

Housing along the Brooklyn Waterfront: A Story of Shipping, Industry, and Immigrants

By Kurt C. Schlichting

The history of housing the Brooklyn waterfront is inexorably tied to the rise of the Port of New York and the ascendancy of New York City, in the nineteenth century the Island of Manhattan, to the country's largest city and most productive economy in the United States. By 1850 the Port of New York reigned as the second busiest port in the world. Piers and wharves lined Manhattan's shoreline on the East River from the Battery to 14th Street and along the Hudson to the Chelsea neighborhood. An insatiable demand for waterfront space led to the development of the Brooklyn waterfront: the US Navy established a shipyard in Wallabout Bay in 1801; the Atlantic and Erie basins opened in the 1840s; and construction of the Bush Terminal in Sunset Park began at the turn of the twentieth century.

Thousands of immigrants followed to work the Brooklyn docks, providing the day labor needed to load and unload ships and Erie Canal barges. The longshoremen and dock workers found housing in the tenements lining the nearby streets, living in appalling conditions. For as long as the port prospered, one immigrant group followed another, creating ethnic enclaves in the neighborhoods on the waterfront.

The near death of the Brooklyn waterfront in the 1960s and 70s, a result of the shipping container revolution, mirrored the near death of the Manhattan waterfront. In a stunningly short period of time, the Port of New York moved to Newark Bay; abandonment and decay followed along the Brooklyn waterfront. Racial change and poverty compounded the problems as middle-class whites left for the suburbs; African-Americans and Americans from Puerto Rico arrived to fill the empty tenements. To compound the difficulties, a vibrant manufacturing waterfront also disappeared and thousands of well-paying manufacturing jobs vanished.

Today the Brooklyn waterfront has been reinvented. From Greenpoint to Red Hook, Sunset Park, Coney Island, Brighton Beach, and Canarsie dramatic change has taken place. Many waterfront neighborhoods have been reborn as havens for wealthy professionals who thrive in the city's post-industrial economy. Gentrification has transformed the brownstone streets of Cobble Hill and Carroll Gardens. Waterfront parks have replaced the maritime world that drove the economy of Brooklyn for well over two hundred years. Today the priceless commodity is the view out into the harbor or the Atlantic Ocean as former factory and warehouse buildings are converted to upscale apartments. New luxury high-rise residential buildings line the shoreline where once ships arrived from all over the world.

Building a Maritime Infrastructure

Brooklyn was settled by the Dutch East India Company, and in 1635 the first colonists purchased land from the Native Americans. By the 1660s there were six small farming settlements: Brooklyn, Bushwick, Flatbush, Flatlands, Gravesend and New Utrecht. The market for their agricultural products lay across the East River in Manhattan.

The English gained control of the Dutch colony and in 1663 Kings County was established as a political entity in the province of New York. Population growth remained stagnant for the next century: the first British colonial census records in 1698 placed the Kings County population at 2,017 and New York (Manhattan Island) at 4,937. For the next fifty years the population of Kings County did not grow at all while New York's population increased to over 13,000.¹ On the eve of the Revolution in 1771, Kings County had 3,623 residents and New York 21,863. After the turmoil of the Revolutionary War, which saw the British occupy both Brooklyn and New York for seven long years, the first US Census in 1790 counted Brooklyn's population at 4,495 and New York's at 33,131. Fifty years later in 1840, six years after the State

of New York established the City of Brooklyn in 1834, Brooklyn's population had increased to 47,613. By comparison, New York's population had soared to 312,710, by far the largest city in the country.

The Brooklyn waterfront comprises over sixty-five miles of shoreline that includes Newtown Creek, the East River, Wallabout Bay, the shore of New York Harbor's Upper Bay, Coney Island and Sheepshead Bay on the Atlantic Ocean, and the salt marshes of Jamaica Bay. At the time of the Revolution, the Brooklyn waterfront remained undeveloped. The Port of New York consisted of the piers along the East River from the Battery to Corlear's Hook.

In a British colonial world all of the seaports faced a common challenge: how to build a maritime infrastructure along the shore. There was no expectation that constructing wharfs and piers was the responsibility of the colonial government. On the contrary, private citizens would be responsible to use their own capital to build and maintain waterfront facilities for shipping, whether for ocean going ships crossing the North Atlantic from Europe or the small sailing vessels bringing produce across the East River from Brooklyn to Manhattan.

To build out the needed wharves and piers, private citizens, typically the well to do and politically connected, were awarded grants to develop the shorefront, often adjacent to land they owned along the water. New York City received two colonial charters: the Dongan Charter in 1686, which established New York as a corporate City independent of the Colony of New York, and the Montgomerie Charter in 1730. The Montgomerie Charter expanded the shoreline of the City for 400 feet out into the East and Hudson rivers and granted the underwater land to the city creating "water-lots." The City in turn granted "water-lots" to private individuals to build and maintain the needed wharfs and piers using their own money.² In turn, the grantees would charge fees to use their waterfront facilities.³ Beginning in the 1650s, the British Crown and

then the City of New York granted hundreds of “water-lots”; Kings County and the City of Brooklyn followed. The New York Municipal Archives have records of 462 waterfront grants along the Brooklyn waterfront.⁴

Over 400 years the construction of a maritime infrastructure did not involve just one water-lot grant. As ships increased in size and capacity, piers and wharf space also expanded farther out into the harbor. New water grants expanded the Island of Manhattan and the Brooklyn waterfront into the surrounding rivers and bays. The original water-lots were filled in creating “made-land” along the waterfront. The original shoreline Henry Hudson found in 1609 disappeared (Map 1).

The Dumbo, Brooklyn Heights, and Cobble Hill waterfront neighborhoods are built on this “made-land.” At Hicks Street in Brooklyn Heights the modern shoreline is 1,000 ft. out into the East River and at Henry Street in Cobble Hill the shoreline is 1,900 ft. out into the Upper Bay.

Map 1 Brooklyn & Manhattan Waterfront: “Made-Land”
1776 British Naval Map & Current Shoreline



Source: NYPL MapWarper - 1776 Blaskowitz British Navy map; NYC Planning - shoreline

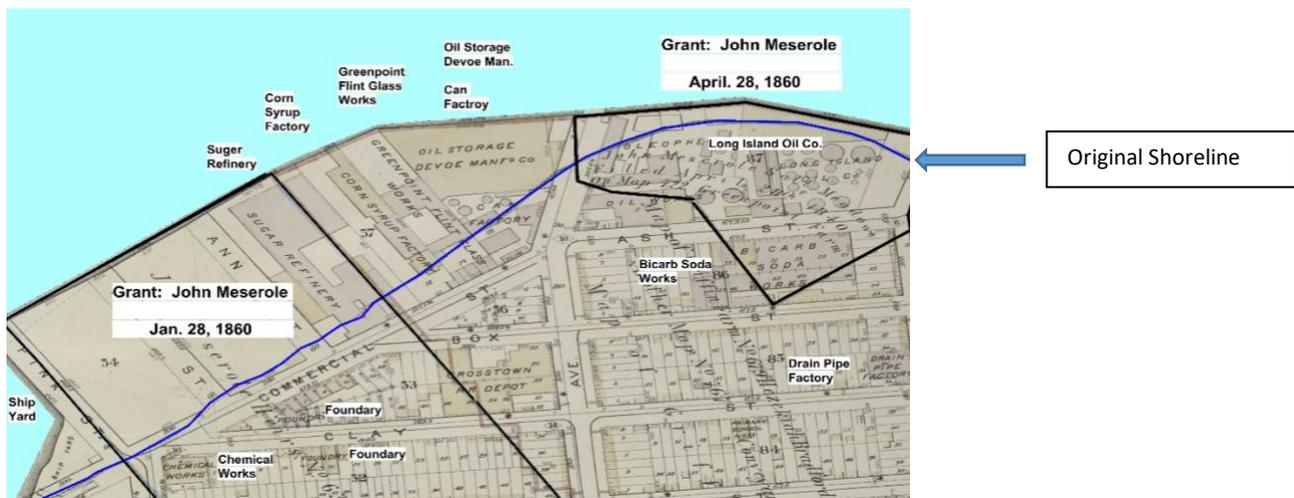
The State and City of New York, in 1870, created the Department of Docks to take over the Manhattan waterfront and reassert public control of the port's maritime infrastructure. As a first step, the Department of Docks conducted a title search of all property and water-lot grants along the East and Hudson rivers and created detailed maps. Between Wall Street and Maiden Lane were a total of 149 water-lot grants, adding 21 acres of "made-land" from Pearl Street to South Street.

