post-industrial” age, developers and city officials see the Lower Schuylkill as a site of potential development and reinvestment—an area to be reimagined and remade into a sustainable greenway alongside a multi-mile corridor of modern green industry. In this thesis I will discuss the historical, environmental, and political themes that have shaped the evolution of the Lower Schuylkill landscape, specifically the segment of the river that flows west of the University Avenue Bridge to its confluence with the Delaware. I will then suggest ways in which historic preservation and related fields might inform and improve current plans for the extension of the Schuylkill River Trail to this region in order to convey a more comprehensive regional history to visitors and residents.

For most Philadelphians, the Schuylkill River—the largest tributary to the Delaware River and source of the city’s drinking water—is most commonly associated with two things: recreation and pollution. Though the watercourse is nowhere near as polluted today as it was in the earlier half of the twentieth century, over the past several decades the river has been home to a number of environmentally-destructive industries including petroleum refineries, incinerators, chemical manufacturing, stockyards, and slaughterhouses. This legacy has left a challenging impression to overcome in the modern public psyche.

The popular view of the river in the 18th century could not have been more different. Due to its meandering path and striking vistas, the Schuylkill was revered as one of the most beautiful scenic landscapes in the country and bore witness to some of the most significant developments in early American botany and horticulture. Like many rivers that pass through cities, the history of the Schuylkill illustrates our complicated and often contradictory relationship to waterways. In a time when industrial activity has slowed to the point that cities are re-evaluating their waterfronts and revamping them into attractions for recreation and consumption, a critical look into the historical layers, themes, and stories bound up in the built environment of these landscapes and surrounding neighborhoods is more important than ever. This is particularly true when it comes to informing decisions for the river's use and interpretation in the future.

The focus of the Schuylkill riverbank improvements moved decidedly towards using the space for recreation. The Center City portion of the Schuylkill River Trail opened to the public in 2000, though it has continued to grow over the past decade. The greenway incorporates a variety of uses, from dog parks to fishing docks and, as intended, this model has proven to be a powerful economic engine and marketing tool for development in Center City. Extension of the river trail to the western bank and into the Lower Schuylkill is well underway. Gray's Ferry Crescent was completed in 2015 and Bartram's Mile officially opened in April of 2017. The project, initiated primarily by The Philadelphia Planning Commission (PIDC), The William Penn Foundation, and the City of Philadelphia Department of Commerce, seeks to redevelop the lower Schuylkill into a three-campus corridor connected by public greenways with "sustainable features and compelling

amenities.”¹ The Master Plan predicts that the project will generate \$860 million in private investment, \$411 million in public infrastructure, and create 5,500 to 6,500 permanent jobs.²

Embedded in the history of the Lower Schuylkill are a number of related and recurring themes: the evolution of thought surrounding the utility and treatment of urban waterways; the role of the physical landscape in national identity-building; and the provision and preservation of open public space. The corridor also contains the physical remnants of a broad range of historical uses: the early practice of horticulture and botany; the development of the fossil fuel industry; the evolution of transportation; the development of approaches to waste management; the environmental regulation and cleanup of waterways; and the legacy of environmental racism and discriminatory housing policy, to name a few. Surviving evidence of these uses makes for a richly layered and complex landscape with enormous potential for interpretation, community engagement, and education. Preserving critical resources that tell the story of the area’s complex history would both incentivize the adaptive reuse and preservation of historic structures within the region and provide a measure of public control over future development. It would also ensure a rich canvas to convey layers of narratives and stories.

Within this paper, “Lower Schuylkill” refers to the region defined in the PIDC plan and includes land and sites along both banks of the river from The University Avenue Bridge to the river’s confluence with the Delaware (see figure 23). After analysis and synthesis of both primary and secondary sources from related fields of history, environmental history, and landscape history, I have compiled an historical overview of the transformation of the Lower Schuylkill over the past three hundred years, identifying some of the significant themes presented in the landscape. I then

¹ “Lower Schuylkill Master Plan Executive Summary,” n.d., accessed 5/8/2017, http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf.

² *Ibid.*

review analyses and critiques of neoliberal urbanism, particularly in the context of waterfront revitalization projects, identifying ways in which preservation and related fields might support or resist a development-driven agenda. I then consider PIDC's Lower Schuylkill Master Plan, which outlines a long-term vision for the extension of the river trail, and identify ways in which it fits within the neoliberal framework. Through further analysis of Executive Summaries, Master Plans, Reports, newspaper articles, public meeting notes, and other public documents, I discuss ways that aspects of the Lower Schuylkill Master Plan seem to utilize historic resources to promote a development-driven agenda. As an alternative to that approach, I discuss how the preservation of a broad range of resources related to various eras of the region's history, particularly if supported by compatible social policy, might facilitate deeper community engagement with the space.

III. Review of Literature

Environmental and Regional History of the Lower Schuylkill

In researching the environmental and regional history of the Lower Schuylkill, I consulted a variety of sources that include published books and articles, as well as local documentation. In *The Grid and The River*, Elizabeth Milroy weaves together the complex history of the development of Philadelphia's parks and public green spaces, framed as products of various political and cultural movements. Inspired to investigate the evolution of William Penn's vision for Philadelphia as a "greene country towne" and the subsequent creation of Fairmount Park, Milroy unearths the history behind numerous Philadelphia sites that represent different episodes in the quest to provide public space. Through her studies of the Lower Schuylkill in particular, she draws connections between the cultivation of the landscape and early national identity building through the practice of horticulture and provision of public gardens. Milroy positions the Schuylkill as a significant early

picturesque landscape in a national context, and illustrates how this notion was enhanced by early signs of industrialization.

Nature's Entrepot is a collection of essays exploring various aspects of Philadelphia's environmental history that highlights the ways in which development shaped and was shaped by Philadelphia's natural topography and the surrounding environment. Though a central theme throughout the collection is the degradation of the environment through the processes of human settlement and urbanization, the essays also touch on how early Philadelphians shaped the intellectual framework surrounding landscapes, natural resources, and conservation that came to define the American conservation movement.

The first essays, focusing on Philadelphia in the 17th and 18th centuries, discuss how landscape was valued during that period from a non-utilitarian standpoint, and emphasizes how prominent Philadelphians and their attitudes towards nature and the landscape began to shape an independent national identity.³ In the essay "Grid versus Nature" Adam Levine explores early reactions to topography in laying out Philadelphia's original grid, touching on early efforts by local artists to document the City's rapidly disappearing agrarian landscape. Levine points out early approaches to waste management and sewage within the city which embraced and utilized natural topography to carry waste out of neighborhoods and into the rivers.

In her essay on Mill Creek, Anne Whiston Spirn discusses waste removal and sewage control more specifically in the context of the creek's history and the social and environmental impacts of its conversion to a buried sewer. In another essay, Diane Sicotte writes about more recent grassroots efforts towards environmental justice, touching on the disproportionate impact

³ Brian Black and Michael J. Chiarappa, eds, *Nature's Entrepôt: Philadelphia's Urban Sphere and Its Environmental Thresholds* (History of the Urban Environment. Pittsburgh, Pa: University of Pittsburgh Press, 2012), page 7.

that the location of hazardous industries have on lower-income communities of color such as southwestern Philadelphia.

In the respective Historic American Landscape Surveys for Bartram's Garden and The Woodlands, historians Joel Frye and Aaron Wunsch outline the transformation of the sites over time. These thorough accounts trace development of the two landscapes through different periods of ownership and management while placing it in the historic context of West Philadelphia development.

Finally, I looked to some influential works in environmental history which convey the interconnectivity between human agency and the natural environment and the complexities of these relationships. In William Cronon's *Nature's Metropolis* he unfolds the story of Chicago's relationship to its surrounding landscape over time. Richard White's *The Organic Machine* relays the history of Washington's Columbia River, examining it as an "organic machine" part of a large "energy system" which provides, demands, and produces energy—both shaping and being shaped by human activity. White weaves two histories that are often conceived of as separate and distinct into one, and focuses on telling the story of the ever-changing relationship of native and non-native inhabitants to the river. The history of the Schuylkill, too, demands this approach. A preliminary understanding of nature and culture and they ways in which they have interacted and influenced one another within the context of the Lower Schuylkill is what I hope to convey.

Profiting from Public Space

My research on private interests profiting from public space was informed by the published works of several sociologists and geographers. In "The Built Environment and Spatial Form," Denise Lawrence & Setha Lowe provide an overview of various theories that may be utilized in analyzing the built environment. They discuss various approaches to analyzing the social

production of built form, including the political economy of space, which is a lens through which we can analyze new urban spaces like the Schuylkill Trail. Approaching the built environment as a function of social history and the political economy of space has roots in Marxist geography which considers how geographical relationships and spatial arrangement reinforce social relations, modes of production, and the transformation and restructuring of space. The political economy of space, in particular, addresses ways in which class, gender, race and cultural relations are reinforced and produced by the built environment. Political economy specifically addresses colonial and imperialist spatial forms, capitalism's influence on spatial form, and how these structures serve as drivers for spatial transformation, particularly in cities and urban areas.⁴ Central to both, and to other contemporary modes of analyzing the built environment, is the consideration of, not only how and why the environment is shaped, but also how the resultant environment shapes social behavior.

Contemporary geographers Edward Soja and David Harvey have focused their analysis and critique on the politics of space in the postmodern city. Both recognize that the tendency to analyze space separately from social behavior is problematic based on the premise that social relations are shaped and reinforced by spatial forms. Soja questions the effectiveness of analyzing human spatiality through the lens of physical space and its various forms because, "the organization and meaning of space is a product of social translation, transformation and experience."⁵ Harvey's work, on the other hand, is built around the idea of space and urbanism as a reinforcement of "a certain division of labor and a certain hierarchical ordering of activity which is

⁴ Denise L. Lawrence and Setha M. Low, "The Built Environment and Spatial Form," *Annual Review of Anthropology* 19 (1990), 486.

⁵ Edward W. Soja, *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (London ; New York: Verso, 1989): 79-80.

broadly consistent with the dominant mode of production,” meaning that the city and urban forms support and perpetuate existing systems.⁶

Sociologist Sharon Zukin turns her attention to landscapes as vehicles for consumption in “Urban Lifestyles: Diversity and Standardisation in Spaces of Consumption.” Zukin studies space and public space in cities, critiquing the concept of the “new urban lifestyle” which she argues has evolved into “an aggressive pursuit of cultural capital.”⁷ The contemporary political environment, Zukin argues, encourages cultural consumption and the aestheticization of public space, a process which has occurred in tandem with an increase in private control over public space.⁸ The new urban consumption that she speaks to is structured around leisure, travel, tourism and culture. Often, the transition from productive to consumptive space in cities occurs as a byproduct of the absence of a competitive traditional job market and lack of capital investment, though it reflects a broader global trend focused on “image production” occurring in major cities and urban centers worldwide.⁹

In “Parks for Profit: The High Line, Growth Machines, and the Uneven Development of Urban Public Spaces,” sociologist Kevin Loughran looks at the growing inequality of public spaces in contemporary cities as a result of neoliberal development models. Loughran argues that “neoliberal urbanism” creates “privileged public spaces” that attract and reflect particular consumption habits, catering specifically to an urban middle class.¹⁰ Loughran contends that these spaces are built specifically to lure a desired demographic—tourists, wealthy residents, and

⁶ David Harvey, *Social Justice and the City*, (Baltimore: John Hopkins Univ. Pr, 1973): 203.

⁷ Sharon Zukin, “Urban Lifestyles: Diversity and Standardisation in Spaces of Consumption,” *Urban Studies* 35 (1998): 825.

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ Kevin Loughran, “Parks for Profit: The High Line, Growth Machines, and the Uneven Development of Urban Public Spaces,” *City & Community* 13 (2014): 49.

consumers—to partake in leisure activities and cultural consumption that specifically benefits developers and city governments by fueling investment and development.¹¹

Community Engagement through Preservation

In researching ways to improve community engagement, I reviewed the work of preservationists. In her seminal work *The Power of Place: Urban Landscapes as Public History*, Dolores Hayden argues that preservation must go beyond traditional techniques, emphasizing public processes and public memory, in order to reach broader audiences. Hayden's definition of the power of place is "the power of ordinary urban landscapes to nurture citizens' public memory, to encompass shared time in the form of shared territory"¹² and she contends that this power is untapped for most working class, women's and ethnic history in public places in American cities.

A socially inclusive urban landscape history can become the basis for new approaches to public history and urban preservation...A more inclusive urban landscape history can also stimulate new approaches to urban design, encouraging designers, artists, and writers as well as citizens, to contribute to an urban art of creating a heightened sense of place in the city. This would be urban design that recognizes the social diversity of the city as well as the communal uses of space, very different from urban design as monumental architecture governed by form or driven by real estate speculation.¹³

Hayden also stresses the importance of urban landscapes for stimulating visual memory and "place memory," noting that they tend to be an underutilized resource for public history, but that the two are "natural allies."¹⁴ She recognizes architectural preservation as an integral component, noting that it serves the supportive purpose of "asserting visual presence" of the past in the landscape, though noting its historical contribution to gentrification and displacement.¹⁵

¹¹ Loughran, 50.

¹² Dolores Hayden, *The Power of Place: Urban Landscapes as Public History*, (Cambridge, Mass: MIT Press, 1995): 11.

¹³ Hayden, 12-13.

¹⁴ Hayden, 47-48.

¹⁵ Hayden, 53.

Preservation, when utilized to preserve physical traces of the past in collaboration with community-based social history projects can be a powerful tool, and Hayden suggests that “the need to find processes for simultaneously engaging social and architectural history is pressing.”¹⁶

Hayden contends that “both social history and architectural preservation have the potential of contributing to neighborhood economic development in the city”¹⁷ but argues that in order to do so, it is critical that they unite to link important social memory to the remnants of the built environment to promote a greater understanding of the past and to “heighten awareness of past accomplishments” of a diverse base of residents.¹⁸ Hayden warns that creating a meaningful representation of shared history within the built environment requires that attention be focused not only on architectural monuments, but also on vernacular landscapes and building types such as factories, tenements, and others that have served people working within the community in their everyday lives.¹⁹

In *Buildings, Landscapes, and Memory*, Daniel Bluestone writes about the importance of the preservation of environmentally degraded sites, specifically EPA Superfund Sites. Bluestone makes a case for the retention and interpretation of elements of these landscapes for public use, arguing that physical remnants can provoke thought and understanding about important topics surrounding the remediation process that are often concealed or glossed over.²⁰ He believes that the erasure of the physical evidence of past destructive uses results in a loss of understanding about how and why such decisions were made in the first place. When left for interpretation, these

¹⁶ Hayden, 61.

¹⁷ *Ibid.*

¹⁸ Hayden,

¹⁹ Hayden, 61.

²⁰ Daniel M Bluestone, *Buildings, Landscapes, and Memory: Case Studies in Historic Preservation*, (New York: W.W. Norton & Co., 2011): 257.

sites can serve as important teaching tools and facilitate thought and discussion about relevant contemporary issues.²¹

Preservationist Ned Kaufman looks for ways in which preservation can address contemporary issues related to race and inequality. *In Place, Race, and Story* he delineates basic issues and concepts related to place, history and stories, preservation, and race. Kaufman continues, addressing the “diversity deficit” felt in the lack of representation of different groups through historic preservation.²² As possible solutions, he calls for new preservation approaches that address unintentional biases against diversity—specifically the integrity standard.²³ He also calls for support for citizen-led initiatives as a means of expanding community agency over their own stories.

21 Bluestone, *Buildings*: 257-258.

22 Ned Kaufman, *Place, Race, and Story: Essays on the Past and Future of Historic Preservation*, (New York: Routledge, 2009): 120-126.

23 Kaufman, 126. The integrity standard is the rule that requires an historic building or site be in physical condition that is able to convey its “period of significance.” This is often more problematic for sites that have been neglected, heavily modified, or for sites that have important associations with historical events, but are not what would typically be considered “important” works of architecture (this is true of many sites related to the Civil Rights movement, in particular).

communities.²⁶ When the colonists arrived, much of the land along rivers was utilized by the semi-nomadic Lenape who constructed settlements and hunted, trapped, fished, and farmed on it.²⁷ Penn and the early colonists, however, saw the land as open for the taking given the tribe's unfamiliarity with the notion of property ownership. Rather than respect this cultural difference, Penn was determined to give the Lanape some form of payment in a "fair" exchange for the land. This ultimately took the form of treaties through which the Lenape were compensated with a number of goods in exchange for their land, forever.²⁸

Early colonists settled along the water for safety and for trade, needing ports as a direct connection back to Europe.²⁹ While the Schuylkill and the Delaware are the two major waterways forming the east and west boundaries of Penn's Philadelphia, for earlier inhabitants, the area was defined by a complex web of smaller, navigable streams.³⁰ The region's natural environment provided an abundance of valuable resources, including densely wooded forests and a diverse ecosystem. The lowlands provided an ideal setting for agriculture. The utility of the region for human inhabitants is evidenced by its continual settlement. Most early settlement following Penn's city plan occurred along the Delaware, though there were a number of existing settlements along the Schuylkill. The Schuylkill, Dutch for "hidden river," was transformed over the centuries, a reflection of changing attitudes towards the landscape and its utility.

²⁶ Gary N. Paulachok, "Geohydrology and Ground-Water Resources of Philadelphia, Pennsylvania" (United States Government Printing Office, 1991), accessed 5/8/2017, <https://pubs.usgs.gov/wsp/2346/report.pdf>.

²⁷ Zabel, 20.

²⁸ Zabel, 22-23.

²⁹ Black, 3.

³⁰ Black, 5.

