

An aerial photograph of New York City, showing the dense urban landscape of Manhattan and the green expanse of Central Park. The Hudson River is visible on the left, and the East River on the right. The image is used as a background for the book cover.

The Humane Megacity

Transforming
New York's
Waterfront

BY RUTHERFORD H. PLATT



Metropolitan New York is not the world's largest megacity—an urban region exceeding 10 million inhabitants—but it is the most experienced in the art of coping with being huge. In 1900, the newly consolidated Greater New York of 4.2 million inhabitants ranked second only to Greater London among the top 10 cities; except for Tokyo, the rest were all situated in Europe or North America. Today, the New York urban region is the only survivor of the old industrial West among the present 10 largest urban regions, which otherwise are in East Asia (Tokyo, Jakarta, and Dhaka), India (Mumbai, Delhi, and Calcutta), and Latin America (Mexico City, São Paulo, and Buenos Aires).¹ As the matriarch of the world's megacities, New York has much experience to share with the later generation of city-regions around the world.

As New York swelled from a post-colonial port of 60,000 in 1800 to a world city a century later, it experienced many of the same challenges of hyperurbanization that developing world cities face today: poverty, filthy air and water, overcrowded housing, epidemics, infant mortality, fires, crime, natural disasters, and civil unrest. In the face of such threats, New York radically redefined the meaning and functions of municipal governance, giving birth (with due credit to civic planner Georges Haussmann, who modernized Paris in the mid-nineteenth century) to the modern metropolis.² Notwithstanding a long history of political corruption, New York has been eminently resourceful in developing and applying new forms of technology, law, finance, and public administration to confront ongoing threats to its habitability.

Iconic legacies of New York's past resourcefulness include Central Park, Prospect Park, the Brooklyn Bridge, subway and elevated mass transit lines, and skyscrapers (with a nod to Chicago). The consolidation of Manhattan with the four outlying boroughs in 1898 was a creative legal response to fragmented local governments and public services. Landmark investigations of New York slums by physician John H. Griscom³

and journalist Jacob Riis⁴ in the nineteenth century prompted the advent of building and sanitary laws in New York and across the United States.⁵ In the development of regional infrastructure, New York opened the Croton River water diversion in 1842—the first long-distance water diversion project since the Roman Empire—and later expanded the system tenfold with the trans-Hudson reservoirs in the twentieth century. In 1997, the future water quality of the latter was protected through a unique Watershed Memorandum of Agreement between the city and local watershed governments, environmental agencies, and other parties.⁶ To the art of city planning, New York contributed the 1811 Commissioners' Plan for Manhattan's future streets, the nation's first land-use zoning ordinance in 1916, various metropolitan plans of the Regional Plan Association, and, most recently, Mayor Michael Bloomberg's PlaNYC.⁷

Today, amid broad economic decline as myriad tract homes and McMansions stand vacant in the nation's exurbs and Sun Belt utopias, New York is gaining new attention as a model for high-density, low-carbon, ecology-sensitive cities of the twenty-first century.⁸ New York under Mayor Bloomberg and his PlaNYC stands at the forefront of a new era in urban sustainability: the "humane metropolis."⁹ A humane metropolis is an urban community at any scale—city block to metro region—that seeks to become more

- *green*—promoting ecological restoration, tree planting, rain gardens, and green buildings;
- *healthy*—combating obesity and encouraging fitness;
- *safe*—shielding residents from natural and environmental hazards, floods, wildfires, and toxic waste;
- *efficient*—conserving energy, materials, time, and money;
- *equitable*—creating access to housing and jobs and focusing on environmental and social justice; and
- *people-friendly*—fostering a sense of community, social interaction in shared spaces, and cultural enrichment.¹⁰

Piers to Parks: Transforming New York City's Waterfront

New York's quest to become a more humane megacity is reflected in the gradual transformation of its long-degraded waterfronts for new uses and users. According to the Metropolitan Waterfront Alliance, "More than half of the Bloomberg Administration's action items for moving New York City towards sustainability will create the dual benefit of an economically productive and environmentally healthy waterfront and waterways."¹¹

Proposals to upgrade New York's waterfront are longstanding. As early as 1944, urban theorist and architect Percival Goodman and his brother Paul Goodman, a writer, proposed that Manhattan "open out toward the water"—lining its gritty waterfront with new parks and (shocking to relate) even surrendering Central Park for housing and commerce.¹² No one plans to give up Central Park, but the dream of a green shoreline accessible to New York's huddled and stressed-out masses is actually happening. Manhattan's maritime edge—long dominated by shipping, power plants, waste facilities, and highways—is evolving into a chain of parks, greenways, and bike lanes; this development is now hopefully designated the Manhattan Waterfront Greenway.¹³ Figure 1 on pages 49–50 highlights features of the greenway.

Some elements of the greenway, such as a stretch of bike lanes along the midtown Hudson River waterfront, are "green" only in the imagination of waterfront advocates, and in places the designated greenway bike route veers around obstacles like the United Nations onto city streets. But the transformation of swathes of the island's 32-mile waterfront from "no-man's-land" to a "highly desirable zone of parks"¹⁴ is a spectacular planning work-in-progress: a potential twenty-first century maritime counterpart to Central Park.

Like Central Park, the evolving waterfront greenway is the product of civic vision, legal and financial creativity, and tireless advocacy extending over generations. But unlike Central Park, which was a single vast city project under the unified

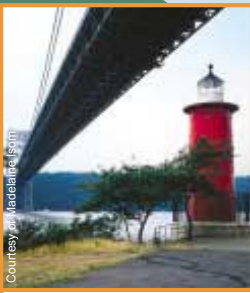
Figure 1. Manhattan Waterfront Greenway Map



Greco-Turkish Temple
 Built in 1925 as a destination for pleasure drivers on the old Riverside Drive, the Greco-Turkish Temple stands on the eastern ridge of Fort Washington Park overlooking the Hudson River.



