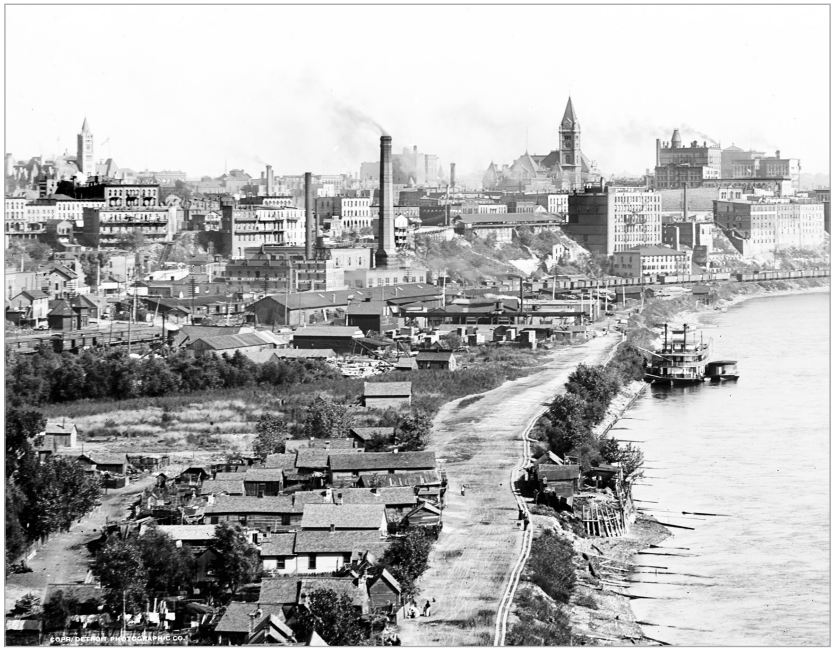
Upper Landing Industry



Upper Landing, residential and industrial, with backdrop of the City of Saint Paul's midtown. Image 1902 Library of Congress-Detroit Publishing Company-William Henry Jackson

Industrialization of the Upper Landing was an incremental process that began with filling in the backwaters that lined its bluffs, was enhanced with the creation of a nine-foot shipping channel, and the convenience of the river as a sewer for industrial and human waste. As a transportation hub commercialization shifted to the Lower Landing via the railroads with the West End as a passthrough. However two grain terminals preserved Saint Paul's legacy, connecting trucking and rail with barges to the south. One, the Saint Paul Municipal Grain Terminal, was razed in the 1980s while a second at Randolph Avenue awaits disposition and possible redevelopment.

Restoration of the river gorge is on-going through the efforts of Friends of the Mississippi River, Great River Greening, Saint Paul Riverfront Corporation and the Mississippi National River and Recreation Area, a 72-mile-long national park that runs through the Twin Cities.

1869: Saint Paul Brass Works Company, Eighth & Minnesota; Second and Wabasha



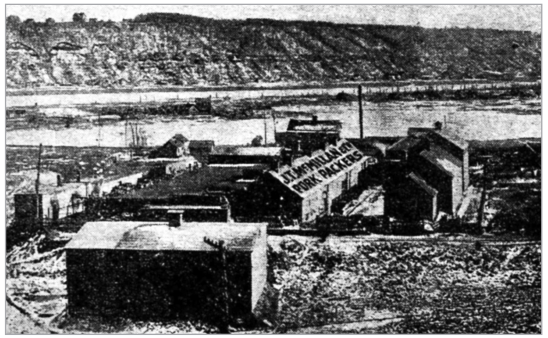
Interior of the Saint Paul Foundry Company: Image ca. 1920 MNHS-Charles P. Gibson

In 1866 W. F. Bailey came from New Hampshire and in 1869 started the Saint Paul Brass Works at the corner of Eighth and Minnesota, specializing in brass castings. He employed 25 men on the three floors, 50 X 100 feet. The works were run by steam power, and "the specialties of production are brass goods, castings, railroad brass, babbit metal, solder and battery zincs; sole manufacturers of Randolph's Metallic Compound for journal bearings, every variety of brass goods for engine builders, plumbers, gas and steam fitters, breweries, mills, etc., brass railings for stores and offices, metal patterns, all kinds of jobbing and experimental work, patent models and repairing of all kinds of machinery promptly attended to at reasonable prices, and steam gauges are tested and repaired."

In 1928 Saint Paul Brass was purchased by Eugene Ryan, who operated the business as a proprietorship until November of 1946 when Saint Paul Brass was incorporated as Saint Paul Brass Foundry Company. In 2011 Saint Paul Foundry was purchased by Cervus Technologies.

Saint Paul Foundry continues to operate today as Minnesota's oldest manufacturer specializing in quality brass, bronze and aluminum sand castings, whose uses range from impellers to housings to valves to aerospace, from ounces to 1200 pounds.

1871: McMillan Company Pork Packers



"Illustration" of the J. T. McMillan Plant

The Saint Paul Globe., July 03, 1904, Golden Jubilee Edition

The above illustration gives a good idea of the big plant of J. T. McMillan & Co., on the upper levee, under the high bridge. This concern is the oldest of its kind in the state "and its steady, sure growth to its present enviable position is the result of careful business methods, conscientious attention to every detail and the consistent maintenance of the high, uniform quality of its product.

The business was founded in 1870 by J. T. McMillan, who is still at the head of the concern....The McMillan concern is justly proud of the high standing enjoyed everywhere by its "Paragon" brand of hams and bacon and the pure kettle rendered lard packed under the same label. For people who use Paragon products will use no other, and their sale is constantly growing solely on their merits.

The McMillans were granted government inspection in 1899. They slaughter their own hogs, and keep every detail of the manufacture of their products under their own eyes at all times. This is one reason for their success. And it leads up to another reason—which is that their knowledge of the packing business is not theoretical or academic, but practical and thorough. The McMillan products are handled by grocers and meat markets throughout the Northwest whose patrons know and appreciate the best.