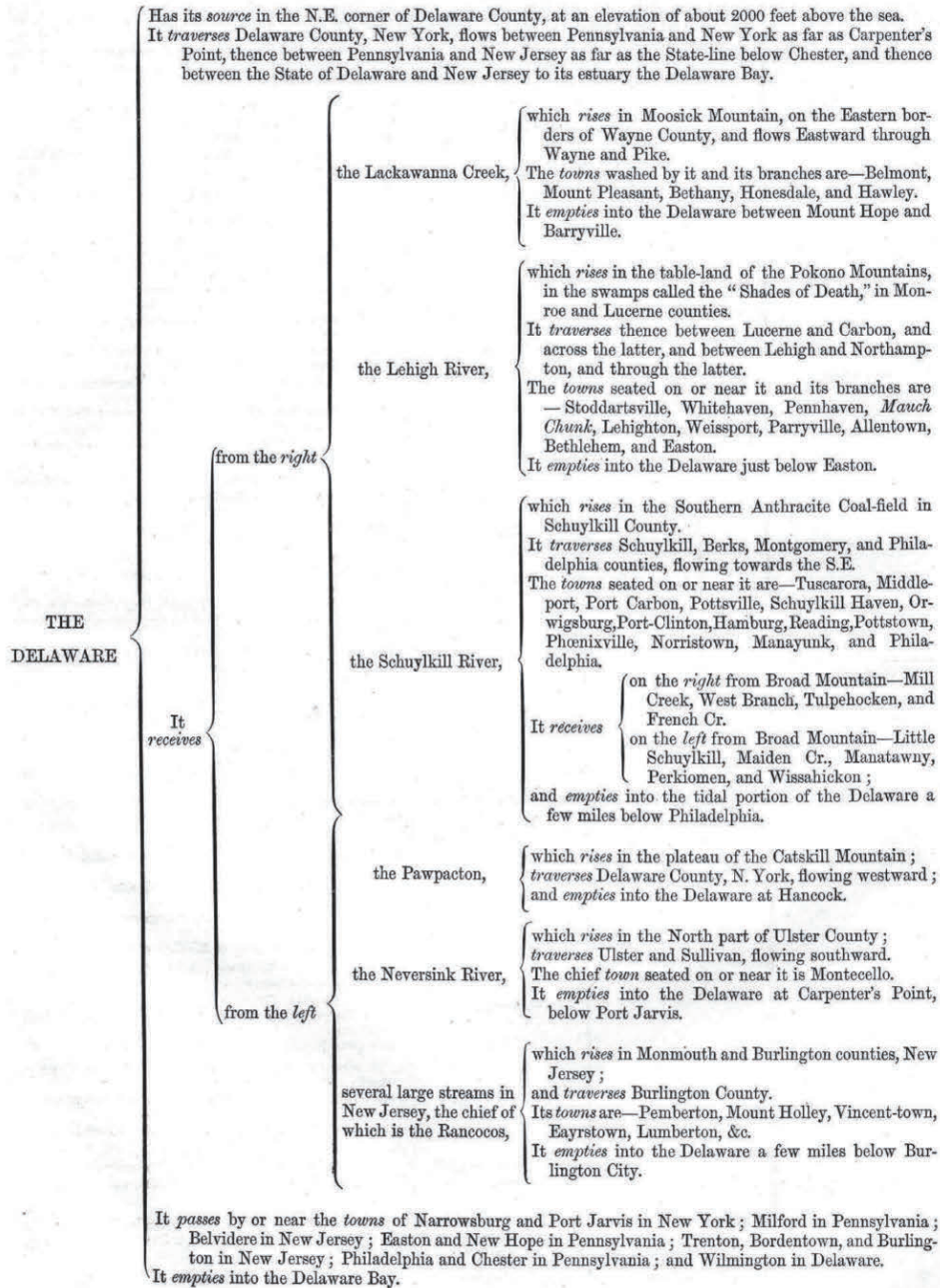


Figure 2: Hydrology chart of the Delaware River from "The Geology of Pennsylvania, A Government Survey" by Henry Darwin Rogers, State Geologist in 1858. Photo Source: Philadelphia Water Department Archives.

Horticultural Heyday: The Landscape as an Expression of Civic Virtue



Figure 3: "A View on the River Schuylkill near Philadelphia" by artist J. Cartwright for George Beck made in 1806 depicts the Schuylkill as a picturesque, sylvan landscape. Photo Source: Yale University Art Gallery

The Lower Schuylkill region as a whole is rarely associated with the early development of horticulture and botany that happened along its banks. However, beginning in the 18th century, the Lower Schuylkill became somewhat of a nexus of horticultural happenings. John Bartram (1699-1777) was one of the earliest in the Colonies to be consumed by the study and collection of plants and was the first to begin trading and selling plants abroad. After settling on 100 acres of land he purchased along the west bank of the lower Schuylkill in 1728,³¹ Bartram began a correspondence

³¹ Andrea Wulf, *Founding Gardeners: The Revolutionary Generation, Nature, and the Shaping of the American Nation*, 1st American ed (New York: Alfred A. Knopf, 2011), 73. Uniquely situated on the border of two distinct physiographic provinces—the Coastal Plain and the Piedmont—it is possible that Bartram chose this location for the resulting soil complexity found at this location. Either way, this peculiar feature proved to be beneficial later, allowing Bartram to better tailor individual micro-climates where he was able to coax species often too fragile to survive Pennsylvania winters to grow.

with Peter Collinson, a London Quaker who was also an avid gardener.³² Collinson helped put Bartram in contact with prominent gardeners, botanists, and nurserymen in Britain, launching an enterprise that would introduce hundreds of American plant species to the Old World.³³ Due to the exchange of “Bartram Boxes” overseas and the enthusiasm with which the British embraced native American tree species, Bartram’s legacy is arguably more widely known in England than here in the United States.³⁴ It was through these early exchanges that the English first experienced colorful fall foliage, produced by trees such as the Sugar Maple and Franklin Tree³⁵ an unfamiliar phenomenon enthusiastically embraced by English gardeners.

Though Bartram may have been alone early on in his enthusiasm for the study of Botany,³⁶ the interest spread wildly through the next generation. Bartram was an esteemed member of the growing circle of America’s enlightenment intellectuals. Bartram and Franklin co-founded the American Philosophical Society in 1743, an organization that would serve as a networking hub for naturalists and botanists over the course of the next century.³⁷ Philadelphia was at the center of intellectual development, an “incubator” for the “formative era of naturalist thought.”³⁸ With a concentration of the most respected naturalists, Philadelphia set the model for American’s relationship to nature.³⁹

An extension of the idea that the landscape could provide a sense of national identity, was a belief in the didactic powers of the landscape. Though public resources were sparse post-

³² Joel Frye, *Historic American Landscapes Survey: John Bartram House and Garden*, HALS No. PA-1: 5.

³³ Frye, 5.

³⁴ Wulf.

³⁵ Wulf, 54. Named by Bartram after close friend Benjamin Franklin.

³⁶ He made mention of this in a letter to Alexander Catcott of Bristol, England in 1742, “our Americans hath very little tast [sic] for these amusements I cant [sic] find one that will bear the fatigues to accompany me in my peregrinations.” John Bartram to Alexander Catcott (Bristol, England), May 26, 1742, *Correspondence of John Bartram* 1992: 193-194.

³⁷ Frye, 26.

³⁸ Black, 8.

³⁹ Black, 4.

revolution, public gardens were seen as an ideal tool for promoting morality and virtue.⁴⁰ One of the most prominent was Gray's Gardens, a 10-acre "pleasure garden" at the site of Gray's Ferry and the Gray family tavern.⁴¹ The garden was incredibly popular among a broad range of Philadelphians.⁴² Owing to its strategic placement along the stagecoach route between Philadelphia and Darby, the park attracted numerous visitors as the coach brought passengers through twice daily.



Figure 4: "An East View of Gray's Ferry, near Philadelphia; with the Triumphal Arches, &c. erected for the Reception of General Washington, April 20th, 1789. Photo Source: The Library of Congress

In contrast to William Penn's grid, early development on the west bank of the Schuylkill embraced the topography of the natural landscape. Once predominately farm land, by the last

⁴⁰ Milroy, 110. Gray's Garden was designed in a picturesque style, organized into calculated and dramatic scenes of grandeur, "wildness" and beauty, intended to impart upon the visitor a sense of exploration and wonder, and allowing them "to enact a pioneer's experience of exploration through dangerous spaces."

⁴¹ Milroy, 103. Gray's Gardens gained recognition in part because of its symbolic connection to an image of the country's prosperity and virtue, though they were also aided by the literal political connections of George Gray Sr. On multiple occasions, republican celebrations were held at the gardens, replete with esteemed visitors and prominent statesmen, which only reinforced the metaphoric connection. George Washington passed through the gardens, welcomed by an elaborate ceremony, on his way to his presidential inauguration in New York in 1789

⁴² Milroy, 103.

quarter of the 18th century, land along the western bank of the river was almost entirely devoted to the sprawling estates of the wealthy. Despite private ownership, the landscape maintained a distinctive impression of unity, cohered by a mutual regard for the aesthetic value of the natural landscape and a commitment to its management and enhancement.

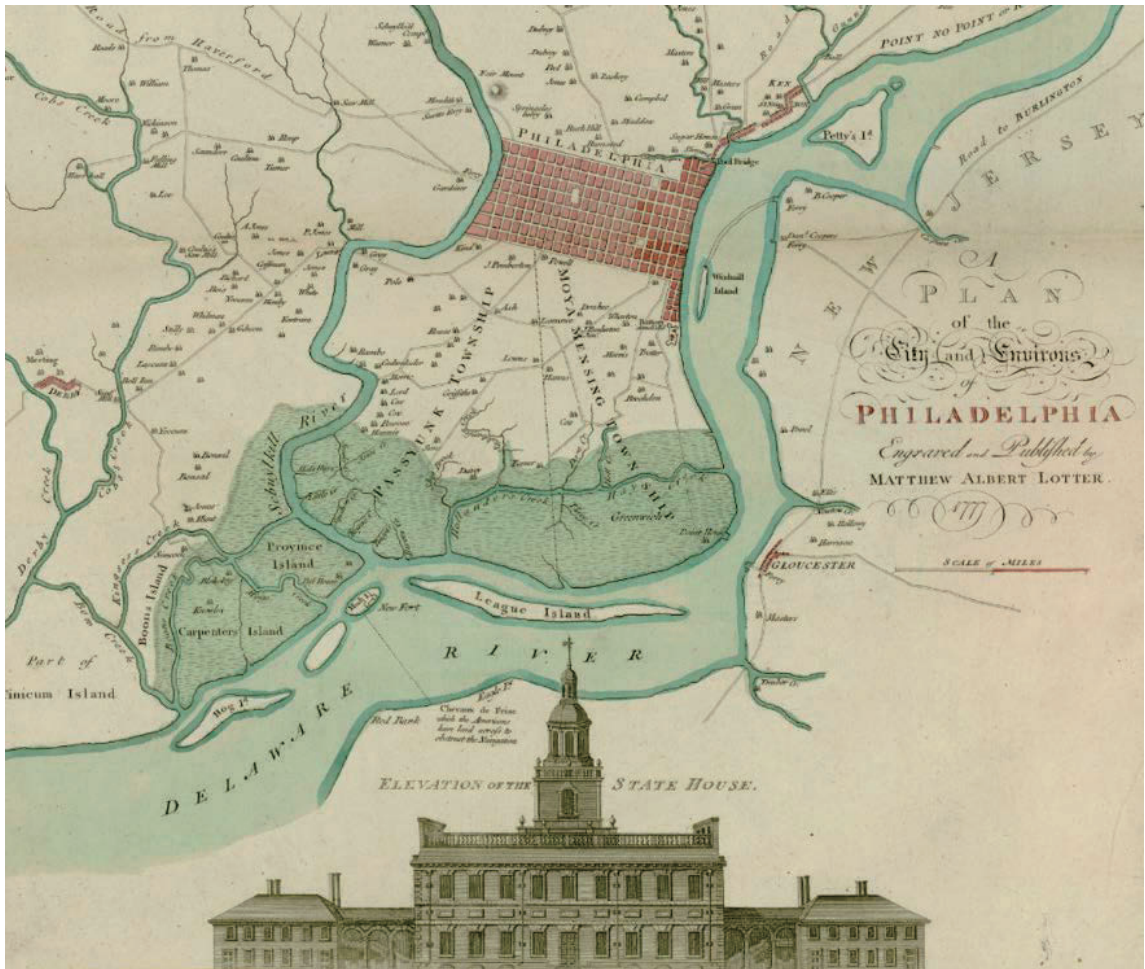


Figure 5: 1777 Map of Philadelphia by Matthew Albert Lotter, depicting the lowlands of southwestern Philadelphia.
Photo Source: Darlington Digital Library



Figure 6: Detail of 1777 Map of Philadelphia by Matthew Albert Lotter, showing John Bartram's estate, Gray's Ferry, and a number of small mills along tributaries. Photo Source: Darlington Digital Library.

Arguably the first to introduce the English landscape garden in America was William Hamilton, who owned the nearly 600 acre Woodlands estate, just a mile upriver from Bartram's Garden and just across the river from Gray's Gardens.⁴³ Hamilton (no relation to Alexander, but grandson of prominent Philadelphia lawyer Andrew Hamilton whose defense of John Peter Zenger established "freedom of the press"⁴⁴) inherited the bulk of the land from his father in 1747 when he was just two years old.⁴⁵ Over the course of his adult life, he parceled together roughly 600 acres along the west bank of the Schuylkill, including most of the land upon which the Penn and Drexel campuses now sit and he approached this land with very precise design intent.⁴⁶

⁴³ Aaron Wunsch, Historic American Landscapes Survey: Woodlands Cemetery, HALS No. PA-5, 3-9.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ Wunsch.

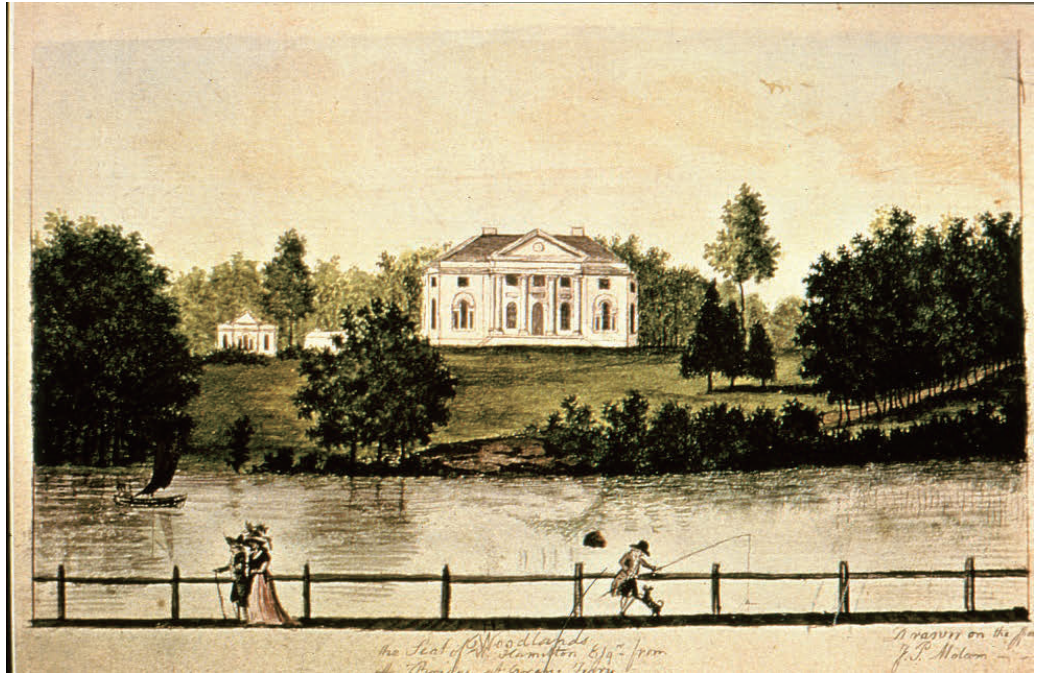


Figure 7: James Peller Malcom's watercolor of *The Woodlands from the Gray's Ferry Bridge*, circa 1792, depicts how visitors would have first seen the mansion from the river. A glimpse of the greenhouse is visible to the west of the mansion. --Photo Source: The Woodlands Trust for Historic Preservation Archive.

An extended visit to England from 1784 to 1785 inspired the neoclassical remodel of his prominently-positioned mansion along the Schuylkill, recognized as one of the earliest examples of Federal architecture in the United States.⁴⁷ The visit had an equally-powerful impact on his approach to landscape design. Inspired by his visit and the picturesque philosophy popularized in England at the time, he was determined to transform the grounds surrounding his estate into an exemplary English garden. It is clear from his writings at the time that Hamilton was specifically interested in enacting a conceptually unified design based upon the interplay between the landscape and the mansion's architecture.⁴⁸

⁴⁷ Timothy Long, "The Woodlands: A Matchless Place" (Master's Thesis, University of Pennsylvania, 1991), 53.

⁴⁸ Long, 106-107. By the time he returned from England, Hamilton was determined to lose no time establishing his garden and he often grew frustrated at the incremental nature of the reality of making so many broad and swift changes at once. He had had a preliminary batch of trees, shrubs and roots shipped to The Woodlands in 1785, and in the following months composed detailed instructions on his desired arrangements for the planting of seeds, transplants, collection of additional plant material from local sources, and preparation to the grounds to receive a large shipment of plants from abroad

An interest in nature, botany, and horticultural practice was ingrained in the political mindset of the times; prominent politicians saw nature, plants, gardens and agriculture as a set of tools for the acquisition of wealth and independence, and as a powerful source of national identity. For many political leaders of the time, agriculture and the study of plants and the natural landscape were inherently political, tied to the ideal image of a new, independent country. Farmers, they believed, provided the “backbone of society”⁴⁹ and through artful and studied manipulation of the natural landscape, important societal ideals and values could be communicated and promoted to the public. Benjamin Franklin perhaps most embraced this mindset. Franklin saw agriculture and America’s abundance of natural resources as the key to independence from Britain.⁵⁰ Through his emphasis, the connection between domestic agricultural production and independence began to resonate throughout the colonies. Post-revolution, those with the means turned to horticulture which was seen not only as a tool for artistic expression and beautification of the landscape, but also as an instrument for fostering patriotism and pride in fellow citizens.⁵¹ Belief in the power of landscapes, gardens and nurseries to reflect the health of the nation and promote morality and nationalistic ideals was repackaged into a new American aesthetic.⁵² To distinguish themselves from Europe, Americans emphasized the natural beauty of the United States because they believed that it was superior to Europe.⁵³ Since the New World, to the settlers at least, had virtually no cultural history, their attentions turned to the study of natural history.⁵⁴

⁴⁹ Wulf, 61.