Harlem River Speedway
 Built in 1898 as a racing ground for carriages, the City is restoring public access to the nearly two-mile Speedway through the construction of bicycle and pedestrian lanes and a waterfront esplanade.



Little Red Lighthouse
 Built in 1880, the Little Red Lighthouse is listed on the National Register of Historic Places. The lighthouse improved navigation on the Hudson until it was officially decommissioned in 1947.



St. Nicholas Park
 St. Nicholas Park includes dramatic rock faces and "The Point of Rocks," where George Washington oversaw the Battle of Harlem Heights in 1776.



Cherry Walk
 Stretching from 100th to 125th Street, this segment of the greenway extends more than a mile through Riverside Park. The path is graced by several dozen cherry trees.

Courtesy of Landscape Form

Continues

Figure 1. continued



Hudson River Park
This 550-acre park stretches from The Battery to 59th Street and will include 13 public piers, a marine estuary, upland parks, a water-front esplanade and a bikeway.



Stuyvesant Cove
At Stuyvesant Cove, visitors can enjoy wandering paths, a new solar-powered environmental classroom and a dedicated bike-way with views of the East River.



The Battery
Located at the southern tip of Manhattan, The Battery offers water-view gardens and sweeping views of New York Harbor, the Statue of Liberty and Ellis Island.

LEGEND

- Separated path (two-way bike and walk)
- ⋯ Walk only
- Low traffic-volume link
- High traffic-volume link*
- Pedestrian bridges/entry points
- ◁ ▷ One-way bike direction
- 🚢 Ferry landings
- ★ Points of interest

* Cyclists and skaters are advised to proceed with extreme caution at high traffic-volume links



City of New York
Michael R. Bloomberg Mayor
Daniel L. Doctoroff Deputy Mayor for Economic Development and Rebuilding
Patricia E. Harris Deputy Mayor for Administration

SOURCE: City of New York, New York City Economic Development Corp., *Manhattan Waterfront Greenway Map*, http://www.nyc.gov/html/edc/pdf/greenway_mapside.pdf (accessed 26 May 2009).



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The elevated Franklin Delano Roosevelt Drive walls off Manhattan's Lower East Side from the East River waterfront—with the exception of a few pocket parks and the new bikeway that extends beneath it.

(if embattled) control of Frederick Law Olmsted and Calvert Vaux, the greenway is a string of diverse geographic components, each with its own peculiar history, physical circumstances, vested interests, and legal constraints. In fact, the Manhattan waterfront may be viewed as a series of legal battlefields, each the scene of past and present struggles among property owners, community groups, developers, politicians, planners, lawyers, and other assorted heroes and villains.¹⁵

In contrast to Chicago's famous lakefront parks, the Manhattan waterfront lacks the advantage of being newly created land, legally dedicated to remain "forever open, clear, and free."¹⁶ Although that precept has been sorely tested by

local politics,¹⁷ according to historian Lois Wille, it has provided at least a presumption that the public interest in open space should prevail over commercial or residential development along much of Chicago's lakefront.¹⁸

New York City's waterfront evolved under the opposite presumption, namely that its best use was for maritime-related development including docks, warehouses, railroads, and later, highways. As early as 1686, legal ownership of the waterfront to the low water line was transferred by the British Crown to the fledgling new city. New York in turn sold waterfront lots to individuals "with the proviso that the owner must build the street and wharf along the water end" since the city was unable to

provide such "improvements," thus walling off the city from its waterfront.¹⁹

The Waterfront before 1960

During the nineteenth century, New York's vast deepwater harbor was the city and region's primary economic engine. By 1900, most of the New York City waterfront was occupied by piers, warehouses, and other facilities serving the maritime industry; rail lines connecting the port with the interior; and noxious industries lining less navigable shorelines, such as the Gowanus Canal and Red Hook in Brooklyn and the Harlem River between Manhattan and The Bronx. The waterfront also accommodated military

facilities such as Governors Island and the Brooklyn Navy Yard. (See the box below for a summary of Governors Island's evolution.)

Except for The Battery—the colonial Dutch fort and commons at the lower tip of Manhattan—New Yorkers looked landward for their parks and outdoor recreation. The 1811 Commissioners' Plan envisioned a series of green triangles where Broadway intersected planned cross streets (the future Union, Madison, Herald, and Times Squares) but no waterfront parks. Central Park, Prospect Park, Van Cortlandt Park, the Brooklyn Botanic Garden, and the New York Botanical Gar-

den in The Bronx all were established inland. The original Riverside Park overlooking the Hudson River, outlined by Olmsted, opened in the 1890s, but it was poorly executed and dominated by railroad tracks.²⁰ Gentlefolk avoided the waterfront, which they characterized as dangerous, foul-smelling, and polluted by urban wastes and the occasional corpse. Needless to say, the harbor was ecologically near death as well.²¹

Robert Moses, New York's legendary "power broker" and master builder of public works, offered the first vision of a different future for the Manhattan waterfront.²² In 1914, as a young and zealous

protagonist for urban planning, Moses was drawn to the Upper West Side of Manhattan where the incipient Riverside Park was a park in name only despite its Olmsted pedigree. As biographer Robert A. Caro wrote of Moses's first glimpse:

Below him, along the edge of the river, was a wasteland, a wasteland six miles long, stretching from where he stood [at 79th Street] all the way north to 181st Street. The wasteland was named Riverside Park, but the "park" was nothing but a vast low-lying mass of dirt and mud. Running through its length was the four-track bed of the New York Central.