Map 2 Manhattan Water-Lots: East River- Wall St to Maiden Lane



In Greenpoint a similar grant process occurred. John Meserole secured two grants in 1860 and extended the shoreline (blue line) out into Newtown Creek. Industrial development followed along the Creek shoreline and on the adjacent streets.

Map 3 Newtown Creek Shoreline - Greenpoint



Brooklyn Waterfront Neighborhoods - 1880s

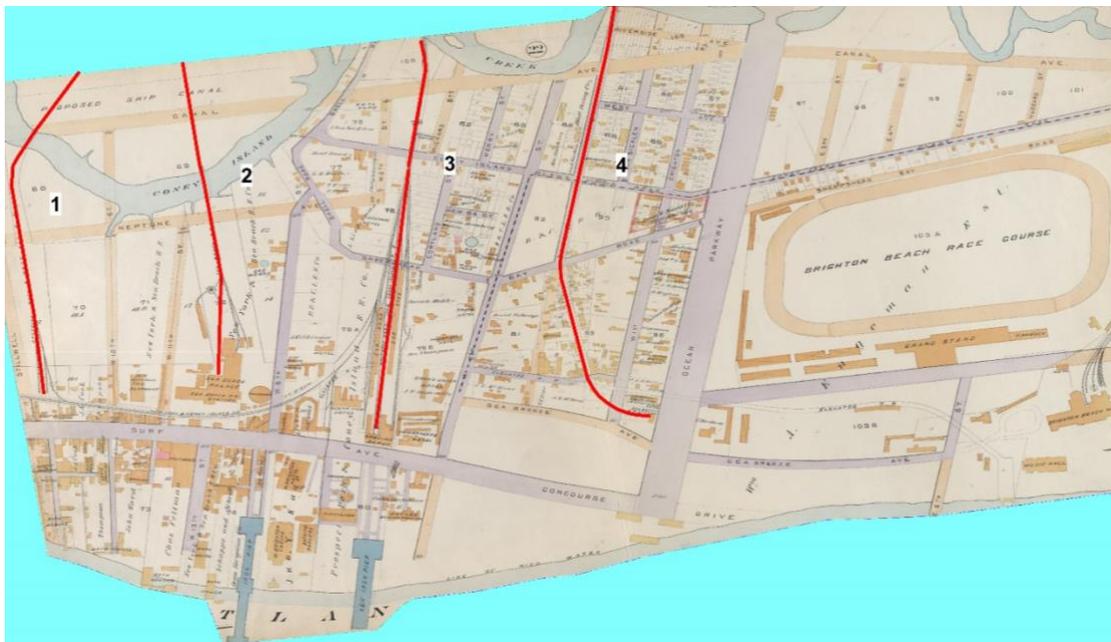
The Brooklyn waterfront neighborhoods include those along the East River and New York harbor from Greenpoint to Sunset Park (Map 4). The growth of these areas in Brooklyn was tied to the ascendancy of the Port and City of New York. The Dutch established ferry service across the East River in 1642 to bring food to Manhattan Island from the farms in Brooklyn. Steam ferry service began to Fulton Street in 1814, to Atlantic Street in 1836, and to Hamilton Avenue in 1846 for a passenger fare of two cents. Ferry service throughout New York harbor continued to expand and by 1887 included 42 lines to Queens, Staten Island, and New Jersey. The 15 ferry lines to Brooklyn carried 47,500,000 passengers in 1866.⁵ Brooklyn Heights, Cobble Hill, Boreum, Hill and Park Slope became the country's first suburbs where the well-to-do could buy a brownstone, travel by horse-drawn street car to the Fulton Ferry, and take the ferry across the East River to work or shop in Manhattan.

Map 4 Brooklyn Waterfront Neighborhoods



Kings County consists of almost 70 sq. mi. of land; from the shoreline at Newtown Creek to the beaches of Coney Island is a distance of over 12 miles. The three waterfront neighborhoods along the Atlantic Ocean, Coney Island, Brighton Beach, and Sheepshead Bay, remained places apart with few year-round residents. In the nineteenth century, before mass transit, a boat provided the most efficient means of transportation from all three to Manhattan or downtown Brooklyn. Each summer they came to life as seaside resorts once railroads and eventually the subway lines linked them to downtown Brooklyn and the ferries to Manhattan (Map 5). Three famous Coney Island amusement parks opened between 1897 and 1904: Steeplechase Park, Luna Park, and Dreamland. Brighton Beach's main attractions included a thoroughbred race track. Canarsie, on Jamaica Bay remained a fishing and farm community until the twentieth century.

Map 5 Coney Island & Brighton Beach - 1890



Source: NYPL MapWarper

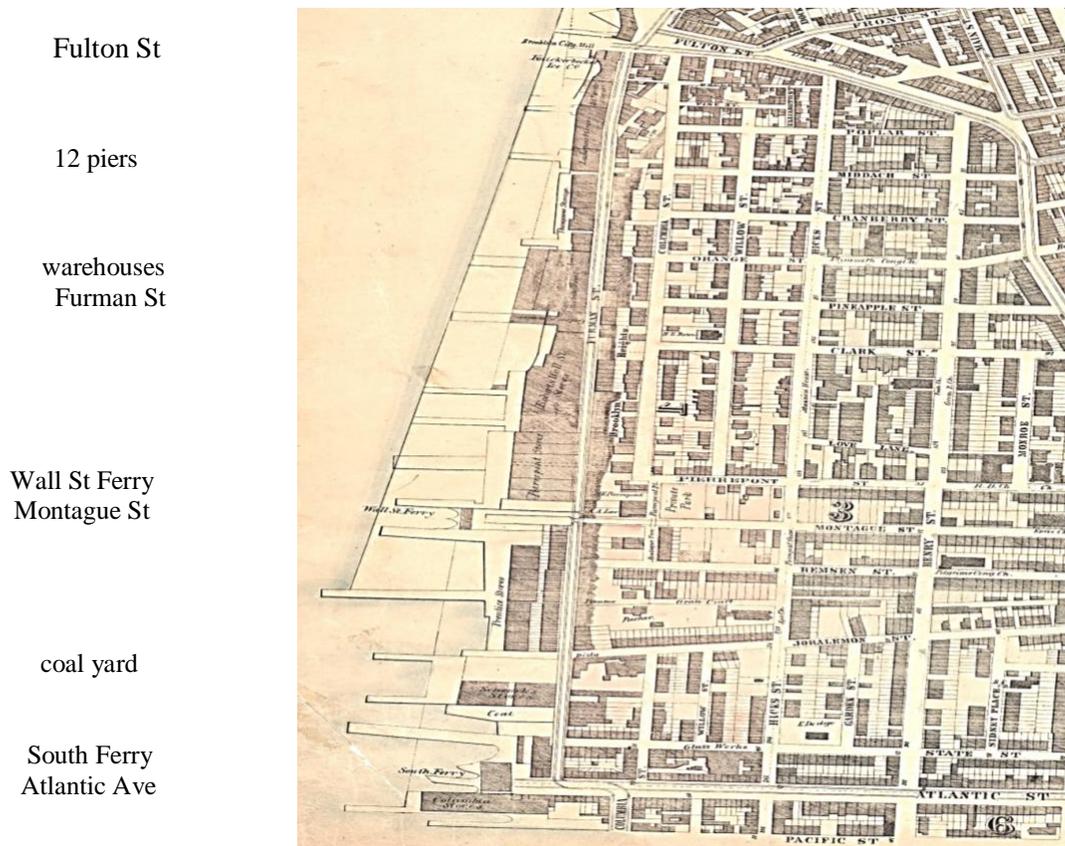
Railroads: 1 Brooklyn Bath West End RR
2 NY & Sea Beach RR

3 NY & Coney Island RR
4 Prospect Park & Coney Island RR

An Expanding Maritime World

The phenomenal growth of the port of New York in the nineteenth century brought the number of ships entering and leaving to record levels. In 1834, 1,950 ships entered from foreign ports, 3,163 in 1850, and 5,711 in 1885.⁶ These numbers do not include the thousands of coastal vessels arriving from the Southern ports and New England. At times hundreds of ships anchored in the Upper Bay, waiting for space at a Manhattan pier or wharf. The undeveloped waterfront in Brooklyn along the East River became the prime location for the construction of new wharfs and piers. A series of grants along the East River below Brooklyn Heights led to the expansion of the waterfront out into the East River by 1860.