The J. T. McMillan Company was established in 1870, incorporated from 1906 to 1932, and located along the river between the Upper Landing and the High Bridge

1889: Azotine Company Upper Levee



The Upper Landing. At left, along the slough. is the McMillan packing and Azotine Manufacturing plants. The slough was later filled for rail lines connecting the Lower Landing, Image 1906 MNHS

Next to McMillan's, the Azotine Manufacturing Company established a factory that emitted noxious fumes from its processing of animal carcasses and recycling grease into candles, the rest drawn off for fertilizer. The short-lived recycling plant was built in 1889 and burned down in 1891—with some relief for its neighbors and city.

1888: Washington Foundry Company, Washington and Eagle Streets



Washington Foundry (and Machine Works) Company 1888 Washington and Eagle Streets. Image 1925 MNHS A. F. Raymond.

The Washington Foundry was founded by Major John Kelliher (1840-1908), located on Washington Avenue in the industrial area next to the Mississippi River near the Saint Paul High Bridge. It originally specialized in threshing machines and carriages. Keliher married Harriet A. Irvine, the daughter of John R. Irvine. In 1914, the Orme brothers, who owned the Orme Brass Works at 626 Armstrong Avenue, purchased the foundry.

Mid-1840s: Harvesting Ice

Ice has been harvested and used for food preservation in Saint Paul since at least the mid-1800s, and was a significant industry by the late 19th century and continuing until the mid-20th century. In 1903 the St. Paul Globe reported that more than 200,000 tons of ice would be harvested to meet the demand of the city. The People's Ice company harvests at White Bear, McCarron's and Phalen lakes, Northwestern Ice company, Minnesota Ice company, Star Ice company and the Lakeside Ice company at McCarron's, Phelan and Pickerel Lakes.

About 350 men and 200 teams of horses are employed during the harvesting season. Ice is cut out at 16 inches, made into "cakes" 32x22 inches. After transported, the ice is packed solid in storage houses with sawdust locally at Smith and Chestnut Streets in the West End.

Arthur Grundhofer (1909-1979) and his family lived at 500 Randolph. In 1924 he began delivering ice for the West End Ice Company. In winter, four-hundred-pound blocks of ice were cut out of Crosby Lake and two-horse sleighs carried them to Armstrong and Lee where they were stored underground in sawdust.

Using 20 wagons and 50 horses, customers received 25 or 50-pound blocks. Blacksmiths and wagon masters supported Arthur's route that included the C.S.P.S. Hall, Schmidt Brewery, Pilneys, Machovecs and other customers six days a week. Residential customers requested stops with little "ice signs" for fifty pounds a week, but Summit mansions took regular deliveries of 800 pounds. In the 1930s artificial ice became the norm, delivered with trucks, followed by electric Frigidaires after World War II.

In 1940 Grundhofer is listed as an employee of Citizen Ice and Fuel Company, that had operated out of Vadnais Lake since 1914. Ice was cut each winter from Vadnais Lake and stored in one of the icehouse's 11 mammoth 30-by-165-foot rooms. As many as 70 local men (many farmers) worked for Citizen Ice during the winter — scraping the ice on the lake free of snow, marking and cutting long blocks of ice and floating the ice to where it could be split into single 22-by-32-inch cakes. Ice was ten packed in sawdust. The ice cakes weighed about 220 pounds apiece, and on a good day 8,000 to 10,000 cakes would be stored. Citizen Ice closed in 1938.[102]



"Taken up near old High Bridge on River Road in Saint Paul. Uncle John Anderson is on extreme right side. Image 1920 RCHS



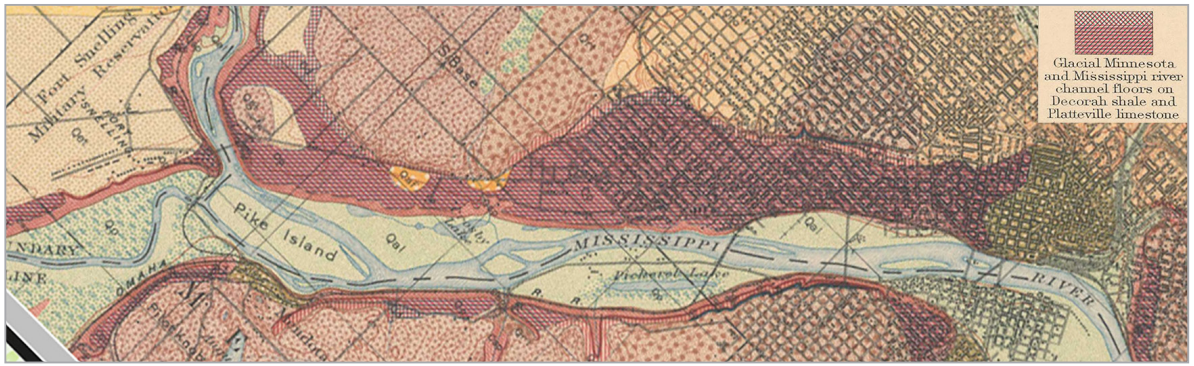
Gathering ice on the Misssissippi for the 1887 Ice Palace. Image 1886 MNHS

The Saint Paul Globe. November 15, 1903 "Refrigerator Without an Ice Bill"

When we stop to think what a necessity of life the daily delivery of ice has become, in all appearances, to the American housekeeper, we find it hard to realize that housewives all over Europe manage (and that fairly well) without this tremendous item of expense. We have come to consider the diurnal visit of the ice man as a matter of course, and to groan over his bills as an unremediable evil. In reality the matter is one very much in need of intelligent consideration on the part of the American woman. Women, as economical as nature herself in other matters, are wasteful in their ice chest to a degree which would cause any European housekeeper to marvel at her folly.

