



Hudson River Park

WALKING TOUR **3**  
greenwich village



# Welcome

**Welcome to Hudson River Park! The shoreline you are about to discover helped shape the city, state and country, and we are delighted to share some of its rich history with you.**

**While the focus of this tour is on Greenwich Village – for our purposes, defined as the area between Houston Street at the south (our first stop) and the Gansevoort Peninsula (just south of 14th Street) on the north – Hudson River Park includes a much larger area. The entire park extends from Battery Place to West 59th Street – a length of five miles – and is a joint effort between New York City and State. While some of the Park has been completed, other areas remain under design or construction. Eventually, the Park will include a continuous waterside esplanade, over 13 piers reserved for both passive and active public recreation, a marine sanctuary, and a large variety of boating facilities, sports fields, gardens, and lawns. The Hudson River Park Trust welcomes everyone to enjoy this great resource while exploring some of the fascinating people, events and architecture of the Greenwich Village neighborhood.**

**IN THE 1980S, NEW YORK STATE AND CITY CREATED BOTH THE WEST SIDE TASK FORCE AND WEST SIDE WATERFRONT PANEL TO DEVELOP THE PRELIMINARY PLANS FOR A BOULEVARD AND PARK ALONG THE HUDSON RIVER. BY THE MID-1990'S, THE NYS DEPARTMENT OF TRANSPORTATION AND HUDSON RIVER PARK CONSERVANCY HAD REFINED THIS VISION. PARK CONSTRUCTION BEGAN WHEN THE HUDSON RIVER PARK TRUST WAS CREATED WITH PASSAGE OF THE HUDSON RIVER PARK ACT IN 1998.**

## Early Greenwich Village History

Most people don't realize it but the area we know as the Village is integrally connected to the Hudson River. For eons, the area was a hunting enclave and trading post for the Native American Lenape tribe that established Sapanikan Point on a nearby area of shoreline marsh. Trout streams, bluffs and woodland occupied an area near what are now Washington, Gansevoort and Little West 12th Streets.

Peter Minuit, the director of the Dutch West Indies Company, purchased local land at an extremely favorable rate from the Lenape. Subsequently, in 1644, the New Amsterdam Town Council freed several enslaved black workers, giving them grants of farmland in the Village. Although their rights were restricted, the event marked the first time a group of former slaves was freed in colonial America. At the same time, two hundred acres of riverfront property north of Spring Street were also granted for a large tobacco plantation.

After England took control of New Amsterdam from the Dutch in 1664, early settlers gathered to form a hamlet. Lands from Fulton to Christopher Streets later became the Queen's Farm, granted by Queen Ann to Trinity Church in 1705. In the 1740's, Admiral Sir Peter Warren purchased 300 acres of the farm and built a manor house between Charles and Perry Streets. In 1797, the Common Council granted the right to develop waterfront lots on the leased property, allowing for the further growth of this community.

By the 1850s, Greenwich Village had become an urbanized neighborhood clustered around what is now the Christopher Street Pier. Inventions that transformed the developing world took place here, including the first successful steamship in America. Eventually, these industries declined, and most of the piers succumbed to decay. Now, they are entering their next phase of life as an integral part of Hudson River Park.



**"A New York River-Front"**

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# 1

## HOUSTON STREET TO LEROY STREET:

# The River's Past and Future

We begin our walking tour near Pier 40 at the intersection of West and W. Houston Streets. Houston Street was named for William Houstoun, a Georgia delegate to the Continental Congress in 1784, 1785 and 1786, who married local Mary Bayard in 1788.

Two centuries ago, the Minetta Brook formed a wide delta in this area and included marshes and oyster reefs. The surrounding upland area was hilly with a magnificent old growth oak-chesnut forest. A unique aspect of Minetta Brook was the springs that formed the stream. When the City placed the stream underground, the springs kept flowing at high water. During heavy rains, a fountain at the source of one of those springs still flows in the lobby of the building at 2 Fifth Avenue. During the Revolutionary War, the British built a dam and flooded Minetta Brook to protect downtown fortifications and form a barrier against the American soldiers.

After the American Revolution, farms in the area began to expand. The American Wing of the Metropolitan Museum of Art contains an illustration from approximately 1776 showing Houston Street with windmills and grain fields. When the US Customs House moved to the area in 1803, the waterfront changed rapidly with several small versions of Pier 40. The growth in size of Pier 40 was first associated with railroads, then with Cunard and the New England Steamship ocean liner services, and after World War II as general wharfage.

THE BANK OF NEW YORK GAVE ITS NAME TO BANK STREET, WHICH IS LOCATED NEAR THE NORTHERN END OF THIS TOUR. WHEN A CLERK AT THE BANK'S WALL STREET HEADQUARTERS WAS STRICKEN WITH YELLOW FEVER IN 1798 AND TO AVOID BEING QUARANTINED AND CLOSED (AS HAD OCCURRED DURING THE 1791 EPIDEMIC), THE BANK BOUGHT EIGHT LOTS IN THE VILLAGE. THE VILLAGE BOOMED WHEN THE 1822 YELLOW FEVER EPIDEMIC DROVE HUNDREDS OF RESIDENTS AND BUSINESSES FROM DOWNTOWN.



**"Str. Ryndam, Holland-American line"**

FRED PANSING, 1854-1912, ARTIST  
LIBRARY OF CONGRESS,  
PRINTS & PHOTOGRAPHS DIVISION,  
[LC-D416-43129]

The current Pier 40 was built by the City in the late 1950s as a passenger ship terminal for the Holland-America Lines. A beautiful ceramic mural showcasing the Line still exists in the pier's Lobby. With a footprint of over 14 acres, Pier 40 is the largest pier on the Hudson River. The building alone contains approximately 1.2 million square feet, and the newly built ballfields in the courtyard measure approximately 3.5 acres, roughly the size of the infield at Yankee Stadium. In the near future, the Pier 40 Lobby will have a display of historic photographs. Greenwich Village waterfront photos have been selected that feature the construction of the historic bulkhead, Gansevoort Market, and oyster barges from the 19th Century; the docking of the Lusitania early in the 20th Century at Pier 57, and recent photographs of the new park on Pier 45 and the historic Seaman's Hotel at Jane Street. Public restrooms are also located here on the second floor and on the esplanade at Pier 45 and Pier 51.

Imagine if the entire waterfront were occupied by structures similar to the one at Pier 40. You would barely be able to see the water. That's the way the Hudson River waterfront looked during the industrial heyday of the 19th Century.

When you exit the building, you'll be at Clarkson Street. Clarkson Street was named for General Matthew Clarkson, a volunteer in the New York State Militia during the Battle of Long Island in the American Revolution. He later served on the staffs of Generals Benedict Arnold and Benjamin Lincoln. After the war, he was a politician, philanthropist, and president of the Bank of New York from 1804 to 1825. The Bank of New York was an early and important presence in the Village.

*Walk north past LeRoy Street near the dog run and continue on to Barrow Street, the next stop. You'll find that street names north from Pier 40 are etched in the granite paving next to the waterside railing.*

# 2

## LEROY TO BARROW STREETS

# The Riverfront as Recreation

Although now open water, the site of former Pier 41 is on the left at the foot of Leroy Street. Early in the 20th Century, trains once clogged the Westside and Pier 41 hosted a terminal for the Delaware, Lackawanna, and Western Railroads. Further north, at the foot of Morton Street, is the pile field from old Pier 42. Pier 42 primarily served steamships in the 19th and 20th Centuries. The distinctive structures on your right are the New Jersey PATH Train vent shafts. The PATH tunnels beneath your feet emerge at Christopher Street, and were the first tunnels built under the Hudson River.

