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Shaped by Function: Boston's Historic Warehouses

This paper discusses the history of warehouses built before 1920 in Boston, Massachusetts, U.S.A., with a focus on those in the Fort Point Channel Landmark District (FPCLD). The FPCLD is a roughly 55-acre (22.3 hectares) area in the South Boston neighborhood of the city, and it contains 85

had the leading port. Boston's port remained one of the busiest through the nineteenth century, and in the latter nineteenth century, port facilities – including piers, warehouses, and railroad service – expanded in the South Boston area. In the twentieth century, other North American ports grew



Figure 1: Warehouses in Fort Point Channel District, photo 1925

historic warehouses and lofts, which were built between 1880 and 1930. This is the largest collection of warehouses in a definable area in the city, and it probably is also one of the most intact warehouse districts in the United States. Before discussing the history of the FPCLD, the paper presents an overview of the development of Boston's old harbor and the distinctive warehouse blocks that were once a prominent feature of it. Until the mid-eighteenth century, Boston was the most populous North American town and

to outrank Boston. Today, most of the wharves and facilities of the old harbor have disappeared. In South Boston, the warehouses and lofts of the FPCLD survive. Although they now serve purposes other than storage and manufacturing, these warehouses and lofts continue to physically represent a time when maritime commerce and industry dominated the city's economy. These buildings feature a special form of heavy-timber interior framing, adapted from a regional construction tradition.

Boston's Historic Port and Its Warehouses

Boston is a commercial city, established where it was because of the harbor. In 1630, Europeans settled permanently at the small peninsula that became Boston. The harbor was the town's hub: streets with names like Fish Street, Ship Street, Sea Street, and Mackrill (mackerel) Lane (after a fish that was abundant in colonial times) radiated from the harbor and followed its edge. Over time, filling in around the periphery of the peninsula – a process of making land – obliterated the outlines of Boston's original topography, including that of the old harbor. As the new land was developed for contemporary, and not necessarily maritime, purposes, the physical connections between the harbor and the city broke down. Today, although some of the old streets remain, the destinations are gone, so the logic of their locations has been obscured. As author and historian William H. Bunting noted, "Few Bostonians today view the harbor as an integral geographical part of the city, or much less – as in the past – view the city as a component of the harbor."¹ Many of the structures and facilities built for the traffic of the old port have been demolished. Those that remain, no longer serving their original purposes, are like fish that missed the outgoing tide, left stranded on a beach.

Among the old structures stranded in the modern city is a type that was once a vital component of the port: the warehouse. Warehouses were built in the earliest days of European settlement and eventually lined Boston's streets and wharves. Today, after demolition and new construction, few streets in the old port area contain enough historic fabric to suggest that past time.

One relatively large and intact district of former warehouses and loft buildings still stands, and it is the focus of this paper.² The district, commonly called the Fort Point Channel District, is located on the eastern shore of a body of water, the Fort Point Channel, in the South Boston neighborhood of the city. (Fig. 1) Boston's port expanded into South Boston in the latter part of the nineteenth century. The land on which the historic warehouses stand was made by a private company, the Boston Wharf Company.³ Boston Wharf Company not only made the land there, but subdivided it into lots, planned and built the streets, and erected most of the buildings on it.

Because of its large extent, and the good state of preservation of the original buildings, the Fort Point Channel District admirably represents the look and feel of Boston's waterfront of the late nineteenth and early twentieth centuries. For this reason, it has been listed on the National Register of Historic Places (2004), and it is the first non-residential area in Boston to be designated a local landmark district.⁴ Like the warehouses that once filled Boston's old harbor area, the buildings of the Fort Point Channel District have lost their original reasons for being. But the buildings are being adapted and reused for new purposes: residential, office, retail, and cultural. The warehouses and lofts of the District contain features that were common to warehouses as a building type, but also some that were special to Boston warehouses in the period in which they were built: specifically, their heavy timber interior framing was an adaptation of a



Figure 2: Boston is the peninsula, mostly brown-colored. The light green around the landmasses signifies shallow areas, including "flats" that might be dry at low tide

regional construction tradition called "slow-burning construction."

This paper discusses the old harbor and its warehouses, and then treats the development of the Fort Point Channel District, its warehouses and lofts, and their special characteristics.

The Colonial Port

The Port of Boston is an ocean port, located at the head of Massachusetts Bay, on the Atlantic Ocean. The place that became the city of Boston, originally a small peninsula, was settled by English colonists in 1630. (Fig. 2) The peninsula featured an excellent harbor, described as "safe and capacious . . . , sheltered from the ocean by clusters of well wooded islands."⁵ Also, the Bay had deep (for that period) natural channels, and the harbor islands created many sheltered anchorages. While settlements sprouted up around Massachusetts Bay, Boston became the trading center. It was in Boston where the provincial governor lived and the local government was established.