Limestone, Brick, Tunnels

Limestone Formations[103]



Darkened area illustrates glacial floor of the Mississippi and Minnesota Rivers of Decorah shale and Plattville limestone. Surveyed in 1894. Image Henry Gannett, USGS folio on Minneapolis-Saint Paul

About 460 million years ago four formations of stone were deposited during the Ordovician Period. At this time most of the world's land was south of the equator, lower in elevation and underwater. Southern Europe, Africa, South America, Antarctica, and Australia were joined in the super-continent Gondwana. In the Middle Ordovician, North America shed its seas and a tectonic highland, Appalachia, formed along the eastern continent. As land rose, tectonic plates separated, and the earth was rebuilt.

The rocks of the riverside bluffs in Saint Paul date from this time and are divided into several formations by geologists. From bottom to top, it's easy to recognize the two major formations, the lower part, St. Peter Sandstone, is off-white and weathers as smooth, rounded surfaces. It lacks natural cement, making it very easy to excavate (or scratch one's name) and useful for glass making. Henry Ford's 1920s assembly plant in Highland Park took advantage of this in excavated tunnels beneath the plant.

A thin gray or brown interval above the sandstone is called the Glenwood Formation, and is rarely well-exposed. When the sea rose and the coastal sand deposits were submerged, sandy mud and lime were deposited on top of the Saint Peter limestone that became the Glenwood Formation. As the sea deepened over Saint Paul, mud was replaced by a limy deposition, and with practice it is possible to see several different styles of bedding and weathering in the Platteville.

The upper layer, Platteville Limestone, is grayish to yellowish and projects out over the off-white rocks of sandstone. In the Twin Cities it is a very durable formation about 30 ft (9 m) thick. The lowest "member" (layer or stratum) of Platteville is the Mifflin Member that is only an inch or two thick and is the most fossiliferous member. The middle layer or "Hidden Falls Member" has more shale and is not as durable. The upper part, the "Magnolia Member" makes thick blocks with wavy or curved sides and is more stable. Fossils of shelly animals are common in the Platteville, including enormous cousins of the modern coiled nautilus that grew slightly tapering shells that could be ten feet long or more. Quarry workers in the 19th century called them "stone snakes". If there wasn't a Platteville formation, there would be no narrow gorge in the Twin Cities, or Minnehaha Falls, Hidden Falls or Saint Anthony Falls. The partial collapse of St. Anthony Falls in 1869 was due to the instability of the lower Platteville, the unresistant nature of the St. Peter Sandstone, and one too many power projects.

A fourth formation or layer, Decorah Shale, is present above Platteville: its green-gray clay-rich soil gives away its presence. It weathers easily though water does not travel readily through the shale, so it contributes to basement flooding in the West End.

In the Twin Cities there is no bedrock after the Ordovician. Younger rocks were victim of hundreds of millions of years of weathering and erosion, leaving the West End with a lot of Platteville limestone to be quarried.

1870s: West End Quarries[7]



Henry Shields Fairchild. Image Ancestry.com

Trenton limestone (the obsolete name for what we now call Platteville limestone) was quarried in 1820–21 for building Fort Snelling, and in 1836 for Gen. Sibley's house at Mendota, the first residence built of stone in this state.[38]

Limestone quarries of West Seventh contributed greatly to its economic development: "For years [West Seventh] has been, from Seven Corners up to the city limits, the most neglected and desolate street in the city. No one wanted to live upon it, and those who many years before through stress of circumstances had bought or built houses out there, were anxious to move somewhere else. It has been a desirable part of town to no one, and has been unusually, for years, regarded by all as a lonesome, deserted and wholly neglected part of the city ... Today (1884) it presents to the eyes of the beholder the appearance of great business activity."[39]

Ohioan Henry Shields Fairchild (1826-1913) owned a quarry on James and Erie near Stahlmann's brewery. Fairchild (1826–1913) lived in the West End in the 1860s. In the 1878 Business Directory and Gazetteer he was listed as a real estate agent and auctioneer with extensive holdings throughout Saint Paul. He also served on the executive council of the State Historical Society and was a director of the chamber of commerce. He collaborated on the appraisal of the new capital site 1893–1906 with Alexander Ramsey and Henry M. Rice.

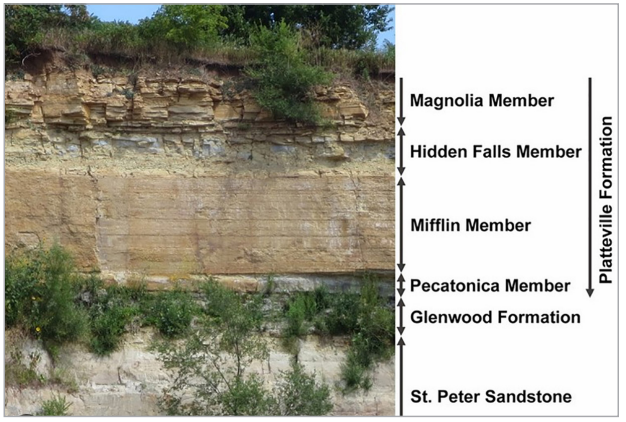
On Fairchild's block was also a quarry owned by John D. Moran. Numerous (residential) lots in the West End were leased by their owners for quarrying that created some problems with blasting for neighbors! In 1904, the city passed an ordinance that enterprises had to be bonded and no quarry could operate closer than 75 feet to an occupied building. Tall, wood, stiff-leg derricks, powered by hand-crank or steam engine, loaded wagons that were pulled by teams of horses to locations where cutters and carvers transformed the raw stone into usable building material.

By the end of the 19th century, the Saint Paul Globe had dubbed the neighborhood the "West Seventh quarry district."