Further along, Barrow Street was named for 18th Century artist Thomas Barrow, who drew stunning pictures of the famous and wealthy Trinity Church that got very wide circulation as prints. Originally, Barrow Street was called Reason Street, in honor of Thomas Paine's *The Age of Reason*. The foot of Barrow Street is also the former site of Pier 43, one of the area's first "recreation piers." Recreation piers were a signature element of the Hudson River landscape in the late 19th and early 20th centuries, and important predecessors to today's Hudson River Park.

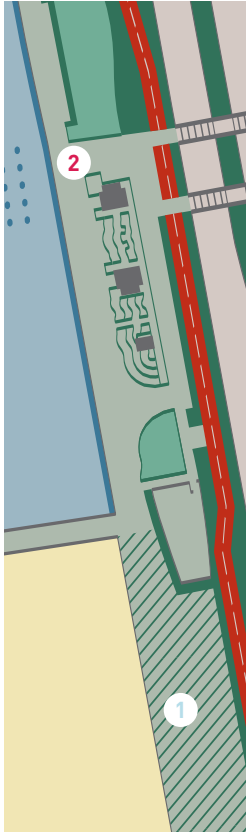
Recreation piers were very much in keeping with the motivation that also drove the 19th Century Settlement House movement - the belief that government and municipalities in burgeoning urban centers had a responsibility to provide more open space and fresh air for the mass of newcomers entering America, the majority of whom were rele-

gated to crowded tenements in heavily congested neighborhoods. After decades of free market commercial development dictating urban planning decisions on the waterfront, recreation piers had their foundation in the notion that public health accommodations had to be made in the design of the city. The same impulse led to the building of public bathhouses and playgrounds.

Originally built for steamboats, Pier 43 (the Barrow Street Recreation Pier) was converted into a two-story recreation building in the 20th Century that, in its prime, served thousands of mostly youthful urban dwellers who packed the waterfront on hot summer days to take in the

cooler temperatures and breezes from the Hudson. Although the definition of "recreation" was more refined than today, with conservative dress, strolling, and sitting on benches being the preferred activities, the opening of the waterfront for non-commercial purposes was just the beginning of a long-term movement. When Pier 43 closed during the 1950s, the public turned to the riskier activity of visiting derelict piers for recreation. Eventually, lobbying for access to the Westside waterfront resulted in the Hudson River Park Act, the state legislation that created the park you see today.

*Walk north to Christopher Street for the next stop.*



"Afternoon on the Christopher Street Recreation Pier."

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LEROY STREET WAS NAMED FOR JACOB LEROY, ALDERMAN AND HEAD OF JACOB LE ROY & SONS, A FIRM OF WORLD-WIDE TRADERS. THE LE ROY FIRM MADE HUGE PROFITS FROM THE VILLAGE RUNNING THE BRITISH BLOCKADE DURING THE WAR OF 1812.

# 3

## CHRISTOPHER STREET

# The First Steamship – The Clermont

Christopher Street saw the launch of the first successful American steamship. Its famed inventor, Robert Fulton, was born in Pennsylvania during 1765 and began his career as a portrait painter. Upon moving to England, he quickly became enamored with marine engineering. Among his early projects were more efficient water mills, dams, canals and locks.

Introduced to machine-powered ships but finding the field crowded in England, Fulton left for France just as Napoleon was rising to power. While there, he built the first practical submarine, the *Nautilus*. He also built explosives and torpedoes for use against British ships during the Napoleonic Wars. Eventually, Fulton returned to the United States to work on a new idea – steamships – the first of which he contracted at an iron works foundry in Brooklyn. Launched from the old Newgate Prison Pier (later called the Christopher Street Pier and now Pier 45), the “*North River Steamer*” and/or “*Clermont*”, revolutionized waterborne transportation for both commerce and recreation.

Picture this scene: In August 1807, a crowd of New Yorkers trekked miles to Christopher Street for what must have seemed a suicidal scheme (given the danger of exploding boilers at the time). At first, Fulton’s boat justified the pessimism in the crowd, experiencing many engine problems at the dock, but when it finally departed, hissing and churning northward, it steadily overtook assorted sloops and schooners.

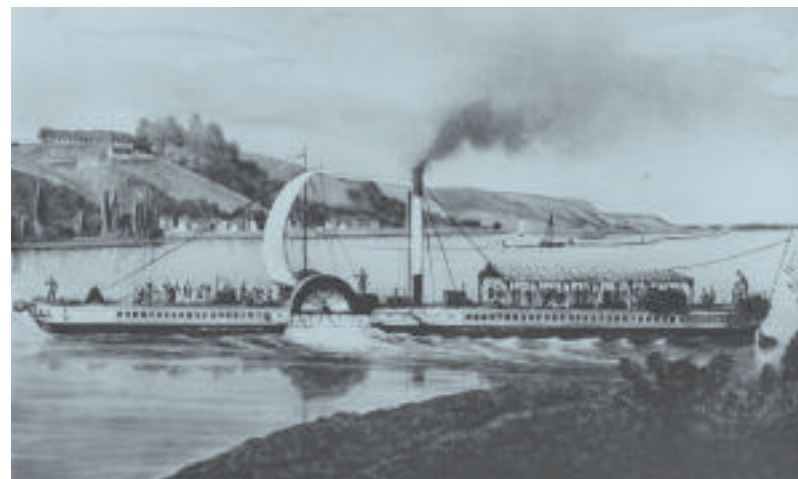
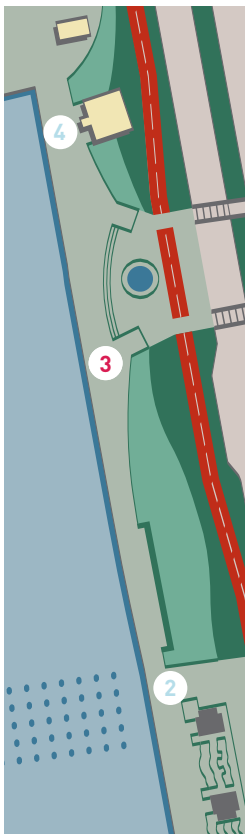
Later, in 1807, Fulton launched from a dock at the current West 10th Street for a 290-mile round-trip excursion from Manhattan to Albany. By early the next day, the *Clermont* had arrived at the estate of his partner and financier, Robert Livingston, averaging a speed of four-and-a-half miles per hour. Arriving in Albany the following morning, Fulton immediately hung a placard over the side of his ship, advertising for a return trip at seven dollars, more than twice the going rate on a sailing sloop.

With his engineering feats finally accepted, Fulton commercialized the steam engine, and finally became a successful entrepreneur. Following the Albany trip, Fulton and Livingston were awarded the monopoly on steamships in New York waters. In September 1807, Fulton began making scheduled service up the Hudson from a dock at the foot of Cortland Street.

In 1811, they operated the first steam ferry to New Jersey.

Soon, the Hudson River was filled with steamships. An entire industry grew around scenic tours of the Hudson, and soon, transatlantic steamships began to dock here, too. By the 1830s, steamer traffic on the Hudson and other local rivers had grown so quickly that competition between rival operators often degenerated into brawling, boat ramming, and races between competing businesses. But the traffic also boosted ship manufacturing, and from the early 1850s until 1890, the De Lamater Iron Works, one of the largest factories ever built in Greenwich Village, stretched along the Hudson River between 12th and 14th Streets. The boiler on the turreted Civil War vessel, the *U.S.S. Monitor*, was built at De Lamater in 1862.