Map 6 East River Waterfront Expansion: Fulton to Atlantic Ave. 1867



Twelve piers were built out into the East River by the private owners who received water grants; there was no common design for the length or width of the piers. Warehouses, called “stores”

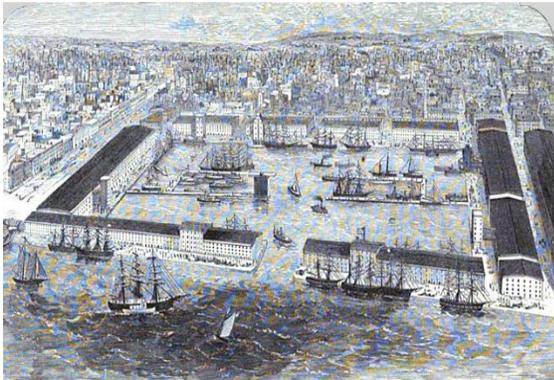
lined Furman Street. Shippers stored their goods in the warehouses and hundreds of horse-drawn carts crowded Furman Street, each picking up or delivering freight. On the piers, sailing ships brought freight from all over the world. Erie Canal barges, laden with wheat and flour loaded their cargo onto ships bound for Europe. Coal barges docked on the pier near State Street bringing an essential commodity to Brooklyn to heat homes and supply industry with coal to power their machinery.

The piers from Fulton to Atlantic Avenue were soon filled and the expansion of the Brooklyn waterfront continued to the south. Once simply referred to as “South Brooklyn” these areas today are Cobble Hill, Carroll Gardens, and Red Hook. Two waterfront infrastructure projects there were unique: the Atlantic Basin and the Erie Basin. Instead of a series of piers out into the harbor, long breakwaters created enclosed basins with piers inside; warehouses built next to the piers provided safe storage for freight.

In 1839 Daniel Richards, a shipping entrepreneur who owned land and shallow water along the Buttermilk Channel, built a 40 acre enclosed basin later surrounded by warehouses, which opened in 1844. Richards promoted the basin as a safe harbor where Erie Canal barges could load the agricultural bounty of the Midwest onto ships bound for Europe. Farther south, Edward Beard built the much larger Erie Basin, which in addition to protected piers, offered ship building and repair facilities with a large dry dock. Completed in 1864, the basin became the major terminus in the port for the Erie Canal. Many canal barges were privately owned and wintered over in the Erie Basin when the Canal froze for the winter.

The Brooklyn waterfront neighborhoods along the East River and Upper Bay were not just places for commercial shipping; they also became manufacturing centers. By 1860 Manhattan was the largest manufacturing center in the country and Brooklyn was third. A total

Atlantic Basin



Erie Basin



Crowded waterfront housing on streets adjacent to Basins

1,032 companies employed over 12,000 workers and produced \$ 34.2 million dollars of products, from ships for the US Navy to sugar at the largest sugar refinery in the country, Domino Sugar Co., along the East River in Dumbo.⁷ By 1880, the number of manufacturing business increased to 5,201 with a work force of over 44,000. Brooklyn ranked fourth in the country measured by the value of goods produced: \$ 177 million.⁸ At the turn of the twentieth century Brooklyn's factories employed 100,000 people.

The growth of the port of New York continued at a breakneck pace. Wallace estimates that by 1900 "6,000 steamers and sailing vessels arrived each year from foreign ports; perhaps another 15,000 entered from domestic ports. The City handled two-thirds of the nation's imports ... and over one-third ... of exports."⁹ Once centered on Manhattan Island, the maritime world now expanded throughout the harbor to Brooklyn, Staten Island, and across the Hudson to the shoreline of the New Jersey. Docks and piers lined the waterfront of Bayonne, Jersey City, and Hoboken. All of the major railroads in the country had to bring their passenger and freight trains to New York in order to compete with the New York Central system. The NY Central was the only railroad that could bring its trains onto Manhattan Island.¹⁰ All of the other railroads, the

Baltimore & Ohio, Erie, Lehigh Valley, Pennsylvania, and Central RR of New Jersey, scrambled to build facilities to float their passengers and freight across the harbor. The Pennsylvania RR built facilities to float freight cars from piers in Bayonne to Bay Ridge in Brooklyn to connect with the tracks of the Long Island RR, which was owned by Pennsylvania.

The growth of the port of New York drove a relentless need for more wharves and piers to handle the enormous volume of passengers and freight. In 1907 over 8,000 ships arrived and departed the harbor in “direct foreign service,” the US Customs designation for ships arriving from or departing directly to a foreign port. In 1916, 10,580 ships arrived from foreign ports, an average of 29 each day for the entire year.¹¹ Added to this was the huge number of coastal ships, Albany and Long Island Sound steamers, thousands of Erie Canal barges, fleets of lighters, and railroad “float” barges carrying freight cars back and forth to New Jersey – chaos reigned. Shipping companies, manufacturers, and politicians complained that the maritime transportation bottleneck threatened the prosperity of the entire metropolitan region.

Consolidation of the City of New York in 1898 brought the responsibility for the Brooklyn waterfront under control of the New York City Department of Docks, created by the City and State of New York in 1870 to take control of the Manhattan waterfront and rebuild the wharves and piers, once the private property of the water-lot grantees. The Department of Docks began massive construction projects in the 1890s, spending over \$ 70 million, including on the Brooklyn waterfront.

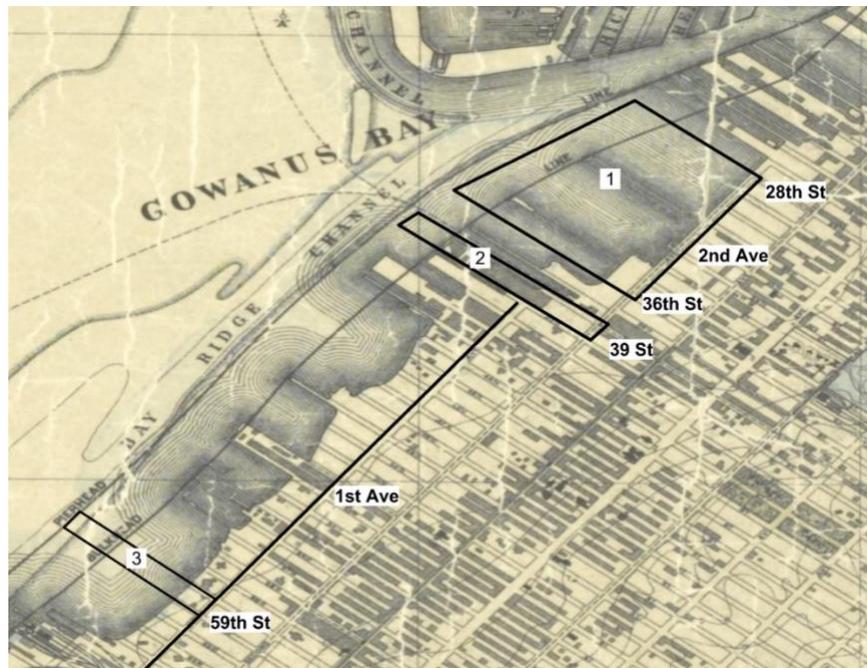
The Department of Docks, in 1900, proposed to take control of the Brooklyn waterfront, just as it had along the Manhattan shorefront. The private companies that owned the waterfront piers and warehouses, among them the Atlantic Dock Company, objected and pointed out that their facilities were more modern and pledged to keep them in good repair. The Dock department

agreed and turned its attention to the underdeveloped waterfront in Sunset Park where it proceeded with three major projects. They purchased the private waterfront property between 28th and 36th streets, the South Brooklyn Ferry landing between 36th and 39th streets, and from 59th street south for 422ft.¹²

Spending over \$ 6.2 million, the Dock Department built new piers out to the Bay Ridge Channel and the Gowanus Canal. Private development followed. In 1891 Irving T. Bush purchased land along the shoreline and organized the Bush Terminal Company in 1902.¹³ The company constructed warehouses and piers out into the harbor then bought the

Map 7 Sunset Park – Dept. of Docks 1906 - 1908

| |
|---|
| <p>Dept. of Docks: 1906-1908</p> <p>Water-lot Purchases</p> <p>1 – 1906</p> <p>From: Archibald Murray</p> <p>4.3 mill sq. ft.</p> <p>\$ 4,674,448</p> <p>2 – 1906</p> <p>From: South Bklyn Ferry Co.</p> <p>\$ 751,067</p> <p>3 – 1908</p> <p>From: Lotus Realty Co.</p> <p>770,000 sq. ft.</p> |
|---|



blocks between 1st and 2nd avenues for additional warehouses and their own railway. Soon the company operated eight piers, handled millions of tons of freight, and employed thousands of dock workers. Eventually the terminal had 102 warehouses with over 26 million cu. ft. of space

and 16 factory buildings. The development of the Sunset Park waterfront completed a modern maritime infrastructure stretching from Newtown Creek in Greenpoint to Bay Ridge.