The Saint Paul Globe, February 21, 1904

$250 Buys good lot on Warsaw (Osceola) north of Jefferson; stone on this lot will more than pay for it. We have several good stone quarry properties in this district that can be bought very cheap and on easy terms.

Glenwood Formation



The Glenwood Formation. Equatorial Minnesota Blog by Justin Tweet.



T.W. Ingersoll, Limestone Quarry, Saint Paul, between 1885-1890. Image T. Schroeder collection.

1879: Lauer Quarry and Contracting



1898: Henry Lauer and Isaac Labisonniere at the cornerstone ceremony for the Saint Paul Cathedral, Saint Paul, Minnesota. Image 1898 MNHS

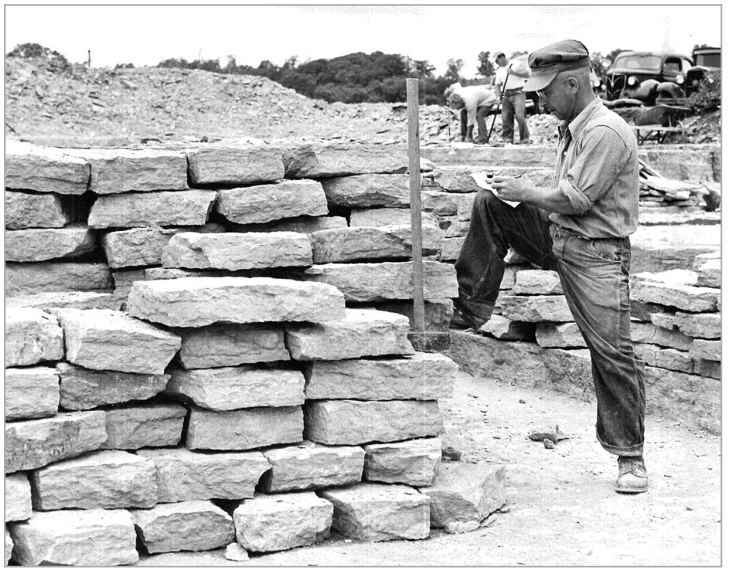
The Lauers are well known in the West End as contractors, builders and stonemasons. Charles Lauer (born 1846) emigrated in 1870 from Lothringer, Lorraine, a German-speaking area of France, with his wife, Margaret. His sons Nicloss (a stone cutter) and Henry (born 1877 in Wisconsin) followed their father into stonework and contracting. Charles' brother Jacob immigrated with his wife, Mary, in 1873. The census of 1910 also lists his sons George and William as contractors (builders of houses and roads). The family business began in 1879, first with a steam sawing mill and quarry at the foot of Chestnut, and a quarry at West Seventh and St. Clair. In 1902 Jacob Lauer bought out Von der Weyer's operation.

Eventually Lauers dealt with Nenninger limestone, Bayfield brownstone, Dakota limestone, Kettle River stone and Ohio sandstone. Projects included Lauer Flats (1887), the Minnesota State Capitol (1897), the Commerce Building (1910) and the Saint Paul Cathedral (1915).

Jacob was the younger brother of Henry and James and in 1896 transformed farms and stockyards between Otto Avenue and Montreal Way along the river bluff into a massive limestone quarry that he quarried until his death in 1916. His son George continued the quarry until he sold the area to Wood River Oil Tank Company, who in turn sold to Shell Oil for their tank farm.

One of the largest stone crushing plants in the Northwest began operations just west of the Schmidt Brewery in 1902. In 1933 the Minnesota Geological Survey of the University of Minnesota reported that "along Stewart and Victoria avenues, the Saint Paul Crushed Stone Company controls a large acreage and operates on an extensive scale. The quarry is located on a rock terrace one hundred or more feet above the river and in the lower portion of the Platteville limestone … Although some of this rock has found use as a local building stone, the chief product of the quarry is crushed stone (for use in street construction)."[40] Saint Paul Crushed Stone Company was in business from 1907-2008.

1950: Sebesta Stone Quarry



Raymond Lehmann, Foreman, verifies a shipment at Sebesta Stone Quarry, 2060 Stewart Avenue, in operation at least until 1962. Image 7/18/1950 MNHS-St. Paul Pioneer Press Dispatch

Nineteenth Century Commercial Buldings

> *Genesis 11:3-7 (The story of Babel): They said to each other, "Let's make bricks and bake them to make them hard." So they used bricks instead of stones, and tar instead of mortar. Then they said to each other, "Let's build a city and a tower for ourselves, whose top will reach high into the sky.*

Minnesota Bricks
Exploring History and Brickmaking in Minnesota [104]

West Seventh's 19th Century commercial buildings present an interesting history of brickwork. The demand for brick in the early 1850s was substantial: for chimneys, foundations, houses and permanent stores to partially offset the catastrophic fires of the early settlement period. Unlike window glass and other building materials, it was expensive to bring in brick by steamer due to the weight. James Goodhue, a Saint Paul journalist, exclaimed in 1850: "Farms, a great many, are being opened in all directions, and on both sides of the river. That is right. No danger but what the town will grow fast enough -- towns often grow too fast. Many of our people are exclaiming brick! brick! the town is perishing for want of brick! (Berthel 1948:158).

The Brunson House, located at 485 Kenney Street and built around 1856, is thought to be the oldest brick residence in Saint Paul. The brick, noted for its orange color and inner softness, was brought in from Galena, Illinois. The first Minnesota brick yard was opened and worked by D. F. Brawley (until 1885) who came to Saint Paul, in April, 1849. The yard was not far from the James J. Hill house on Summit Avenue. With two "pug mills" (blenders using horses) he made 300,000 brick in 1849, and most of them went into the building of the Methodist Church on Market Street. Brawley helped start the first Free Masonry in Saint Paul and served as a Minnesota Capital Commissioner and managed its construction. With setbacks he moved to Saint Vincent across from Pembina, ran into financial difficulty, and committed suicide.