Head north to Pier 45 at W. 10th Street.



“Robert Fulton’s Steamboat  
‘Clermont’ 1810”

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NEW YORK, THE LEONARD  
HASSAM BOGART COLLECTION

CHRISTOPHER STREET WAS NAMED FOR CHARLES CHRISTOPHER AMOS, AN HEIR TO A TRUSTEE OF PETER WARREN’S LARGE 18TH CENTURY ESTATE. BY 1744, AMOS HAD AMASSED ENOUGH INFLUENCE TO HAVE FOUR STREETS NAMED IN HIS HONOR (CHRISTOPHER, CHARLES, CHARLES LANE AND AMOS, NOW WEST 10TH STREET).

# 4

## PIER 45 AT W. 10TH STREET

# American Bohemia

As you walk north past Christopher Street, the lure of the inland Greenwich Village community becomes more pronounced. While the 17th and 18th Centuries brought commerce to the waterfront, the 19th Century attracted artisans who arrived on the heels of merchants. The Village's reputation as a center of artistic and cultural development had begun.

Among the early creative residents of this community to achieve fame was Samuel F.B. Morse. Known best for inventing the telegraph in 1844, Morse first came to the Village in 1832 to teach his real passion, painting and sculpture. Other creative denizens of the Village during the 19th Century were such authors as Louisa May Alcott, James Fenimore Cooper, Washington Irving, Edgar Allen Poe, and Mark Twain, writing such diverse works as *Little Women* and *The Legend of Sleepy Hollow*. At least one famous author also worked on the waterfront — Herman Melville, the writer of *Moby Dick*, began his career here as a customs agent for a shipping company located at the Gansevoort Market.

Because of soft soils and its winding, off-the-grid streets, the Village was able to avoid the high rise development that occurred in Downtown and Midtown Manhattan in the early 20th Century, but many of the buildings gradually slid into picturesque decay. At the same time, cheap rents and early stage productions attracted a growing cluster of the avant-garde, and writers, artists, performers, and those with "radical" ideas and politics

LANDSCAPE ARCHITECT BEATRIX FARRAND, THE 19TH CENTURY DESIGNER OF MANY MEMORABLE PROJECTS INCLUDING THE BROOKLYN BOTANIC GARDEN, ESTABLISHED HER FIRST OFFICE IN THE VILLAGE. NEAR HER BIRTHPLACE, A FAMILY FRIEND FOUNDED THE METROPOLITAN MUSEUM OF ART IN 1870. THE WHITNEY MUSEUM, FOUNDED BY GERTRUDE VANDERBILT WHITNEY, WAS ALSO LOCATED HERE UNTIL 1930.



Provincetown Playhouse.  
Berenice Abbot, Gelatine silver print, December 29, 1936.  
© MUSEUM OF THE CITY OF NEW YORK.

flocked to this free-thinking community where differences were tolerated.

Resident artists have included Jackson Pollock, William De Kooning, Edward Hopper, Jasper Johns, Robert Motherwell, Andy Warhol, Mark Rothko and Marcel Duchamp.

Playwrights Tennessee Williams, Eugene O'Neill, and Thornton Wilder debuted plays here, while dozens of famous writers including Henry James, Edith Wharton, Dashiell Hammett, Lillian Hellman, John Dos Passos, Djuna Barnes, James Baldwin, Thomas Wolfe, and Jack Kerouac all lived here. Poets Edna St. Vincent Millay, e.e. cummings, Dylan Thomas, and Allen Ginsberg lived here too, some reading from their works at the neighborhood's celebrated coffee houses. Radical Village voices from the left and right included Thomas Paine in the 18th Century, John Wilkes Booth in the 19th Century, and John Reed and Mabel Dodge in the 20th Century.

Of course, celebrities are not unique for being interested in ideas. Over a period of several decades, residents have carried on this tradition, debating issues like gay rights, open space/livability, development, and preservation. During the mid-20th Century, the decline of the shipping industry left the river on the periphery of the Village, opening the waterfront for use by a disenfranchised gay community, which gathered on out-of-the-way piers like the formerly derelict Pier 45. Over time, the area became known for AIDS education, Wigstock, and the annual Heritage of Pride Parade. Today, people of all types mingle on the bike-way, waterside esplanade, and the long echoing streets of the West Village. Students and adults still come to learn, paint, write, create, perform, protest, or simply to meet.

*Walk north past the newly reconstructed Pier 45 and onto the footbridge across the old Pier 45 "bow notch."*

# 5

## PIER 45 BOW NOTCH

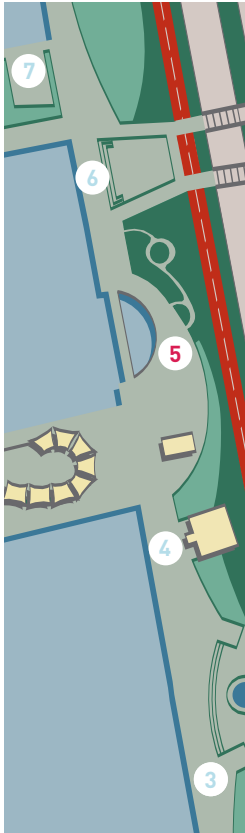
### The Life of a Pier

With the decline of sailing ships and sloops, the advent of the steamship, and the production of large transatlantic vessels, the Hudson River maritime industry was in a quandary. By the mid 1920s, the Department of Docks had presided over forty years of major renovations on the bulkhead and piers, attracting ever larger ships to the shoreline and making the Hudson River the country's principal port.

Of course, bigger ships required longer and deeper berths, and yet by the late 19th Century, the McClellan Commission (see Stop 11) had established a permanent bulkhead (seawall) with pier lengths limited to 1,000 feet to avoid clogging the shipping channel. What was the port to do?

The solution was the bow notch. After centuries of filling in the water to create more land, for the first time, land was instead excavated to accommodate the longer ships. The Christopher Street bow notch, created in 1925, was one of several built to accommodate these ships. The bow notch represented the final link in the infrastructure chain required to transform the old waterfront into a showpiece for modern maritime commerce.

The creation of the bow notch was just one example of the type of construction that took place routinely on the waterfront. In the Greenwich Village vicinity alone, there were many piers, including two overlapping piers at Christopher Street (Piers 44 and 45). Over the years, Piers 44 and 45 were sometimes separated and sometimes combined. They were



THE WHITE STAR LINE WAS FOUNDED IN LIVERPOOL, ENGLAND IN 1845. THE COMPANY'S FIRST FOCUS WAS ON THE AUSTRALIAN GOLD MINE TRADE. IN 1868, WHITE STAR RE-ROUTED THE ROYAL STANDARD FROM LIVERPOOL TO NEW YORK. IN 1907, WHITE STAR CONCEIVED THE IDEA OF BUILDING THREE LEVIATHANS THAT WOULD FEATURE THE LAST WORD IN LUXURY RATHER THAN SPEED. THE SHIPS WOULD BE NAMED THE OLYMPIC, TITANIC AND THE GIGANTIC (LATER RENAMED BRITANNIC AFTER THE TITANIC DISASTER).

also known by different names and even different numbers. For example, in the 18th Century, a combined Pier 44/45 was known as the State Prison Pier, but in the 19th Century, the names changed, and Pier 44 became the Amos Street Pier and Pier 45 was the Christopher Street Pier. The occupants of Piers 44 and 45 also changed frequently. At first, the piers were occupied by local sloops and mariners, but as the port gained prominence, corporations took over—the Albany Steamers in the 1840s, the Atlas Steamship Line in 1875, White Star in 1875, and the Clyde Steamship Company (later Clyde-Mallory) in 1908.