Maritime activities dominated life in the colonial settlement. Fishing was an important industry, as fish were one of the few resources colonists had to trade. Settlers immediately began to build facilities where boats could be loaded and unloaded. These were concentrated on the eastern side of the peninsula, facing the ocean, in a semi-circular inlet. This inlet became the main harbor, and it was known by several names but principally as Town Cove.

The local topography and tides, and the small draft of even ocean-going vessels in the seventeenth and eighteenth centuries, allowed the construction of wharves, or piers, that projected far into the water. The special topographic feature that made this construction relatively easy and inexpensive was the gradually sloping ground surrounding the shoreline. (Fig. 2) Wharves were built on simple foundations called cribs or cribwork, which were made of logs. Logs formed the outside frame and were also laid at intervals inside the frame and connected by transverse timbers, all notched



Figure 3: Warehouses on the north side of Long Wharf (center) in Boston Harbor and along other wharves



Figure 4: Remains of former warehouses, Central Wharf (now on Milk Street), built 1815–1817

together and fastened. Some of the cells of the framework had floors. The cribs could be built on land and floated to their destination, at which point rocks were dumped into the cells with the floors, and this sank the crib and held it in place.⁶ Then a deck would be built on top.

In a few instances, the colonists built what may have been closed docks, such as were later built in Liverpool and London. The famous closed docks of Liverpool, beginning with the 1715 Old Dock, were walled basins with gates, through which boats could enter only with the tides. Bostonians built several basins in the 1600s, including Town Dock at the head of Town Cove, but it is not known if these basins had gates or were open at their ends.⁷ The main facility for docking boats and ships were finger wharves or piers. Boston, like Hamburg, could have an open harbor with wharves that could be approached at all times even by large ships.⁸ At the end of the seventeenth century, Boston had 63 wharves, with another 14 wharves located across the harbor in Charlestown (now part of Boston).⁹ Early in the following century, what came to be called Long Wharf was built (1710–1715), which, when completed, extended about 1,600 feet (487.7 m). It ended in a platform with a crane for handling cargo.

Colonial-era and Early Nineteenth-century Warehouses

Warehouses are ancient structures – perhaps the oldest kind of purpose-built building for business and industry. A unique feature of warehouses was that they were open on the interior, often with floors supported by posts rather than bearing partition walls. Other features that were common to warehouses built before the twentieth century were large doors to bring goods through; doors stacked one above the other (in multi-story buildings); heavy construction, because of the great weight of goods kept inside; and equipment for hoisting and lowering goods.

Bostonians built warehouses on or near the wharves at an early date. By 1638, a group of investors had built a wharf, crane, and warehouse at the Town Dock.¹⁰ By the 1680s, warehouses lined the wharf that for a time stretched across the Town Cove, and later, Long Wharf filled with warehouses. (Fig. 3)

What were the early warehouses like? Today, there are no warehouses (indeed, very few structures at all) in Boston that were built before 1800. Written materials and contemporary drawings provide few details of their structural characteristics. Probably, as shown in drawings, they were like boxes with pitched roofs. And most were built of wood, with wood plank walls enclosing wooden frames. Boston's timber warehouses were demolished and replaced, but they also disappeared in great fires. After conflagrations, laws often were passed to outlaw combustible building materials; nevertheless, Boston continued to be predominantly a wooden town until the opening of the nineteenth century. Some owners tried to make their warehouse more fire-resistant. One warehouse known to have brick walls was the Triangular Warehouse, built in the Town Dock area after the great fire of 1679 destroyed that neighborhood. A writer who knew the warehouse firsthand noted that, "It was constructed with great strength, the bricks were of a larger size than those now used..." Another warehouse built after the 1679 fire, known as the Old Feather Store, had wood exterior walls covered with "rough-cast:" mortar mixed with bits of glass from broken old bottles. Both buildings were demolished in the nineteenth century.¹¹

Boston's maritime enterprise included the carrying-trade (vessels hired to transport goods), fishing, and also a particular kind of trading: speculative trading voyages in which merchants owned the ships and the cargo. Merchants in this last category sent goods out from America – dried fish, timber, agricultural products, rum, and imported goods – to places that wanted them – the West Indies, Europe, Africa, and so on – to exchange for goods that were wanted at home. Such trading was undertaken through the eighteenth century, but declined in the second half as Great Britain repressed it through force and regulation. Following political independence in 1783, Boston merchants became more ambitious, making trading voyages to more remote locations. One storied route involved sending goods around Cape Horn to the northwest coast of North America to exchange for animal furs, which were traded for tea, silk, chinaware, and so on in China; these Chinese goods were brought back to the East Coast of North America for sale. The China trade, and the

general revival of trade with distant places, called forth an active shipbuilding and outfitting industry in Boston and its region. Many merchants accumulated great fortunes from this business.