Fairchild - 1924 Aerial Photographs - NYPL

Williamsburg, Dumbo, Brooklyn Heights Waterfront



Red Hook - Erie Basin, Gowanus Canal, Sunset Park, Bush Terminal



The Social Construction of the Brooklyn Waterfront Neighborhoods

The development of the Brooklyn waterfront and the growth of manufacturing led to a population explosion in Brooklyn. In 1840, the population was less than fifty thousand - 47,613 and by 1860 279,122; an increase of 486 percent; by 1880, the population reached 599,495. The waterfront needed an enormous work force, primarily of day laborers who lived on the nearby streets. Loading and unloading ships and barges was back-breaking, dirty, and dangerous work.

Immigration played a key role in the history of the port of New York and its waterfront neighborhoods in Brooklyn. The Irish famine in 1840s and the political turmoil and economic unrest in 1848 in Germany led to a flood of people coming to America and, by far, most arrived in the port of New York. Thousands of the Irish fleeing the famine landed on the East River docks and walked to the teeming streets in the nearby 4th Ward, desperate to find decent housing and a job.

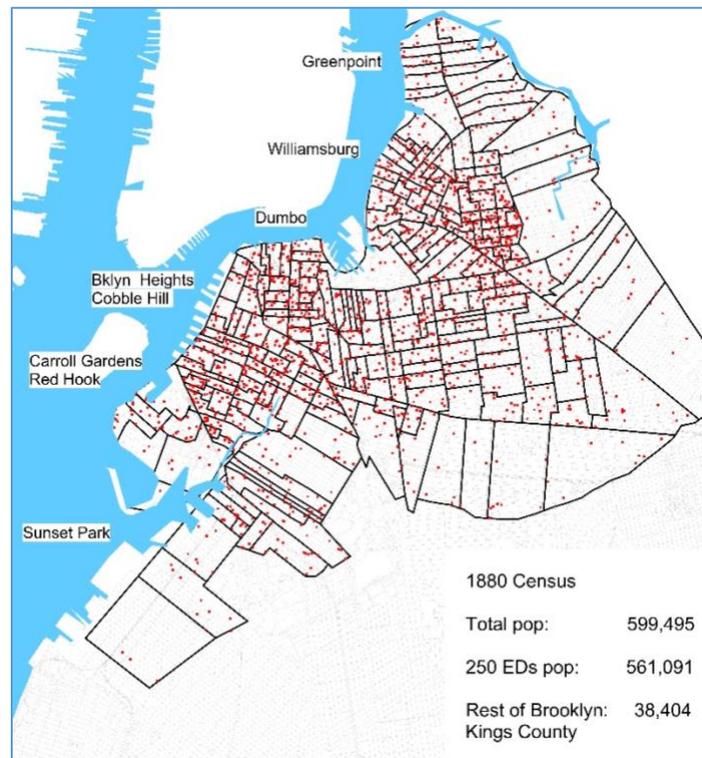
New York State opened Castle Garden in 1855 and between the opening and 1870, 2,112,908 immigrants passed there through the “Golden Door.” Many crossed by ferry to Brooklyn. By 1860, 38.1 percent of Brooklyn’s population was foreign born; over 78,000 of the foreign born were from Ireland.¹⁴ Immigration continued over the next decades to both New York (Manhattan) and Brooklyn. Brooklyn’s population was concentrated in the waterfront neighborhoods; other areas remained sparsely settled including Coney Island, Brighton Beach, Sheepshead Bay and Canarsie (Map 8).

Immigrants often moved to a street or neighborhood where people from their native country had preceded them, creating a pattern of “chain migration.” Once settled, they found work, married, and had children. Their American born children formed a first-generation ethnic

population, born in the United States with immigrant parents. Ethnic immigrant neighborhoods included both immigrants and their first-generation children; succeeding generations followed.

For the first time, the 1880 Census recorded the street address for people living in cities across the country, including Brooklyn. In addition, the Census Bureau organized the Census collection by dividing population concentrations into Enumeration Districts, small geographical areas, often one or two city blocks. For the 1880 Census in Brooklyn, 250 Enumeration Districts (EDs) were mapped. Brooklyn's population was concentrated in the EDs along the East River; the rest of the county remained sparsely settled where a primarily agricultural economy persisted. Development of the Sunset Park waterfront had just begun with a population of less than 5,000. By comparison, the EDs in the Cobble Hill, Carroll Gardens and Red Hook were home to 31,580 residents.

Map 8 1880 Census: Population Density by Enumeration District (ED)



Note: Each dot = 250 people

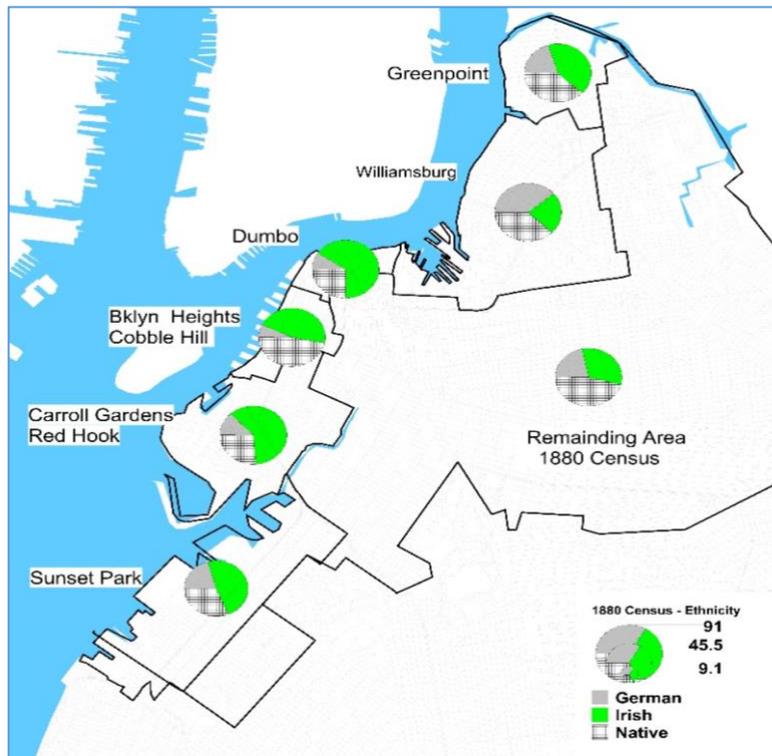
Complex ethnic patterns emerged with the waterfront neighborhoods significantly different from each other. German immigrants settled in Williamsburg and the Irish did not, illustrating patterns of chain migration. Along the Williamsburg streets, German would be the language spoken. Today in Brooklyn this ethnic pattern persists with Spanish, Creole, and Russian the first languages heard on many streets.

Table 1 1880 Census – EDs & Waterfront Neighborhoods

| Percent | All EDs N = 250 | Outside Waterfront EDs = 138 | Waterfront Neighborhoods EDs = 112 | Green-Point EDs = 12 | Williams- burg EDs = 8 | Dumbo EDs = 8 | Heights Cobble Hill EDs = 25 | Carroll Gardens Red Hook EDs = 8 | Sunset Park EDs = 25 |
|---------------|--------------------|---------------------------------|---------------------------------------|-------------------------|---------------------------|------------------|---------------------------------|-------------------------------------|-------------------------|
| Native | 35.8 | 40.7 | 29.9 | 33.4 | 33.6 | 21.8 | 41.7 | 22.9 | 25.2 |
| German | 20.8 | 19.4 | 22.9 | 17.9 | 35.4 | 8.2 | 8.2 | 11.5 | 17.4 |
| Irish | 31.0 | 28.1 | 36.1 | 36.6 | 2.1 | 57.5 | 41.5 | 53.3 | 40.0 |

Note: Native – born US & parents born US; German – born Germany + 1st Gen born US; Irish - born Ireland + 1st Gen born US

Map 9 1880 Census - Ethnicity



Four waterfront neighborhoods had significantly higher concentrations of Irish than for Brooklyn as a whole: Dumbo – 57.5 percent, Carroll Gardens, Red Hook – 53.3 percent, Brooklyn Heights, Cobble Hill – 41.5 percent and Sunset Park – 40 percent. If the spatial scale is changed to focus on the ten EDs in Cobble Hill and Carroll Gardens, ethnic separation becomes more striking. For example, in ED 39 adjacent to the docks, 77 percent of the population was born in Ireland or were first-generation Irish. By contrast ED 44 between Henry and Court streets was just 26.1 percent Irish. The Brooklyn Heights ED 4, north of Atlantic Avenue to Joralemon Street and fronting the East River piers, had the third highest percent of Irish residents in Brooklyn - 77.8 percent. ED 100 in Red Hook, on the Erie Basin, had the highest concentration: 85.2 percent.