During the booming post-World War I economy, the port of New York became the American center of overseas shipping and commerce. At the same time, New Yorkers with

disposable incomes were increasingly traveling abroad, and thus, the demand for passenger lines increased. The Colonial Steamship Line took over Pier 45 in 1928. Afterwards, the Waterman Steamship Agency came to the pier in 1942, followed by the Norwegian American Line in 1965. By 1994, the pier shed was completely gone, and passenger ships had moved to Midtown, leaving only the pier platform remaining as a place for makeshift recreation. That remained the condition until the Hudson River Park Trust began reconstructing Pier 45 for public recreation in 2001.

*Now, look east from the bow notch into the city or cross the esplanade to the Charles Street entrance plaza. Both locations offer views along West Street (also known as the West Side Highway and Route 9A).*



The welcoming crowd awaits the arrival of the *S.S. Bergensfjord* to its Hudson River Pier. C. 1935

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# 6

## CHARLES STREET

# Important Buildings of West Street

On West Street in Greenwich Village, one can view the paradox of some of the City's newest buildings alongside important waterfront landmarks. While the new glass residential towers designed by Richard Meier just north have garnered a lot of attention, the river has always lured both the powerful and not-so-powerful to its banks.

Newgate prison was New York State's first penitentiary and opened on a river bluff bounded by Washington, Greenwich, Christopher and Charles Lane. Designed to house 432 inmates in 54 eight-person cells, Newgate soon became over-crowded, dirty and violent. In 1829, the prisoners were moved to a more modern prison at Sing Sing. Newgate became, respectively, a sanatorium, the Weehawken Market, and the Nash and Beadleson Brewery before its demolition in 1870s.

A number of 18th Century historical structures, representing the full range of traditional waterfront uses, still remain along West Street. Among these are the Great Eastern Hotel at 386 West Street, boat builder George Munson's house at 392 West Street, the S.J. Seely Lime Shop at 394 West Street, the Porterhouse and Dwelling at 395 West Street, the Isaac Amerman Bookshop and Dwelling at 398 West Street, the Livery Stable and Warehouse at 403-404 West Street, and the Wood Planing Mill at 445-453 West Street.

The Village waterfront was very active during the Revolutionary War. Following a massive British attack in 1776, Aaron Burr led American troops

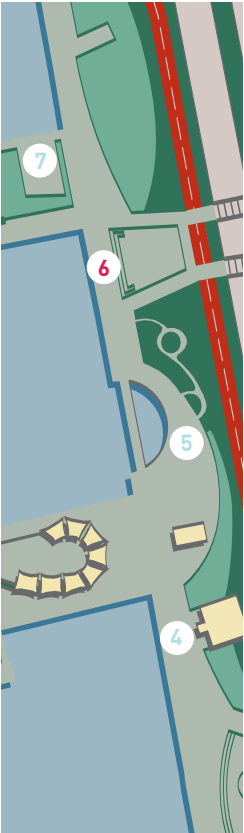
from General George Washington's command center, established at Burr's estate, along the Westside to join the Battle of Harlem Heights. Later, while he was Vice President, Burr shot Alexander Hamilton during a duel that took place on a bluff across the river in Weehawken, New Jersey. Hamilton died at nearby Jane Street (named for the former Janyees House at No. 81) after being rowed across the river. Ironically, it was Hamilton who had helped pass a law outlawing dueling in New York.

The surviving crew members of the Titanic were also taken to Jane Street, and the handsome six-story neo-Georgian Seamen's Institute on the corner of West Street (now the Jane Street Hotel) is still visible. The Seaman's Institute was one of several buildings along the Hudson waterfront offering services to sailors. It was designed by the architectural firm of Boring and Tilton, best known for the Immigration Station at Ellis Island. For the Titanic crew, the Seaman's Institute wasn't exactly an ideal locale to forget their recent nightmare, as a number of the hotel's rooms consisted of steel-plated cells measuring six feet by eight feet, designed to imitate steamer cabins.

The Village waterfront was not only an important catalyst for the development of New York City, it was also vital to the technological history of the country at large. Bell Laboratories, located in what is now the Westbeth Center at 455-56 West Street, was the home of the first experiments in high fidelity recording, television transmission, radio astronomy, and transistors. Built in the last years of the 1800s

under the direction of designer Cyrus Eidlitz, the Lab is most associated with the development of sound motion pictures, including portions of the first successful talking movie, *The Jazz Singer*, which was filmed on a stage deep within the building. The current Westbeth complex was built to offer subsidized housing for aspiring artists using design principles established by Jane Jacobs.

*Now walk to the end of Pier 46 on the left at Charles Lane.*



**The Seaman's Institute**  
© HUDSON RIVER PARK TRUST

THE MEIER TOWERS ARE LOCATED ASTRIDE PERRY STREET, NAMED FOR COMMODORE OLIVER HAZARD PERRY (1785-1819). PERRY WAS AN ANNAPOLIS GRADUATE WHO SERVED IN THE TRIPOLITAN WARS AND THE NORTHEAST BLOCKADE OFF NEW YORK EARLY IN HIS CAREER. IN THE LAKE ERIE ENGAGEMENT OF THE WAR OF 1812, PERRY DEFEATED THE BRITISH WHO FOR THE FIRST TIME SURRENDERED THEIR ENTIRE FLEET. HE SENT THE NOW-FAMOUS MESSAGE, "WE HAVE MET THE ENEMY AND THEY ARE OURS."

# 7

## PIER 46 AT CHARLES LANE

# The Estuarine Sanctuary

A walk to the end of Pier 46 is a good place to contemplate the Hudson River and the ecological movement that brought the river back to life. As you walk, consider that all of the water that you see on both sides of the pier, from the bulkhead out to the end of the long piers, has been officially designated by the State of New York as the *Hudson River Park Estuarine Sanctuary*. Of the roughly 550 acres in the Park, almost 75% (400 acres) are set aside for marine life and recreational activity.

The Hudson begins in Lake Tear of the Clouds in the Adirondacks. Thought to have been a larger river system at one time scoured during glacial times, the river has a deep channel where tides push their influence all the way to Albany. The lower Hudson estuary (where the tide meets the river current) is very much a product of the mixing of fresh and salt water with numerous tributaries, tidal channels, and islands (including Manhattan). The Lenape called the river *Muhheakunnuk*, loosely translated as the river that flows both ways. Further upriver, it was called the *Cahotateda*, river from beyond the peaks.

The regional nature of the surrounding estuary has always been rich and diverse. Even now in its densely developed form, the metropolitan area supports more rare species and communities than anywhere else in New York State (40-50 ecological communities, 1500-2500 plant species, 350-400 birds, and 30-40 mammals). There are 100-150 fish species in the region, and the Estuarine Sanctuary itself contains

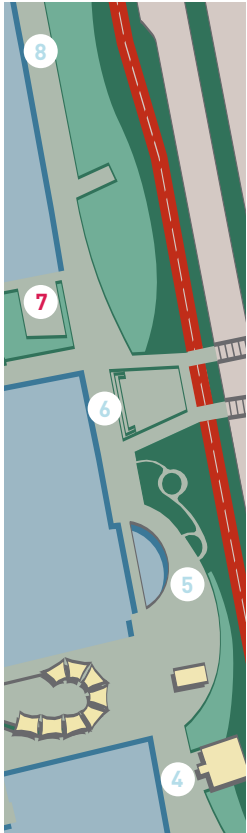
almost three dozen types of fish (covering thirty genera and twenty-five species). Among these are the striped bass, cunner, tautog, eels, herring, anchovies, and sea bass. Seasonal visitors include the Atlantic sturgeon and American shad. Numerous sea horses, blue crabs, and pipefish feed on old pilings now increasingly supporting marine borers, crustaceans, and shellfish.