THE STORY OF GOVERNORS ISLAND

The 172-acre Governors Island lies between Manhattan and Brooklyn at the head of New York Harbor. From 1783 until 1966, it was an Army installation, and then it was a Coast Guard base until 1996. In 1985, the federal government designated 92 acres of the island as a National Historic Landmark District in recognition of its two pre-Civil War forts and associated buildings of architectural importance. Some 200 mundane buildings on a former parade ground occupy the rest of the island, which was created with landfill from the excavation of the Lexington Avenue subway tunnel.

The Coast Guard's impending departure in the mid-1990s posed an extraordinary opportunity to redesign the underused island for various public and private purposes. This prospect stimulated a vigorous debate and many conflicting proposals for its future use. For instance, some of these proposals focused on private real estate development to capitalize on the island's spectacular views and proximity to Manhattan's Financial District.¹ Others advocated transforming the island into a new "world park," combining recreation, historic preservation, education, ecology, and the arts.

The Governors Island Alliance (GIA), an advocacy network established by the Regional Plan Association in 1995, successfully championed the latter view. On 31 January 2003, 150 acres of the island were sold for \$1 to the Governors Island Preservation and Education Corporation (GIPEC), a newly established partner-

ship of the state and city charged with redevelopment of the site for public purposes, including 87 acres of new parks and public spaces. The island's remaining 22-acre core of the Historic Landmark District was transferred to the National Park Service as a National Monument.

In 2006, GIPEC launched an international design competition to solicit bold proposals for Governors Island.² The competition followed GIA guidelines, concerning layout and design of public spaces, circulation, historic preservation, and means of access. Among 29 design teams from 10 countries, a Dutch-led consortium (West 8 and others) was selected in December 2007.³ Their winning design envisions an entirely new landscape of hills, forest, meadow, wetlands, flower gardens, and, in homage to Frederick Law Olmsted's Central Park design, a "Great Lawn." As required by federal deed restrictions, a waterfront esplanade would encircle the island, including the National Monument. Many vacant and nonhistoric buildings on the site would be razed, and the resulting debris would be used to sculpt a new topography on the level southern part of the island. Some 5,000 trees would be planted throughout the island, while a 30-acre tract would be reserved for possible development of conference centers, cultural venues, and educational facilities.

As of April 2009, the project is moving forward despite fiscal and political uncertainties.⁴ The Park Master Plan will

be released this summer, and a temporary esplanade and 8 acres of picnic grounds will open on the island's southern point. Renovated historic buildings will house the New York Harbor School,⁵ artist studios managed by the Lower Manhattan Cultural Council, and a Water Taxi beach café and performance space.

Many summertime visitors are already enjoying the island's historic and cultural programs and the amazing harbor and city views. In 2008, some 128,000 people visited the island, and park managers expect 200,000 in 2009.⁶ But New York's deteriorating state budget has cut off new capital funding. The city has proposed to take over responsibility to push the project ahead despite its own fiscal challenges. Negotiations on how best to realize the island's grand ambitions will be a focus for the coming year.

1. This viewpoint was recently restated in an op-ed column by former chairman of the Battery Park City Authority, Charles Urstadt; see C. Urstadt, "The Bigger Apple," *New York Times*, 14 March 2009.

2. A similar competition in the mid-nineteenth century yielded the legendary Olmsted and Vaux 1858 Plan for Central Park.

3. A. Ulam, "New York Harbors a Park," *Landscape Architecture*, April 2008, 106–15.

4. C. V. Bagli, "A Warning on Governors Island Funds," *New York Times*, 13 March 2009.

5. The New York Harbor School, which emphasizes stewardship skills, is moving its program from Brooklyn to a renovated Coast Guard building on Governors Island. For more information, see New York Harbor School, <http://www.newyorkharborschool.org/> (accessed 27 April 2009).

6. R. Pirani, Executive Director, Governors Island Alliance, personal communication, 10 April 2009.



COURTESY RUTHERFORD H. PLATT

This derelict New York Central railroad pier is preserved as an element of Riverside Park South to commemorate the waterfront's maritime and industrial history.

. . . Unpainted, rusting, jagged wire fences along the tracks barred the city from its waterfront.²³

Decades of wrangling over Riverside Park began at this time, a battle that involved the city, railroads, and neighborhood residents. Leading the fight from their respective corners were the Women's League for the Protection of Riverside Park²⁴ and Moses himself, who viewed parks and highways as inseparable. Even park advocates were divided between those favoring formal gardens and landscaping versus those promoting facilities for outdoor games and sports, anticipating later stakeholder battles over waterfront proposals since the 1960s.

The new Riverside Park Moses envisioned in 1914 was substantially realized in the 1930s, alongside the Henry Hudson Parkway, which shared a vast platform constructed by the city above the New York Central tracks from 72nd Street to the island's northern tip. Soon lining the city's other waterfronts were Moses's highways, including Franklin Delano Roosevelt (FDR) Drive along the East River in Manhattan, the Harlem Speedway along the Harlem River, and the Belt Parkway and Brooklyn-Queens Expressway (BQE) along the shorelines of Brooklyn. Where highways adjoined fashionable neighborhoods, Moses cantilevered new parks above the road, as with Carl Schurz Park on the Upper East

Side and the Brooklyn Heights Esplanade above the BQE. For less affluent neighborhoods, highways became instruments of slum clearance. For instance, FDR Drive along the Lower East Side displaced tenements and was elevated on stilts to speed traffic past the remaining slums and public housing projects. A few gritty parks beneath or adjoining FDR Drive, such as East River Park, were provided.²⁵