These prosperous businessmen needed places to store their goods, and invest their money, and in the early nineteenth century, a higher class of warehouse began to be built in Boston. Brick and stone exterior walls became the norm. A number of former warehouses from this period survive, for example, eight buildings that stood on Central Wharf. (Fig. 4)

Beginnings of Land-making and the Rise of the Warehouse Block

A notable change in harbor development also occurred in the early nineteenth century: major land-making projects commenced. As previously noted, the shoreline around Boston sloped gradually, and in many places, the ground was exposed at low tide. This tidal land was called “flats.” To encourage wharf and pier construction, and therefore maritime commerce, colonial lawmakers granted owners of waterfront property the right to build on the flats adjoining their land. And as a result, many wharves were built around Town Cove and beyond. Then in the early nineteenth century, landowners began to fill the flats to make new land to build on. The way they did this, typically, was by erecting a barrier, or seawall, of stone or timber around the perimeter of the area to be filled. Stone and gravel (or anything else) was dumped between dry land and the wall, to raise the new ground above high tide. While rubbish and other poor materials often were used for fill, Boston was fortunate to have another topographical feature that facilitated land-making: many high, rocky hills located near the shore. These hills were cut down, and the soil, gravel, and rocks carted to the waterfront. (Fig. 5)

Some of the early land-making projects were undertaken by government – Boston or the Commonwealth of Massachusetts – but most were carried out by groups of private investors. Investors came together to undertake speculative land-making projects just as they did for speculative trading voyages. Already in the early eighteenth century, investors had joined together to construct Long Wharf; in the early nineteenth century, development companies formed for more ambitious construction projects. These investor-owned real estate companies became a Boston specialty. The companies made land, laid out streets, subdivided land into lots, and sold the lots or erected and sold buildings.

The first example of private land-making on Boston's waterfront was India Wharf. Built between 1803 and 1807 on the southern side of Town Cove, the project consisted of a deep-water wharf and blocks of brick warehouses. The wharf was a great success, and its investors undertook similar projects, for example, at Broad and India streets.¹²

At this time, a distinctive kind of warehouse emerged: the monumental warehouse block. These buildings contained many stores, but were built by real estate development companies rather than by individual owners, and were designed to appear to be single, large buildings. A precursor to this



Figure 5: Cutting down Boston's Beacon Hill ca 1811 to fill the Mill Pond



Figure 6: India Wharf warehouses, built 1805–ca 1807: although consisting of many separate stores, the stores were grouped and treated as one building

idea was the group of warehouses built on Long Wharf, some of which had been completed by 1711. (Fig. 3) The investors who built the wharf sold lots on its north side and, to assure uniformity in the warehouses developed there, imposed conditions on the buyers. The lots measured 40 x 20 feet [12.2 x 6.1 m] on the west end and 24.5 x 20 feet [7.5 x 6.1 m] on the harbor end, and the buildings erected on them had to be 21.5 feet (6.6 m) high with a roof pitch of five feet (1.5 m). This approach – selling land with conditions as to the buildings that could be erected – became a usual one, and it resulted in uniform-looking blocks.

But when a development company itself built the warehouses and sold the individual stores, it controlled the overall design, and from the company-built projects, the monumental warehouse block emerged. Charles Bulfinch, Boston's leading architect in the early nineteenth century, may have originated the idea of the warehouse block. He designed what was probably the first example at India Wharf (1805–1807). The block had 32 separate stores, but with a pedimented dormer in its center, it looked like a monumental Georgian-style building, composed of a central pavilion and wings. (Fig. 6) Another early example, also designed by Bulfinch, was Central Wharf (1815–1817), which originally had 54 stores. (Fig. 4) Frank H. Forbes, a contemporary who had worked at merchant firms on the waterfront,



Figure 7: Granite walls, and monolithic piers and lintels, of the Custom House Block on Long Wharf, completed 1848



Figure 8: View of Boston Wharf Co. and Commonwealth of Massachusetts's made-land, looking west, ca 1880. The curved piece of land is Fan Pier

described Central Wharf as “the most conspicuous and the most attractive of the old Boston wharves” and “the largest continuous block of warehouses in the country.” Other examples of these blocks were built through the first half of the nineteenth century. With improved techniques for quarrying and cutting granite (a hard but abundant stone in New England), it became a popular material for the walls of these buildings. The stones were cut in enormous pieces, which added to the imposing presence of the warehouse blocks. In his reminiscences, Forbes recalled how the “spacious docks and wharves,” as well as the “fine warehouses that flanked them,” created “a magnificent water front,” “the pride of the city.”¹³ These warehouse blocks, expressions of Boston’s successful maritime enterprise in the first half of the nineteenth century, characterized the architecture of the central harbor.