The Saint Paul Daily Globe
Sunday Morning, December 23, 1888

...if all the buildings were erected in Saint Paul during 1888 were to be placed together and in one straight line, without cross streets, that line would be 15 2/8 miles in length... It is estimated that the brick used alone would make a solid wall ten miles long, two feet thick and eight feet high; the stone, a wall four miles long, three feet thick and ten feet high; the lumber, a fence that would enclose the combined areas of Saint Paul and Minneapolis, and the nails a straight line from Saint Paul to Milwaukee.

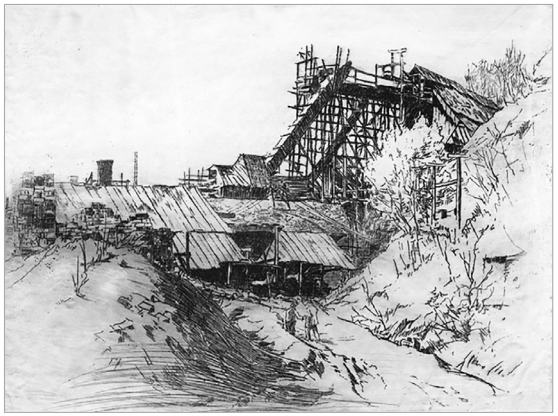


Third Street/(Kellogg)
Image 1888 MNHS



Brick buildings (nonextant) of Third Street (Kellogg) from Seven Corners.
Image 1908 MNHS.

1889: Twin City Brick Company



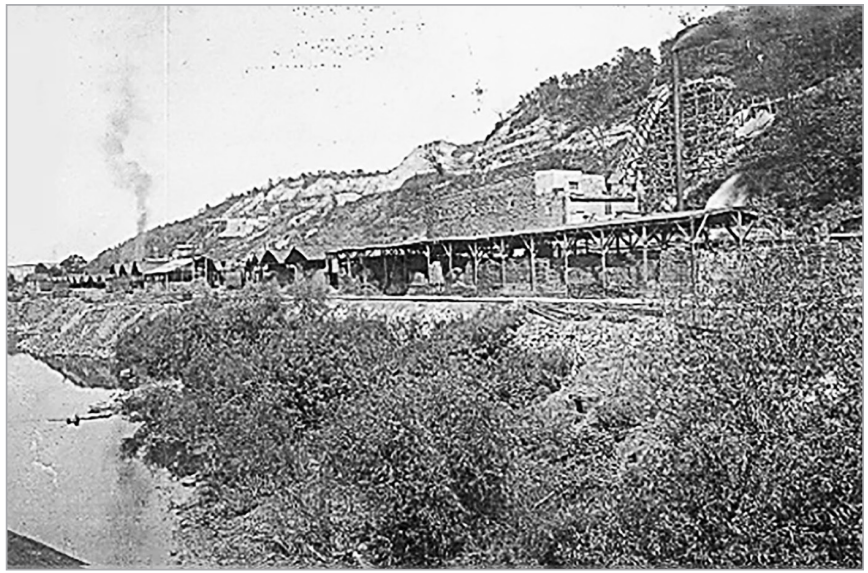
Etching and drypoint of the Twin City Brick Company brick works on the Mississippi, on Saint Paul's West Side by George Earl Resler. Note the scaffolding leading to the buildings as in the photo. Saint Paul's downtown smokestacks are seen at left. Image ca 1910-1915 MNHS

Fritz Koch (1859-1907), President– Fritz Koch emigrated from the Netherlands in 1889, incorporated Twin City Brick Company and became its president. " We are making 20,000 brick per day and have six kilns. In one of these kilns we can burn 600,000 at once. We are building another kiln in which we can burn 1,000,000 brick at once. We have about a million on hand. I used to burn 1,000,000 at a time in the kilns in Holland… It seems to be almost impossible to exhaust our clay banks on the West Side, and we are pleased with the patronage we receive."

W. Siwart Smit emigrated from Groningen, Netherlands in 1891 and became Koch's secretary and general manager. In 1921 Henry F. "Heinie" Olson (1892-1964) worked as a salesman for Twin City Brick Company and in 1947 after duty as a Naval Aviator in World War II, his son Bill (1921-2004) joined him also as a salesman. Two generations of service to the company opened the door to Bill's sons, Scott, Gary and Greg who in the 1960s worked various jobs at the company's brickyards in Saint Paul and Minneapolis. In 1972, when Twin City Brick ceased operations, Bill started Olson Brick Sales; a distributorship today led by Scott Olson, who continues the family's 90+ year legacy in the industry by representing the nation's leading brick and masonry suppliers.