After the Chelsea Piers opened in 1910 to accommodate the largest and most luxurious passenger vessels ever built, the midtown Hudson River waterfront served as the nation's maritime gateway for travelers to and from Europe. This role continued into the 1950s when airplanes



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The plan for Battery Park City reserved at least 30 percent of its site for open space, including a 36-acre mini-park system, to create a respite in New York's Financial District.

began to eclipse sea travel. But even as the city retained its dominance as a passenger port, cargoes were increasingly shipped through terminals in Brooklyn (as popularly depicted in the 1954 Marlon Brando classic *On the Waterfront*) and later through container ports in New Jersey and elsewhere.²⁶

Emerging Megatrends since 1960

Beginning in the 1950s, two megatrends clashed on New York's waterfront, as well as in cities across the nation. On the one hand, federal and state urban renewal programs encouraged public-private joint investment to redevelop older city districts through high-end private construction in areas favored by harbor views or other

amenities, and public housing projects in other districts. The resulting destruction of streetscapes and older housing through such development in turn stimulated a new generation of New York-based urbanists like William H. Whyte, Jane Jacobs, and Lewis Mumford to appeal for more attention to people-oriented street design, building scale, and public open spaces.

In the 1970s, with the advent of new legislation, such as the *National Environmental Policy Act* and *Clean Water Act*, a third megatrend joined the fray: ecological awareness.

The history of the Manhattan waterfront since the early 1960s is essentially a chronology of the clash of these three perspectives, both as broad concepts and as applied to discrete segments of the city's shoreline. A closer look at some

of the elements of the waterfronts of the Hudson and East Rivers illuminates the interplay of law, economics, ecology, and New York-style politics.

The Post-Maritime Hudson River Waterfront

By the 1960s, Manhattan's Hudson River waterfront south of Riverside Park was among the most contested real estate opportunities in the world because of its spectacular harbor views and proximity to prime commercial and residential districts. The shoreline also borders an estuary that supports a wealth of marine life, most notably the iconic striped bass. With the dereliction of its piers and the old West Side Elevated Highway (finally closed in 1973 after one section of it col-

lapsed), the Hudson River waterfront was ripe for renewal—but in what form and to serve which interests?

The evolution of a post-maritime, mixed-use Hudson River waterfront began auspiciously with the development of Battery Park City (BPC) adjoining the Financial District in lower Manhattan. The BPC site originated as a 92-acre tract of landfill created with material excavated from the World Trade Center construction site in the early 1960s. In 1966, Governor Nelson Rockefeller, a leading promoter of the World Trade Center, outlined his vision for a planned mixed-use development site on the new land. In 1968, the state created the Battery Park City Authority (BPCA) to oversee the project as a public-private joint venture. But Philip Lopate points out that for a decade, “the project remained nothing but a sandy white beach . . . stalled by complexities of planning, bureaucratic rivalries, and New York’s fiscal crisis in the 1970s.”²⁷

In 1979, after a prolonged and contentious design process, the state approved a master plan that incorporated BPCA planning and design guidelines to govern the construction of diverse components of the overall project. Upon completion, BPC finally emerged as a multibillion-dollar, mixed-use planned development that includes the World Financial Center, an upscale retail mall, various commercial and residential buildings, and a series of new waterfront green spaces. The city’s renowned Stuyvesant High School moved to the site in the early 1990s.

Pursuant to lengthy negotiations with civic interests, the BPC Master Plan required that at least 30 percent of the site be retained as public open space, including an esplanade along the water’s edge. The nonprofit Battery Park City Parks Conservancy operates a mini-park system totaling 36 acres, involving the riverside pedestrian esplanade, gardens, walkways, and several parks, including Robert F. Wagner, Jr. Park and 1.9-acre Teardrop Park, a meticulously designed green oasis amid the BPC towers completed in 2004. According to Lopate, “by global standards, Battery Park City is a huge success.”²⁸

The early success of BPC spawned Westway—a much grander proposal to develop newly filled land for a linear park, highway, and real estate development bordering five miles of the shoreline north of the Financial District. Westway evolved from a 1971 New York State Urban Development Commission report that envisioned creating 700 acres of new building and park sites on concrete platforms and landfill extending from the water’s edge to the pierhead line—a boundary connecting the seaward ends of existing piers. Burying a new highway below the park allowed the entire project to be funded with federal highway trust funds. All levels of government and many civic organizations, including the prestigious Municipal Art Society, supported Westway. As enthusiastically described by Robert F. Wagner Jr. of the New York Planning Commission:

*Covering 4.5 miles of waterfront along the west side of Manhattan, the project would remove the abandoned piers in its path, add 182 acres of landfill, and remove the elevated structure of the West Side Highway, a major obstacle to waterfront access. . . . The [new] highway will be almost completely depressed and covered. Thirty-five acres of landfill will be available for residential construction, 97 acres for parkland, and 50 acres for commercial and industrial uses.*²⁹

A coalition of neighborhood and environmental interests, led by the New York City Clean Air Campaign directed by Marcy Benstock and some well-known allies, passionately opposed Westway. Lopate recalls, “For once, Jane Jacobs and Robert Moses were in agreement. Both hated Westway.”³⁰ After years of litigation, a 1982 federal district court put the final nail in Westway’s coffin, maintaining that granting a landfill permit for Westway to the defendant “violated the National Environmental Policy Act, the Clean Water Act, and the Rivers and Harbors Appropriations Act.” The court struck down Westway, because its sponsors deemed the area to be filled a “biological wasteland” and failed to assess

the project’s impacts on the striped bass habitat in the Hudson River Estuary.³¹

Kent Barwick, then-president of the Municipal Art Society, characterized the outcome as “a plebiscite on whether people prefer highways to mass transit.” More than \$1 billion of federal transportation funding was reallocated from the highway to mass transit when Westway was defeated.³² Planning historian Ann L. Buttenwieser pithily described the outcome as “planning hubris met by community opposition.”³³