Construction of warehouse blocks came to an end in the 1850s. Over time, as the waterfront was filled in and new streets were constructed, this distinctive architecture lost its visual coherence. India Wharf and Central Wharf, severed when construction of Atlantic Avenue began in 1868, have (except for a fragment) since disappeared.¹⁴

Some of the monumental blocks remain, and one example is the Custom House Block on Long Wharf. (Fig. 7) Completed in 1848, it reflects the more elaborate design and materials of the mid-nineteenth century. It is 224 feet long (68.3 m), 80 feet (24.4 m) wide on its eastern end and 60 feet (18.3 m) wide on its western end, and has a five-story center section and four-story wings. The south (principal) façade was built with massive granite blocks, the rear with brick. It contained 14 stores originally. Inside, wood joists are supported on brick walls that divide the space into separate stores. The building has been remodeled and lost its cupola. It took its current form in the 1970s, when it was renovated for shops and apartments.¹⁵

Development of the Fort Point Channel Area

In the second half of the nineteenth century, land-making proceeded steadily along Boston’s shoreline and included some massive projects, like the filling of Back Bay and South Bay; but the section of the city that increased the most by land-making is South Boston. In South Boston, over 1,000 acres (4 square kilometers) of land, intended for port and water-oriented uses, were added. This neighborhood, annexed by Boston in 1804, is separated from Boston proper by the Fort Point Channel. Wharves dotted the west (Boston) side of the Channel, and after bridges were built to join the two land masses, manufacturing firms started up on the east (South Boston) side. Land-making in the area proceeded from south to north and west to east, starting at the Fort Point Channel and continuing across the South Boston Flats. Railroads served the area, and additional road and railroad bridges were built across the Channel as new land materialized. The bridges made the new land accessible and encouraged development, but they also interfered with ship traffic in the Channel and diminished the value of the Channel’s wharves for port purposes.

Boston Wharf Company Develops the Fort Point Channel District

One of the companies that made land in South Boston was the Boston Wharf Company (BWCo).¹⁶ A private real estate company incorporated in 1836, BWCo purchased land and adjoining flats east and north of the Free Bridge that connected Boston to South Boston, with the intention of building wharves for docking and warehousing. By 1837, it completed two large wharves that extended roughly north from First Street into the Channel.¹⁷ BWCo built its wharves by constructing a stone seawall, then filling in behind it. The flats adjoining its property, by colonial law, belonged to the company, and over time, BWCo increased its land by building seawalls farther north and filling in. Around 1855, the Midland Railroad laid tracks along the western edge BWCo’s site.

Boston Wharf Co. was not the only party interested in filling the South Boston Flats. In the late 1860s, the Commonwealth of Massachusetts adopted a plan to fill the Flats, including an area north of BWCo’s property. The rationale

for this ambitious project was to improve the harbor, especially to deepen the main ship channel, which many believed was becoming shallower due to land-making. The process of filling the South Boston Flats by the Commonwealth and other land owners went on for years. In 1873, the Commonwealth began construction of the curved end of the seawall, a site called Fan Pier, as well as a dock along the main ship channel.¹⁸ Filling of this area and BWCo's site were completed by 1882. (Fig. 8.) Flats to the east were sold to the Boston and Albany Railroad, which filled its site and developed a railroad terminal for transferring goods from ship to train.

Before the 1880s, BWCo's business was operating wharves and storage, and it developed a specialty in handling sugar and molasses. BWCo built large, wooden sheds along their docks to handle these imports. Not coincidentally, there were two large sugar refineries located nearby.