⁵⁰ Wulf, 8. At this point, the colonies were Britain’s largest market for manufactured goods while exporting grain, corn and tobacco back to Britain. Franklin was convinced that the colonists could survive off of what they produced alone, and he diligently collected new seeds and varieties to help establish an agricultural network in the colonies with unrivaled diversity and self-sufficiency.

⁵¹ Milroy, 95.

⁵² Milroy, 95.

⁵³ Brian Black and Michael J. Chiarappa, eds., *Nature’s Entrepôt: Philadelphia’s Urban Sphere and Its Environmental Thresholds*, History of the Urban Environment (Pittsburgh: University of Pittsburgh Press, 2012),19.

⁵⁴ *Ibid.*



Figure 8: George Washington visits Bartram's Garden in 1787 by Jean Leon Gerome Ferris, 1900. Photo Source: Smithsonian American Art Museum

The concentration of horticultural knowledge and demonstration gardens drew numerous prominent naturalists to the Lower Schuylkill in the late 18th and early 19th century, including Benjamin Franklin, George Washington, Thomas Jefferson, John Adams, Samuel Vaughan and many others. Nearly all of the founding fathers took great pride and care in their own horticultural practice⁵⁵ and the Lower Schuylkill boasted Bartram's Garden, The Woodlands, and Gray's Garden. After the Revolutionary War, George Washington paid a visit to Bartram's Garden, just weeks before the Constitutional Convention in 1787. Other delegates in Philadelphia later that year also visited John Bartram's garden in the middle of the Convention. James Madison, Alexander Hamilton, and Samuel Vaughn, among others hoped that an excursion out to appreciate nature in

⁵⁵ Wulf.

the lovely surroundings of Bartram's on the Schuylkill would help them gain clarity before casting their votes the following Monday.⁵⁶

Hamilton was known for his generous and gracious hospitality, particularly for those travelling with an interest in botany and horticulture. It would not have been unusual for prominent visitors to drop by The Woodlands, Bartram's Garden and the nearby Gray's Gardens all within the same visit; all were well-known and sought after destinations for observing the most significant developments in horticultural design and discovery.⁵⁷ Hamilton and William Bartram, John Bartram's son who was also a skilled botanist and botanical illustrator, were contemporaries and friends. The two exchanged letters and shared plants and information frequently, and occasionally spent time together socially.⁵⁸

In addition to these higher profile sites of interest, many smaller gardens, greenhouses, farms, and seed distributors populated the area. Though the focus of wealthier residents shifted to ornamental gardening, utility of the land was essential to many residents. The Bartram Family farmed their land into the 19th century⁵⁹ and William Hamilton leased the northern part of his estate to tenant farmers.⁶⁰ The landscape was patch worked with farms and numerous mills were built along creeks and tributaries. For many European settlers, Pennsylvania and its appeal were connected to the ability to farm and cultivate the land, an opportunity that wasn't available for most back in England.⁶¹

⁵⁶ Wulf, 61-72.

⁵⁷ The Woodlands Trust for Historic Preservation Archive. Multiple accounts of visitors to The Woodlands recall Hamilton's enthusiasm and hospitality, particularly in sharing his extensive botanical library and leading tours of his grounds and greenhouse.

⁵⁸ The Woodlands Trust for Historic Preservation Archive contains correspondence between William Hamilton and William Bartram.

⁵⁹ Frye, 28. Bartram and subsequent generations ran a productive farm on their land. He was praised for using sophisticated farming practices and recorded extensive notes on farms and farming throughout his travels.

⁶⁰ Wunsch, 27.

⁶¹ Zabel, 31.

By the time of Hamilton's death in 1813, there were signs signaling the transformation of the river. Ann Bartram Carr and Robert Carr continued to operate Bartram's estate as a successful commercial nursery into the 19th century. However, financial circumstances and the encroaching industrialization of the riverfront put new pressures on the successors of William Hamilton's and John Bartram's estates. Fortunately the historical significance and connection to early botanical study of both The Woodlands and Bartram's Garden led to their subsequent preservation, the Woodlands as a rural cemetery, purchased by a group of concerned citizens in 1840, and Bartram's first as the private estate of Andrew Eastwick and then as a city park, in 1891. Gray's Gardens continued to function as a public park until the beginning of the 19th century when it was lost to industrialization.⁶²

⁶² John Frederick Lewis, *The Redemption of the Lower Schuylkill* (Burlington: Enterprise Publishing Company, 1924), 7.

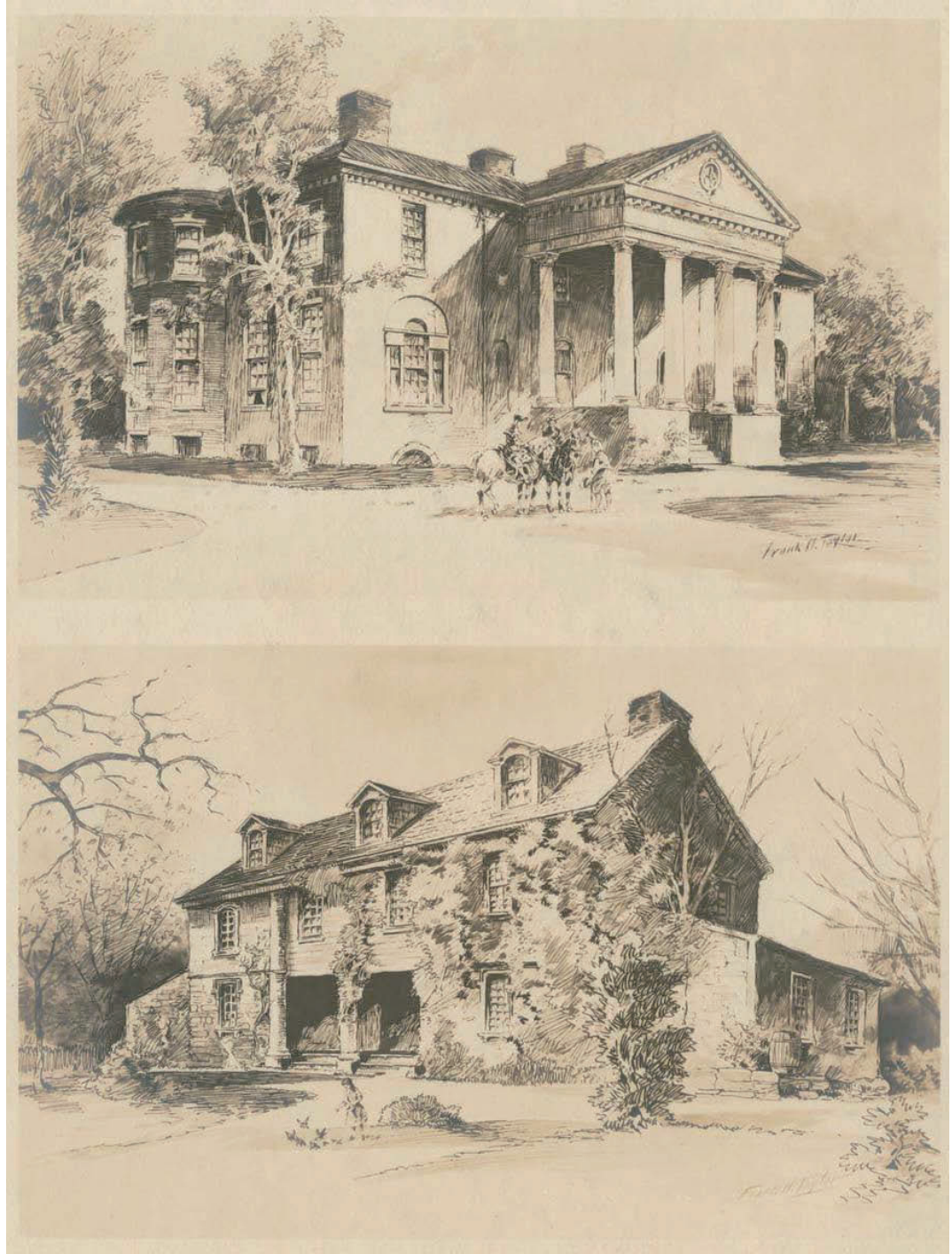


Figure 9: *The Woodlands and Bartram's Mansion* by Frank H. Taylor, ca. 1922. Illustrated as "well preserved examples of colonial homes" from a time when "the unpolluted tide-water Schuylkill River was bordered by fine country seats and the embowered road leading from the town down to George Gray's ferry was a popular drive." Photo Source: Library Company of Philadelphia.

Early Industry along the River and the Dawn of Petroleum

While the majority of Philadelphia's heavier manufacturing industry set up along the Delaware River on the eastern end of the city, the Schuylkill was home to a number of coal and petroleum storage and refining facilities, stockyards and slaughterhouses, chemical manufacturing plants and waste treatment centers over the years. Though several small mills and factories were present along Philadelphia's network of streams and creeks as early as the European settlement in the 17th century,⁶³ industry along the river remained relatively light until the mid-19th century. Two key factors set the Schuylkill up to host the concentration of industry that we see today: the discovery of anthracite coal as an abundant and valuable fuel source, and the creation of the Schuylkill Navigation System to transport it downriver. Following canals, which solidified the River's role as an industrial corridor, multiple railways and, later, highways were built along waterways following the industrial and manufacturing capacity had been built up along them.

Water power from Philadelphia's abundance of streams and rivers gave it a major advantage over other cities during early industrialization.⁶⁴ Many tributaries to the Schuylkill including Cobbs, Darby, Ridley and Chester Creeks offered waterpower. However, the discovery of anthracite coal as a valuable fuel source sparked the need to move it from Schuylkill headwaters into the city where it could be refined and distributed. Thus began the relationship between transportation and industry. Though anthracite was known to be prevalent in Pennsylvania, it was

⁶³ "Report of the Committee of Delaware County on the subject of Manufactories, Unimproved Mill Seats, &c. In Said County. 1826" Printed by Joseph M. G. Lescure, Chester, Delaware County, Pennsylvania. Downloaded from www.philyh2o.org. The Report locates a total of 158 mills in the county producing "paper, woolen, cotton, powder, and edge tools," all located along various creeks within the county.

⁶⁴ Nathaniel Burt and Wallace E. Davies, "The Iron Age: 1876-1905" in Philadelphia a 300 year history (New York: W.W. Norton, 1982), 234.

long considered a second rate option to the softer bituminous coal.⁶⁵ An article from 1829 in the Register of *Pennsylvania* recounts:

This coal was known to exist in this neighborhood more than forty years ago; and some search was made, but the coal found being so very different from any which was previously known; it was not thought to be of any value, and the search was abandoned.⁶⁶

Upon learning that anthracite could be burned and used efficiently, it quickly became the preferred fuel for the Industrial Revolution and the new challenge became finding a way to easily transport it downriver to be refined and shipped out of Philadelphia.⁶⁷ The Schuylkill moved too fast and unpredictably to safely transport goods so a navigation system of canals was the answer.⁶⁸ The challenge of taming American rivers had troubled European settlers since their arrival on the continent, but a shortage of engineers in the new country left them with limited capability.⁶⁹ Several canal systems had previously been attempted, but hadn't been particularly successful and were stopped part way due to complications or lack funds.⁷⁰

Around the same time, three canal projects were underway in Philadelphia, two of which were for the express purpose of transporting coal.⁷¹ Funding was limited and the projects were slow-going. Yet coal managed to reach Philadelphia before completion of the canals, first from the Lehigh in 1820 and from the Schuylkill in 1823 via slackwater navigation.⁷² Meanwhile, the

⁶⁵ "DISCOVERY AND INTRODUCTION OF ANTHRACITE COAL," (1829, Aug 01). *The Register of Pennsylvania (1828-1831)*, 4, 72. Retrieved from

<https://proxy.library.upenn.edu/login?url=http://search.proquest.com/docview/91261262?accountid=14707>

⁶⁶ *Ibid.* The article continues to recount the story of a local resident who, determined to find a way to use the fuel, carted wagons of it around the state, finally meeting success in Delaware County where experiments determined it to be a "highly useful tool."

⁶⁷ Burt, 239.

⁶⁸ Edward J. Gibbons and Edward S. Gibbons, "The Building of the Schuylkill Navigation System, 1815–1828," *Pennsylvania History: A Journal of Mid-Atlantic Studies* 57, no. 1 (1990): 13.

⁶⁹ Gibbons, 18.

⁷⁰ Burt, 239.

⁷¹ *Ibid.*

⁷² Gibbons, 13.

completion of Erie Canal in 1825 inspired interest and healthy competition.⁷³ Soon after, the Lehigh Coal and Navigation Company began constructing a canal using solely downward navigation in 1827.⁷⁴ With the influx of coal, inland industrialization along the Schuylkill began to really take shape. The waste from the onslaught of coal refining and processing that set up along the river created a significant amount of water pollution in the form of a thick sediment, and destroyed the natural vegetation throughout much of the waterway.⁷⁵

In 1838, the introduction of the Philadelphia, Wilmington and Baltimore Railroad, which constructed a viaduct over the Schuylkill at Gray's Ferry, further solidified the region's function as a transportation and industrial corridor.⁷⁶ As transportation improved, early industry blossomed, centered upon iron, steel, and coal.⁷⁷ For a brief window in the midst of this transportation revolution, small hotels set up to accommodate travelers along new routes. An excerpt from the Philadelphia, Wilmington and Baltimore Railroad guide book, published in 1877, described the transformation of Gray's Ferry,

All around the station here are rail road tracks pointing in various direction, and heavily laden, and empty freight cars can be seen on the sidings, waiting to be sent on their destination at the right time. A short distance below the station is the "coal house" of the Company, containing coal for fuel in the locomotives...Where this station buildings, tracks and platforms now are, was located Gray's Garden, something less than a century since; a famous resort, in its time, and from poetic descriptions extant in our old magazines and journals, a very pretty place.⁷⁸

With the advancements in technology that brought on the industrial revolution, Philadelphia came into its own. Industry meant work and business and as new commuter streetcars and the

⁷³ *Ibid.*

⁷⁴ Burt, 239-240.

⁷⁵ Edward J. Nolan, M.D. "Proceedings of the Academy of Natural Sciences of Philadelphia," 1876.

⁷⁶ Burt, 472

⁷⁷ *Ibid.*

⁷⁸ Charles P. Dare, "Philadelphia, Wilmington and Baltimore Railroad Guide Book," 1887, p.8, accessed 5/8/2017, <https://archive.org/details/philadelphiawilm00dare>.

railroad allowed, speculative developments popped up on the outskirts of the city. The rowhouse typology ensured that even modest earners working in industry were able to purchase houses, though they often stayed within close proximity to work. As a result, Philadelphia expanded into a “city of homes.”⁷⁹

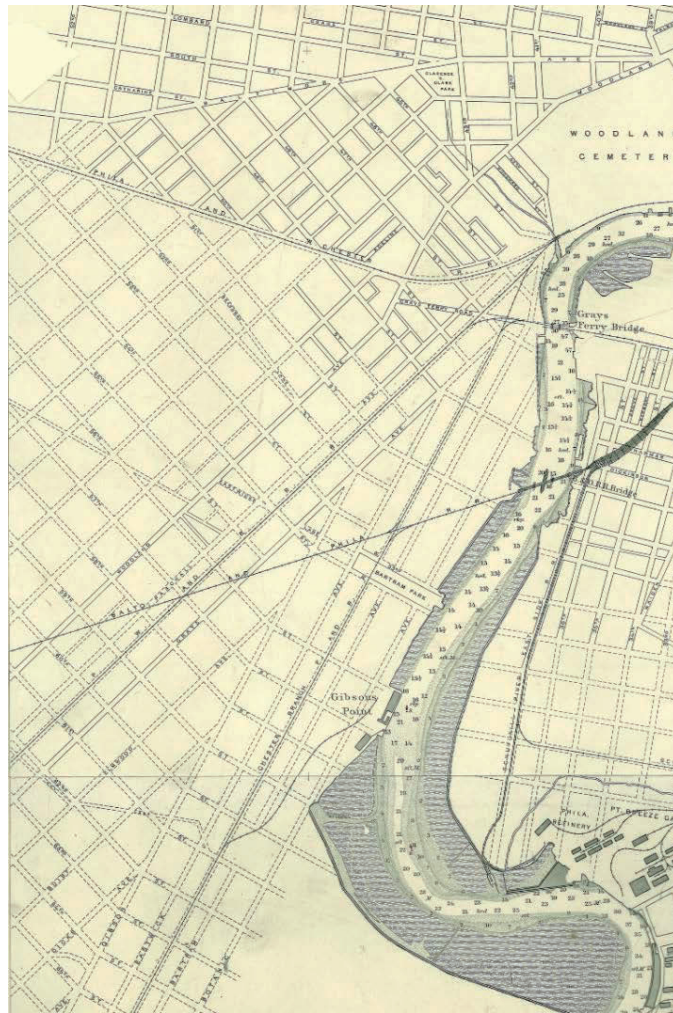


Figure 10: A crop of a National Oceanic and Atmospheric Administration nautical map from 1898 shows the navigability of the Schuylkill River and relationship of railroads to the river and surrounding Kingsessing neighborhood. Image Source: John Bartram Association Archives

⁷⁹ Burt, 472.