As the city began replacing the old West Side Highway south of 59th Street (now designated simply Route 9A), a new proposal for a 270-acre Hudson River Waterfront Park was released in 1989 by the West Side Waterfront Panel appointed the preceding year. Ruling out a landfill (perhaps forever)³⁴ under community pressure, the panel focused on an important new strategy: converting some of the Hudson River piers, many of them underutilized and decrepit, into huge recreational and park-like facilities jutting into the river.³⁵

The Hudson River Foundation, established in 1981 to support scientific research in the Hudson River Estuary, urged that such a park include a marine sanctuary. In 1989, in response to this and other proposals, the state legislature—with the backing of some of the Westway opponents, particularly attorney and chairman of the Hudson River Park Alliance Albert Butzel—created the Hudson River Park (HRP) Trust. The HRP Trust is a unique state-city partnership authorized to plan and finance the park with input from an advisory committee and community groups. HRP, now under development by the trust, extends five miles from BPC north to 59th Street with an area of 550 acres. The park occupies a narrow strip of land between Route 9A and the shoreline with a double-lane paved bikeway; along the landward side of the New York City passenger ship terminals, it consists of a pair of bike lanes and a jogging lane separated from highway traffic along Route 9A by a vegetated strip. HRP will also connect to the High Line Greenway (described in the box on page 56).

The park also incorporates several large piers for playing sports, fishing, and harbor viewing. Some existing piers will be repaired and adapted to new uses, while a new 1,000-foot recreation pier (on a prior pier's footprint) is under construction at 44th Street. Once major capital projects funded by the city and state are complete, the park will support itself using revenues from parking, office rentals, and other income sources.

The Westway lawsuit helped publicize the river as a rich biological habitat supporting striped bass and some 70 other fish species. To reflect the Hudson's new recognition as an estuary and ecoregion, the 1989 HRP Trust Act also established a marine sanctuary covering 400 acres of water between the shoreline and park boundary. The River Project, a non-profit marine research and education facility, monitors fish populations and other

organisms from its laboratory at Pier 40 in space donated by the trust.³⁶ Public interest in Hudson River ecology has been stimulated by many outreach and education activities of the River Project and its research partners throughout the city.

Embedded within HRP between 18th and 23rd Streets is Chelsea Piers, the city's largest privately owned sports and dining complex.³⁷ The adaptation of four decaying ocean liner piers into a world-class recreation showcase was the outcome of a hard-won campaign by filmmaker Roland Betts and his partners. Under a 10-year lease awarded from the state (which owns the structures) in 1992, Betts's team negotiated the obstacle course of public reviews, hearings, and approvals in record time, and reconstruction began in 1994.³⁸ The complex opened in late 1995 with an ice rink, tennis courts, golf driving range, gym, sports medicine center, marinas, two

catering halls, and a venue for free public music performances—at a cost of \$110 million, all raised from private sources. Lanes adjacent to street traffic continue the bikeway along HRP; pedestrian access along the water's edge is "extremely stingy" according to Lopate, a self-proclaimed inveterate walker.³⁹ He concurs, however, with Bittenwieser's view that "... all the interested parties genuinely wanted the project to succeed. [It was a result of] sheer force of will, a readiness to be energized rather than discouraged by frustration, political savvy, and the ability to secure private financing."⁴⁰

Uptown (and upstream) from HRP, between 59th and 72nd Streets, lies another stretch of world-class development: real-estate mogul Donald Trump's Riverside South, a 75-acre tract above a complex of railroad tracks known as Penn Yards. Proposals to develop the air rights above the tracks date back to at least 1962. Trump and others acquired the site in 1984 and proposed a 16.5 million square-foot-complex to include what would have been the world's tallest building at 152 stories. In 1991, after years of controversy, Trump agreed with a coalition of civic and planning groups led by the Municipal Art Society to reduce the overall development to 8.3 million square feet and create, at the developer's expense, a 21.5-acre waterfront park: Riverside Park South. Seven acres of the park are now open to the public. The plans by Thomas Balsley Associates include sports areas, a restored pier for strolling, and a riverside esplanade, adding another key link in the Manhattan Waterfront Greenway.

The remainder of the Hudson River waterfront in Manhattan north of Riverside Park South is occupied by a series of parks of very different origins: Riverside Park, Fort Washington Park, Riverbank State Park, and connecting greenway links to the Harlem and East Rivers' shorelines. Cherry Walk, which opened in 2001, now extends the bikeway along the water's edge between 100th and 125th Streets through the old Riverside Park.

A fitting coda to the parade of diverse parks along Manhattan's Hudson River waterfront is Riverbank State Park, the borough's only state park, which lies entirely

RECLAIMING THE HIGH LINE

The High Line Greenway—one of New York's most distinctive new parks-in-progress—stands just inland from Hudson River Park to which it will soon be connected.

The High Line was originally completed in 1934 as an elevated rail viaduct extending 1.45 miles along Manhattan's lower West Side to remove freight trains from city streets. After rail use on the High Line ceased in 1980, the abandoned structure slowly gathered a mantle of soil, nurturing volunteer grasses and wildflowers for two decades. The highly photogenic juxtaposition of this urban wilderness with adjacent city buildings fired up public interest in converting the area into an elevated linear park, modeled on the Promenade Plantée, a similar project in Paris.