In the 1880s, as BWCo completed its land-making, it started to change the nature of its business, from a builder of wharves and sheds along the Channel, to a developer of industrial and warehouse buildings served by rail and trucks. The opening of Congress Street Bridge in 1875, located at the northern end of BWCo's new land, made BWCo's site practically an extension of Boston's downtown. In 1882, the first warehouse in the District with brick walls went up, near the foot of Congress Street Bridge, on land BWCo sold to the developer. Called Dorr's Stores, this four-story building was used for storing wool, cotton, and general merchandise. By 1890, several brick warehouses and lofts had been built along or near Congress Street, by private owners on lots BWCo sold to them, or by BWCo for specific tenants. An example of the latter was a building for Atlas Stores (1890). (Fig. 11)

Manufacturers also came to the area, and they tended to build their own lofts. During the 1890s, the southern end of the District became a manufacturing zone. A notable project there was undertaken in the mid-1890s by Samuel Wormwood and associates on a roughly three-acre (1.2 hectare) site purchased from the BWCo. The project consisted of five principal buildings, all six-story brick lofts. Known as the Factory Buildings Trust, the complex offered factory space for rent and provided tenants with electric light and power from its own power plant.

By this time, as it announced with an electric sign on the roof of its office building, BWCo was an "industrial real estate" company. It planned and built streets. It built structures to suit specific tenants, which it leased or sold to them. These were designed in the company's architectural department. BWCo also sold land, which the new owners developed. The District was attractively located for commercial and industrial firms. As well as being near the piers, it was served by rail, and rail spurs ran right up to the sides of many buildings.

The pace of loft construction got a boost around 1900 when the Summer Street Bridge opened and Summer Street was extended from downtown Boston across BWCo's land. Unlike Congress Street, Summer Street was built at a raised grade through BWCo's site and crossed the railroad tracks east of the site on a viaduct, thereby avoiding interference



Figure 9: Summer Street in the FPCD, with Melcher Street curving from its raised grade down to A Street. Boston Wharf Co.'s offices were located in the red brick building (center), which features the company's electric advertising sign on the roof



Figure 10: Summer Street in the FPCD, looking west

from the trains. This made Summer Street an important thoroughfare. And the raised grade created its most striking urban design feature: a road curving from the elevated Summer Street down to grade at A Street. Named Melcher Street for BWCo's Superintendent, Lewis Melcher, this curving road was laid out in 1897. (Fig. 9)

BWCo developed Summer Street as a monumental city street. (Fig. 10.) The lofts in the District up to this time had been six stories or less, but Summer Street had nine-story lofts. These were intended for wool merchants. Boston was a hub of the wool trade, and wool merchants liked to be together. Jeremiah Williams & Co., a large wool trading firm, built the first nine-story loft building on Summer Street in 1898. (Fig. 14) BWCo then developed the rest of the block with lofts for the wool dealers. In the early twentieth century, wool merchants relocated practically en masse to the FPCD, and Summer Street became famous internationally as a center of the wool trade. The tall Summer Street buildings were fireproof and had a high level of architectural finish.

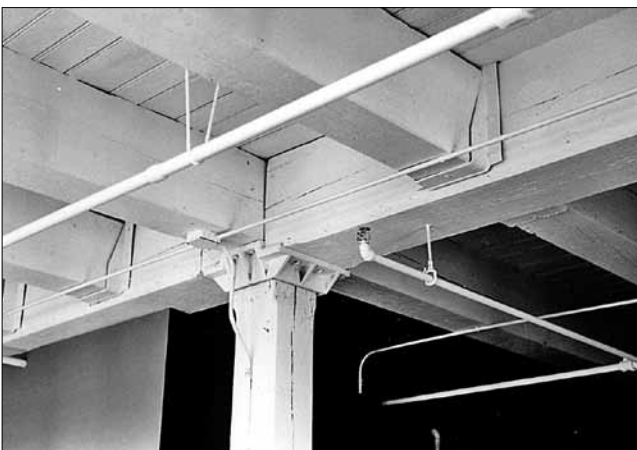


Figure 11: Patterned brick at the corner does little to relieve the plainness of the Atlas Stores, FPCD, the first part of which was built in 1890 by BWCo



Figure 12: “Ordinary” floors of closely-spaced joists and bridging

Figure 13: “Warehouse” framing, consisting of large girders and beams, and tongue-and-groove boards making the floor deck; Stillings Building, FPCD, built 1901



The south side of Summer Street developed later, between 1903 and 1910, but with buildings of proportions and finish like those on the north side. BWCo took offices in the prominent 1905 building at the corner of Summer and Melcher streets. (Fig. 9)

By the 1950s, development of the District for warehousing and manufacturing had come to an end. A reinforced concrete building at 51 Sleeper Street, built in 1929, turned out to be the last of the lofts. The Great Depression, World War II, and the changing regional and national economies, stalled and then ended loft development.

Then the traditional tenants began to leave the buildings. New England’s wool textile industry declined, and along with it, Boston’s wool market. Manufacturers and wholesalers preferred suburban locations with better highway access. Vacancies became widespread. In the 1970s, artists discovered the area, and by 1980, so many artists had moved into the District that an Open Studios event could be held. In the first decade of the twenty-first century, BWCo began to sell off its property. Today, the FPCD has been transformed into a neighborhood of office, residential, retail, cultural, and artist live/work spaces.