Northwestern Pennsylvania's Allegheny Mountains were the site of the first extraction of crude oil in the world⁸⁰ and the discovery of oil there in 1859 led to a frenzy to find the most cost-effective system to refine and transport petroleum products for the market.⁸¹ The first petroleum facility to set up on the Lower Schuylkill was the Philadelphia Gas Works, chartered by the City to manufacture and distribute gasoline at Point Breeze in 1854.⁸²

The Atlantic Petroleum Storage Company was formed in 1866, setting up on the east bank of the Schuylkill just south of the Philadelphia Gas Works. The refining plant supplied necessary petroleum products, but the industry was notoriously hazardous and harmful to workers and nearby residents.⁸³ It also had devastating environmental effects on the river's ecology. The operations of the refinery were prone to accidents.⁸⁴ On June 11, 1879 lighting ignited a terrible fire at the Atlantic Refining Company that destroyed nearly a half mile of the Schuylkill waterfront. It not only destroyed virtually the entire facility but damaged some surrounding homes and put nearly 2,000 men out of work.⁸⁵ Fortunately, there were no fatalities in this particular incident; however, far too often problems during transportation, refining, and storing of petroleum led to fatalities and severe environmental contamination.

A number of additional small refineries also set up along the banks. The Lower Schuylkill became a center for petroleum processing and refining. In the 19th century, the number one petroleum product was kerosene⁸⁶ and Atlantic produced a lot of it. Over the course of the

⁸⁰ Brian Black, *Petrolia: The Landscape of America's First Oil Boom, Creating the North American Landscape* (Baltimore: Johns Hopkins University Press, 2000), 2.

⁸¹ Quivik, 272.

⁸² *Ibid.*

⁸³ *Ibid.*

⁸⁴ Quivik, 267.

⁸⁵ Quivik, 265.

⁸⁶ Hugh S. Gorman, *Redefining Efficiency: Pollution Concerns, Regulatory Mechanisms, and Technological Change in the U.S. Petroleum Industry*, 1st ed, Technology and the Environment (Akron Press, Akron, OH: University of Akron Press, 2001), 13.

following decade, the Point Breeze facility expanded, yielding to the national monopoly Standard Oil.⁸⁷ The company acquired the Philadelphia Refining Company located on the north side of the Gas Works, under the leadership of none other than John D. Rockefeller.⁸⁸ Managed by top talent from Standard Oil, Point Breeze grew in capacity until it became the second largest refinery owned by Standard Oil in the country. In 1891 the city was still exporting 35 percent of all the petroleum shipped from the United States.⁸⁹ The Pennsylvania Railroad tanked oil to the Point Breeze refineries from which it was shipped all over the world.⁹⁰

By the 20th century the area had all but transformed into a seething wasteland of petro-chemical industry to the extreme detriment of the river's water quality and the landscape. To make things worse, open sewage from upwards of twenty separate sources poured into the river, as did waste and runoff from slaughterhouses and chemical manufacturing plants nestled in among the coal and petroleum refineries. Despite growing concern surrounding industrial pollution, serious nationwide reform would not gain much traction until the Progressive Era in the decades to come.⁹¹

⁸⁷ Nathaniel Burt and Wallace E. Davies, "The Iron Age: 1876-1905" in Philadelphia a 300 year history, page 483.

⁸⁸ Quivik, 274.

⁸⁹ *Ibid.*

⁹⁰ Burt, 483. In 1901 when oil was used more for lighting than for fuel, nearly half the world's illuminating fluid was shipped from Atlantic's Point Breeze plant.

⁹¹ Gorman, Intro.



Figure 11: Atlantic Refining Company's Plant , Schuylkill River view below Passyunk Avenue Bridge, looking North. March 12, 1917. Photo Source: Library of Congress.

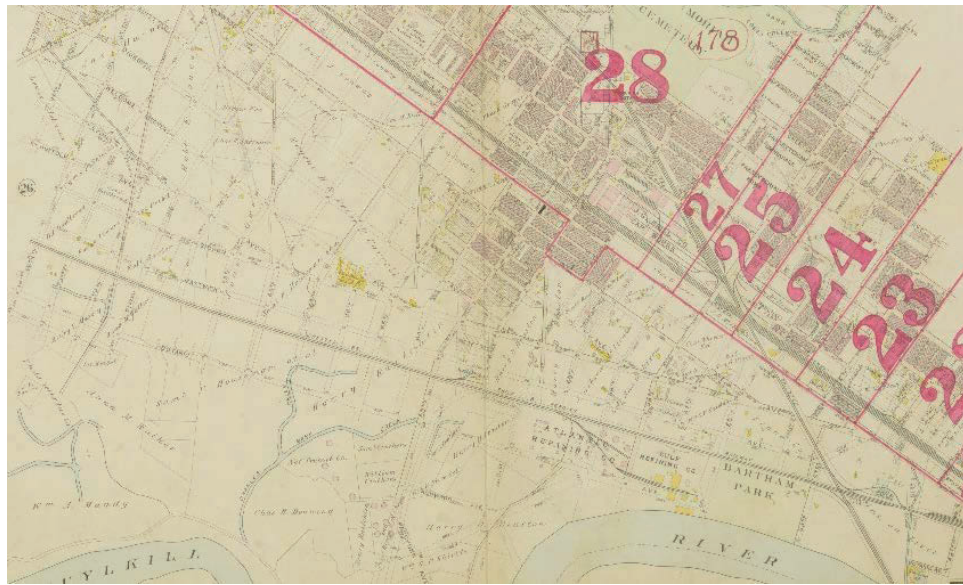


Figure 12: A 1916 Bromley Atlas shows Atlantic Refining Co. and Gulf Refining Co. West of Bartram Park in the lower right corner. Speculative worker's housing expands north of the rail road tracks. -Photo Source: <http://westphillyhistory.archives.upenn.edu>

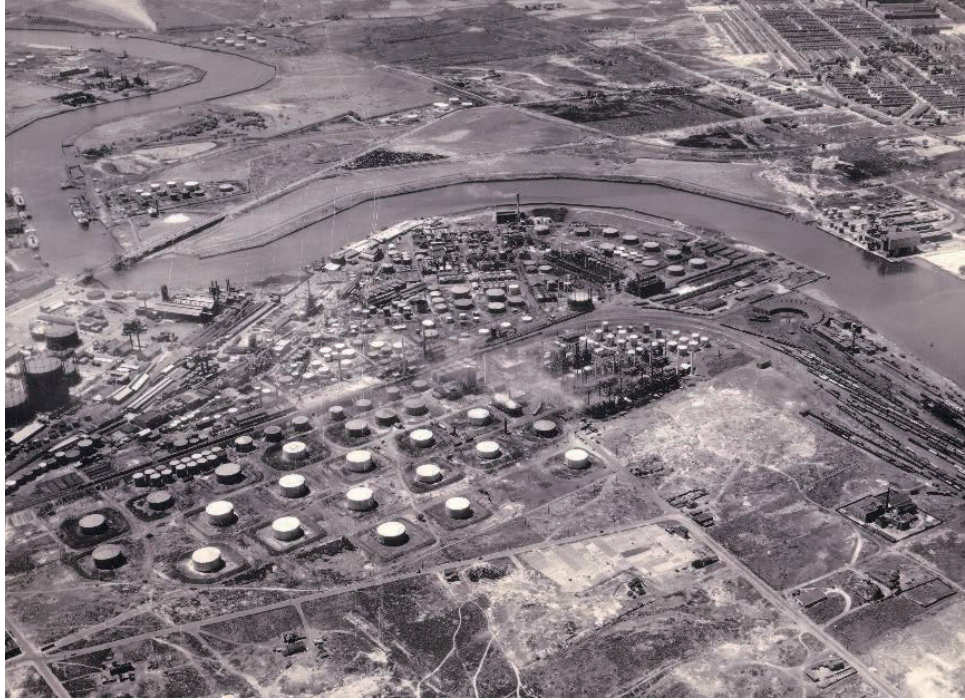


Figure 13: Aerial view of Atlantic Oil refinery circa 1935. Photo Source: Hagley Digital Collection

Sewage, Pollution, and the Call for Redemption

The growth of the middle class towards the end of the 19th century fueled the development of early suburbs. Electrification of the streetcar lines in 1890s made longer commutes possible for residents looking to live farther from their workplaces, though long-distance commuting remained unaffordable for most until the end of the 19th century.⁹² Speculative developers swept through west Philadelphia, developing large single-family homes that appealed to middle-class buyers. These were typically designed as twins or whole-block developments, disguised as elaborate rambling mansions meant to evoke the feeling of rural estates.⁹³ Smaller utilitarian housing was

⁹² Robert J. Mason, "Metropolitan Philadelphia," in *Nature's Entrepôt: Philadelphia's Urban Sphere and Its Environmental Thresholds*, (Pittsburgh: University of Pittsburgh Press, 2012), 189.

⁹³ "West Philadelphia Streetcar Suburb Historic District," Placed on the National Register of Historic Places, February 5, 1998, accessed 5/8/2017, <http://uchs.net/HistoricDistricts/wpsshd.html>.

developed alongside industry, though mobility provided by the streetcars allowed even modest earners to live farther away from work.

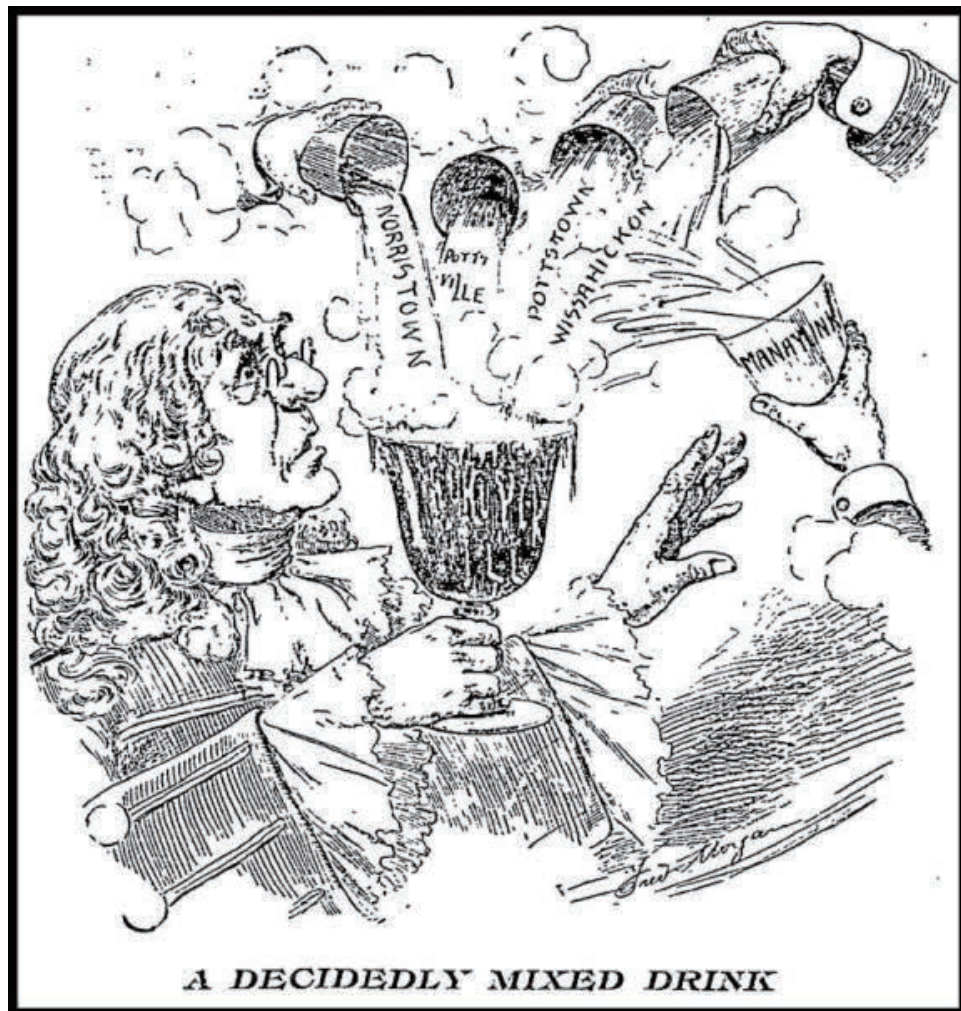


Figure 14: In a political cartoon from the April 6, 1899 issue of the Philadelphia Inquirer depicts William Penn horrified at the cocktail of Schuylkill water set before him. Photo Source: Philadelphia Water Department Archives

Though conservationism was gaining traction as a movement, dumping residential and commercial waste into streams and the rivers was still common practice, and an influx of suburban waste put strain on streams. The end of the 19th century brought about a changing sentiment towards natural resources and the environment. Concern over the impact of waste disposal into the river on water quality and associated health risks continued to grow and was periodically raised by

political leaders and officials. In the 1840s, the City had begun to acquire land holdings of former estates upriver from the Water Works, ultimately leading to the creation of Fairmount Park.⁹⁴

By the end of the 19th century, surface streams and runoff for sewers and stormwater become problematic as liabilities for property damage and health hazards, especially as they became more polluted. To address the problem, Philadelphia began to introduce a water-based sewage and waste disposal system that would carry household and industrial wastes to empty into natural watercourses.⁹⁵ Urban streams were rebuilt to flow underground, which had the additional benefit of opening up more land for development.⁹⁶

“While the grid of streets continued to be laid out with no reference to natural topography, this new drainage system was designed strictly according to the landscape, mirroring watershed boundaries and converting miles of smaller, mostly unpolluted rural streams into sewers that ultimately emptied into the city’s two rivers.”⁹⁷

Mill Creek, a tributary passing through west Philadelphia, which enters the Schuylkill near the Woodlands, was covered and buried in 1880.⁹⁸ The sewer still carries waste water from half of West Philadelphia and the suburbs to the Schuylkill.⁹⁹

Early calls for pollution control and regulation began at the end of the 18th century, when yellow fever epidemics swept the city and generated concern over contaminated water.¹⁰⁰ Despite leading the nation in water distribution and engineering with the construction of the Water Works,

⁹⁴ Milroy, 210-214.

⁹⁵ Adam Levine, “The grid versus nature: the history and legacy of topographical change in Philadelphia,” in *Nature’s Entrepôt: Philadelphia’s Urban Sphere and Its Environmental Thresholds*, (Pittsburgh: University of Pittsburgh Press, 2012), 152.

⁹⁶ Levine, 150.

⁹⁷ Levine, 153.

⁹⁸ Anne Whiston Spirn, “Restoring Mill Creek: landscape, literacy, environmental history, and city planning and design” in *Nature’s Entrepôt: Philadelphia’s Urban Sphere and Its Environmental Thresholds*, (Pittsburgh: University of Pittsburgh Press, 2012), 212.

⁹⁹ *Ibid.*

¹⁰⁰ Niva Kramek and Lydia Loh, “The History of Philadelphia’s Water Supply and Sanitation System,” Philadelphia Global Water Initiative, June 2007, accessed 5/8/2017, https://esa.un.org/iys/docs/san_lib_docs/Philalessonsinsustainability%5B1%5D.pdf.

the pollution of the river continued. Later, towards the end of the 19th century, typhoid outbreaks caused residents and leaders to take up the cause again. Frederick Erdmann, engineer of the water works,¹⁰¹ and more than a decade later, Henry P.M. Birkinbine, chief engineer of the Philadelphia Water Department¹⁰² both made the case for improving the quality of the city's water.



Figure 15: The Mill Creek Sewer in West Philadelphia, under construction. Photo Source: Philadelphia Water Department Archives

Erdmann proposed the installation of a filtration system and Birkinbine voiced concerns that dangerous levels of water pollution was simply being covered up by sewers which were not solving the primary issue of pollution.¹⁰³ Neither appeal was successful, however. It was not until the early 20th century that Philadelphia's water supply was treated. By 1915, chlorination and filtration were part of Philadelphia's water treatment regimen, but raw sewage still emptied out into the Schuylkill from dozens of tributaries-turned-sewers.¹⁰⁴ Despite these efforts, by the first quarter

¹⁰¹ Weigley, 317.

¹⁰² *Ibid.*

¹⁰³ Levine, 151.

¹⁰⁴ Levine, 153.

of the 20th century, the Lower Schuylkill was still virtually unrecognizable. John Frederick Lewis published his plea for the “Redemption of the Lower Schuylkill,” which he delivered to the Mayor of Philadelphia January 17, 1924 at a reception held by the City Parks Association.¹⁰⁵ In his impassioned and resonant appeal, Lewis laid out in bare language the tragedy that the river had become:

[T]he “Varsche Rivierte,” whose every prospect would please were not man so vile, is turned into a longitudinal cesspool...The oil refineries, paint works, chemical factories and garbage disposal plants further down the river, merely darken conditions already too foul for polite discussion.¹⁰⁶

Still, nothing came of it. The first legislation that had any teeth when it came to regulating water pollution was the Clean Streams Law, passed by the Commonwealth in 1937. Though the first version of the law didn’t require that polluted streams be fully restored and included exemptions for pollution from coal silt and acid mine drainage, after extended litigation, the Act was amended in 1945 to address those issues.¹⁰⁷

As a result, the construction of water treatment facilities for Southwest, Southeast and Northeast Philadelphia began in 1947 and the facilities were in operation by 1955.¹⁰⁸ Despite this development, manufacturers in the Philadelphia area for products ranging from acids and chemicals, to petroleum, to metals were still discharging untreated waste into the river.¹⁰⁹ The next year, the city also introduced new regulations for dumps and landfills that, theoretically, required private and public landfill operators to enforce special procedures for managing waste. Violations were widespread, and an inspection revealed that numerous dumps in South and Southwest

¹⁰⁵ Lewis, Introduction.

¹⁰⁶ Lewis, 94.

¹⁰⁷ Cheri Towne, “A River Again,” (Bristol: Delaware Riverkeeper Network, 2012), accessed 5/8/2017, http://www.delawariverkeeper.org/PDF/A_RIVER_AGAIN_2012.pdf.

¹⁰⁸ Towne, 54.

¹⁰⁹ Sicote, 96.

Philadelphia, in particular, had been cited with dozens of violations for air pollution and “night burning.”¹¹⁰ While the Schuylkill was home to some manufacturing, it was mostly related to building material and chemicals. Over time, southwest Philadelphia and the Lower Schuylkill became concentrated with industry related to waste and waste management. Southwest Philadelphia at one point housed 23 percent of the waste facilities in the city,¹¹¹ which sealed its fate as one of the least desirable neighborhoods in the city.