Map 10 Cobble Hill – Carroll Gardens 1880 Census EDs - percent Irish



Source: Base map: NYPL MapWarper – Bromley street maps circa 1880s

The spatial segregation of the Irish in ED 36 (60.2 percent Irish) is apparent when the analysis shifts to the city block and building level. The five blocks from Court Street down to Columbia Street and the waterfront differ dramatically.

On the north side of first block (# 4) on Amity Street there were (and still are) thirteen brownstones. In each, lived a single family and each household had at least one live-in servant; the Klingenbergs and Bloosoms had three. Half of the 21 servants were Irish. The heads of household all had professional occupations, including: a physician, a “China” merchant, oil refiner, dry goods merchant, and a bank president. Hugh Boyd, the dry goods merchant, and Keran O’Brien, a real estate broker, were born in Ireland.

Map 11 1880 Census ED 36 – Cobble Hill



City blocks: **1** Columbia btw Amity & Congress **2** Hicks btw Pacific & Congress
 3 Henry btw Pacific & Congress **4** Amity btw Court & Clinton **5** 382 Hicks

Down Amity Street toward the harbor, the blocks were increasingly Irish. Crossing Henry Street the neighborhood changed dramatically. Just a short distance farther down toward the waterfront on Hicks Street, the Irish predominated. On Columbia Street, right across the street from the piers, almost all residents were Irish.

Table 2 1880 Census ED 36 - Cobble Hill

| | ED 36 | Block 1 Columbia | Block 2 Hicks | Block 3 Henry | Block 4 Amity | 382 Hicks |
|-------------------|--------------|-----------------------------|--------------------------|--------------------------|--------------------------|----------------------|
| Population | 3,353 | 143 | 565 | 236 | 91 | 44 |
| Native | 16.9 | 0 | 2.7 | 27.1 | 42.9 | 0 |
| German | 6.7 | 1.4 | .3 | 7.1 | 15.3 | 0 |
| Irish | 60.1 | 91.3 | 89.5 | 20.8 | 17.7 | 88.9 |

The eight families living in 382 Hicks Street were all Irish, a total of 44 people in a four story tenement.¹⁵ Thirteen men over the age of 15 worked and 7 of them worked the docks. Thomas Murtagh and his son John were longshoremen along with John Kelly, Jason Daly, and his son Joseph. Michael Flannery and Dennis Ryan worked as “day laborers” on the docks. As the shoreline infrastructure expanded after the Civil War, Irish immigrants, their sons, and then their grandsons worked the docks. The Irish waterfront lasted for over a hundred years. In “On the Waterfront,” the 1954 Academy Award winning movie starring Marlon Brando, the characters have Irish names and many speak with a brogue echoing ethnic stereotypes that persisted over time. In Brooklyn, Italian immigrants would eventually replace the Irish on the docks.

Twentieth Century: Population Density and Ethnic Diversity

The Brooklyn waterfront neighborhood populations grew, as did the city of Brooklyn. For the period from 1880 to 1940, Brooklyn was one of the fastest growing places in the United States. By 1940 Brooklyn's population exceeded Manhattan's by over 800,000 people.

Table 3 Brooklyn, Manhattan & New York City: Population 1880 - 1940

| Year | Brooklyn | Manhattan | NY City* |
|---|-----------|-----------|-----------|
| 1880 | 599,495 | 1,164,673 | – |
| 1900 | 1,166,582 | 1,850,093 | 3,437,202 |
| 1910 | 1,634,351 | 2,331,542 | 4,766,883 |
| 1920 | 2,018,356 | 2,284,103 | 5,620,048 |
| 1930 | 2,560,401 | 1,867,312 | 6,930,446 |
| 1940 | 2,698,285 | 1,889,924 | 7,454,995 |
| Percent increase 1880 - 1900 | 94.6 | | |
| Percent increase 1900 -1930 | 119.5 | | |

* 5 boroughs after consolidation in 1898.

Major improvements in the city's transportation system sustained the dramatic growth of Brooklyn: the Brooklyn Bridge (1883), Manhattan Bridge (1909), and the first subway line (IRT) between Manhattan and downtown Brooklyn (1908). Myriad street cars and railroads followed as did the expansion of the subways throughout the borough. The port of New York remained the busiest in the country and manufacturing flourished in Brooklyn and throughout the metropolitan region.

For 1900 the Census Bureau delineated Enumeration Districts (EDs) for the entire City – a total of 588, including EDs for Coney Island, Brighton Beach, Sheepshead Bay, and Canarsie. In addition to the dramatic growth in the overall population, the ethnic diversity of Brooklyn changed as immigration to the United States continued into the twentieth century. Many more individuals now arrived from eastern and southern Europe. As more immigrants settled in the waterfront neighborhoods, the demand for housing intensified and thousands of three- and four-

story tenements were constructed and filled. Conditions in the Brooklyn tenements mirrored those described by Jacob Riis in the Five Points and 4th Ward neighborhoods in Manhattan.¹⁶ Before 1940, the census Bureau did not collect housing data: population density (Pop./Sq M) provides a surrogate for overcrowding. In five of the six waterfront neighborhoods along the East River and the harbor, population density exceeded 50,000 people per square mile crammed into the three- and four-story tenements. A decade later Williamsburg's density exceeded 76,000 people per square mile!

Not only did the population grow, ethnic diversity increased dramatically. Immigration from Ireland and Germany slowed. Millions of Jewish immigrants from Russia and Eastern Europe fled centuries of persecution to seek religious freedom in the United States and settled in Williamsburg. Scandinavians moved to Carroll Gardens - Red Hook and Sunset Park, another example of chain migration. Immigrants from Italy began to arrive and settle in Brooklyn by 1900 to be followed by millions more Italians in the next two decades before restrictions closed the "Golden Door" with the Immigration Act of 1924.

Map 12 Population Density by Enumeration District (ED)
1900 Census

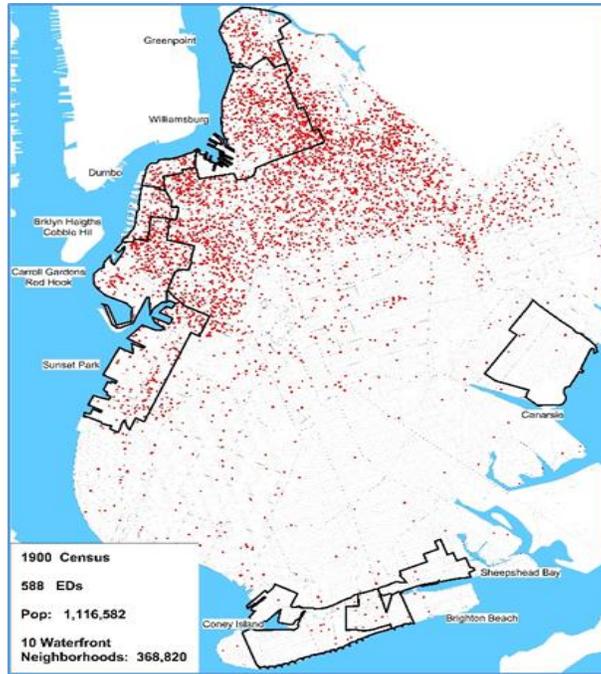


Table 4 1900 Census: Ethnicity – Brooklyn Waterfront Neighborhoods

| | Pop. 1900 | Native | German | Irish | Italy | Scan. | E.Europe Russia |
|---|--------------|--------|--------|-------|-------------|-------------|--------------------|
| Greenpoint | 45,920 | 27.3 | 22.2 | 26.8 | 1.3 | 2.2 | 5.1 |
| Williamsburg | 153,060 | 21.0 | 27.7 | 14.6 | 7.0 | 1.7 | 15.0 |
| Dumbo | 19,000 | 23.5 | 7.9 | 37.1 | 12.1 | 2.5 | 2.5 |
| Brooklyn Heights - Cobble Hill | 23,280 | 28.2 | 6.7 | 35.1 | 7.0 | 3.4 | 2.9 |
| Carroll Gardens - Red Hook | 75,720 | 18.3 | 11.8 | 35.8 | 9.7 | 12.3 | 1.0 |
| Sunset Park | 40,740 | 19.7 | 13.7 | 22.0 | 6.3 | 12.5 | 6.2 |
| Coney Island | 3,560 | 46.6 | 6.2 | 11.8 | 5.6 | 1.1 | 14.0 |
| Brighton Beach | 3,440 | 22.1 | 12.8 | 15.7 | 17.4 | 3.5 | 15.7 |
| Sheepshead Bay | 1,820 | 33.0 | 28.6 | 15.4 | 0 | 1.1 | .0 |
| Canarsie | 2,280 | 40.4 | 31.6 | 7.0 | 0 | 1.1 | 14.0 |