In Hudson River Park, some old piles — like those off Pier 46 — are being left in the river to provide food, shelter, and cover for fish and birds. Waterfowl like cormorants, mallards, buffleheads, and sea gulls are common residents. While you may take a seagull for granted, upon closer examination of the piles, you may notice up to eleven species of gulls that visit the area, including the rare Little Gull, Black-headed, Bonaparte's, Iceland, Lesser Black-backed, and Glaucous Gulls. Herons, egrets, geese, gadwall, wigeon, scaup, osprey, hawks, plovers, doves, woodpeckers, flycatch-

ers, vireos, blue jays, martins, swallows, chick-a-dees, titmouse, wrens, robins, mockingbirds, warblers, cardinals, sparrows, blackbirds, grackles, and finches are also being spotted more regularly as marine waters calm, wetlands are encouraged, and green upland habitat is added, replacing the old concrete and asphalt.

The benthic (river bottom) environment in the sanctuary is widespread, and is also improving, partly as a result of a prohibition against dredging throughout the park and the required reductions in motorized boat traffic in preserve areas. In addition, the Trust and its environmental partners are in the process of planning submerged aquatic beds, a marsh, beaches and coastal strands on the shores of the Gansevoort Peninsula (Stop 13 on the tour and visible to the north) and near Pier 76 in Midtown as a means of further improving estuarine habitat.

*Walking north, our next stop is the esplanade between Piers 46 and Pier 49.*



NATIVE AMERICAN AND EARLY EXPLORERS (INCLUDING THE RIVER'S NAMESAKE, HENRY HUDSON) LOVED THE ABUNDANCE AND MAJESTY OF THE ESTUARY. REVEREND CHARLES WOLLEY, DURING HIS LOCAL VISIT IN 1668-1670, WROTE OF THE HARBOR AS "A SWEET AND WHOLESOME BREATH, FREE FROM...ANNOYANCES...WHICH IS GENTLY REFRESH'D, FANN'D AND ALLAY'D BY CONSTANT BREEZES FROM THE SEA."



A Harp Seal relaxing on a Hudson River Park Pier.  
© HUDSON RIVER PARK TRUST

## Oyster Reefs

New York was once home to one of the largest and most important oyster industries on the northern seaboard. At that time, the Hudson River contained abundant fish and shellfish, with blue crabs crowding the shores and oysters measuring up to a foot in length. It was said that oyster reefs stretched from the tip of Manhattan north to Croton Point, and that 350 square miles of shell beds rested on the river bottom.

All those oysters meant that the waterfront was home to a thriving open air market specializing in oysters and other seafood. The market lasted for more than 100 years. Competing with small fishing vessels, schooners, and steamboats on what was fast becoming an extremely congested river was a fleet of oyster barges and flat-bottomed scows that clogged the shoreline in the 19th century. In this area, dealers also maintained a fleet of two-story houseboats that were used to hawk their goods.

For Native Americans, oysters were a very important supplement, but by 1753, the Swedish naturalist Peter Kalm observed that for many new and poor immigrants, oysters and bread were their only source of food. Oysters were eaten for breakfast, lunch, and dinner, in soups, pudding, pan frying, and raw. In the 1800s, the Canal Street Plan offered all-you-can-eat oysters for six cents. Eat too much, though, and the dealers were not above throwing in a bad oyster. The oyster market peaked in the mid-to-late 1800s, when 765 million oysters were harvested yearly.

ALONG WITH THE OYSTER INDUSTRY COLLAPSE DUE TO THE DECLINE OF THE RIVER'S HEALTH, THE CITY'S IMPORTANT BEAVER PELT ECONOMY ALSO COLLAPSED BUT THIS WAS DUE TO A CHANGING CLOTHING MARKET. SO IMPORTANT WERE THESE MARKETS, HOWEVER, THAT THE BEAVER STILL RESIDES PROMINENTLY ON THE CITY OF NEW YORK'S SEAL.

As late as 1907, 300 million oysters were still being harvested in New York, with per capita consumption in the City measuring 660 oysters.

Not surprisingly, the conversion of New York City's riverfront in the mid 19th Century into an industrial mecca for slaughterhouses, factories, and other industrial plants shifted the river's primary role from food source to commerce. As a result, the oyster industry began a slow, two-century decline due to pollution, excess harvesting, and siltation from channel dredging. Instead of being placed back in the river for reef building, shells were burned, made into lime for housing, or used for land fill and street paving (thus the name "Pearl Street" in Lower Manhattan).

By the mid 20th Century, the Hudson River was filled with the chemical revolution's sludge and

industrial waste, much of it toxic. Fortunately, there were also many naturalists and Hudson Valley residents who loved the river. Eventually, citizens' groups began trying to restore the river through grassroots political mobilization. Folksinger Pete Seeger supported environmental education by building the sloop *Clearwater*, a wooden sailing vessel designed after 18th and 19th Century Dutch sailing sloops. Advocacy groups such as the *River Keeper* and *Bay Keeper* also emerged, using legal intervention and volunteers for restoration. Through these collective efforts, the Hudson is far cleaner than it has been in years, although some chemicals and coliform counts continue to be problems.

*Walk north to 11th Street.*



**West Street Oyster Houseboats.**

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## The Great Eastern

Eleventh Street is the site of former Pier 48 where the largest (and the most unlucky) ocean-going steamship of its time, the *Great Eastern*, arrived after its maiden voyage from England in June 1860. Heralding the era of great passenger ships, the *Great Eastern* was six times larger than any ship ever built. Its coming marked a new and pivotal era for the Westside waterfront; because its piers were significantly larger and wider than those on the east side, only the Hudson River could accommodate the *Great Eastern*.

Originally built for the run from Europe to Australia, the Chief Engineer Isambard Brunel decided that it would be more lucrative as a transatlantic ocean liner. Brunel did not live to see the ship's sea trials, including a terrible explosion prior to its maiden voyage. The explosion killed one of the workers, resulted in severe burns to several others, and some workers went missing and were presumed dead.

Despite this tragedy, the *Great Eastern* was met in New York by a 14 cannon salute when it arrived in 1860. The ship had sailed almost empty because of limited advertising in Europe. As a result, its financiers launched a major publicity campaign in America. A two-day cruise aboard the *Great Eastern* was organized for \$10 a person, but ship officials were unprepared for their own success — 2,000 people showed but only 200 berths had been made ready, food was inadequate, and the ship was filthy. As a result, the second cruise attracted only 100 people,

an incredibly small figure given that the *Great Eastern* had room for over 4,000 passengers.

The ship continued to be haunted by bad luck. In August 1862, the *Great Eastern* sailed across the Atlantic with a record number of paying passengers, but when the ship crossed an uncharted area, a gash was torn in the bottom. Fortunately, the *Great Eastern* stayed afloat thanks to its double bottom, but it continued to lose money. Shortly thereafter, it was taken out of service.

In a rebirth during 1865, the great ship was used by the Atlantic Telegraph Company to lay the first transatlantic cable. It was the only ship in the world large enough to carry the enormous cable weight. But within a decade, another ship had been specially designed for this task, and the *Great Eastern* was perma-

nently retired. In 1885, it was used as a floating advertising board, and three years later, it was sold to a scrap firm. Amazingly, when taking the *Great Eastern* apart, a skeleton was discovered inside the ship's double bottom; one of the missing workers who had helped build the ship had been found.