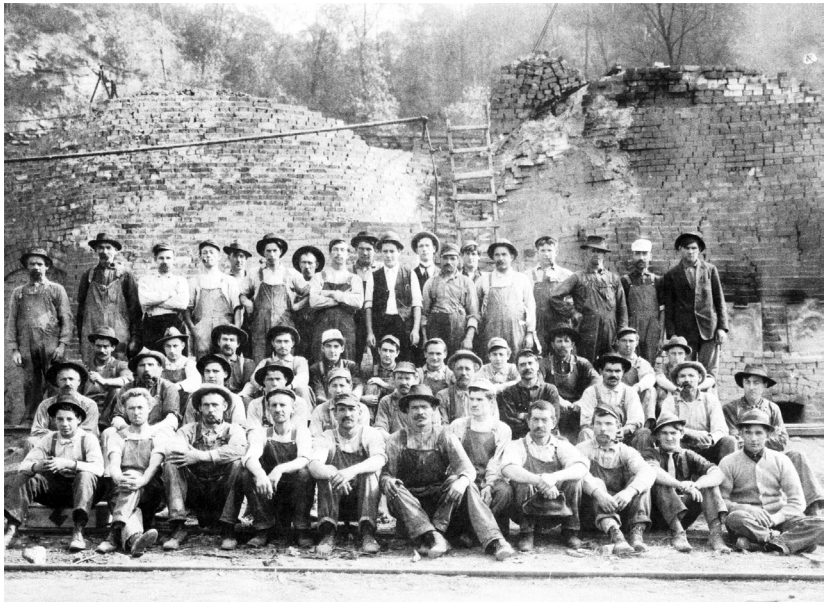
1894: Saint Paul Brick Company

The Saint Paul Brick Company was a major source of bricks for nineteenth century West End buildings and was succeeded by the Twin City Brick Company. It was located west of the High Bridge along the river at Lillydale above Lake Pickerel. Workers quarried Decorah shale from the Mississippi River bluffs and brought it down steep hillsides to be processed and fired into bricks. Bricks were formed and loaded into the beehive or periodic kilns where they were heated to 2000 degrees Fahrenheit for seven to ten days. When cooled the bricks were sorted by color, the redder/darker closest to the heat, lighter color further. The brickyard was convenient to Saint Paul's construction industry and the rail line across the river and the commercial and residential buildings of the West End. Brick walls several feet thick were the structural support of the three-story buildings with lesser grade (common) brick at the interior. The facing brick was often sorted by color aesthetically. A common misconception is that yellow brick locally available from Chaska or Menomonie yards was inferior.



Twin City Brick Company was a brick manufacturer on the west bank of the Mississippi River just north of Saint Paul's High Bridge near Lilydale. Image Olson Brick Sales.

1885: Bricklayers and Allied Craft (BAC) Workers Local #1 Founded in the West End at Seven Corners



Brickwork crew at Twin City Brick Company. Note the ladder up to the kilns and bluff. Image ca 1930 Olson Brick Sales



Main Street from Seven Corners, looking towards the capital. In 1885 Bricklayers and Allied Craft (BAC) Workers Local #1 was founded at 411 Main Street. It represented Bricklayers, Stone Masons, Pointer Cleaner Caulkers, Terrazzo Workers, Tile Setters and Finishers. Image 1906 MNHS



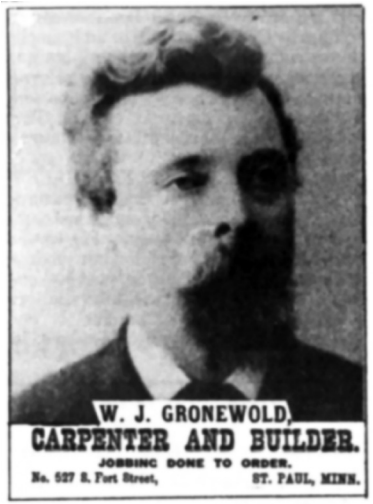
Brickwork crew at Twin City Brick Company. To the back are two beehive kilns. Image ca 1930 Olson Brick Sales

The Saint Paul globe., June 27, 1904

The fifty union men in the employ of the Twin City Brick Company, West Side, near the Omaha Bridge, will not go to work this morning, and an effort will be made to induce the forty non union men to walk out also. It is claimed by the men that some days ago they were served with notice that it was a question of either quitting the union or losing their jobs.

An interesting application of limestone was burned to yield quicklime mortor, "burnt" or roasted at a temperature of 2,000 degrees Fahrenheit for several hours. The carbon dioxide was driven off in the burning process, leaving lime (calcium oxide). One ton or 2,000 pounds of limestone made 1,000 pounds of quicklime. Once "slaked" it loses quality the longer it is out of the kiln and if used to build mortar needed to be used within a few days.

1862-1889: Gronewold "Brick" Contracting



Three Gronewold (Grünwald) brothers emigrated from Hanover, Neidersachsen, Prussia. J. J. (Johann Janssen) Gronewold (1833-1900) was the first in 1853, followed by A. J. Ameling, (1847-1899) who came with his wife Louisa in 1856, and Wilhelm/William (1849-1925) in 1869. The brothers were contractors. William became the West End's premier contractor specializing in brick structures and was in practice from 1862-1889.

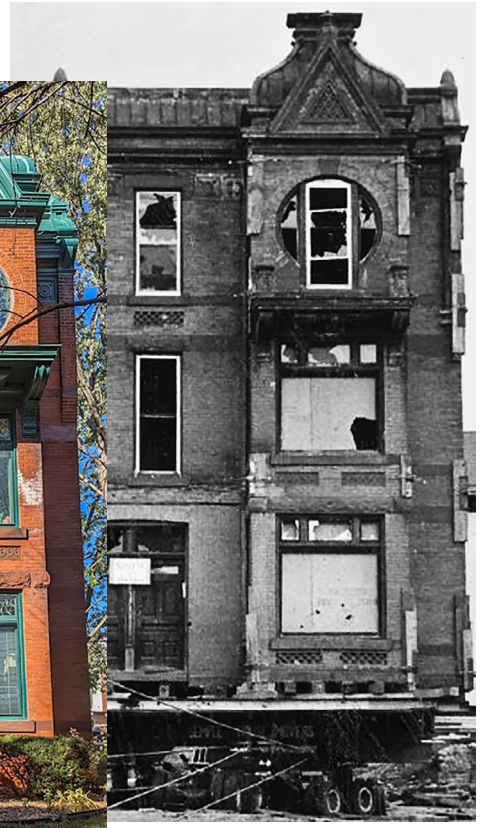
The 1992 Uppertown Survey credited Gronewold with construction of at least 23 structures in the area from 1884-1902.[105] Notable structures include the two-story C.S.P.S. Hall (1887) at 383 Michigan Street, Anton Bucha's tailor shop at 407 Michigan, John Thomsen grocery (1886) at 893 Randolph, Peter Eiswrith's Saloon (1886, since modified) at 531–35 West Seventh, John Myers store (1884) at 1169 West Seventh, 425 West Seventh, 1179 West Seventh and 1189 West Seventh. William was active in the West End Improvement Association, precursor to the West End Commercial Club and West Seventh Business Association

A. J. Gronewold built his offices at 1163–65 West Seventh. He moved to California in 1889 for his wife's health and died a year later. The Horejs Brothers (John, James, Frank and Joe) conducted their wholesale and retail bakery "made strictly in the Vienna Style", and added a second location at 461–63 West Seventh. A series of busineses included John Masek's grocery (1894) and Josef and Mary Povalny, bookbinder of legal books (1910). Povalnys emigrated from Bohemia in 1881. Mosner Shoe Store occupied the store (1939), as well as West End Cabinet Works and United Sound Stores. The building was razed in 1932 with widening of West Seventh in the early 1930s.