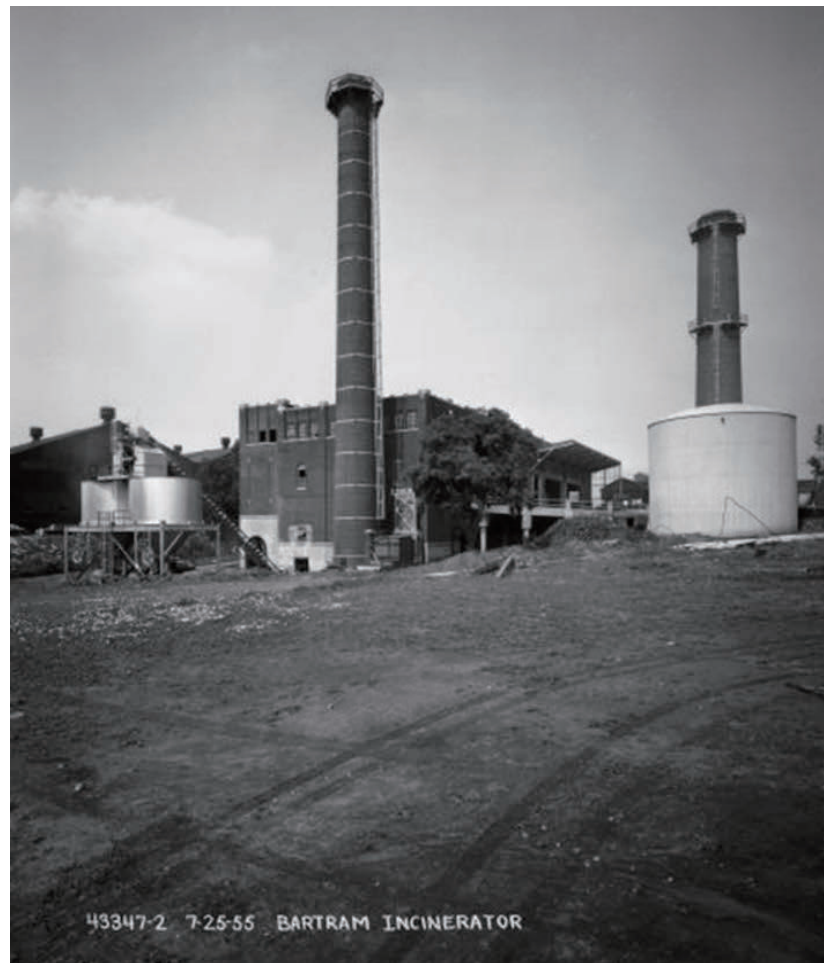
Figure 16: “Looking across the east bank of the river, north of Gray’s Ferry Bridge, over a dump for filth, into an open sewer and then towards ‘Woodlands’” from John Frederick Lewis’ Redemption of the Lower Schuylkill, 1924

With the rise of car culture in the post-war period, the decentralization of Philadelphia’s suburbs was in full effect, paving the way for a mass migration of the upwardly mobile out of the central city. The continued pollution and degradation of the land immediately surrounding the Lower Schuylkill led to disinvestment. Residents who could afford to leave neighborhoods

¹¹⁰ Sicote, 97.

¹¹¹ Sicotte, 98.

burdened by pollution and waste did so, leaving only residents who did not have the financial ability to move. The lack of adequate sewage control and mass migration to suburbs were a problematic combination and an influx of sewage to the city from the suburbs put strain on the system.¹¹² Beyond health risks related to poor water quality, conversion of the stream also posed serious structural risks. Houses built atop the buried Mill Creek in west Philadelphia shifted and collapsed, in some cases even resulting in deaths.¹¹³



*Figure 17: Bartram Incinerator at 51st and Gray's Ferry was one of five new incinerators built by the city in 1951.
Photo Source: City of Philadelphia Department of Records*

¹¹² Spirn, 214.

¹¹³ *Ibid.*

Incinerators located at the early landfills were a major source of air pollution and due to the amount of smoke and ash that they produced, complaints about air quality were plentiful. Most came from South and Southwest Philly residents who were burdened by a disproportionate amount of the city's waste-related air pollution.¹¹⁴ This was not a new problem. By the 1940's, Philadelphia's air quality had noticeably deteriorated.¹¹⁵ In 1948, the Air Pollution Control Section was formed within The Philadelphia Department of Public Health, though it would not be until 1959 that it conducted the first air condition study.¹¹⁶

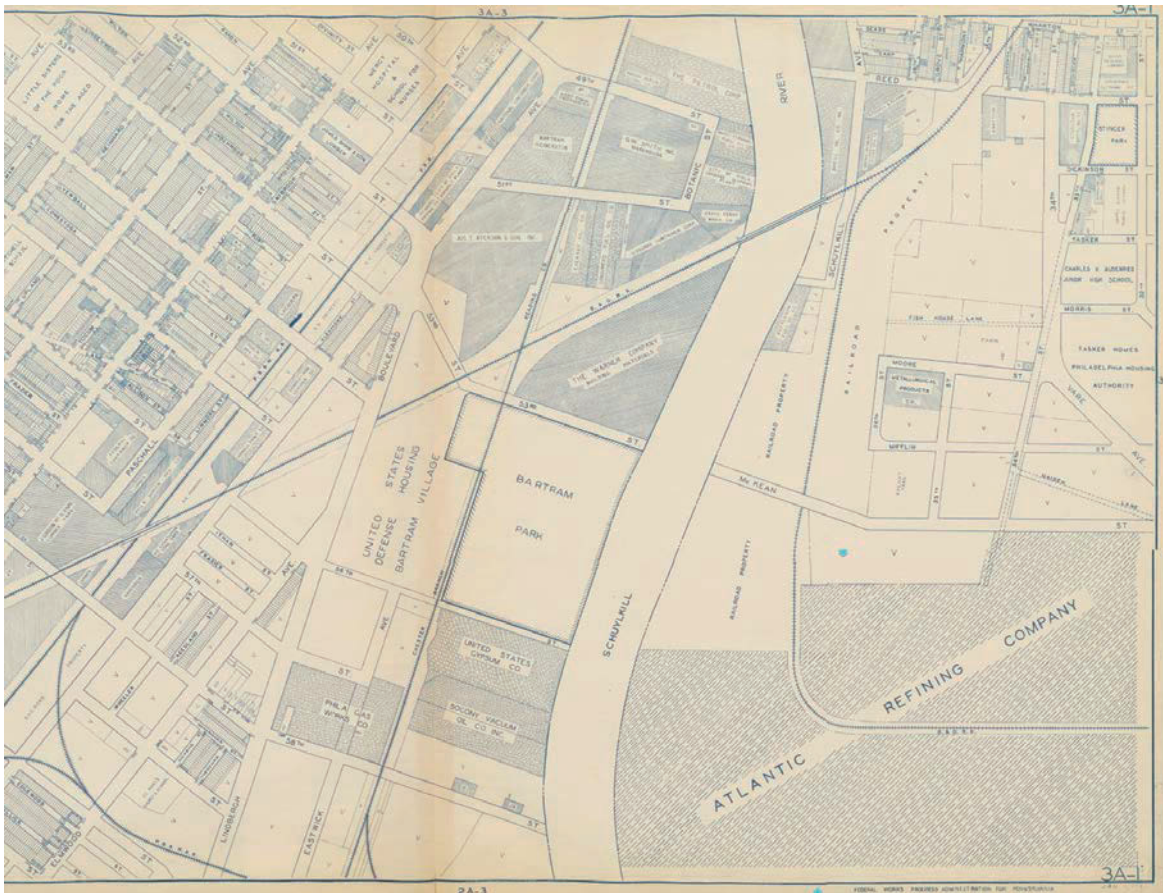


Figure 18: 1942 Works Progress Administration Land Use Map of the area surrounding Bartram's Garden. Photo Source: Philageohistory.org.

¹¹⁴ Sicotte, 99.

¹¹⁵ *Ibid.*

¹¹⁶ Sicotte, 96.



Figure 19: Aerial view of US Gypsum manufacturing plant, which was adjacent to Bartram's Garden, in 1935. The plant was demolished in 2007 and the site required extensive remediation.

Like all early industrial cities in the U.S., environmental injustice related to industry in Philadelphia has entrenched social inequalities that endure today. Though this includes a legacy of environmental racism, particularly in southwest Philadelphia, its impacts were not solely limited to African American residents and minorities.¹¹⁷ The majority of industry related to the manufacturing of goods or products was located along the Delaware on the eastern side of the city, and as a result, that area saw a disproportionate amount of environmental degradation in terms of water and air quality. Workers and residents in these factories tended to be white or European immigrants; discriminatory hiring practices precluded the hiring of African Americans for more skilled

¹¹⁷ Sicotte.

manufacturing jobs.¹¹⁸ In her book on environmental inequality in industrial Philadelphia, Diane Sicotte writes:

For whites, environmental inequality was closely connected to manufacturing employment. For African Americans, the concentration of both industry and black neighborhoods in the city contributed to their proximity to polluting factories; thus, environmental racism was manifest in both their lack of housing choices and their lack of economic benefits from life in industrial neighborhoods....¹¹⁹

Environmental degradation took a toll on the area's real estate values and contributed to the gradual shift in the demographic makeup of the Kingsessing and southwest Philadelphia neighborhoods towards a primarily African American community. While lower-income white residents who lived and worked near factories may have borne the brunt of environmental inequality during early industrialization, government policy in the form of redlining and housing subsidies, solidified spatial segregation within cities, effectively relegating the majority of African American residents to the least desirable parts of the city. As European immigrants assimilated to the dominant culture, they too gained financial standing that made moving out of the city possible.¹²⁰ As a result, many neighborhoods surrounding heavily industrialized areas became predominately African American.¹²¹

An "Area Description Form" from a 1937 Home Owners' Loan Corporation redlining map for what's now West Philadelphia and Cedar Park described "heavy obsolescence" and an "infiltration of boarding houses" that were "threatened by Negro encroachment." The section of southwest Philadelphia surrounding Bartram's and the Point Breeze Refinery, was given the lowest grade "D" and the surveyor noted a "concentration of undesirables" of "low class whites and

¹¹⁸ Armstrong association of Philadelphia, "Industrial opportunities for Negroes in Philadelphia," (Hampton, Va: The Press of the Hampton Normal and Agricultural Institute, 1911), accessed 5/8/2017, <http://digital.library.temple.edu/cdm/compoundobject/collection/p16002coll5/id/108/rec/14>.

¹¹⁹ Sicotte, 93.

¹²⁰ Sicotte, 82-108.

¹²¹ *Ibid.*

negro[s]” as “detrimental influences.”¹²² The surveyor also noted that the area immediately surrounding the refinery was “considered the worst section in Philadelphia,” estimating that the demographic breakdown was eighty percent African American and fifteen percent Polish-Italian immigrants.¹²³

At the same time that white residents were leaving the city, Philadelphia’s black population grew by over 40 percent. West and north Philadelphia became increasingly segregated, as lower income areas within Center City, such as Society Hill, were gentrified by targeted urban-renewal efforts and long-time minority residents were displaced.¹²⁴ This lack of mobility for black residents to move away from the noxious industry and polluted areas to the suburbs, either due to economic status, resistance by white residents, or racially biased or restrictive policies which favored whites and/or prevented blacks from purchasing homes in newer suburbs has resulted in overt environmental racism.

Diane Sicotte writes that “the Philadelphia area is characterized by early and extensive industrialization, high population density, high degrees of social inequality, and contentious race relations; all these are preconditions for conflicts over the distribution of environmental hazards.”¹²⁵ In early industrialized cities, regulation had to catch up with a long legacy of intensive pollution that had severely degraded environmental quality. As deindustrialization has continued, it has left behind massive environmental health hazards including brownfields, illegal dumpsites, vacant and deteriorated structures and housing, legacies of waste disposal industries, and remnants of toxic chemicals in the soils and sediment of the Schuylkill and Delaware Rivers.¹²⁶ Communities like

¹²² HOLC Redlining Area Description Survey for Kingsessing neighborhood, accessed 5/8/2017, <http://www.nis.cml.upenn.edu/redlining/PDFs/HOLC1937/libroD23.pdf>.

¹²³ *Ibid.*

¹²⁴ Sicotte, 94-95

¹²⁵ Sicotte, “Saving,” 232

¹²⁶ *Ibid.*

southwest Philadelphia have been disproportionately burdened by these issues, in addition to having few resources and higher rates of crime, poverty, poor health, and poorly rated public schools.¹²⁷ Another related legacy of poor public policy located within the region is the Eastwick urban renewal site, where the City condemned more than 2,000 properties and evicted over 8,000 residents in a disastrous urban renewal plan.¹²⁸

With the highest concentration of industrially-zoned land in the city, the region has long remained a target for the location of destructive industries and waste treatment facilities, though there has been significant community resistance, particularly post-urban renewal.¹²⁹ Though many manufacturing plants and refineries have since closed, the area is still home to industry. Anchored by the Philadelphia International Airport and the SUNOCO Refinery, Philadelphia's Waste Management Recycling Transfer Center borders the Gray's Ferry crescent portion of the river trail, right across from The Woodlands.

¹²⁷ *Ibid.*

¹²⁸ Guian A. McKee, "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia, 1949-1990," *Journal of Urban History* 27, no. 5 (2001): 547-583.

¹²⁹ Samantha Melamed, "City seeks end to troubled, 60-year Eastwick urban renewal effort," *Philadelphia Inquirer*, October 16, 2015, accessed 5/8/2017, http://www.philly.com/philly/living/20151016_City_seeks_end_to_troubled_60-year_Eastwick_urban_renewal_effort.html.

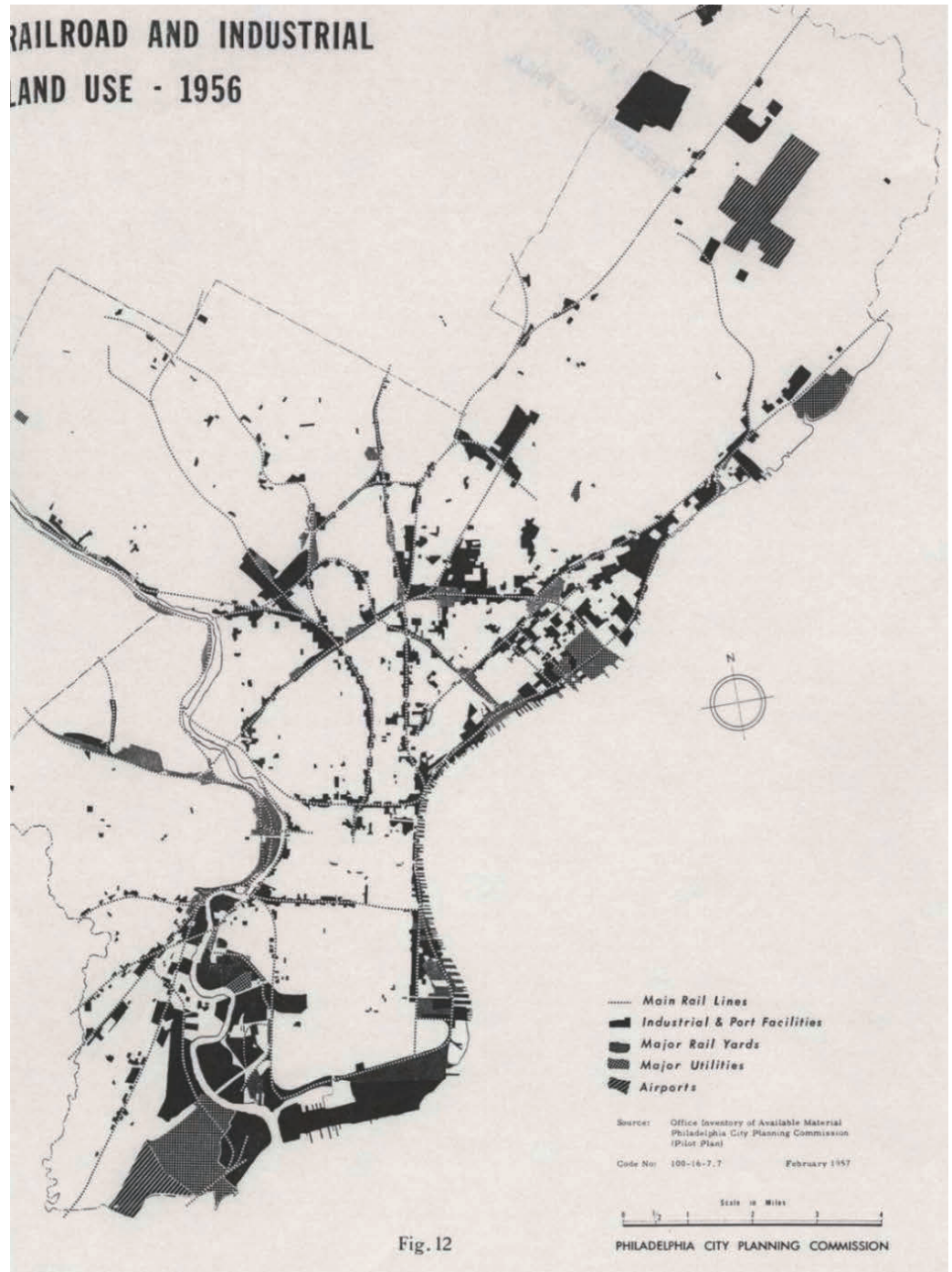


Fig. 12

Figure 20: Map of Railroad and Industrial Land Use in Philadelphia from a Philadelphia City Planning Commission Report showing the concentration of industry along the Lower Schuylkill. Photo Source: Free Library of Philadelphia

V. Waterfronts, Parks and Greenways in the 21st Century City

With neoliberalism as the dominant political and ideological paradigm over the past several decades, we have seen increasing private investment in cities and urban amenities.¹³⁰ Following the model of the High Line, parks, greenways, and waterfront revitalization have proven to be an incredibly effective tool in the neoliberal development playbook. Through the development of trails, commercial, and cultural corridors, investment in “public” infrastructure that will support development is leveraged for private investment. These often industrial and degraded spaces are reimagined into sleek parks for recreation and leisure, geared towards the new urban consumer citizen and as a result, they reinforce and foster cultural consumption.¹³¹

While this isn’t completely new (since deindustrialization, cities have recognized waterfronts as areas to transform into landscapes of recreation and leisure¹³²) it does represent a shift in the way we approach public space and how users feel in it. In effect, this process is privatizing or semi-privatizing public space.¹³³ Spaces produced within this system tend to promote a very narrow range of uses that cater disproportionately to those with a higher socioeconomic status.¹³⁴

In recent years, Philadelphia’s leadership has wholeheartedly embraced development offering incentives like tax abatements, indiscriminate zoning, and bonuses to developers. As a city that has seen significant population decline in the past, the sentiment is clear: development is good and should be supported at any cost. The Schuylkill Trail has proven to be an effective development tool, gaining the city national recognition, spurring investment within Center City, and

¹³⁰ Loughran, Kevin, “Parks for Profit: The High Line, Growth Machines, and the Uneven Development of Urban Public Spaces: PARKS FOR PROFIT.” *City & Community* 13 (2014): 49–68.