At the time, it was thought that cable laying was the *Great Eastern's* only true success. However, in retrospect, the size of the ship did convince New York that its port facilities needed to grow, and to grow quickly. Until the *Great Eastern*, ships were small and the dockage requirements minimal. The *Great Eastern* and subsequent ocean going steamships changed global history, speeding communication and transport across oceans.

*Walk north to the Pier 49 Overlook.*



**The Great Eastern.**

PHOTO BY WHIPPLE & BLACK; J.H. BUFFORD'S LITH., BOSTON. LIBRARY OF CONGRESS, PRINTS & PHOTOGRAPHS DIVISION, [LC-USZ62-105526]

**IN 1825, THE OPENING OF THE ERIE CANAL CONNECTED THE HUDSON RIVER TO THE GREAT LAKES AND LAUNCHED NEW YORK HARBOR'S FIRST REAL PERIOD OF GROWTH, ENABLING THE TRANSFER OF GOODS AND PEOPLE BETWEEN MIDDLE AMERICA AND THE EASTERN SEABOARD.**

# 10

## OVERLOOK BETWEEN BANK AND BETHUNE STREETS

### The Changing Shoreline

The overlook between Bank and Bethune Streets provides a good place to contemplate the changing shorelines that shaped the City's edge. It is important to remember that the shoreline that you see now is actually the result of drastic changes brought on by commerce and technology. Until the mid-1800s, most of the current Greenwich Village waterfront lay at the bottom of the Hudson River.

Face east, and imagine that the original shoreline was once located a block-and-a-half inland from West Street. The shore featured many indentations, especially above Perry Street, where the river swept inward and formed a sizeable bay north to Gansevoort Street and included a marsh called the Great Kill. Below Perry Street at Christopher Street, the original sand beaches and bluffs were closer to the Hudson River and more suitable for early piers. Beginning in the 18th Century, property owners and others were beginning to fill the river with coal ash, dirt, and rubbish to create more useable land. Thus, as with much of the City's edge, a good part of the Village is built upon landfill.

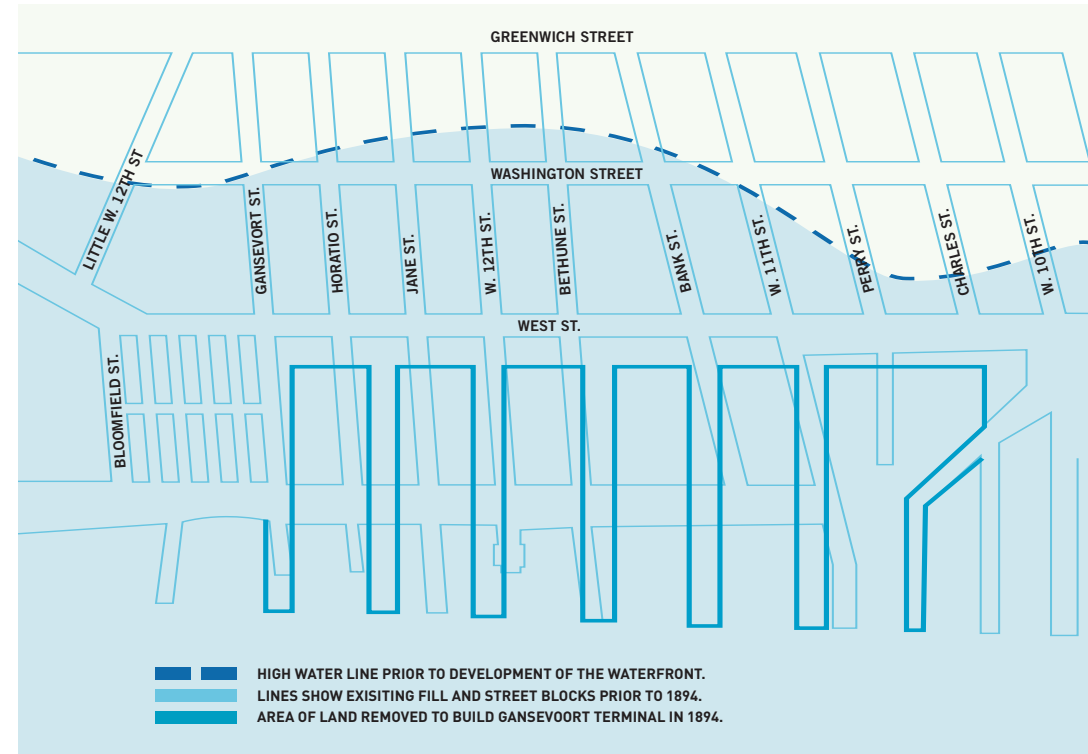
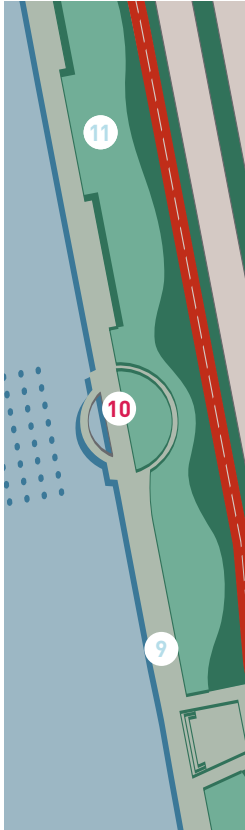
As discussed earlier, the Village area remained rural for approximately two centuries following European Contact. Late in the 19th Century, German, Irish, and Italian immigrants found work in the breweries, warehouses, coal and lumber yards near the Hudson River. To accommodate the growing population, older residences were subdivided into cheap lodging hotels, and multiple family dwellings were demolished in

favor of higher density tenements. Small docks encroached on the riverbank, and economic activity was increasingly focused on ship arrivals and departures. Riverside property became valuable, and land created by fill could extend one's holdings at no cost.

Look west and picture landfill extending into the river for a whole block towards New Jersey. By 1834, the river had been filled from down-

town north to Hammond Street (now W. 11th Street). A new waterfront street, Thirteenth Avenue was subsequently completed in 1857 on fill extending from W. 11th Street north into Chelsea. You can still see the last vestige of this landfill when you look north to Gansevoort Peninsula where a small remnant of Thirteenth Avenue still remains on the western edge.

*Walk north to of Bethune to 11th Street Street.*



BETHUNE STREET WAS NAMED FOR JOHANNA GRAHAM BETHUNE WHO WAS MARRIED TO REVEREND DAVIE BETHUNE. SHE WAS AN EARLY 19TH CENTURY PHILANTHROPIST AND EDUCATOR, WHO CEDED LAND TO THE CITY FOR THE STREET. JOHANNA OPENED THE CITY'S FIRST SCHOOL FOR "YOUNG LADIES," AND IN 1806, SHE JOINED MRS. ALEXANDER HAMILTON IN FOUNDING THE NEW YORK ORPHAN ASYLUM AT BARROW AND FOURTH STREETS.

The Changing Shoreline.

# 11

BETWEEN BETHUNE AND 11TH STREET

## The Bulkhead Landmark

After two centuries of unrestricted filling in the river, the United States War Department brought the practice under control by demanding a clear navigation channel in the river, a permanent shoreline along the City's western coast, and a limit on the length of piers. One tangible result of this decision was the massive granite bulkhead (seawall) spanning the entire length of the Westside waterfront from the Battery north to 59th Street.