Physical Features of the Fort Point Channel District Warehouses

As a result of the limited range of purposes for the buildings (warehousing and manufacturing), and the fact that most were built during a relatively short time period (the late 1880s to 1920), developed by one company (BWCo), and designed by its employees, there is great uniformity in the buildings of the District. In this respect, its development was like that of Speicherstadt, which similarly was developed by one owner, with buildings for a single purposes (warehousing), and in exactly the same time period. The FPCD buildings have features that are characteristic of warehouses and lofts generally: tiers of doors for loading goods; pulleys and lifts for raising and lowering goods; doors at the ground floor elevated to the level of railroad car and truck beds; and little or superficial architectural embellishment. (Fig. 11.) And, like most warehouses, they had open interiors, usually framed (except for firewalls) and little interior finish. The interior construction of the buildings was either fireproof (i. e., all structural parts – frame, floor, roof, partitions, stairways – were made of noncombustible materials) or timber. Most were timber-framed, which was also typical of warehouses of their time.

Of those with timber frames, most were built with “warehouse” framing. Eighty percent of the extant historic warehouses and lofts in the District (68 of 85 buildings) have these floors. Only two have “ordinary” floors, meaning floors made of closely-spaced joists. (Fig. 12) The warehouse-framed floors consist of girders, typically 14 inches deep, and beams, typically 12 or 14 inches deep, which are spaced roughly three to four feet (0.9 to 1.2 m) apart. The frame is decked with thick plank. There would be no ceiling under the beams – the frame was left exposed. (Fig. 13) In the earliest examples of this type of framing, the beams rest on top of the girders. Later, metal hangers were used

to hold the beams. In most buildings, the posts are timber, square in section with chamfered corners. Very few buildings have cast iron columns even though by the 1880s, cast iron columns were commonplace and widely used in urban lofts elsewhere.

Warehouse framing may have originated in Boston, although this is uncertain. Probably it evolved from a somewhat similar framing system, also a regional specialty, known as “mill construction” or “slow-burning construction.” That system was used universally in the construction of textile mills in New England. In mill construction, the floors typically consisted of girders only, spaced eight to ten feet (2.4 to 3 m) apart, covered with a deck of 3- or 4-inch plank, then topped with a finish floor. There would be no ceiling under the girders. The system was created as an affordable alternative to fireproof construction: a way to make textile mills safer without using expensive, noncombustible construction materials. Heavy timber was found to burn slowly, and when protected with automatic sprinklers and other extinguishing apparatus, made a comparatively safe structure. The wide spacing of the floor girders created unobstructed panels in which sprinkler heads could spray water effectively. Automatic sprinklers had become widespread in textile factories in the 1890s. No slow-burning frame was found in Fort Point Channel District.

Warehouse framing appears to be a variation of slow-burning construction, adapted for urban lofts. Although they did not have sprinklers originally, and the iron hangers made the floors more vulnerable to failure in a fire, nevertheless the heavy timber floors of the FPCD lofts would have burned more slowly than ordinary floors. And using girders and beams made stronger floors with fewer posts than girder-only floors. The first architect for BWCo, Morton Safford, used warehouse floors in the earliest extant building he designed in the District: the J. S. Williams Stores of 1888. No building he designed had ordinary framing.

Fireproof construction, more expensive than timber framing, was used only in the tall buildings, as required by law. Fifteen of the extant historic lofts, all of them eight stories or higher, are fireproof. Most have steel frames and concrete floors; two have reinforced concrete frames. The block of wool warehouses on the north side of Summer Street, between the Channel and A Street, are fireproof. The architecturally distinguished Jeremiah Williams & Co. Building (1898) is representative of the fireproof buildings. (Fig. 14.) It has a steel frame, Columbian concrete fireproof floors, and a stair made of Guastavino (timbrel vaulted) tiles.