¹³¹ Loughran.

¹³² Stevens, 3.

¹³³ Zukin.

¹³⁴ Mele, 600.

supporting new residential luxury housing such as River Loft Apartments and One Riverside condos along the banks.¹³⁵ One Riverside even boasts a \$7 million penthouse—advertising four terrace views overlooking the trail.¹³⁶ Though it's currently hard to imagine condo towers popping up along the Lower Schuylkill, it's not outlandish to think that in the future the area might feel the pressure of trail-induced development, particularly in its surrounding neighborhoods once they are connected to Center City and other economic hubs like the Navy Yard.

A challenging aspect, but also a convenient one, for developments like this is that measuring the spread of public benefits produced by the trail is challenging, but measuring economic benefits is not. The two are certainly not the same; an economically successful trail does not produce benefits for everyone. Waterfront projects can be particularly problematic in this regard, as they tend to significantly raise real estate values. In post-industrial cities, waterfront projects typically involve acquiring and developing large tracts of land and structures that were previously vacant, derelict and neglected.¹³⁷ These sites of environmental degradation, with legacies of pollution, danger and even violence, are typically surrounded by low income communities and long-term residents who have historically had little choice in where they are able to live.

Of course development of the trail is not necessarily bad for residents with long-term ties to the area. People would likely appreciate having more access to a clean, safe park and trail system and proximity to the park will predictably raise real estate values. However, there is the risk that after environmental remediation has taken place and the trail is fully connected to the rest of the

¹³⁵ Both of which heavily advertise their proximity to the trail.

¹³⁶ Melissa Romero. "Bi-Level penthouse at One Riverside with 4 terraces wants \$7M." *Curbed Philadelphia*. February 22, 2017, accessed 5/8/2017, <https://philly.curbed.com/2017/2/22/14685368/one-riverside-penthouse-for-sale>.

¹³⁷ Boland et al, 117.

city, investment in the surrounding area will lead to displacement. Though initially, residents and community representatives have had the opportunity to comment and contribute to plans for the trail,¹³⁸ there are no protections in place that will ensure that they won't eventually be priced out of their own communities. An underlying message embedded in this kind of development is that the creation of the trail is worthwhile because of its potential to spur development and connect Center City to the western bank. Because it is not solely as an investment in public space for the southwest Philadelphia community, community engagement constitutes a formality; it is essential to maintaining good publicity and following proper protocol, even if it is not the driving factor in decision making.

Other critiques address inherent and hidden racial dynamics perpetuated by neoliberal urbanism. Christopher Mele argues that neoliberalism not only reproduces urban inequality, but that it actually relies on it, perpetuating what he calls "color-blind racial discourse."¹³⁹ Mele posits that the neoliberal approach is deliberately color-blind. Because the economic growth that results from these projects is generally accepted as a "socially neutral" benefit, neoliberal development gets away with reinforcing social inequalities by simply not addressing them. Taking the color-blind approach, any development can be framed as beneficial and investment in projects within historically marginalized communities can be framed solely positively.¹⁴⁰ Furthermore, the creation and adoption of "place identities" that reinforce development agendas further obscures these

¹³⁸ "Praxis Projects: Lower Schuylkill Master Plan," accessed 5/8/2017, <http://planphilly.com/praxis-projects/lower-schuylkill-master-plan>. PennPraxis was funded by the William Penn Foundation to advise and facilitate the planning process including data collection, stakeholder outreach and case study research. Two phases of public input were held in January and April of 2012.

¹³⁹ Christopher Mele, "Neoliberalism, Race and the Redefining of Urban Redevelopment: Color-Blind Redevelopment in Pennsylvania," *International Journal of Urban and Regional Research* 37 (2013): 598–617. Mele elaborates that "key ideological premises associated with a particular contemporary form of racializing discourse—'colorblindness'—coincide with the political economic aims of neoliberal urbanism to render exclusionary urban development legitimate, realizable, and seemingly attractive to distressed cities."

¹⁴⁰ Mele, 600.

dynamics, scripting users to conform to institutionally constructed consumption and use patterns.¹⁴¹

In order to advance the consumption of newly developed projects, neoliberal policy objectives may mobilize public relations campaigns, narrowly construct urban subjects as consumers and develop the promotion of new place identities in agreement with redevelopment objectives.¹⁴²

The effect of the Schuylkill River Trail development will likely not have as dramatic an impact as the Highline when it comes to hyper-gentrification and displacement; however, it is still worthwhile to offer a critique of issues presented by the project because it adopts a similar neoliberal framework and consider ways in which preservation and related fields might offer opportunities to further engage communities by retaining a more authentic sense of place and providing a canvas for storytelling.

Considering the Lower Schuylkill Trail Extension

The Schuylkill River Development Corporation (SRDC) oversees the revitalization of the Schuylkill River corridor from Fairmount to the Delaware. The area is branded the “Schuylkill Banks,” and the team’s focus is to advocate for the construction of an 8 mile stretch of continuous trail and greenway along it.¹⁴³ SRDC’s vision is to ultimately make the Schuylkill “Philadelphia’s premier riverfront destination.” On its website, SRDC emphasizes private investment and development as a direct result of the trail, specifying that “[a]reas surrounding the greenway will see significant investments resulting in increased residential, commercial, and light industrial

¹⁴¹ *Ibid.* Mele claims that these place identities “simultaneously mask urban inequalities and promote social diversity in ways appealing to tourists and visitors, consumers, and potential residents.”

¹⁴² *Ibid.*

¹⁴³ SRDC’s mission is stated on their website, www.schuylkillbanks.org, “SRDC is revitalizing Philadelphia’s tidal Schuylkill River corridor into an asset that connects neighborhoods and encourages investment. Working with the City and stakeholders to build, maintain, and program Schuylkill Banks, SRDC drives improvements in recreation and transportation, community and economic development, public health, and environmental stewardship, benefiting neighbors, Philadelphia, and the region.”

development.”¹⁴⁴ SRDC’s board certainly reflects this developer mindset. The twenty-six member team is comprised of a fairly even mix of developers, corporate employees, university presidents and land-use attorneys and includes virtually no citizen members or neighborhood representatives.

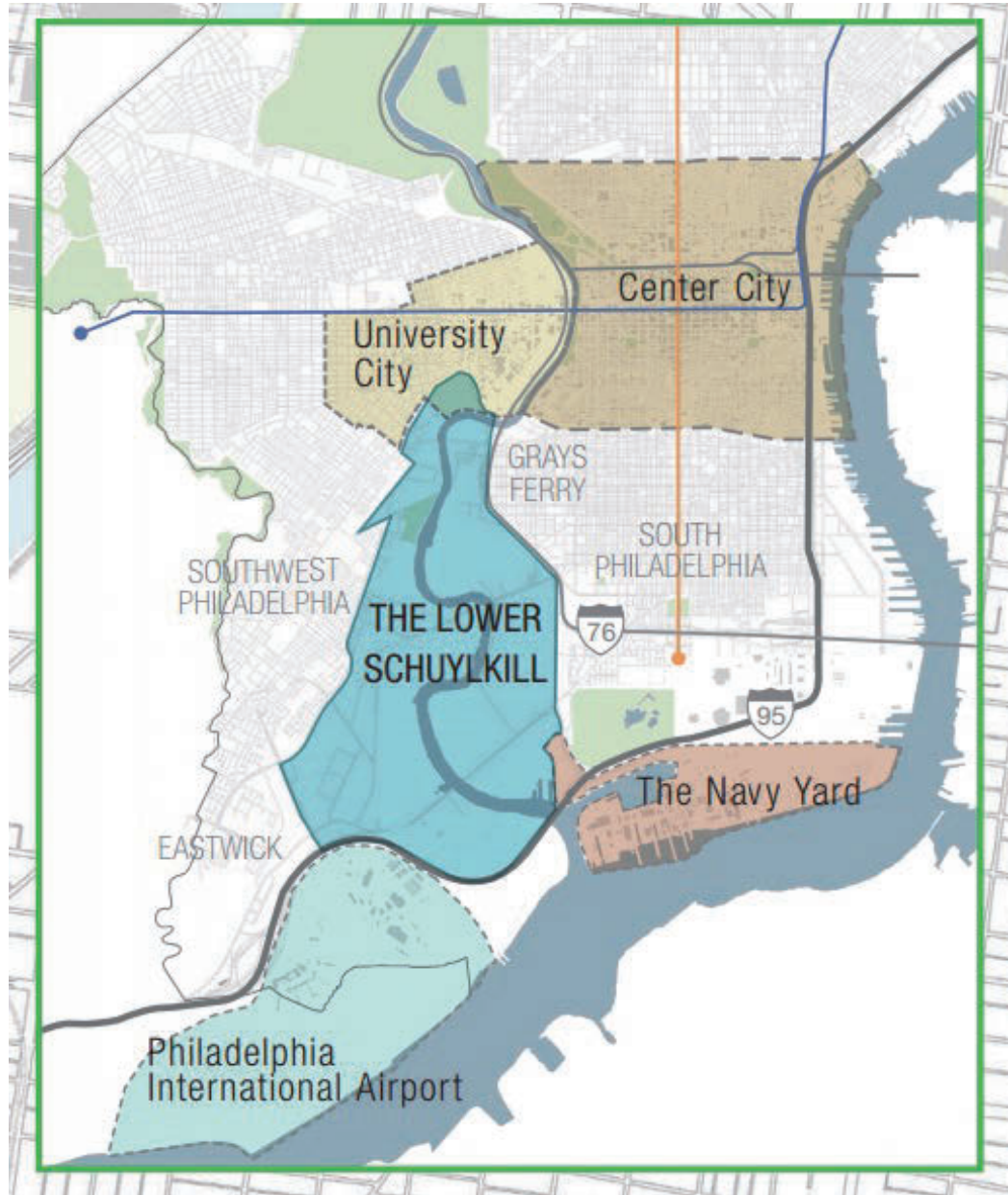


Figure 21: Detail from map illustrating three campus plan in LMSP Executive Summary. PIDC imagines the Lower Schuylkill region as becoming a critical link to other economic hubs within Philadelphia. Photo Source: http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf

¹⁴⁴ Schuylkill Banks, “About Us,” accessed 5/8/2017, <https://www.schuylkillbanks.org/about>, 2016.

Bartram's Mile, a component of the Schuylkill Banks plan, is also a part of the Lower Schuylkill Master Plan (LSMP)¹⁴⁵ led by The Philadelphia Industrial Development Corporation (PIDC) which focuses on redeveloping the region as a sustainable corridor for new industry.¹⁴⁶ The plan lays out a "Three Campus Vision" for the region that subdivides into sections including an innovation district, logistics hub and an energy corridor.



The Lower Schuylkill Master Plan envisions a 21st Century industrial district that integrates exciting opportunities for new and growing businesses with sustainable features and compelling public amenities.

Figure 22: Rendering from Lower Schuylkill Master Plan that illustrates the trail as part of a greening effort that would provide "compelling public amenities" along the envisioned 21st Century industrial district. Photo Source: http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf

One of the first projects realized under the plan is the Bartram's Mile segment of the trail which runs through the historic site and will eventually connect it to Center City with the construction of a pedestrian swing bridge at Gray's Ferry.¹⁴⁷ Bartram's Mile falls within the "Innovation District" which the authors of the plan believe will set the stage for later development

¹⁴⁵ The plan can be accessed at: http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf

¹⁴⁶ Partners include the City of Philadelphia, Philadelphia City Planning Commission, City of Philadelphia Department of Commerce, and the William Penn Foundation, which has provided funding for projects within the plan.

¹⁴⁷ Also part of the plan that is expected to be completed sometime in 2018.

stating that “[f]ocusing early implementation efforts on key sites within the Innovation District will spur redevelopment and establish a high-quality precedent for future growth.”¹⁴⁸

Despite falling within this overarching framework focused on growth and development, the Bartram’s Mile Project has made attempts to incorporate feedback and participation from the surrounding community. Bartram’s Mile is part of Reimagining the Civic Commons¹⁴⁹ and is connected with other community engagement efforts such as Art@Bartrams, a multi-year collaboration between the site and Philadelphia’s Mural Arts program to produce public art in and around Bartram’s Garden, Bartram’s Mile, and the surrounding Neighborhood.¹⁵⁰ In a report on the project produced by the Lindy Institute in 2015, Art@Bartram’s emphasizes the contrasting pre-and post-industrial history that defines Bartram’s and its surroundings, providing better access to the river for the community, and community engagement through creative placemaking,¹⁵¹ which they define as “the fertile intersection of arts, economic development and neighborhood revitalization.”¹⁵² The leadership team for this arm of the project is comprised of leaders at Bartram’s, Mural Arts, William Penn Foundation, City of Philadelphia Parks and Recreation, PIDC, SRDC, and the Lindy Institute for Urban Innovation at Drexel University.¹⁵³

Creative placemaking projects may speak to common goals between developers, city officials, and community, however, if they are not led by established community organizations and instead led by outside groups, they can undermine local efforts and networks that have been

¹⁴⁸ PIDC Philadelphia, “Lower Schuylkill Master Plan,” accessed 5/8/2017, http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf.

¹⁴⁹ The Bartram’s Mile trail project received a \$250,000 grant from the Civic Commons Initiative.

¹⁵⁰ Mural Arts, “About the Project,” accessed 5/8/2017, <https://www.muralarts.org/artworks/artbartrams/>.

¹⁵¹ The term “creative placemaking” was first coined in a 2007 white paper written by economist Ann Markusen for the National Endowment for the Arts.

¹⁵² “Art at Bartram’s: Exploration, Discovery and Exchange,” The Lindy Institute at Drexel University, November 2015, accessed 5/8/2017, <https://www.muralarts.org/wp-content/uploads/2016/03/Art@Bartrams-Report-November-2015.pdf>.

¹⁵³ *Ibid.*

working towards similar goals for much longer and the outcomes and impacts of such projects on surrounding communities can be difficult to measure.¹⁵⁴ This is especially when they are motivated by outside interests, like those of developers, policy makers, new residents or development corporations.

Through the Reimagining collaboration, Bartram's has reached out to neighborhood residents to participate in public input sessions about the design and development of the trail, particularly residents of the Bartram Village housing complex which shares a border with the site. The collaboration is framed on the Civic Commons website as an effort to re-engage the southwest Philadelphia community with the amenities provided by the trail and Bartram's Garden before it is connected to the rest of the Schuylkill Banks trail system. In the project summary on the Civic Commons website, Tarsha Scovens, founder of a nonprofit called Let's Go Outdoors that seeks to connect Philadelphia's African American community with outdoor education and activities, notes a historic lack of engagement between the community and the Bartram's Garden site as a likely result of different cultural values related to recreation and public space. However, despite the encouragement of public engagement, requests from the community for different recreational uses for the space, such as sports amenities and more traditional recreational spaces, were not incorporated into the design.¹⁵⁵

¹⁵⁴ Ian David Moss, "Creative Placemaking has an Outcomes Problem," May 9, 2012, accessed 5/8/2017, <http://createequity.com/2012/05/creative-placemaking-has-an-outcomes-problem/>.

¹⁵⁵ Alex Vuocolo, "Rediscovering the Hidden River," Reimagining the Civic Commons, accessed 5/8/2017, <http://civiccommonsphl.myphillypark.org/projects/bartrams-mile/>. "There were a lot of people that wanted ball fields or soccer courts, things that I think of as more traditional recreation," says Joe Syrnick, president and CEO of the Schuylkill River Development Corporation. "That's not what the Schuylkill Trail is. It's more passive recreation."