Friends of the High Line Greenway, a blue-ribbon nongovernmental organization, was formed in 1999 to promote this vision.¹ With \$50 million committed by New York City and millions more in private funds, an international design competition was launched, presumably inspired by the 1850s competition that yielded Olmsted and Vaux's Green-

sward Plan for Central Park. Architectural firm Diller Scofidio+Renfro's winning design—selected from 720 entries representing 38 countries—envisions replacing the haphazard and hazardous existing conditions with an installed hard-surface walkway interwoven with planted areas. Necessary engineering work to execute the design ironically required removal of the wild plants that inspired the project; seeds from existing vegetation are being preserved to replant the High Line with some of the naturally occurring plant species.

According to the *New York Times*, the challenge in creating the High Line Greenway has been to achieve "a balance between preserving what one called 'the romance of the ruin'—wild grasses growing up through the metal skeleton of rails and rivets—and creating a fresh green corridor for pedestrians."² Work on the project began in April 2006, and as of May 2009, the downtown segment was nearly complete.

1. For more information, see Friends of the High Line, <http://www.thehighline.org/>.

2. R. Pogrebin, "Designers Detail an Urban Oasis 30 Feet Up," *New York Times*, 19 April 2005.



COURTESY RUTHERFORD H. PLATT

Construction of the South Street Seaport, a festival marketplace, reflects the 1960s practice of promoting public-private redevelopment of prime waterfronts.

on the roof of the North River Sewage Treatment Plant between 135th and 145th Streets. This 28-acre facility, modeled on a similar rooftop park in Tokyo, was constructed along with the plant between 1986 and 1991. It includes an Olympic-size swimming pool, a skating rink, a cultural center, a restaurant, and a 2,500-seat athletic complex—all on top of one of the world's largest sewage treatment plants. The park originated as a consolation prize to Harlem residents who opposed the treatment plant in the 1980s, when the city first proposed constructing it on the waterfront.⁴¹

Riverbank State Park validates the concept of superimposing a public park facility above a municipal infrastructure—and folding its cost into the underlying project budget, a technique pioneered by Moses and unsuccessfully proposed for Westway. It also reflects that community activism, while not preventing an unwanted project, may at least achieve some compensatory side benefits.

The Post-Maritime East Side Waterfronts

Manhattan's waterfronts of the East and Harlem Rivers pose a very different set of opportunities and challenges compared to the Hudson River shoreline. While the latter has been shaped by epic legal and planning struggles, the East Side shoreline has attracted much less development attention. In midtown Manhattan, the United Nations Headquarters and an adjacent (soon to be closed) Consolidated Edison power plant blocks access to the East River shore. Historically, the East River adjoins some of the city's poorest (Lower East Side) and wealthiest (Upper East Side) neighborhoods. Between them, the 1950s working class apartment buildings of Stuyvesant Town and Peter Cooper Village extend from 14th to 23rd Streets. The Moses-era FDR Drive looms above the East River waterfront, serving, like

the old Central Artery in Boston, as an aesthetic deterrent to nearby investment.

The opening of James Rouse's South Street Seaport Museum on the lower East River in 1967 signaled a new era in urban waterfront revitalization. The seaport and its counterparts in other cities reflected the 1960s practice of promoting urban renewal in promising locations, like waterfronts, through public-private joint ventures combining for-profit development firms and public subsidies and tax concessions. Like other Rouse festival marketplaces in Boston, Baltimore, and San Francisco, the seaport commemorates the city's maritime history with an impressive collection of vessels in a complex of docks, restored warehouses, public outdoor spaces, restaurants, shops, and real estate development. While still an important tourist attraction and waterfront amenity, the seaport faces financial setbacks. Its commercial tenants and developers are locked in a legal battle over its

future. An article in the *New York Times* last year reported, “Conceding the failure of the South Street Seaport pier as a ‘festival marketplace’—these days it is not much more than a waterfront mall—its owners plan to replace it with a mixed-use project including a 42-story, 495-foot apartment and hotel tower.”⁴²

A half-century after the South Street Seaport’s construction, and a few blocks north along the East River, SolarOne represents a dawning awareness of the ecological dimensions of developing the harbor and waterfront. Sandwiched between FDR Drive and the rubble of an old East River seawall, SolarOne is the temporary home of one of the city’s newest environmental teaching facilities. Among SolarOne’s projects is a narrow 1.9-acre strip of mini-park: Stuyvesant Cove Park.⁴³ SolarOne, now housed in a prefab building, will soon be replaced by a much larger \$25 million structure (SolarTwo) designed by green architect Colin Cathcart.⁴⁴ SolarTwo will provide 13,000 square feet of outdoors and enclosed space for teaching and performances.⁴⁵

Uptown in Harlem, Mayor Bloomberg’s PlaNYC proposes the restoration of Highbridge, an elegant brick and stone structure originally built in the 1840s to convey water from the Croton River aqueduct across the river into Manhattan. Nearby, the nonprofit New York Restoration Project is cleaning up and restoring the long-neglected 119-acre Highbridge Park on the Manhattan side of the Harlem River. With the help of community volunteers and Americorps staff, the project has removed many abandoned vehicles, thousands of tires, and tons of other litter, recovering four miles of disused trails.⁴⁶ It has replaced invasive vegetation with native trees, shrubs, ferns, and wildflowers.