Note: Scan. – Scandinavia: Finland, Norway, Sweden E. Europe: Poland, Hungary, Romania

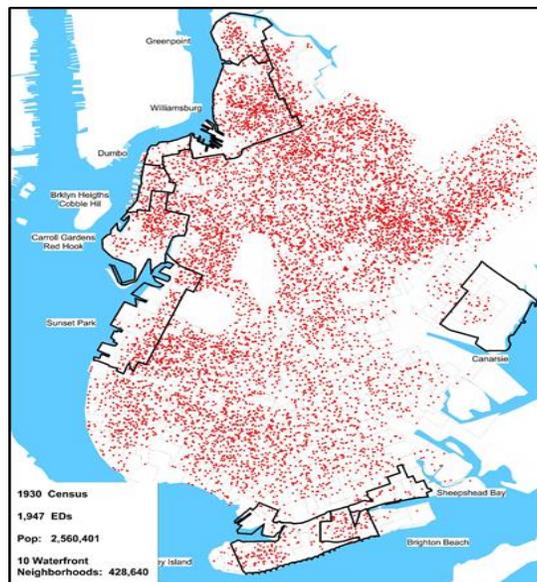
For the next three decades, Brooklyn’s population continued to grow to over 2.5 million people in 1930 and became even more diverse. Italian immigrants and their children settled in

Carroll Gardens and Red Hook and made up over 50 percent of the residents. Jewish immigrants from Russia moved to Coney Island, Brighton Beach, and Canarsie.

To some extent the Irish and Germans in Brooklyn disappear in the 1930 Census. A third- or fourth-generation Irish or German would be classified “Native” because they were born in the US and their parents also were. Their Irish and German ancestry, which in many cases remained strong, would come from the grandparents and in many cases their great-grandparents who immigrated in the 1840s.

The US Census today measures ethnicity/ ancestry by including a direct question: “What is your ancestry?” Respondents self-identify and describe their ancestry by tracing back over many generations. In the most recent American Community Survey, 45 million people self-identified their ancestry as German, 32.5 million as Irish, 23.9 million as British, and 17 million as Italian – 37 percent of the entire population of 321 million. Ethnic identification remains strong in Brooklyn as it does in many places across the United States.

Map 13 Population Density by Enumeration District (ED)
1930 Census



Millions of Italian immigrants arrived in New York in the first two decades of the nineteenth century and faced daunting challenges. Most spoke Italian as their first language, had little formal education, and no skilled occupation. They had little choice but to take the lowest paid jobs, which demanded hard labor for ten or twelve hours a day, including working the docks. Following the Irish and German immigrants who preceded them, they moved to ethnic enclaves where they found a welcome and an established, supportive religious and cultural world.

Italian immigrants and their children comprised 19 percent of the Brooklyn population in 1930. The 1930 Census data clearly illustrates the pattern of chain-migration to specific waterfront neighborhoods: Sheepshead Bay, Sunset Park, and especially Carroll Gardens and Red Hook.

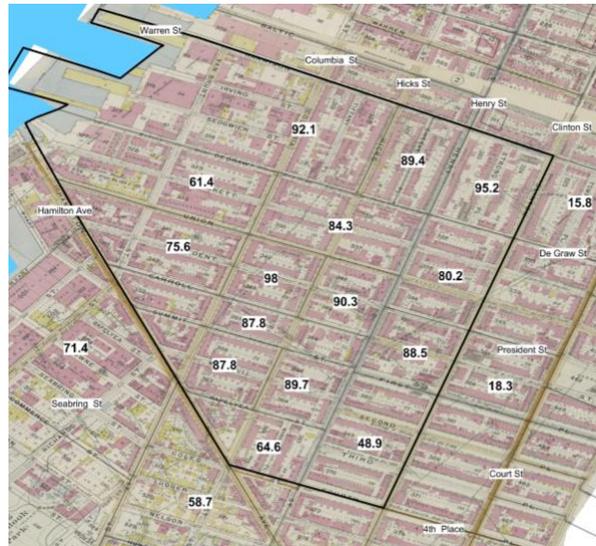
Table 5 1930 Census - Ethnicity

| | Pop. | Native | Irish | German | Italy | E. Europe | Russia |
|---------------------------------------|-----------|--------|-------|--------|-------------|-----------|-------------|
| Brooklyn | 2,560,401 | 20.4 | 6.9 | 5.6 | 19.2 | 10.1 | 17.7 |
| Greenpoint | 40,340 | 19.2 | 13.8 | 4.7 | 3.1 | 39.3 | 4.4 |
| Dumbo | 9,660 | 17.0 | 13.0 | 2.7 | 21.3 | 6.6 | 1.7 |
| Brooklyn Heights - Cobble Hill | 21,160 | 30.2 | 9.9 | 3.3 | 18.2 | 1.4 | 2.7 |
| Carroll Gardens - Red Hook | 68,620 | 15.7 | 11.5 | 2.3 | 51.6 | .8 | 1.4 |
| Sunset Park | 66,220 | 17.4 | 10.2 | 6.8 | 25.3 | 10.6 | 1.7 |
| Williamsburg | 150,300 | 12.7 | 2.8 | 2.8 | 21.9 | 24.1 | 17.0 |
| Coney Island | 34,840 | 6.0 | 2.0 | 1.3 | 17.6 | 20.0 | 32.5 |
| Brighton Beach | 23,040 | 8.0 | .3 | 2.3 | 4.4 | 15.8 | 43.1 |
| Sheepshead Bay | 5,200 | 40.0 | 8.1 | 3.8 | 27.7 | 1.5 | .4 |
| Canarsie | 9,260 | 23.1 | 2.8 | 8.4 | 13.2 | 4.3 | 29.6 |

Working the docks necessitated finding a place to live on the waterfront. On the blocks below Clinton Street and down to the docks, the spatial segregation of the Italians was intense. In 1930 Enumeration Districts the area below Clinton, from Warren Street to Hamilton Avenue,

24,100 people lived, of whom 83 percent were Italian. In a number of the EDs Italians made up over 90 percent of the population, a concentrated ethnic enclave.

Map 14 1930 Census: Carroll Gardens – Red Hook % Italian



The Immigration Act of 1924 ended the Century of Immigration; the total number of legal immigrants was limited to 163,000 people a year. The 1924 law set each country's quota on the percentage of immigrants recorded in the 1890 census—a blatant effort to limit Jewish and Italian immigration. In the first decade of the twentieth century, over 2,000,000 Italians came to American. After 1924, the law set Italy's quota at 3,845 a year and Russia's at 2,248, slamming the Golden Door closed.

Brooklyn Waterfront Housing Crisis

The Great Depression descended on the New York metropolitan region in the 1930s. Desperate men and women walked the streets of the city searching for a job or a bread line. Far fewer people came to America as economic opportunity disappeared. After a half-century of dramatic population growth, Brooklyn's population increased by just 138,000 thousand between

1930 and 1940. Tenements on the blocks closest to the shoreline had far fewer residents or were in disrepair and many were soon to be abandoned.

Historians of the New Deal usually laud the myriad of programs that brought relief to millions. The WPA put hundreds of thousands back to work in New York City, including on Robert Moses' highway, bridge, and tunnel projects. In Red Hook, construction of the Red Hook Houses provided decent housing for thousands of families.

New Deal housing initiatives during the Depression included the Home Owners Loan Corporation (HOLC) and Federal Housing Authority (FHA). The HOLC refinanced over a million mortgages in danger of default and also systematically appraised the value of housing in neighborhoods across the United States.¹⁷ The HOLC rated each neighborhood's housing using four categories: A (Best), B (Still Desirable), C (Definitely Declining), and D (Hazardous). A final step involved creating detailed maps of all of the cities and color-coding each neighborhood using the four categories with red used for D – the neighborhoods with the most “deteriorated” housing. From this work by the HOLC comes the term “redlining.” In cities across the country, almost all African-American and ethnic neighborhoods were “redlined.” In these neighborhoods, the HOLC would not refinance existing housing or finance new construction, resulting in a continued spiraling downward of these “redlined” neighborhoods. The FHA, in turn, provided mortgage guaranties, which enabled millions to buy homes in the suburbs, but would not guarantee mortgages in redlined neighborhoods or in addition C (Definitely Declining). For Brooklyn, the 1938 HOLC appraisals proved devastating.