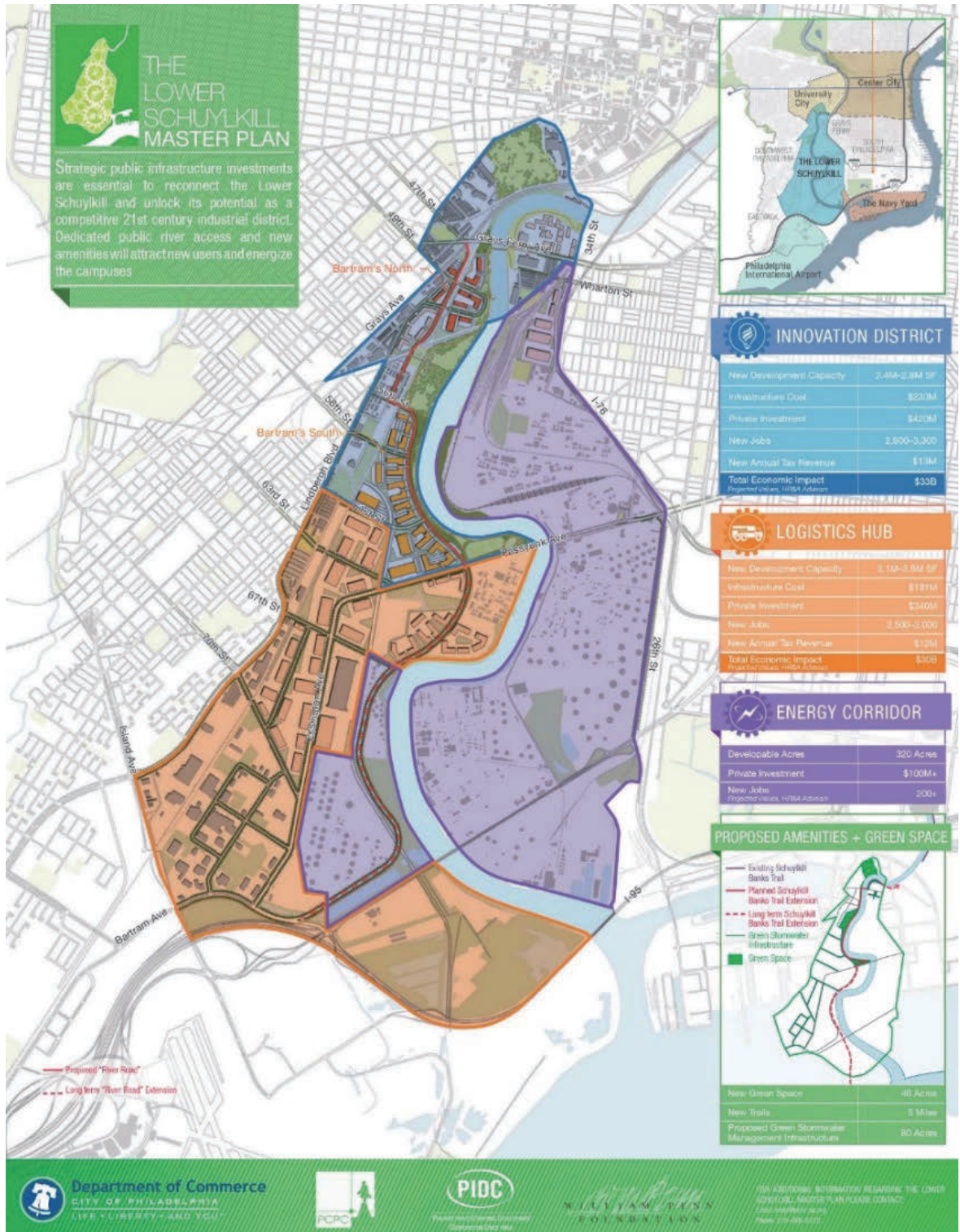


Figure 23: Map illustrating three campus plan in Lower Schuylkill Master Plan (LMSP) Executive Summary. Photo Source: http://www.pidcphila.com/images/uploads/resource_library/LSMP_ExecSummary.pdf



Figure 24: The Schuylkill Banks Boardwalk, extends above the water from Locust to South Street. Photo Source: visitphilly.org

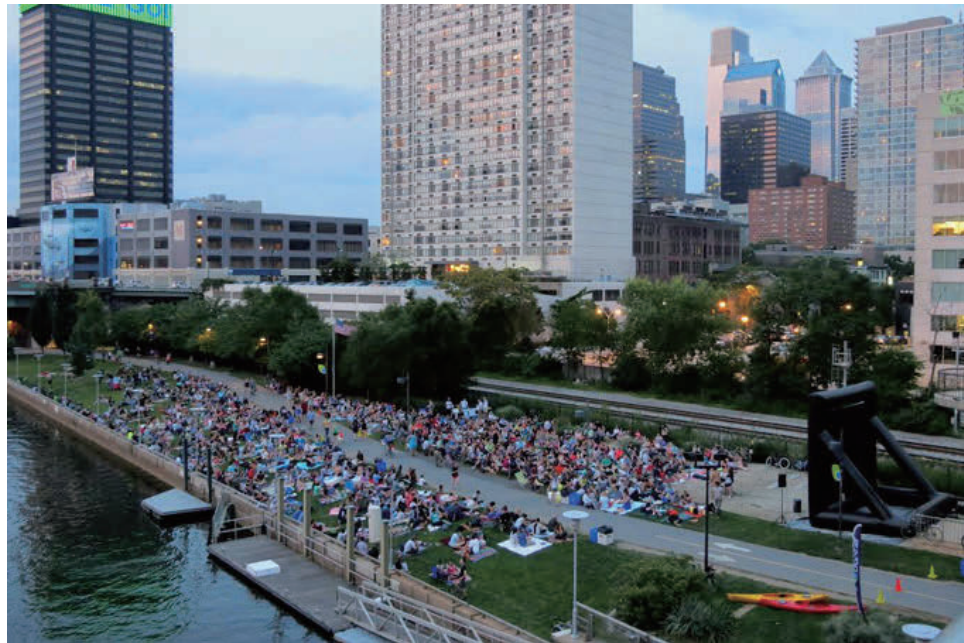


Figure 25:SRDC programming includes free movie nights and pay-what-you-wish yoga along the river path. Photo Source: uwishunu.com



Figure 26: The “bandstand” on Bartram’s Mile, unveiled April, 2017, overlooks the water with a view of the city. Photo Source: @SchuylkillBanks Twitter



Figure 27: Spectators attend the ribbon cutting ceremony for Bartram’s Mile on April 22, 2017. Photo Source: @SchuylkillBanks Twitter



Figure 28: Spectators attend the ribbon cutting ceremony for Bartram's Mile on April 22, 2017. Photo Source: @SchuylkillBanks Twitter

VI. Historic Preservation in Layered Urban Landscapes

"Preservationists aim to recognize, frame, and chronicle the material traces of history in the landscape."¹⁵⁶ –Daniel Bluestone

The challenges presented by neoliberal urbanism and equity in public space raise the question: how can historic preservation be a useful tool in making these new public spaces feel relevant and accessible to broader audiences? I argue that it is possible for historic preservation to play a meaningful role in mitigating the often unintended negative social impacts of development projects. As preservation expands to include more intangible heritage and emphasize places whose meaning is primarily socially constructed, preservation theory and practice dovetails with other movements that have been gaining traction in recent years, such as sustainability and social

¹⁵⁶ Bluestone, 262

justice. In this regard, preservation can serve two important and related functions: retaining tangible links to the past from multiple eras (by restoration, reuse and preservation of landscapes and structures); and exerting a layer of community control over future development (by landmarking buildings and structures, and by creating historic districts and conservation districts). Preservation can be most powerful when it is integrated with comprehensive policy that works to promote thoughtful development, limit displacement and uneven distribution of benefits, and preserve affordable housing.

As the Schuylkill River Trail expands into the Lower Schuylkill, a comprehensive approach to preservation is a critical step in making the river's history understandable and relatable to the public. The physical presence of historic resources that span centuries can augment other methods of preserving history, including written history, oral history, exhibited artifacts and material culture and supports future endeavors in interpretation, public history, and collaborative river tours. Preservation of the physical elements of the landscape makes the history tangible and offers more creative opportunities for interpretation that go beyond the standard didactic signage. It also makes for a more stimulating and visually interesting landscape.

It is also important to preserve resources related to the multiple different eras along the river in order to limit the risk of relegating history to serve only as a pleasing background, which occurs when more palatable historic periods are favored over those that are more challenging or unpleasant to deal with. For example, focusing on the 18th century horticultural history falls in line with the trail project's overall emphasis on recreation, but including the 20th century history regarding environmental regulation and pollution and drawing attention to contemporary issues such as environmental racism and environmental justice can provoke a more challenging line of thought. While it may seem counterintuitive to give less pleasant aspects of history equal weight,

this approach may actually be the best way to engage a modern audience and make the project feel more relevant to contemporary communities. Ultimately, the act of preservation is always subjective, but, in public projects in particular, it is important to strive to preserve a balance of resources that support multiple narratives and layered history.

Both The Woodlands and Bartram's Garden are currently operated by nonprofit organizations that understand this model. Both have an impressive recent track record of using the sites as vehicles to support relevant programming that engages their surrounding communities. Both represent a good example of how a more traditional sense of historical "significance" can support a broader understanding of history. However, up to now, this has been partially done out of necessity. Both sites have been isolated by development. The river path, by directly connecting the region with center city, will introduce new visitors and give the region more visibility. It will also re-orient users to the waterfront, which by itself presents valuable opportunities to convey the regional history along the path through the landscape. Though these organizations both exist and do similar work in close proximity to one another and share a history that is completely linked and overlapping, up until now there has been a serious lack of connectivity in the way that their historic relationships are presented and understood. The introduction of a linear path gives a physical manifestation to this connectivity, makes it more real, or lays it out in a way that is easier to comprehend (though it is not ideal, because it won't directly connect to The Woodlands),.

The Schuylkill is already designated a National and State Heritage Area for its role as "one of America's most significant cultural, historical, and industrial regions."¹⁵⁷ The NHA covers the entire watershed, and emphasizes the Schuylkill's role as a "Revolutionary River" significant in the

¹⁵⁷ "About the Schuylkill River Heritage Area," accessed 5/8/2017, http://www.schuylkillriver.org/About_Us.aspx.

American, Industrial and Environmental Revolutions.¹⁵⁸ National Heritage Areas (NHA's) are designated by Congress and can be a good way to recognize complex landscapes, though they typically do not offer any legal protection of historic resources. The National Park Service describes NHA's as "lived-in landscapes," and they are operated differently in each community—typically organized in some form of public-private partnership arrangement. As entities, NHA's often serve as advocates for historic preservation and environmental and resource conservation.¹⁵⁹ They also may take on marketing or interpretation campaigns and promote heritage tourism.

Thus, from a preservation standpoint, the Lower Schuylkill appears to be in a relatively good position. It is part of an existing National and State Heritage Area, it contains two National Historic Landmark Sites and many of the remaining resources from multiple historic eras are called out in various aspects of PIDC's Lower Schuylkill Master Plan and SRDC's Bartram's Mile plan. Overall, the region's rich history is seen as an asset, and key resources for possible acquisition and interpretation have been identified. The plan embraces the contradictory history embedded in the region in its transition from an 18th century botanical corridor to a heavily industrialized area and the interpretive and educational opportunities presented by this juxtaposition. There have been efforts to engage community via public art, and public input in trail planning process as well as recognition of informal uses of river and spaces—for fishing, boating, etc.

What is lacking, however, is any preemptive protection of the historic context of the working class neighborhoods surrounding the proposed development through the creation of national, state and local landmarks or historic districts. Likewise, a survey or inventory of existing historic resources within the corridor is necessary in order to identify any additional structures

¹⁵⁸ *Ibid.*

¹⁵⁹ The National Park Service, "Heritage Area 101: What is a NHA?" accessed 5/8/2017, <https://www.nps.gov/articles/what-is-a-national-heritage-area.htm>.

along the corridor that would be good contenders for historic status, which would also assert some public control over their future development. The plan also leans heavily on institutional narratives that reinforce specific authorized themes and stories through marketing and programming. This is demonstrated in the LSMP's emphasis on specific facets of the regional history—most notably Bartram's Mile and the legacy of botany and horticulture and the juxtaposition of later industrialization,—recreation, and sustainability.

I have compiled a variety of preservation tactics that may potentially be applied to the Lower Schuylkill in the process of the new trail development. I am focusing on the area west of the University Avenue Bridge, where the trail will cross over to the western bank from Gray's Ferry Crescent, to the end of Bartram's Mile, because these segments of the trail have already been constructed and will, therefore, have the most immediate impact. Because the adjacent Kingsessing neighborhood has been the focus of project-related community engagement, and represents an integral and vulnerable part of the overall historical context of the region, I include suggestions for preserving important aspects of that neighborhood's character as well.

Anchor Institutions and Community-oriented Site Management

Today, Bartram's Garden and The Woodlands serve an important role as "anchor institutions" offering events and programming geared towards their immediate communities and both are valued and well-used neighborhood green spaces. Both are operated by nonprofit organizations, and each is motivated by a mission to interpret and educate visitors about their history.

Visibility of the sites has been relatively low, due to the fact that they are a bit geographically isolated and the connection to one another, as significant sites related to early American botanical and horticultural history, is not commonly known. They were sites once

oriented towards the river and water-based transport that have since been surrounded by development as transportation shifted from water to streetcar and then automobile. As a result, the sites each feel a bit like a hidden gem, though the river path extension will soon change that, most noticeably for Bartram's Garden. Like many smaller historic sites, Bartram's and The Woodlands have embraced site management approaches that prioritize community-based programming. They have done impressive work in recent years turning their sites into community institutions by offering creative and fun events and programs such as community gardens and farming, grave gardening,¹⁶⁰ river kayaking, and movie nights and have, to a significant degree, attempted to position themselves as indispensable neighborhood institutions. Bartram's Garden has worked closely with the neighboring Bartram Village public housing complex to ensure that residents feel comfortable using the space and giving input about programming and events they would like to see. They have also taken on contemporary issues that are affecting the Kingsessing community—particularly the lack of affordable fresh food and its status as a “food desert”—by developing a community farm and garden that are available to southwest Philadelphia residents.

Though both sites have taken a similar approach to management and community outreach, interaction between the two and promotion or emphasis of the shared regional botanical history that links them has not really been explored in any depth by either site. Unfortunately, due to complications with the acquisition of lands, the configuration of the trail will not directly link the two sites—the trail will cross to the west bank just downriver of The Woodlands. However, a connecting trail linking The Woodlands with the extension will eventually be added. Connecting the

¹⁶⁰ The Woodlands, “The Woodlands Grave Gardeners,” accessed 5/8/2017, <http://woodlandspbila.org/gravegardeners/>. The Grave Gardeners is a recently-developed volunteer program run out of The Woodlands which brings back the Victorian era practice of gardening in “cradle graves”—or bathtub-shaped headstones designed to be planters.

sites via the trail could be an opportunity for further collaboration and ultimately promote a deeper understanding of each within a broader historical context.

The presence of these sites and their establishment within the context of their communities can be seen as an invaluable asset to the trail and greatly enhance its ability to tap into the regional history in a meaningful way. The trail can potentially be an equally valuable asset to the sites, not only because it will vastly improve accessibility to a broader audience, but because it will provide a new way to integrate the broader themes in the regional history into site narratives that tackle relevant contemporary issues such as pollution, waste management, environmental racism and environmental justice, rehabilitation, and sustainability.

Preservation of Landscapes of Environmental Degradation

In *Buildings, Landscapes, and Memory*, Daniel Bluestone writes about preservation on EPA Superfund Sites. Bluestone makes a case for the retention of degraded elements of these landscapes, arguing that they can serve as a means for provoking thought and understanding about important topics surrounding the remediation process that are often shielded from the public. Often, the protocol with sites of environmental degradation in the U.S. is to erase all indication of the history of that use after the land has been remediated. Though this urge speaks to an evolution in our thoughts about land use, the complete erasure of the physical impacts of such uses contributes to a loss of understanding about how and why we got to these points in the first place.

When left for interpretation, these sites can serve as important teaching tools. This is particularly true on industrial waterfronts, which are often large sites of extreme pollution and degradation that shaped the environments around them. Eradication of all traces of these landscapes in their degraded condition is disorienting and misleading; it creates a gap in our ability to read the landscape and understand how it formed. Bluestone acknowledges this, stating “on

Superfund and brownfield sites where traces of industrial use and pollution are removed entirely, the broader landscape makes less sense to residents and visitors. People whose lives and livelihoods were bound up with these places lose important landmarks from their locality.”¹⁶¹

Sites of environmental degradation are inherently political. As such, they present the opportunity to inspire critical reflection on past and present decisions regarding land use, pollution and reclamation of the degraded sites. Bluestone notes that “critically understanding history and plans for remediation on a polluted site helps us situate our own actions as linked in a profound way with the actions of citizens who came before us and who will come after us.” ¹⁶²

The history of many American communities is inextricably linked to the industries that help explain a central part of their very existence. The industrial landscape has great potential in helping people take measure of local and regional history.
(263)

A number of resources with histories connected to environmental degradation and impact populate the Lower Schuylkill and some are even still in use today.¹⁶³ Recognizing the value of these sites and integrating them into the plan’s narrative would increase public understanding of the region and its role in the development of environmental regulation, waste management, and pollution and could serve as tools for initiating relevant discussion and provoking thought about how we have historically handled these issues and how we can strive to do better.

Preservation: A Canvas for Community-Based Public History

As waterfront revitalization has become a common economic development tool, we have seen myriad global examples of how these areas can be re-framed as historic districts in an effort

¹⁶¹ Bluestone, 257

¹⁶² Bluestone, 258

¹⁶³ The SUNOCO refinery, formerly the Atlantic Refining Co., is still operational and a the Philadelphia Waste Management Transfer Station, a large recycling facility, is located just across from The Woodlands behind the Gray’s Ferry Crescent portion of the trail, to name two among many other industrial uses that remain in the area.

to “recover the close relationship between city and waterfront that had lapsed with the decline of waterborne commerce and the dereliction of the waterfront landscape.”¹⁶⁴ In the past, waterfront projects, even those that incorporate history and preservation have typically done so in a manner that focuses on buildings, not people, and romantic notions and periods of history.¹⁶⁵

Consequently, they tend to further promote tourism and consumption without adding much richness in terms of connection to social history and issues. As historian Andrew Hurley puts it, “[a]lthough many of the mass consumer-oriented waterfront revitalization projects have proven themselves successful from a financial standpoint, they have often compromised the goal of reintegrating the waterfront into the fabric of civic life.”¹⁶⁶ In his article “Narrating the Urban Waterfront,” published in The Public Historian in 2006, Hurley notes that this is changing and that “[a]lternative waterfront development strategies have arisen to accommodate a very different use of history, one oriented less toward tourism and consumption and more toward the needs and agendas of local communities.”¹⁶⁷ As he examines the use of history through various revitalization projects along the St. Louis waterfront, Hurley outlines the gradual transformation in approaches and how, more recently, history is finally being viewed as a tool to create a locally-defined sense of place,¹⁶⁸ prompting engagement from city residents and discussion around issues like social conflict. With the goal of diversifying narratives and democratizing history, public history projects seek to engage and represent people who may not typically be represented.¹⁶⁹ These endeavors are only further enhanced by the preservation of physical spaces and structures that can serve as a conduit for stories.