Some Forcing Trends

Over the past 50 years, the Manhattan waterfront’s identity has shifted from its nearly total commitment to port and transportation to a complex geographic feature that supports a broad range of

public and private uses and amenities. This transformation has been shaped by a number of forcing trends or contextual factors, including

- broad changes in public perception of urban waterfronts from avoidance (inaccessible, violent, hazardous, or gritty) to attraction (sublime views, recreation, history, and ecology);

- expanding involvement of scientists in decisionmaking concerning coastlines and waterfronts;

- growing influence of stakeholder and community-based advocacy groups (for instance, cycling, running, walking, fishing, diving, rowing, or neighborhood groups);

- bias against new landfill for any purpose (although most of the existing waterfront was filled in during earlier times);

- growing recognition that both private and common property (or “public trust”) interests must be balanced in waterfront redevelopment;

- growing prevalence of public-private partnerships in waterfront redevelopment;

- increasing transparency and length of the public decisionmaking process regarding waterfront redevelopment (for example, Web sites and other sources of public information, open meetings, public hearings, lawsuits, and media coverage);

- recognition of nonmarketable and often nonquantifiable values in decisions relating to waterfronts, including water quality, ecology, aesthetics, recreation, health and fitness, equality of access, and environmental justice;

- growing complexity of waterfront regulation and permitting, including federal and state laws on water quality, endangered species, historic preservation, floods, wetlands, and environmental impact assessments; and

- increasing preference for multiple-purpose projects in place of single-purpose waterfront investments, such as wharves, highways, or sewage treatment plants.

The past five decades have been tumultuous for New York City, as they have for most older cities. Waterfront decisionmaking, like city redevelopment in general, is spasmodic—fluctuating between times of furious activity and periods of protracted waiting and conflict. Adminis-

trators come and go. The economy rises and falls. Neighborhood demographics and priorities change. Gradually results emerge: Battery Park City, Hudson River Park, Riverbank State Park, Manhattan Waterfront Greenway, and SolarTwo. Some proposed outcomes—such as Westway—do not materialize at all. Over time, a poster child redevelopment project like the South Street Seaport may decline in popularity with changing ownership, consumer tastes, and economic conditions. Elsewhere, private investment, given sufficient political pressure, may yield significant public benefits as with Chelsea Piers and Trump’s Riverside Park South.

The challenge ahead for public policy practitioners and researchers is to better understand how and why specific policy outcomes turn out the way they do. With nearly six decades of waterfront decisionmaking since World War II, it is high time to take stock of what lessons have been learned and what questions remain to be addressed. Why did a sliver of concrete between FDR Drive and the East River become Stuyvesant Cove Park, while dozens of comparable slivers along the waterfront have not? Was the potential filling of 182 acres of the Hudson River shoreline a sufficient threat to striped bass populations to justify termination of Westway and any future projects involving landfill? What public interests and social values deserve to be weighed in the decision process regarding complex public-private investments?

While recognizing that many projects like Battery Park City and Riverside Park South have been successfully and beneficially completed, it is also evident that many waterfront decisions may be either unduly delayed (especially in a faltering economy), rushed, or influenced by seemingly secondary considerations. Some outcomes, such as Hudson River Park, have earned broad public support and accolades from planners and environmentalists—but what might have happened if Westway had been approved instead? How can approvals and permitting concerning waterfront activities be reasonably contained, so that such costs themselves do not cause the project to be abandoned or severely curtailed?

Finally, we need to examine the relative balance of public and private interests in the evolving Manhattan waterfront. Now that special interest and community groups are officially involved in the decisionmaking process, how do the results of these decisions serve the interests of the public versus the private sector? And within those sectors, how are different objectives and values weighed—among government agencies at various levels in the public domain and among competing owners and investors in the private sector?

Given these constraints, it is remarkable that anything like the Manhattan Waterfront Greenway and its analogues in Brooklyn and elsewhere are being accomplished, even if they are not as green as vision plans and Web sites would suggest. More than three centuries after the city established itself as a seaport, New York, one of the most contentious cities in the universe, still has much to teach other megacities on how to sustain millions of people who live, work, and play in very close proximity.

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NOTES

1. N. Peirce and C. W. Johnson, *Century of the City: No Time to Lose* (New York: The Rockefeller Foundation, 2008), 26–7.

2. For more information, see R. H. Platt, *Land Use and Society: Geography, Law, and Public Policy*, rev. ed. (Washington, DC: Island Press, 2004), chapter 4.

3. J. Griscom, *Sanitary Condition of the Laboring Population of New York* (private printing, 1845). Griscom's report was closely modeled on the work of the English physicist James Chadwick and others in London during the 1830s and 1840s.

4. J. Riis, *How the Other Half Lives* (1890, repr., Williamsontown, MA: Corner House Press, 1972).

5. Platt, note 2, pages 101–6.

6. R. H. Platt, P. K. Barten, and M. J. Pfeffer, "A Full, Clean Glass? Managing New York's Watersheds," *Environment* 42, no. 5 (June 2000): 8–20.

7. City of New York, *PlaNYC: A Greener, Greater New York*, 2007, <http://www.nyc.gov/html/planyc2030/html/home/home.shtml> (accessed 24 April 2009).

8. R. Florida, "How the Crash Will Reshape America," *The Atlantic*, March 2009, 44–54.

9. R. H. Platt, ed., *The Humane Metropolis: People and Nature in the 21st Century City* (Amherst, MA: University of Massachusetts Press and Lincoln Institute of Land Policy, 2006).

10. R. H. Platt, "After Sprawl: The Humane Metropolis," *Land Lines* (July 2008); and R. H. Platt, "Toward Ecological Cities: Adapting to the 21st Century Metropolis," *Environment* 46, no. 5 (June 2004): 10–27. Both are available to download at <http://www.humanemetropolis.org>.

11. Metropolitan Waterfront Alliance, "Waterfront Central to Mayor's Green Plan—The Metropolitan Waterfront Alliance Applauds Mayor's PlaNYC for a Greener New York with a More Accessible and Cleaner Waterfront," press release (New York, 23 April 2007), <http://waterfrontalliance.org/?q=node/60> (accessed 22 April 2009).

12. P. Goodman and P. Goodman, "A Master Plan for New York," reprinted as Appendix A in P. Goodman and P. Goodman, *Communitas: Means of Livelihood and Ways of Life* (New York: Vintage Books, 1960).