Map 15 Brooklyn, Waterfront Neighborhoods & HOLC Ratings – 1938



Note: blank spaces – primarily industrial, commercial, parkland

Of the 64 neighborhoods defined by the HOLC, only one in Bay Ridge was rated as A (Best) and 17 as B (Still Desirable). All the remaining were ranked as either C (Definitely Declining) (n=24) or D (Hazardous) (n = 22), the latter – “redlined.” In the waterfront neighborhoods along the East River and Upper Bay, there was only one neighborhood where the housing was rated as “Still Desirable” – parts of Brooklyn Heights. The HOLC redlined all of the housing in Williamsburg, Cobble Hill, Carroll Gardens, Red Hook, and Sunset Park along the shoreline as “Hazardous.” The nearest neighborhood with housing rated as “Still Desirable” was Park Slope.

Map 16 Waterfront Neighborhoods & HOLC Ratings – 1938



Note: 1 – Brooklyn Heights 2 - Park Slope

Financing for existing housing or new construction disappeared from large parts of Brooklyn. The HOLC redlining continued well into the post- World War II era. The 1960 Census of Housing rated housing in each Census tract as: “sound,” “deteriorated,” or “dilapidated” – the last two categories approximated the HOLC— C and D categories. The waterfront neighborhoods throughout Brooklyn had the highest concentration of “deteriorated” and “dilapidated” housing in 1960 just as they did in 1938.

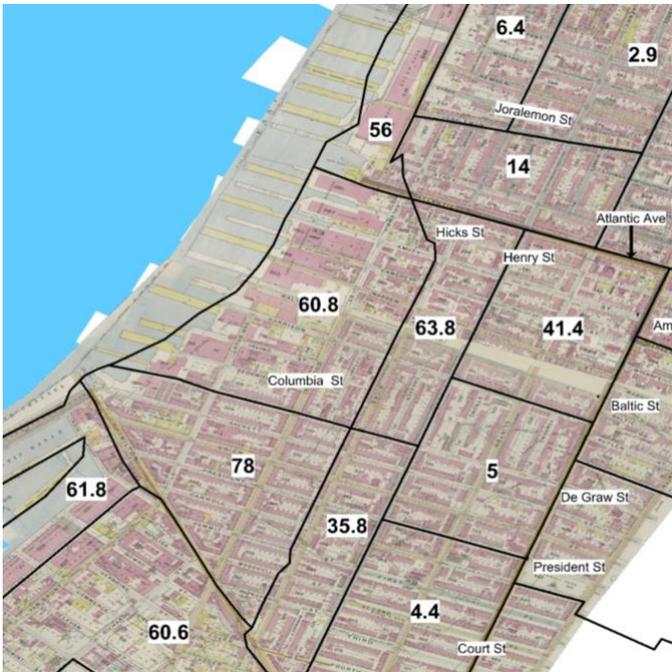
Table 6 Brooklyn Housing 1940 - 1960

| Brooklyn | 1940 | 1960 | |
|----------------------------|---------|---------|------------|
| Total Housing Units | 674,958 | 973,619 | |
| | | Units | Percentage |
| Sound (No Repair) | – | 737,343 | 75.8% |

| | | | |
|---------------------|---|---------|--------|
| Deteriorated | – | 209,260 | 21.5 % |
| Dilapidated | – | 27,016 | 2.7 % |

In the Census tracts along the waterfront from Atlantic Avenue to the Atlantic Basin, the percentage of deteriorated and dilapidated housing ranged from 56 percent to 78 percent. In the block up from the waterfront close to Court Street, almost all of the housing was classified as “sound” and not in need of any repair.

Map 17 1960 Census Tracts --Percent of Housing Deteriorated + Dilapidated



Source- base maps: NYPL Mapwarper – 1890s Bromley street maps

The Post War Era and the Near Death of the Waterfront

Brooklyn’s waterfront played an important part in World War II. The Navy Yard employed more than 70,000 people who worked around the clock, seven days a week for four years. Ships crowded the piers at the Bush Terminal, loading millions of tons of supplies for the war in Europe. Longshoremen worked long hours and returned home to their crowded tenements along the shore. Brooklyn had an acute shortage of housing through the war years,

building materials were rationed, and there was little new residential construction; maintenance of the existing housing stock fell far behind.

The 1950s brought unimaginable change. Returning GIs married; the Baby Boom followed putting even more pressure on the Brooklyn housing stock. Deindustrialization began and suburbanization followed. Millions left Brooklyn for what many saw as the “Promised Land” in Nassau and Suffolk counties. Brooklyn’s post-war population fell from 2.7 million in 1950 to less than 2.2 million in 1980, a loss of half a million people.

Robert Moses, beginning in the 1930s, built bridges, tunnels, and highways that completely changed the transportation system in the New York metropolitan region, cementing the ascendancy of the automobile and truck.¹⁸ The Port of New York’s dominant position also declined. In 1951, the port handled 151 million tons of cargo while Boston, Philadelphia, Mobile, and New Orleans handled 353 million tons.¹⁹ On the waterfront, crime and corruption flourished. Theft on the docks reached epic proportions, costing shippers an estimated \$ 200 million a year. The International Longshoremen’s Association (ILA) stood by as mobsters controlled the docks and made the lives of the longshoremen a living hell.²⁰ Organized crime bosses Albert and Anthony Anastasia controlled the Brooklyn docks with an iron hand. Fewer and fewer ships arrived and departed from both Manhattan and Brooklyn docks. Chintz describes the slow death of the waterfront as “A Century of Slowing Down.”²¹

The container revolution dealt the final death blow to the Brooklyn and Manhattan industrial waterfront. In a brief period, a way of life on the piers and in the waterfront neighborhoods disappeared. This revolution began in 1956 when Malcolm McLean loaded 58 containers onto his ship, the *Ideal-X*, in Newark Bay bound for Houston, Texas. No one could have anticipated the dramatic changes that would follow. The Port of New York moved from the

Brooklyn and Manhattan shoreline to Newark and Elizabeth, N.J. The N.Y, N.J. Port Authority in 2015 reported that the port handled 3,602,508 containers. Brooklyn's only container facility along the Red Hook waterfront handled 110,000 containers – a mere 3 percent of the total volume. Across the harbor in Newark Bay, the Port Authority's huge container facilities flourished. In 1965 there were 2.3 million days of longshoremen's labor on the Brooklyn waterfront. One decade later, that number had fallen to 930,000. Levinson described the demise of the Bush Terminal: "...employment there had fallen 78 percent in the decade (1965-75). Brooklyn's once mighty cargo-handling industry was a shadow of its former self."²²

Brooklyn's manufacturing world also disappeared, as companies moved from the waterfront neighborhoods out of the city to suburban locations where space was available for large one-story buildings, adjacent to the new highways Moses built. Manhattan and Brooklyn lost 357,000 manufacturing jobs between 1956 and 2013.

Racial change accelerated in the second half of the twentieth century and continues to the present day. In 1940, African-Americans were 4.1 percent of Brooklyn's population; by 1960 the Black population reached 15 percent, most of whom lived in Bedford-Stuyvesant. The US Census in 1960 tabulated the Hispanic population (by surname) as 7 percent of Brooklyn's residents. Today the population is 36 percent African-American, 34 percent White, 18 percent Hispanic, and 12 percent Asian – one of the most diverse places in the United States.

Brooklyn's waterfront neighborhoods, historically linked to the port of New York and the city's manufacturing base, suffered. By 1960, the population in the six neighborhoods along the harbor declined by 26 percent. Tens of thousands of Brooklyn families, in search of decent housing, had moved to the suburbs where bank financing and FHA mortgage guaranties were readily available.

Table 7 Brooklyn Waterfront Neighborhoods: Population 1940 - 1960

| | 1940 | | 1960 |
|---------------------------------------|------------------|--|------------------|
| Brooklyn | 2,698,285 | | 2,628,285 |
| 10 Waterfront Neighborhoods | 459,569 | | 396,620 |
| Greenpoint | 57,854 | | 29,056 |
| Dumbo | 13,138 | | 4,464 |
| Brooklyn Heights - Cobble Hill | 33,568 | | 20,700 |
| Carroll Gardens - Red Hook | 68,620 | | 60,428 |
| Sunset Park | 49,461 | | 51,711 |
| Williamsburg | 138,904 | | 119,908 |
| Subtotal | 361,545 | | 286,267 |
| Coney Island | 41,515 | | 33,075 |
| Brighton Beach | 21,209 | | 31,486 |
| Sheepshead Bay | 19,260 | | 15,398 |
| Canarsie | 16,040 | | 30,394 |
| Subtotal | 98,024 | | 110,353 |

On October 5th, 1977, President Jimmy Carter made a dramatic visit to the South Bronx and walked across a landscape of devastation and abandonment that looked like Berlin at the end of World War II. The President could have visited Columbia Street on the Brooklyn waterfront and viewed the same scene of urban decay. The waterfront neighborhoods hollowed out as the more affluent continued to leave for the suburbs. Those who remained had an increasingly difficult time finding a job that provided a decent income. Extreme poverty characterized the waterfront and many other neighborhoods through Brooklyn.