The buildings of the District for the most part fill their lots. BWCo's control over the land allowed it to maximize land coverage and therefore the available floor area of the properties they developed. The result of the density, rectilinearity, and uniform mass was a visual coherence that is especially notable in the streetscapes of Summer and Melcher streets. (Figs 9, 10, and 14)

Coherence was also achieved by the generally reserved architectural ornamentation and limited number of styles represented, and thus the recurring decorative effects, like projecting cornices and stilted arches over window openings. The most prevalent architectural styles are Classical Revival and Stylized Classical, which were in vogue during



Figure 14: Jeremiah Williams & Co. Building, a fireproof wool warehouse, FPCD, built 1898; it has two more stories on its rear side

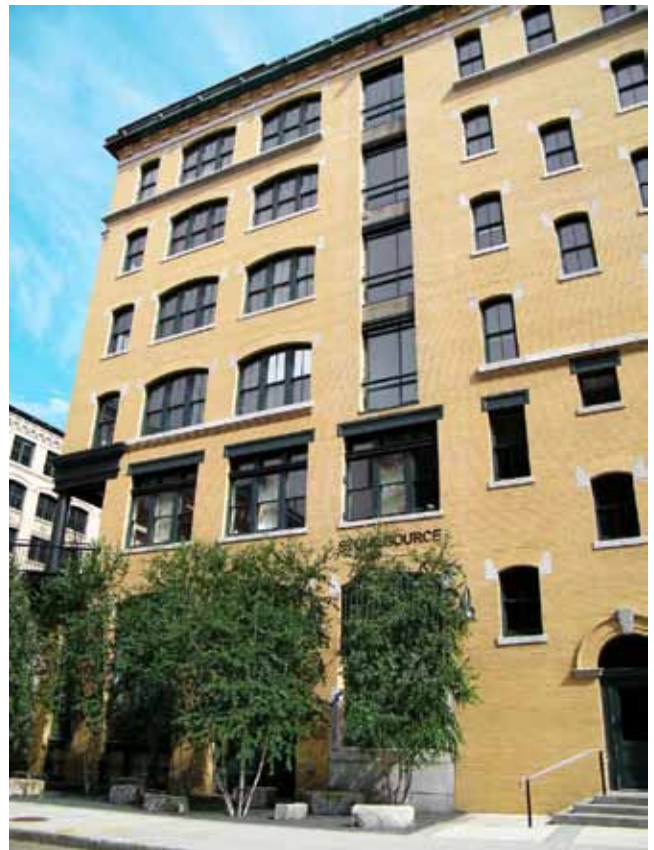


Figure 15: A tier of loading doors that has been changed to windows after renovation; Dwinell-Wright Co. Building, FPCD, built 1904

the period of greatest expansion – from the 1890s through the 1920s. Ornamentation was generally confined to façades along principal streets. The buildings BWCo developed were designed by their staff architects, first Morton D. Safford (1842–1921), then Howard B. Prescott (1874–1956),

who worked for the company from 1893–1917 and 1917–1939, respectively.

Loading docks and hoistways are common features of the buildings. Loading docks are situated above the ground, at the level of a cart, truck, or railway car. These are even found on the principal façades of buildings, when this was the best access. A common feature of the lofts is the tiers of doors, one over the other, with a pulley (locally known as “whips”) at the top. (Fig. 15)

Conclusion

The warehouses and lofts of the Fort Point Channel Landmark District were shaped by their function, having features that are characteristic of warehouses generally, and also a local variation of heavy timber floor framing, which probably was introduced to make the buildings safer in a fire. The District is remarkable for its visually coherent streetscapes, created by buildings of similar materials, massing, styles, and purposes. What makes the District especially noteworthy is the large number of these buildings in a well-defined area. Not only individual buildings, but entire streetscapes survive largely intact, preserving the visual identity of the area as a loft neighborhood. FPCLD is significant as an unusually coherent and well-preserved collection of late-nineteenth and early twentieth-century warehouses and lofts. It represents Boston's former status as a major maritime trading center and is a rare example in the United States of a relatively intact warehouse district from this period. However, compared to Speicherstadt, it is much smaller and was never considered a model of port organization as the Port of Hamburg was at the turn of the twentieth century.

Abstract

Geprägt von Funktion: Bostons historische Lagerhäuser

Der vorliegende Artikel befasst sich mit der Geschichte der vor 1920 in Boston, Massachusetts, errichteten Speicher, und zwar im besonderen mit denjenigen des Fort Point Channel Landmark District (FPCLD). Hierbei handelt es sich um eine 22,3 Hektar große Fläche im südlichen Teil von Boston City mit 87 historischen Gebäuden, die in der Zeit von 1880 und 1930 entstanden und hauptsächlich Speicher und Schuppen (lofts) umfasst. Dies ist die größte zusammenhängende Ansammlung von Speichern und Schuppen in Boston und wahrscheinlich eine der intaktesten Speicherstädte in den USA. Bevor der Artikel sich dem FPCLD widmet, wird ein Überblick gegeben über die Entwicklung des alten Hafens von Boston und die einzigartigen Speicher und Schuppen, die einst zu seinen charakteristischsten Merkmalen gehörten. Bis in die Mitte des achtzehnten Jahrhunderts hinein war Boston die bevölkerungsreichste Stadt Nordamerikas und der Hafen der Stadt war führend. Auch im neunzehnten Jahrhundert gehörte der Bostoner Hafen zu den umschlag-