1871: Gronewold Residences



Restored Gronewold townhouse. Image 2024 Craig Johnson.



Gronewold townhouse, 553 West Seventh. Image ca 1975 RCHS

Gronewold constructed his residence at 323 Banfil Street in 1871. Twenty years later, he built a stylish several story Queen Anne townhouse nearby. The narrow, three-story red brick and sandstone building has a Mansard roof with a projecting tower. The residence and townhouse were "turned, " moved nearby and restored at 555 West Seventh when Mancini's Char House expanded its parking lot in the mid-1970s.

West Seventh Brickage



























Photography by
Craig Johnson

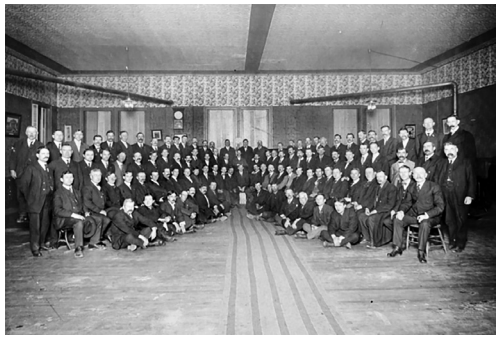
1882: St Paul Trades and Labor Assembly 411 Main Street



Charles James.
Image June 4,1904 The Appeal

The Knights of Labor was founded as a fraternal order in Philadelphia in 1869 and the Saint Paul chapter in early 1880 at 371 Jackson near West Seventh. The Knights worked with the Farmers' Alliance, advocating for shorter work days, equal pay for women, child labor laws, and cooperation between workers. Their building was also the meeting place for the Masons' African-American Pioneer Lodge, and in 1882 founded the Saint Paul Trades and Labor Assembly. Credentialed in the founding were Cigarmakers', Tailors' and Boilermakers' Unions and the Knights. Two years later St Paul listed 27 unions as members. Along with local labor unions, the Assembly moved to the Saint Paul Labor & Professional Centre, 411 Main Street near Seven Corners.

On August 8 1902, in an event of labor history, Charles James (1868-1923) 35-year-old leader of the Boot and Shoe Workers local union, was elected President of the Saint Paul Trades and Labor Assembly, the first Black man to hold the position. He was the son of Black pioneers that homesteaded in Minnesota. His family would later become one of the city's elite Black families. In 1906, Fort Street was renamed Main Street, and in 2016 the remaining two-blocks of Main Street were named Dorothy Day Place.



Saint Paul Trades and Labor Assembly.
Image 1900 MNHS

Labor Day, 1905: United Garment Workers Union, Rice Park



United Garment Workers Union. Image 1905 MNHS



West Seventh Upholstery Shop. Image 1895 MNHS

The Saint Paul Globe, November 05, 1899

Millinery Library, West Seventh. "No self-respecting woman likes to wear a Hat that cries 'bargain sale' as she moves along the street. The tone of our Millinery is high—Our Prices Low. We cater to the masses of the people, showing Millinery that is marked for its artistic touch, its refinement, its style and its peculiar applicability to the wearer. Half the battle in selling a hat lies in giving the right hat to the right purchaser. Our sales ladies know how to do that. Our prices on the season's choicest Trimmed Hats are wonderfully reasonable when you consider the values offered."

1920s: Upper Landing Industry, Garneth Peterson[106]



Upper Landing mix of brothels (upper left), O'Connor's Police Headquarters (upper right), and mix of tenements taverns, and factories. Image 1925 MNHS.

In the 1920s, the area below the Third Street bluff, along Eagle and Chestnut streets, contained a variety of industrial uses with a few dwellings and boarding houses mixed in. The 1927 Sanborn map identified several lumber yards, coal and iron companies, the Northern States Power Company Hill Street station, and the county morgue. There were also several manufacturing operations; Orme's Washington Street Foundry; Haskins Bros. and Company Soap Factory; the Milton Dairy Company Creamery; and the Eisenmenger Meat Company. The levee west of Chestnut Street below Irvine Park held a mix of new and old uses. Southwest of the High Bridge on the river flats was McMillan's Slaughter House, which had been in operation since at least 1904.

Stone cutting yards also remained although Lauer Brothers was no longer located there, both the Willcox Cut Stone Company and the William H. Ulmer Company Stone Cutting Plant were located adjacent to railroad lines below the Irvine Park bluff. The Saint Paul Milling Company Flour Mills and the Equity Co-operative Exchange Grain Elevator and their large elevators dominated the riverfront just south of Irvine Park. When constructed in the late 1910s, the flour mill and grain elevator represented the farmer's cooperatives that had formed to protest the monopoly of grain and flour marketing by Minneapolis firms. Farmers charged that the grain firms and railroads rigged prices and commissions. In response, farmers organized to seek cheaper rates by shipping grain in bulk on the Mississippi. Created in 1908, the Equity Cooperative Exchange moved to Saint Paul to build a grain elevator when the city promised free land along the Upper Levee. When completed in 1917, the elevator was more reliant on railroads for shipping because little grain was being hauled on the river at that time. The terminal complex included a series of grain tanks and other buildings added into the 1950s.