13. New York City Department of City Planning, *Manhattan Waterfront Greenway*, http://www.nyc.gov/html/dcp/html/mwg/maps_2_1.shtml (accessed 24 April 2009).

14. P. Lopate, *Waterfront: A Walk Around Manhattan* (New York: Anchor Books, 2004), 5.

15. Platt, note 2, chapter 2.

16. L. Wille, *Forever Open, Clear, and Free: The Historic Struggle for Chicago's Lakefront* (Chicago, IL: Henry Regenery, 1972). This language was inscribed on the official 1836 land plat by the commissioners of the Illinois & Michigan Canal, who oversaw the sale of state property to finance the canal.

17. A legal deed restriction that included the "forever open, clear, and free" language, was later upheld by the Illinois Supreme Court in a 1897 ruling. This decision confirmed the Lake Michigan waterfront's public trust status in a suit filed by A. Montgomery Ward, whose Michigan Avenue office overlooked the lakefront. *Ward v. City of Chicago*, 169 Ill. 392 (1897).

18. One recent legacy of the "forever open" doctrine has been the creation of the wildly popular Millennium Park near Chicago's downtown lakefront.

19. A. L. Buttenwieser, *Manhattan Water-Bound*, 2nd ed. (Syracuse, NY: Syracuse University Press, 1999), 28–9.

20. E. G. Burroughs and M. Wallace, *Gotham: A History of New York City to 1898* (New York: Oxford University Press, 1999), 1224–5.

21. J. Waldman, *Heartbeats in the Muck* (Guilford, DE: The Lyons Press, 1999).

22. R. A. Caro, *The Power Broker: Robert Moses and the Fall of New York* (New York: Knopf, 1974).

23. *Ibid.*, page 65.

24. Buttenwieser, note 19, pages 129–35.

25. Buttenwieser, note 19, page 182.

26. As Robert F. Wagner Jr. notes, "For some 60 years the Port of New York handled 30 percent of the nation's foreign cargo, but this share began to diminish around 1940, and by 1973 had dropped to less than 10 percent." R. F. Wagner Jr., "New York City Waterfront: Changing Land Use and Prospects for Redevelopment," in National Research Council, Committee on Urban Waterfront Lands, *Urban Waterfront Lands* (Washington, DC: National Academy of Sciences, 1980), 84.

27. Lopate, note 14, page 30.

28. Lopate, note 14, page 29. Despite his praise for the complex, Lopate faults the relative isolation of Battery

Park City from the rest of the city, due in part to West Street, an intervening eight-lane arterial highway. On 11 September 2001, Battery Park City was substantially damaged by the attack on the World Trade Center and is still recovering at this writing.

29. Wagner, note 26, page 93.

30. Lopate, note 14, page 93.

31. *Sierra Club v. U.S. Army Corps of Engineers*, 541 F. Supp. 1225 (1982), 1229.

32. S. Roberts, "After 20 Years of Delays, a River Park Takes Shape," *New York Times*, 16 May 2006.

33. Buttenwieser, note 19, page 209.

34. According to Lopate, "As for landfill, it has become an utterly verboten, shudder-producing thought in New York City, at least for the next half century, which is probably to the good." Lopate, note 14, page 106.

35. Buttenwieser, note 19, page 253.

36. For more information, see The River Project, <http://www.riverproject.org>.

37. See Chelsea Piers, <http://www.chelseapiers.com/>.

38. Buttenwieser, note 19, page 266.

39. Lopate, note 14, page 117.

40. Buttenwieser, note 19, page 268. Three blocks south of Chelsea Piers, Pier 57 extends the length of three football fields into the river and serves primarily as a parking structure. As of November 2008, three developers are competing to transform the pier into a three-level complex of museums, shops, markets, and public spaces, although the future of this pier will likely be affected by the current economic recession. See C. V. Bagli, "Hudson River Park Board Weighs Proposals for 15th Street Pier Development," *New York Times*, 20 November 2008.

41. Despite its origin as a form of "community bribe," Lopate pronounces Riverbank State Park "a glorious contribution to New York's public space . . . and the neighborhood now loves the park, which draws close to 4 million visitors a year." Lopate, note 14, pages 169 and 171.

42. D. W. Dunlap, "A New Look Is in the Planning Stages for an East River Pier in Manhattan," *New York Times*, 18 June 2008.

43. Formerly a harbor-related industrial site, Stuyvesant Cove Park has been planted and maintained for four years by SolarOne as a public green space under a lease with the city's Economic Development Corporation. The tiny park features indigenous species of grasses, shrubs, and trees. Maintenance by volunteers under SolarOne supervision favors manually operated tools and integrated pest management over chemical fertilizers and pesticides.

44. C. Cathcart, "Building the Right Shade of Green," in Platt, note 9, 210–20.

45. SolarTwo is one of 14 city-designated PlaNYC green design pilot projects. It will be "net-zero" energy efficient (carbon neutral) with heating and cooling provided by 20 geothermal wells extending 300 feet into bedrock. Its roof will consist of angled 85 kilowatt solar panels. It is expected to open in 2009. Funding is provided by a consortium of public and private sources, including \$1 million a year from the New York State Energy Research and Development Authority.

46. See the New York Restoration Project (NYRP), <http://www.nyrp.org>. Another important NYRP contribution is Swindler Cove Park, a five-acre site between Harlem River Drive and the river near Dyckman Street. In partnership with the City Parks Department, this site has been cleaned up and replanted as a brand new water-side park. It also features the Peter Jay Sharp Boathouse, where adults and children are introduced to crew rowing, reviving a historic use of the Harlem River.