Economic Transformation

After the despair of the 1960s, 70s, and 80s, parts of Brooklyn and especially the waterfront neighborhoods were once again transformed. The waterfront is no longer a place of

piers, docks, and basins filled with maritime commerce or with thousands of manufacturing companies and warehouses on the streets nearby. Many of the tenements and brownstones that remain have been renovated in Brooklyn Heights, Cobble Hill, Carroll Gardens, and Red Hook. In the late 1950s, the Brownstone movement began in Brooklyn Heights and spread block by block to the neighborhoods south of Atlantic Avenue.²³ In Dumbo, Greenpoint, and Williamsburg the zoning changes effected during the Bloomberg mayoralty resulted in the construction of tall apartment towers along the waterfront while many warehouses and old factory buildings were converted to luxury condominiums. Additionally, from Greenpoint to Sunset Park, waterfront parks have created a new landscape for leisure and recreation.

In several of Brooklyn's waterfront neighborhoods there has been significant population change since 1990. Almost all of the 115 tracts in the ten neighborhoods experienced population increases, in some cases at very dramatic rates of increase. Eleven tracts in Williamsburg, six in Canarsie, three in Brooklyn Heights and Cobble Hill, and one each in Coney Island and Brighton Beach had a population increase of over 50 percent.

Population change has been most dramatic right on the waterfront, across from where ships crowded the piers for hundreds of years. Affluent young professionals have moved to the shore reversing more than four decades of population decline. Between 1990 and 2017, in nine waterfront Census tracts from Williamsburg to Brooklyn Heights, the population almost doubled from 11,517 to 32,966. In two areas, the population increase exceeded 1,000 percent.

Map 18 Waterfront Census Tracts: Williamsburg, Dumbo, Brooklyn Heights
Pop. Change 1990 – 2017

| Neighborhood | Census Tract | 1990 | 2017 | % Change |
|-------------------------|--------------|---------------|---------------|----------------|
| North Brooklyn | | 11,517 | 32,966 | 186.2 |
| Williamsburg | 515 | 841 | 2,024 | 140.6 |
| | 517 | 1,356 | 2,343 | 72.7 |
| | 519 | 2,791 | 5,159 | 84.8 |
| | 549 | 1,190 | 3,806 | 219.8 |
| | 555 | 544 | 6,431 | 1,082.1 |
| | 557 | 1,076 | 2,214 | 105.7 |
| Dumbo | 21 | 419 | 4,910 | 1,071.8 |
| Brooklyn Heights | 7 | 600 | 2,025 | 237.5 |
| | 47 | 2,700 | 4,054 | 50.1 |



Celebration of change on the Brooklyn waterfront is not without controversy. From Dumbo to Red Hook, renovated or new housing is affordable only for the affluent. In 2015 the average household income in Brooklyn stood at \$ 83,177. In the two Dumbo tracts, household income was \$127,431 and \$ 248,521 – three times the average in Brooklyn. In every tract in Brooklyn Heights, Cobble Hill, and Carroll Gardens average income exceeded \$100,000.

Map 19 Census 2015 – Average Household Income



Note Nos. = 1,000 Ex. \$ 123.7 = \$123,700

By comparison, in the thirteen tracts in Sunset Park income ranged between \$47,000 and a high of \$ 77,000, well below the average income in Brooklyn. The Red Hook Houses stand apart with average income of \$27,000 for each household. An affordability crisis challenges long-time residents and thousands of households with modest income.

Ethnic and racial change has transformed Sunset Park, Coney Island, Brighton Beach, Sheepshead Bay, and Canarsie creating new ethnic enclaves. These areas mirror the enclaves of Irish, Germans, Italians, and other Europeans in the nineteenth and first half of the twentieth century.

Brooklyn, once a pastoral farming community across the river from Manhattan, developed into a thriving maritime industrial world that drew millions of immigrants. Diverse ethnic communities emerged, a pattern that continues to the present day. The city streetscapes reflected a shipping and industrial world that remained intact until after World War II when the post-industrial era began. The demise of that world was devastating and the future looked bleak. A rebirth began that has transformed some of the waterfront neighborhoods along the East River and the harbor. The demise of the maritime waterfront has allowed a reimagining of space and the redevelopment of the entire shorefront from Newtown Creek to Atlantic Avenue. Instead of piers and factories, a new cityscape of parkland and expensive residential housing has emerged. Today the most valuable real estate assets are the views and access to the shoreline.

Notes

1

| Population 1698 - 1900 | | |
|------------------------|--------------------------|------------------------------|
| Year | Brooklyn Kings County | New York Manhattan Island |
| 1698 | 2,017 | 4,937 |
| 1749 | 2,283 | 13,294 |
| 1771 | 3,623 | 21,863 |
| 1790 | 4,495 | 33,131 |
| 1840 | 47,613 | 312,710 |
| 1880 | 599,495 | 942,292 |
| 1900 | 1,166,582 | 1,850,093 |

Source: U.S. Census, *A Century of Population Growth* (1909); Census of Population (1990)

² A “wharf” is the bulkhead parallel to the streets along the rivers and harbor ex. South St, West St., Furman St., Columbia St. A “pier” is a platform built out into the river at a right angle to the river front street

³ See Schlichting: *Waterfront Manhattan: From Henry Hudson to the High Line* (Baltimore, 2018) Chap. 2.

⁴ New York Municipal Archives, Department of Ports and Trade, *Water Grants*, Accession No. 92-61

⁵ Commissioners of Police, *Annual Report 1865* (New York, 1866).

⁶ Annual Report of the Commissioner of Navigation, 1888.

⁷ US Census Bureau: Census of Manufactures – 1860

⁸ US Census Bureau: Census of Manufactures – 1880, 1900

⁹ Wallace, *Greater Gotham*, (New York, 2017) 189.

¹⁰ See Schlichting: *Grand Central’s Engineer*, Chap 1. (Baltimore, 2012).

Vessels, Tonnage – Port of New York – Direct Foreign Service

| Year | Entered | | Departed | | Total Ships |
|------|---------|------------|----------|------------|-------------|
| | Ships | Tonnage | Ships | Tonnage | |
| 1907 | 4,315 | 11,984,297 | 3,863 | 11,473,334 | 8,178 |
| 1910 | 4,419 | 12,405,673 | 3,755 | 12,962,709 | 8,204 |
| 1916 | 5,192 | 13,213,919 | 5,388 | 13,843,473 | 10,580 |

Source: 1860 Albion, *Rise of New York Port*; 1907 - 1916 Port Development Commission, *Joint Report*

¹² Department of Docks, *Annual Report 1909* (New York, 1910).

¹³ Gallager, Bush Terminal, *Encyclopedia of the City of New York* (New York, 1995)

¹⁴ The source of the historic and modern Census data is the University of Minnesota Population Center. Census data for 1880 to 1940 – IPUMS: <https://www.ipums.org/>; Database for 1960 to 2017 Census data – National Historic Geographical Information System: <https://www.nhgis.org/>

¹⁵ 1880 Census data - 382 Hicks Street Ancestry.com accessed Feb., 2019

¹⁶ Riis, *How the Other Half Lives* (New York, 1890).

¹⁷ Jackson, "Race Ethnicity, and Real Estate Appraisal: The Home Owners Loan Corporation and the Federal Housing Administration," *Journal of Urban History*, 1980, 422

¹⁸ Caro, *The Power Broker* (New York, 1974).

¹⁹ Kihss, "Pier Growth Here Way Behind Rivals," *New York Times*, Aug 13, 1953, 38.

²⁰ Johnson, "Crime on the Waterfront" – 21 articles in the *New York Sun*, 1947-48 – won Pulitzer Prize

²¹ Chintz, "A Century of Slowing Down", Chap 2, *Freight and the Metropolis*, (Boston, 1960)

²² Levinson, *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger*, (Princeton, 2006).

²³ Osman, *The Invention of Brownstone Brooklyn: Gentrification and the Search for Authenticity in Postwar New York* (New York, 2011).