reichsten, wurde dann aber im zwanzigsten durch andere nordamerikanische Häfen in seiner Bedeutung überholt. Die meisten Kais und Hafenanlagen, die einst die Skyline des Bostoner Hafens bildeten, sind inzwischen verschwunden. Im südlichen Teil der Stadt hat mit dem FPCLD jedoch ein gewachsenes Stück Hafeninfrastruktur überlebt, das noch heute physisch von einer Zeit zeugt, in der Seehandel und Industrie das Wirtschaftsleben Bostons bestimmten. Die Speicher und Schuppen mit ihrem ganz eigenen Gepräge sind Belege für den Baustil Bostons im späten neunzehnten Jahrhundert.

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Sources of illustrations

Fig. 1.: Fairchild Aerial Surveys, Inc., “Boston. South Boston,” 1925. Boston Public Library, Boston, Massachusetts.

Fig. 2.: "Boston and its environs," from Thomas Page's Revolutionary War-era surveys, R. Phillips publisher, 1806. Boston Public Library, Boston, Massachusetts.

Fig. 3.: "A View of Part of the Town of Boston..." reproduction of a 1768 engraving by Paul Revere. Boston Public Library, Boston, Massachusetts.

Fig. 4.; Fig. 7.; Fig. 9. to Fig. 15.: S. Wermiel, 2011.

Fig. 5.: "Beacon Hill, from Mt. Vernon Street..." J. H. Buford's Lithography, from John R. Smith drawing of 1811-1812; Smith, Knight & Tappan publisher, 1858. Boston Public Library, Boston, Massachusetts.

Fig. 6.: HABS/HAER, "Copied by Survey Photographer ..., HABS MASS,13-BOST,6-3," before 1868. Library of Congress, Washington, D. C.

Fig. 8.: "View of Boston, Massachusetts 1880," drawn & published by H. H. Rowley & Co., lithographed by Beck & Pauli. Library of Congress, Washington, D. C.

* The photo rights have been clarified by the author and she has the responsibility

¹ BUNTING, *Portrait of a Port: Boston*, p. xvii.

² The term "loft" means an open floor, with few if any partitions; and a stack of such open floors constitutes a loft building or simply loft. In this paper, the term loft is used to mean the whole building. Because the space in lofts is unspecialized, these buildings could be used for diverse purposes, but generally (originally) they were used for warehousing and manufacturing. Purpose-built storage warehouses might be more specialized than lofts, and had features such as interior fire partitions, small windows, and low floor-to-ceiling heights, which lofts would not have.

³ "Made land" is a term of art that refers to land created by filling in ground originally covered with water, like marshes and tidal flats.

⁴ The Fort Point Channel Landmark District was designated by the Boston Landmarks Commission on December 9, 2008 and confirmed by the mayor and approved by City Council on January 28, 2009. In 2003, it contained 95 buildings, of which 85 (those built between 1880 and 1930) are historic. Since 2003, some new buildings have been constructed in the District.

⁵ GOODRICH, *A Pictorial History of America*, 1844, p. 379.

⁶ GREENE, *Wharves and Piers*, 1917, pp. 52–55.

⁷ SEASHOLES, *Gaining Ground*, 2003, pp. 22–24.

⁸ CLAPP, *The Port of Hamburg*, 1911, pp. 10–11.

⁹ HILL, *The Trade and Commerce of Boston*, 1895, p. 39.

¹⁰ SEASHOLES, *Gaining Ground*, 2003, p. 22.

¹¹ SNOW, *A History of Boston*, 1828, pp. 107–108, 167; SHURTLEFF, *A Topographical and Historical Description of Boston*, 1871, pp. 639–645.

¹² SEASHOLES, *Gaining Ground*, 2003, pp. 41–49.

¹³ FORBES, "The Old Boston Water Front," 1915, pp. 51, 45–46; "Boston's Old Wharves," 1894, p. 6.

¹⁴ WHITEHILL, *Boston; a Topographical History*, 1968, p. 88.

¹⁵ MATHERLY and Frank, "Long Wharf and Custom House Block (NHL)," 1989, pp. 7–2 – 7–3.

¹⁶ This section draws on WERMIEL and Ceccacci, "Fort Point Channel Landmark District Study Report," 2003.

¹⁷ KRIEGER and Cobb, *Mapping Boston*, 1999, plate 22, p. 113.

¹⁸ SEASHOLES, *Gaining Ground*, 2003, pp. 300–306.