¹⁶⁴ Hurley, 21.

¹⁶⁵ Brian Hoyle, *The New Waterfront: A Worldwide Urban Success Story*, (London:Thames and Hudson,1996).

¹⁶⁶ Hurley, 22.

¹⁶⁷ Hurley, 21.

¹⁶⁸ As opposed to institutionally-driven place-based narratives.

¹⁶⁹ Hurley, 22.

Publically funded and administered, the development of the Jefferson National Expansion Memorial and construction of the Gateway Arch,¹⁷⁰ took the more traditional approach to creating an historical monument. It was intended to enhance regional identity and impose a more institutionalized narrative about westward expansion. In contrast, the privately funded and economically motivated restoration of Laclede's Landing¹⁷¹ sought to utilize history as a scenic backdrop for tourism and consumption by playing up features like cobblestone streets, antique street lamps and historic buildings which "formed a stage set that recalled a bygone era."¹⁷² Most early waterfront projects made historical leaps to emphasize a predetermined and palatable narrative to serve consumption agendas. In some cases, this was true even when physical remnants from the desired period of emphasis didn't actually exist in the physical landscape anymore.¹⁷³ As an economic endeavor, many of these projects proved to be successful at attracting a steady stream of tourists and investment.¹⁷⁴ Its ability to engage local residents, however, was limited and as campaigns led by African American political leaders pointed out, the history presented within the districts was overwhelmingly whitewashed.¹⁷⁵

¹⁷⁰ Part of St. Louis's urban renewal agenda and completed in 1965, creation of the monument coincided with the razing of thirty-seven blocks of "dilapidated" old buildings along the riverfront in order to pave the way for a new business district, with the exception of a few that were deemed historically significant. Hurley, 24.

¹⁷¹ Hurley, 27. A relatively early preservation effort undertaken in the 1970s, this approach appealed in part due to the relocation of "skid row" away from the waterfront thanks to urban renewal. This coupled with early examples demonstrating the economic potential of historic preservation in the creation of tourist districts such as San Francisco's Ghirardelli Square and New Orleans's French Quarter, is what really motivated the decision to reuse the remaining historic buildings.

¹⁷² *Ibid.*

¹⁷³ Hurley, 28. Laclede's Landing preferred to emphasize the "Golden Era of the 1850s" despite the fact that the majority of the remaining buildings dated to the latter half of the 19th century.

¹⁷⁴ Hoyle.

¹⁷⁵ Hurley, 30. In the 40s and later in the 60s African American leaders called for a memorial to black composer W.C. Handy, though both efforts were unsuccessful. Historical markers at the site pointed out the inauguration of Missouri's first governor, yet did not commemorate the one of the city's most prominent African American residents who had resided there.

Like Philadelphia, St. Louis was a highly segregated city that lost a huge percentage of its population to the suburbs in the middle of the 20th century.¹⁷⁶ Effects of such drastic population loss have left a city with very few distinguishable centers of public activity. Riverfront revitalization, particularly segments that engage with and enhance surrounding residential neighborhoods, have become a go-to format for generating public activity.¹⁷⁷ As is the default for nearly all waterfront projects, these have tended to emphasize recreation. Hurley notes that, many of these projects have benefitted from “nontraditional” forms of historic preservation, including the landscape restoration and ecological restoration. Efforts to incorporate history have focused less explicitly on commemoration and more on a public “re-imagination” of a historic relationship to the waterfront.¹⁷⁸ One such project is the Confluence Greenway, “a forty-mile bi-state riverside heritage recreation and conservation corridor.”¹⁷⁹ The corridor includes a nine-mile paved bike path along the Mississippi that links the center of downtown St. Louis to the northern city limits. The project is organized by local social service, conservation and civic groups with a decidedly conservation-oriented approach that encourages grassroots engagement and emphasizes community-based historical narratives aimed at re-establishing local empowerment, rather than promoting economic development.¹⁸⁰

Not only have these historical narratives encompassed a larger geographical area, extending far beyond the central harbor area, but they have also included a wider range of historical actors. Rather than shy away from controversial and disturbing aspects of history, community-based historical narratives have embraced them as vehicles for local empowerment.¹⁸¹

¹⁷⁶ Hurley, 31. The city’s population went from 850,000 in 1950 to less than 350,000 in 2000.

¹⁷⁷ *Ibid.*

¹⁷⁸ Hurley, 32

¹⁷⁹ *Ibid.*

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.*

Hurley acknowledges that in St. Louis, like Philadelphia, there is an obligation to engage the African American community.¹⁸² The Greenway has done so by engaging lesser-known stories that provide counter-narratives at different points along the river. The idea is that the trail and amenities will also draw tourism, but the narratives presented represent and are determined by the neighboring communities. Sometimes, spaces or physical remnants associated with one historical event or time period can provide a foundation to build upon and discuss layers of history that address local needs. For example, one site along the Greenway commemorated a river crossing by Mary Meachum to the free state of Illinois. Community residents, who were engaged in the design process for the area, felt that the site could be used to convey multiple stories ranging from national to local significance:

[F]or the people living in the vicinity of the historic site, commemoration also offered the possibility of publicizing local history, not just the tension between slavery and abolition as it developed in antebellum St. Louis, but a thorough account of neighborhood development over two centuries...participants expressed a keen desire to showcase the rich heritage of the north side of St. Louis, including the Native American mound builders who flourished prior to the arrival of European settlers, the teeming immigrant quarters of the late nineteenth century, and the struggle of African Americans to break the barriers to integrated housing in the twentieth century.¹⁸³

Engaging local communities to provide feedback on trail content, rather than limiting input to design and use, gives communities agency in the way history is presented and encourages continued engagement.

Retaining Architectural and Social Context

As a means of managing change and controlling space, historic preservation is finally being recognized as a powerful planning tool for promoting social and racial justice. Because the

¹⁸² Hurley, 33. African Americans make up more than 50 percent of the population in St. Louis, and even more in neighborhoods bordering the waterfront.

¹⁸³ Hurley, 36-37.

shaping of our cities is so tightly connected to race, so too is preservation.¹⁸⁴ Landscapes, landmarks and regions associated with African American populations, immigrants, and working people have typically been left out of the preservation framework, though this is beginning to change.¹⁸⁵

Catching up policy-wise is another story. Early preservation decidedly focused on high style architecture and places associated with “important” (read: white and male) political figures. Additionally, many buildings or neighborhoods related to African American or immigrant histories are often in areas that have long been systematically economically distressed. Worker’s housing and industrial areas have typically been put to strenuous use and have been altered and modified heavily over time, a reality that traditional forms of preservation don’t know how to reconcile with criteria that emphasize physical and architectural “integrity.”

Across the country, but particularly acute in segregated cities like Philadelphia, racist housing policy sparked severe disinvestment in African American and immigrant communities. The discriminatory housing policy still leaves a dramatic and visible delineation between predominately African American neighborhoods and the rest of the city, leaving neighborhoods like Kingsessing with high vacancy and abandonment rates to detrimental effects on surrounding property values. Over the past several decades, Kingsessing’s generous stock of historic and affordable worker’s housing has largely been left on the brink of collapse as low-income homeowners struggle to maintain their houses. Now that value has been recognized in the river corridor’s potential as an

184 Ned Kaufman, *Place, Race, and Story: Essays on the Past and Future of Historic Preservation*, (New York: Routledge, 2009).

185 “Plantation & Slavery,” accessed 5/8/2017, <https://www.monticello.org/site/plantation-and-slavery> and “A More Complete American Story,” accessed 5/8/2017, <https://www.montpelier.org/learn/a-more-complete-american-story>. Projects at major American historic sites, including Thomas Jefferson’s Monticello and James Madison’s Montpelier among many others, are beginning to tell the stories of the long legacies of slavery through extensive archaeological research, new interpretation, and programming.

“economic engine” for energy and green industry, the resulting new investment and development will inevitably put Kingsessing’s social and physical fabric at risk.

Development can and should benefit residents in the long run. The optimal scenario would be to improve the riverfront so that residents can enjoy it for recreation and transportation while also benefitting from a boost in property value. For many complex reasons, however, this is not the typical outcome in similar cases. It would be deliberately obtuse to say that protective measures that help residents keep and improve their homes and that preserve affordable housing stock should not be a critical part of working with the community in the implementation of this plan.

The preservation of working class neighborhoods is important for the identity of industrial cities like Philadelphia and New York which were historically made up of them. Beyond offering affordable housing, older industrial neighborhoods and suburbs are inherently more sustainable than new ones. These pre-20th century neighborhoods grew up around transit routes and tend to be walkable, with plentiful small scale commercial streets nearby. As cities try to appeal to a younger generation that once again values these assets, these neighborhoods are at a higher risk of gentrification, especially those near waterfront districts. However, they can also serve as models of environmentally responsible growth if development is approached sensitively.¹⁸⁶ Unfortunately, other cities have shown that once private capital, directed by city policy “rediscovers” these areas, they can quickly transform.¹⁸⁷ As preservationist Ned Kaufman describes of Greenpoint-Williamsburg’s waterfront development,

Looking at the city’s working-class and industrial neighborhoods through their eyes, one saw some highly desirable assets: fine housing stock, stunning waterfront views, vacant land, locations close to the heart of the city, good transit

¹⁸⁶ Industrial Suburbs: Environmental Liabilities or Assets? Carolyn T. Adams, 118-119

¹⁸⁷ Kaufman, 313.

access. Best of all, years of neglect had left these assets undervalued. Now the wealthy were competing for them, with predictable results.¹⁸⁸

In the cases where it is economically viable for developers to retain and reuse historic structures, it remains important to consider context. In another essay, Daniel Bluestone discusses the importance of a comprehensive approach to preservation, specifically when the primary mode is adaptive reuse. Looking at a case study in Richmond Virginia, he asserts that the adaptive reuse process, while a good tool for preserving historic buildings, can obscure their early history.¹⁸⁹ In Richmond, the popularity of a particular type of building for, primarily residential, adaptive reuse projects—tobacco warehouses and former cigarette and cigar factories—placed other contextual historic resources in jeopardy. Industrial warehouses are a popular target for reuse projects due to the flexibility of their design. They can easily be converted into mixed-use residential and commercial space, while other structures may pose more of a design challenge (and with that, more of an economic burden). This is the risk that a purely development-driven approach presents, where an historic building typology is seen as an asset to a project, but at the expense of other historic resources. It can be mitigated by incorporating other preservation approaches that integrate with sustainable development practices and recognize a need for both architectural and social preservation.

Sustainable development practices can guide riverfront development that is both equitable and effective at incorporating long-term community involvement and can integrate well with preservation efforts. Affordable housing is a critical component to any sustainable development plan and can be especially important in riverfront projects,¹⁹⁰ especially in areas where surrounding

¹⁸⁸ Kaufman, 316. On the Lower East Side and Harlem, Greenpoint-Williamsburg.

¹⁸⁹ Daniel Bluestone, "Tobacco Row: Heritage, Environment, and Adaptive Reuse in Richmond, Virginia." *Change Over Time* 2 (2012): 132–154.

¹⁹⁰ Evert, 4.

communities have developed as a result of industry along the water such as the Lower Schuylkill. Affordable housing provisions have been used to help safeguard communities against displacement during revitalization projects.¹⁹¹ Fortunately, the Lower Schuylkill contains a substantial mix of existing affordable housing stock that could be retained.

Perhaps the most obvious is the Bartram Village public housing project located directly south of Bartram's Garden. Originally constructed as Emergency Wartime Housing in 1942, Bartram Village was intended to be converted into low-income housing after the war.¹⁹² Though the complex is not currently listed on the National Register of Historic Places, it is a good candidate. A multiple property nomination form for public housing in Philadelphia specifically mentions Bartram Village as part of a shift in the approach to designing public housing that demonstrates a "wartime pragmatism."¹⁹³ Nomination of the complex to the National and Local historic registers would recognize it as an important part of the development of the region and safeguard it against future demolition. It would also solidify the relationship between Bartram's garden and Bartram Village, by recognizing both as historic assets, and formalizing their historical relationship to one another.

According to a Pew Report on homeownership in Philadelphia, between fifty and fifty-nine percent of residents in Kingsessing own their homes and the rates are even higher—between sixty and sixty-nine percent in southwest Eastwick and South Philadelphia.¹⁹⁴ Philadelphia's abundance of affordable housing is tied to its early industrial development and the proliferation of the rowhouse

¹⁹¹ "Atlanta Beltline Living Made Easier, <https://beltline.org/progress/affordable-housing/>. Updated 2017. Accessed 5/8/2017. Affordable housing is described as a "cornerstone" of the Atlanta Beltline project, a circular greenway trail system repurposing old railroad tracks. Legislatively-mandated affordable housing was included in the project, which seeks to create 5,600 affordable workforce housing units by its completion.

¹⁹² "Public Housing in Philadelphia Multiple Property Documentation Form," Placed on the National Register of Historic Places, February 21, 1996.

¹⁹³ *Ibid.*

¹⁹⁴ "Homeownership in Philadelphia: On the Decline" The Pew Charitable Trusts, July 2014, accessed 5/8/2017, http://www.pewtrusts.org/~media/assets/2014/07/pri-homeownership-report_final.pdf

typology. As a result, many homeowners in the city no longer have mortgages. Often, these tend to be older people who have owned homes for long periods of time and also tend to have lower incomes than owners of homes with mortgages.¹⁹⁵ This can lead to issues with home maintenance and upkeep, leading to abandonment and neglect that brings down neighborhood property values. Additionally, many homes have been passed down generationally without titles, posing a challenge when second generation owners would like to apply for assistance through home-repair grant and loan programs.¹⁹⁶

Retention of existing affordable housing through preservation and promotion of programs that help homeowners make critical home repairs would help achieve both architectural and social preservation. It would retain the context of the surrounding neighborhoods as tied to Philadelphia's early industrial workforce and it would allow homeowners to gain value on their homes while property values increase. The Philadelphia-based organization Healthy Rowhouse Project recognizes the interconnectivity between preservation, affordable housing, health, and wealth-building. The group seeks to help Philadelphia homeowners qualify for low-interest loans to make critical repairs to their homes, recognizing that access to housing maintenance can help improve public health and safety, prevent abandonment, and retain Philadelphia's iconic housing stock.¹⁹⁷

In Detroit, in neighborhoods with issues related to disinvestment and vacancy retention of existing housing is becoming a central part of revitalization plans.¹⁹⁸ The Fitzgerald Revitalization Project, led by the City of Detroit, focuses on a quarter-square-mile area in Detroit's Fitzgerald neighborhood. The selected area contains historic housing stock, but with a vacancy rate near

¹⁹⁵ *Ibid.*

¹⁹⁶ *Ibid.*

¹⁹⁷ Healthy Rowhouse Project, "About the Healthy Rowhouse Project," accessed 5/8/2017, <http://healthyrowhouse.org/>.

¹⁹⁸ "Fitzgerald Revitalization Project," accessed 5/8/2017, <http://www.detroitmi.gov/fitzgerald>.

30%.¹⁹⁹ After the juried selection (overseen by community members) of a design team to lead the project, the revitalization plan will move forward and will repurpose and rehab all vacant structures and design a patchwork of green spaces on vacant lots between that add value to adjacent properties. No existing housing will be demolished during the execution of the plan.²⁰⁰ Mandated affordable housing is also included in the plan; twenty percent of the properties must be affordable to families making less than eighty percent of the area's median income.²⁰¹

VII. Conclusion

Though plans for the Lower Schuylkill recognize and draw upon the layered history of the region, Schuylkill River Trail and Bartram's Mile embrace neoliberal ideology. As such, despite an intention to serve the southwest Philadelphia community, a lack of concrete protection through policy or services provides no safeguard against trail-induced gentrification and displacement. Enacting a multi-faceted preservation plan along the trail and throughout the Lower Schuylkill region would improve readability of the region's historic evolution, lay the groundwork for meaningful community participation through public history and other collaborative projects, help maintain and strengthen community identity, and retain existing affordable housing stock. In order to most effectively mitigate the consumptive nature of the trail and convey the region's complex layers of history, the preservation approach must draw from cultural landscape theory and utilize non-traditional preservation tactics such as landscape restoration and social sustainability.

While the Schuylkill Trail project has been successful in generating funding that supports an interest in the regional history, it is critical that history be represented holistically, as opposed to

¹⁹⁹ *Ibid.* The selected area includes over 100 vacant homes.

²⁰⁰ Matthew Messner, "Detroit's Fitzgerald neighborhood to be completely transformed," April 6, 2017, Archpaper.com, accessed 5/8/2017, <https://archpaper.com/2017/04/detroit-fitzgerald-neighborhood-transformed/#gallery-0-slide-0>.

²⁰¹ *Ibid.*

overemphasizing one or two particular sites or eras. As of now, plans for Bartram's mile portray Bartram's Garden as the center of early horticultural activity, which constitutes a fairly narrow reading. Additionally, PIDC's three campus vision plays up the Lower Schuylkill's industrial heritage as it enhances the proposed future use as a 21st century bastion of industry. This is consistent with a neoliberal agenda, for which the juxtaposition of new, clean green energy housed in structures related to old, polluting industry helps to push a narrative of progress and serves as a marketing tool for attracting new industrial users. The emphasis throughout PIDC's literature is placed on the infrastructure itself and the rehabilitation of the environment, and omits any social history. The trail is portrayed a clean greenway against a backdrop of palatable history that makes it appealing to users.

The historical themes represented in the landscape, however, are fluid and are a result of more complex relationships than a simple shift from pre- to post-industrial. The risk from inaccurate portrayal of this history doesn't lie in prioritizing one historic time period over another—PIDC's plans make use of the contrasts in the region's history—but of prioritizing narratives and spatial configurations that disproportionately promote consumption and exclusion.

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