The decision to construct this bulkhead was made in the 1870s by the City's newly created Department of Docks, which wanted to demonstrate New York's newfound status as the premier American port. The City responded by creating a stable shoreline along the edge of Manhattan. Eventually, many miles of docks were built along Manhattan's western edge and as many as 70 piers were active on the river.

Building the bulkhead and fortifying these piers and wharves was considered so important that Civil War hero General George B. McClellan was chosen as the city's first Engineer-in-Chief of the docks. McClellan and his successors responded by designing a varied series of masonry bulkheads that reflected evolving marine engineering, including several significant and influential innovations.

The actual construction of the bulkhead was one of the largest public works projects ever undertaken. It was also an extremely difficult process, requiring tremendous time, money and effort. Although certain



**Piers 46 and 47. c 1903**  
COURTESY NYC  
MUNICIPAL ARCHIVES

portions have been reconstructed over the years in response to changing needs (including damage by ships and changes in ownership), the bulkhead continues to perform its essential function remarkably well.

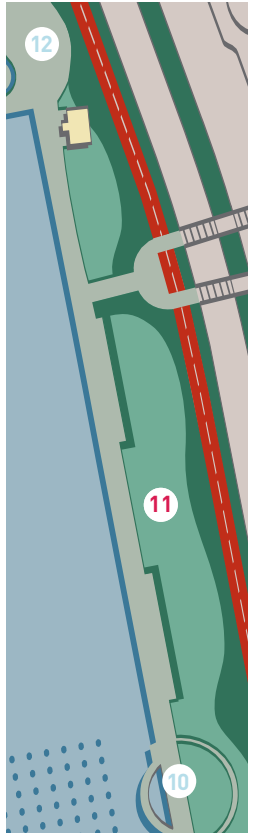
While not obvious when walking along the bulkhead, the bulkhead is a very complicated structure, and its six-foot granite capstones are only a small part of it – most of the structure is buried.

As a general rule, the bulkhead in Greenwich Village gradually gets sturdier from the south to the north. Near Morton Street, laborers drove piles into the riverbed and dumped fill behind them to form a solid platform on the river bottom parallel to shore. The wall still sits on short piles, with fill used beneath, inward and outboard of the piles for protection and to tighten the soft bottom sediments and improve bearing capacity. To the north, short piles were replaced by long piles, diagonal piles, and con-

crete. In some places, fill was also placed inward of the bulkhead, creating a horizontal force to counteract pressure from the river. While other techniques were applied to different sections of the bulkhead, the general principle of using relieving platforms and other horizontal structures to brace the visible wall remains fairly constant.

The city's waterfront program was significant as the first and largest of its kind in the United States. In addition to its importance in the history of urban planning and international commerce, the varied bulkhead masonry sections reflect evolving marine substructure design. For these reasons, the bulkhead has been listed as eligible for the State and National Registers of Historic Places, and the Hudson River Park Trust has worked closely with the New York State Historic Preservation Office to coordinate its repair and incorporation into the Park.

*Enter Pier 51 at Jane Street.*



**MANHATTAN MAINTAINS ITS OWN TOPOGRAPHIC SYSTEM – SPECIFICALLY, THE BOROUGH OF MANHATTAN DATUM (BMD) — DESIGNED TO ACCOUNT FOR THE LARGE TIDAL RANGE. TODAY, THE ESPLANADE IN HUDSON RIVER PARK REACHES FIVE TO SIX FEET ABOVE THE HIGH TIDE MARK AND TEN FEET ABOVE LOW TIDE (BMD).**

## Native Americans and Sapohanikan Point

At the foot of Jane Street, Pier 51 began its commercial life in the mid-19th Century as a wooden pier serving local sloops, but quickly became the home base for Morton's Peekskill and the Tarrytown Passenger and Freight Steamship Lines. By the 20th Century, it had been rebuilt as a terminal for the Southern Pacific and Cunard Steamship Companies. But before these times, this locale was known as Sapohanikan Point, a place where the native Lenape tribe gathered to view the strange and varied ships brought by the European explorers that began sailing into the natural harbor. Further inland was the Lenape encampment, also called Sapohanikan, roughly centered near Washington Street, and including the area from Little West 12th Street to the Gansevoort Peninsula.

Although the Lenape, a loose configuration of Algonquin tribes that populated much of New York, didn't view Sapohanikan as a permanent place of residence, it was an ideal seasonal encampment for several reasons, including its prominent location on the river. Its rich soil was also perfect for growing tobacco, a native trading commodity. In fact, the Lenape called this place "Sapohanikan" because it means "tobacco field." In 1664, the English renamed the area after Greenwich, England, although some sources say that the name derives from a Dutch farm called "Greenwjk" meaning green inlet or cove.

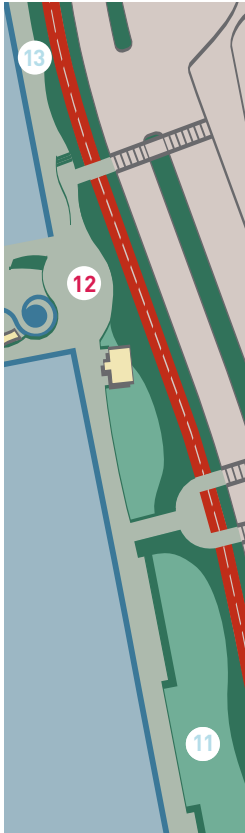
There is archeological evidence that Sapohanikan was the largest encampment in Manhattan at the time of Dutch settlement. It was occu-

pied as late as 1661 for farming and to accommodate canoes arriving and departing from New Jersey. Within the five boroughs of modern New York, archeologists have identified about 80 Lenape habitation sites, more than two-dozen planting fields, and an intricate network of paths and trails that laced these areas together. On Manhattan Island, the primary north-south trail ran along a hilly spine from what is now Battery Park in the south to Inwood Park in the north. Just north of City Hall Park, the trail passed an encampment near a 60-foot deep pond (*collect*) fed by an underground spring, which together with an adjacent meadow and marshland, almost bisected the island. Where the trail passed the

current Greenwich Village, a secondary path led west to the Sapohanikan encampment, close to Minetta Brook.

Today, the reconstructed Pier 51 is a popular children's water park that incorporates several historic themes within its design. These include the gentle flow of "Minetta Brook," reconceived as a child-activated stream, with freshwater and marine species embedded in the paving. In addition, the playground contains several "forts" inspired by the former Fort Gansevoort, which was once located directly to the north.

*For more on Fort Gansevoort, walk north to our final stop.*



"An Indian Village of the Manhattans, prior to the occupation by the Dutch." From Valentine's Manual, 1858.

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THE LENAPE OF THE AREA LIVED IN SMALL PEACEFUL FAMILY GROUPS SPEAKING THE MUNSEE DIALECT. ALTHOUGH THEY COULD BE FIERCE WARRIORS, LENAPE HOMES AND GARDENS WERE NOT FORTIFIED. THERE WERE NO CHIEFS OR HEREDITARY LEADERS AND THE LENAPE COOPERATED IN FOOD GATHERING, DEER DRIVES, AND OTHER GATHERINGS. ALTHOUGH LAND AND RESOURCES WERE NOT OWNED, A "USE-RIGHT" WAS OFTEN RECOGNIZED FOR CERTAIN AREAS.