The city built a grain terminal that had a 22,000-bushel, reinforced concrete elevator (headhouse), a claytile sackhouse (warehouse), and a loading dock. The facility was completed in 1931 (Saint Paul Municipal Elevator and Sackhouse; RA-SPC-3321; 266 W. Shepard Rd.; NRHP). Congress included the nine-foot river channel project in the 1930 Rivers and Harbors Act, which guaranteed a navigable channel through construction of twenty-three locks and dams along the Mississippi and thus encouraged the need for river facilities.

The Upper Levee had also become a location for the various utility companies that competed for Saint Paul customers in the early twentieth century.

Fort Road's Subterraneum Labyrinth[108]



Gold: Sand rock tunnels built prior to 1918.
Image Goss, M.N. Plate No 3 Saint Paul Department of Public Works



Sand Rock Tunnels, Fifth and St. Peter.
Image 1900 MNHS-Saint Paul Engineering.

Dakota experience of the Mississippi River differed from the twentieth century's--it was only a foot or two deep at low water. And although our river is a murky-brown soup, theirs was "entirely colorless and free from everything that would render it impure, either to sight or taste," according to American mapmaker Stephen H. Long, who passed through the area in 1817. With infill, narrowed banks and dredging, the depth grew.

As the township of Saint Paul emerged in the 1850s, its primitive sanitation system of outhouses needed to be replaced. Raw sewage went straight into the river. Ordinances detailed privy construction, as well as public health sections regarding the spread of diseases, burials, quarantine, vaccinations, etc. Saint Paul established a Board of Health in 1854, but the sewer system (ditches, drains, privy vaults) was inadequate until the 1870s. Sewers constructed before the 1880s either did not properly flush or were subject to cave-ins.

"The spectacle of a city of the size and pretensions of Minneapolis or Saint Paul, emptying into the Mississippi river thousands upon thousands of tons of solid and liquid filth … yearly is one to make angels weep and men blaspheme," wrote University of Minnesota professor William W. Folwell in an 1888 issue of Minnesota Horticulturist. The Twin Cities' first sewer systems, built in the late 1800s, conveyed untreated waste directly into the river. "…every spring the big toilet would flush: The snow would melt up north, the rains would come. All that water would come down and flush that sewage and stink downriver to wherever it goes, to the land of 'away.'" In 1885 the Hill Street Station ran the first gas through mains in sandrock tunnels under the Loop, bringing the Gaslight Era to Saint Paul, and the Northwestern Telephone Company began carving its own set of tunnels.

The early sanitary infrastructure did not encourage use. Sewers remained limited to a small area, running water was not available to flush toilets, and poor connections froze in winter so most residents resisted making connections. A plentiful water supply was needed for toilet flushing, but though the waterworks in Saint Paul were constructed in 1869, by 1880, the 41,473 inhabitants of the city had only 1,850 hook-ups. In 1885 the city began keeping records of all sewer building and hook-ups, and a map was made showing the existing sewers, their type of construction and their date of construction: pre or post 1885.



Brick, Greg. Image 2009 Subterranean Twin Cities/University of Minnesota Press.

Saint Paul grew from about 20,000 people in 1870 to more than



Residential sewer tunnel, Goodrich at West Seventh. Image 2024 Yust archive



Harriet Island Public Baths
Image 1906 Library of Congress

270,000 in 1930; by 1922 more than 37,000 Saint Paul homes were connected to the city's sewer system that dumped directly into the river without any treatment. By the mid-1920s, the river had been declared a health hazard by the state health department and was considered hazardous even for boaters. The Harriet Island beaches, which had drawn enormous crowds around 1910, were closed as pollution became more severe. By 1930 the combined capacity of the sewers emptying into the Mississippi within the Twin Cities was two-and-a-half times the normal flow of the river.

The first sewage treatment plant, built downriver at Pig's Eye, was not opened until 1939. Compromises limited the level of treatment: by the mid-1950s Saint Paul and Minneapolis were adding as much pollution to the river as before the plant was built. The plant has been greatly expanded and improved since then....[107]

An interconnected network of sewer sand rock tunnels was built under the City of Saint Paul, under every street in the Fort Road neighborhood at an average depth of about thirty feet, with pipes coming down from individual houses and buildings. These tunnels, which carried raw sewage, were carved with hand tools in the St. Peter Sandstone bedrock, the floors were paved with brickwork. The river's banks were crowded with meatpacking and chemical plants that discharged industrial and animal waste into its waters, as well as human waste. Before long, huge rafts of raw sewage could be seen floating through Saint Paul. "During rainstorms, the pipes weren't big enough to receive all that stormwater. Overflow pipes to the river were built because otherwise, the only place the water could go was back up the pipes where it came from—into buildings, homes and onto the streets. As recently as 1984, 350 million gallons of combined stormwater and wastewater (sewage) overflowed into the Mississippi in one year, mostly during major rainstorms or during snowmelt."



Sand Rock Tunnels, Fifth and St. Peter, Image 1900 MNHS.

Gradually, dependable sewers and water mains expanded throughout the city and connectors to residences increased. Most homes were connected by 1910 though a few pockets along West Seventh remained without municipal services, Kips Glenn in particular.

In 1996, the metropolitan area celebrated the completion of a ten-year, $332 million sewer separation program that separated out sanitary and storm sewer systems. Waste is now diverted to treatment plants while storm sewers discharge rain water and snow melt into the river.

By the mid-1920s, the river had been declared a health hazard by the state health department, and it was considered hazardous even for boaters. Huge rafts of raw sewage floated down the river. A 1927 survey found almost no dissolved oxygen in the river from the pool above the dam to the confluence with the St. Croix River at Hastings. This degree of pollution made the river a nuisance.