# 13

## GANSEVOORT STREET

### Gansevoort Peninsula

Fort Gansevoort was built during the War of 1812 when the federal government erected a series of forts along the Hudson River after the British invaded and burned Washington D.C. The fort was named for General Peter Gansevoort, who was born to a large, wealthy, Dutch family in Albany. Gansevoort had gained fame during the Revolutionary War for his 20-day defense of Fort Schuyler in Rome, New York. Fort Schuyler was the first to fly a “Stars and Stripes” flag during battle conditions. The flag was contrived of ammunition bags (which were white), a captured British cloak of blue, and bits and pieces of red cloth. Eventually, Gansevoort was promoted to General Commandant in defense of the Hudson River, and he died during the War of 1812. Great Kill Road was subsequently renamed Gansevoort Street in his honor.

During its day, the massive Fort Gansevoort was an oblong structure with 22 cannons strategically placed to guard the river. Because of its whitewashed walls and sandstone casing, it soon acquired the nickname “The White Fort.” The Fort dominated the northern half of the Village waterfront for almost 40 years. Eventually, the city’s voracious desire for extra land to accommodate commerce and industry outweighed the importance of the fort, and it was razed in 1849 and soon forgotten. One hundred years later, in 1949, construction workers digging a foundation for today’s Gansevoort Meat Center found the former fort’s eight-foot-thick timbers.

**HORATIO STREET WAS NAMED FOR GENERAL HORATIO GATES (1727-1806). BORN IN EAST GREENWICH, ENGLAND, HE CAME TO AMERICA WITH THE BRITISH. GATES BECAME AN AMERICAN OFFICER IN THE REVOLUTIONARY WAR, AND BRITISH GENERAL BURGOYNE SURRENDERED TO HIM AT SARATOGA (REGARDED BY MANY AS THE MOST IMPORTANT VICTORY IN THE AMERICAN REVOLUTION). HE RETIRED TO A FARM JUST OUTSIDE NEW YORK CITY AND DIED IN MANHATTAN.**



Washington Market,  
Washington Street,  
ca 1900

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OF NEW YORK, PRINT ARCHIVES

By the 1830s, it was clear that New York City’s first major food market, the Washington Market (once located at the site of the World Trade Center), could no longer handle the crowds that crammed its stalls each day. Realizing the gravity of the problem, the city identified the area along the south side of Fort Gansevoort as the best site for the new Gansevoort Market. The outdoor farmer’s market opened in 1884 on ten parallel streets at West Street. The original market could accommodate 400 farm wagons brimming with fresh fruits and vegetables grown in New Jersey and Long Island.

Three years later, the city began constructing the enclosed West Washington Market specifically for meat, poultry, eggs, and milk products. The newer market stood east of West Street and consisted of a handsome array of structures featuring five pairs of two-story-high brick and terra cotta buildings interconnected

by stately arches. Even before its official opening in January 1889, the West Washington Market enjoyed huge success, and a staggering 2,800 merchants applied for occupancy in its 420 stalls.

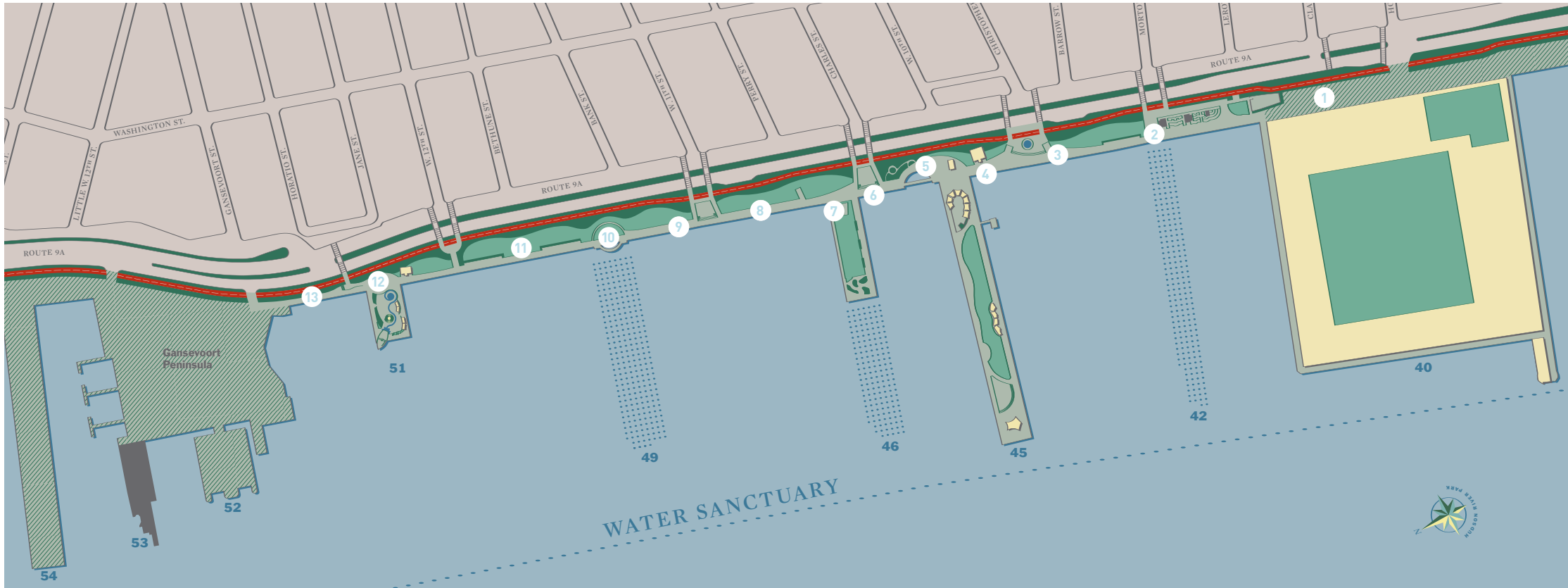
Together, the two markets prospered and handled 55% of the city’s trade in these products. Although they occupied riverfront land, few proper dock facilities existed for goods arriving by water, resulting in heavy congestion on local streets from horse-drawn carts. This set the stage for the 20th Century frenzy of pier building.

Here, we end our walking tour of the Greenwich Village waterfront. We hope this walk has heightened your curiosity about this storied area, and that you will be tempted to participate in future walking tours of other sections of Hudson River Park.



HOUSTON STREET TO GANSEVOORT PENINSULA

# GREENWICH VILLAGE WALKING TOUR





## Hudson River Park Trust

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THE HUDSON RIVER PARK TRUST IS A PARTNERSHIP BETWEEN NEW YORK STATE AND CITY. OUR MISSION IS TO DESIGN, CONSTRUCT, MANAGE, AND OPERATE THE 550-ACRE HUDSON RIVER PARK AND ESTUARINE SANCTUARY ALONG THE WATERFRONT ON THE WEST SIDE OF MANHATTAN FOR FIVE MILES FROM BATTERY PLACE TO 59TH STREET.

The Hudson River Park Trust is indebted to the efforts of the Hudson River Park Advisory Historical Working Group, which worked for many years during the 1990s to ensure that the waterfront's rich history would live on in the completed Hudson River Park. The group spent hours and days identifying and prioritizing topics for interpretation and the Trust truly appreciates their efforts.

Those interested in learning more about the history of the Greenwich Village waterfront may wish to investigate some of the many wonderful books that have been written on this fascinating subject. In particular, we recommend *Ear Inn Vironis* by Andrew Coe; *The Indians of Lenapehoking* by Herbert and John Kraft; *The Hudson* by Stephen Stanne, Roger Panetta, and Brian Forist; *Heartbeats in the Muck* by John Waldman; *Maritime Mile* by Stuart Waldman; and a variety of publications prepared by the Greenwich Village Historical Society,

The Trust is also grateful to Emphas!s Design, which designed this brochure, and to John Berman, historian. This document was prepared by the Hudson River Park's Department of Environment and Education.