

# **RAILWAY CARS, BRICKS, AND SALT: THE INDUSTRIAL HISTORY OF SOUTHWEST DETROIT BEFORE AUTO**

**Presentation by Thomas Klug  
Associate Professor of History  
Marygrove College, Detroit  
November 5, 1999**

The roots of heavy industry in Southwest Detroit date to the late 19<sup>th</sup> century when the second industrial revolution swept through the Great Lakes region. This transformation involved the emergence of heavy industry and large factories, the development of big business and modern management, mass migration, and the growth of multi-ethnic labor forces. The rise of the Great Lakes manufacturing region catapulted the United States into leading industrial power in the world. Detroit—and the Southwest sector of the future “motor city”—played a significant role in this complicated development.

One of the most visible (and regularly reported) indicators of change was urban demographic growth. Detroit ended the century with a population of 285,704--about the same size as Milwaukee. While it ranked as the 19<sup>th</sup> largest city in the country in 1900, it held 4<sup>th</sup> place in the Midwest (after Chicago, Cleveland, and Cincinnati). Detroit's greatest growth clearly lay ahead of it—after 1900 when the automobile industry took off. Nevertheless, in the late-19<sup>th</sup> century Detroit experienced continuous population growth. Between 1870 and 1900 its population increased 259%. Detroit's decade was the 1880s when its population shot up 77%. This was the second highest growth rate in the Midwest after Chicago. Even during the economically troubled 1890s, Detroit's population grew 39%, although this was nearly the lowest rate among large Midwestern cities.

The main stimulus to population growth in Detroit was migration: rural to urban migration within the Midwest, east to Midwest inter-regional shifts, and cross-border movement from Ontario to Michigan. Dramatically adding to the ethnic mix were the hundreds of thousands of immigrants from rural Eastern and Southern Europe who entered the trans-Atlantic migration streams between the 1880s and the First World War. Many found their way to the expanding cities of the Midwestern United States. Whether the distance traveled was short or long, from a nearby small town and farm or across the Atlantic Ocean, it was essentially a labor migration, with workers searching for jobs and employers recruiting enormous numbers of industrial wage laborers.

The industrial foundations of Detroit go back to the 1830s with the starting of machine shops and foundries. Industry continued to expand after the Civil War in an economic and political climate that favored rapid new business formation and consolidation. The significance of industry did not escape notice. “It is an admitted fact,” wrote the editors of Detroit of Today in 1893, “that the true foundation of a city's prosperity is its manufacturing industries. A prosperity based exclusively upon a commercial foundation must necessarily be ephemeral.” Already a large percentage of Detroit's labor force was engaged in factory work, suggesting “how intimately Detroit's present and future prosperity is associated with the success of its manufacturing

industries.” Interestingly, they noted that the “permanence” of manufacturing in Detroit depended on maintaining its diverse industrial base.

In contrast with the later motor city, Detroit’s industrial base was quite diversified. In 1900, most firms (1,475 out of 1,588) were small (that is, employed less than 100 workers). But the story was more complex than this. A wide-range of industrial products coincided with some notable areas of specialization, such as railway cars, shipbuilding, stoves, steam radiators and boilers, brass goods, chemicals, tobacco products, and pharmaceuticals. Furthermore, the mass of small employers claimed only 39% of the city’s factory workers, while 61% were employed by just 113 middle or large-size firms. Indeed, a mere twenty large companies (employing 500 or more workers) engaged nearly one-third of the city’s manufacturing workforce. Twelve of these firms were situated in Southwest Detroit.

(The area considered Southwest Detroit in this study was acquired by the City of Detroit in stages. In 1827, the western border of Detroit lay along Fourth Street; in 1849, Brooklyn; 1857, Twenty-fifth Street; 1885, Artillery Ave.; 1906, the Rouge River. Between 1849 and 1916, portions of Springwells Township were annexed to Detroit on six different occasions. In 1906, Detroit acquired the villages of Delray and Woodmere.)

Like the city at large, Southwest Detroit also supported a wide-range of industries and firms, many taking advantage of access to the riverfront or the railway lines cutting through the district. Plenty of other firms were situated along neighborhood streets. The Schilling Corset Co., for example, was founded in 1883 and commenced operations at Seventh and Abbott streets. Proudly advertising “Dr. Schilling’s Health Preserving Corset,” the company also made 60 to 70 different styles of **corsets and waists**, including “Detroit Ladies’ Waist,” “French Shapes,” “Imperial,” and “Model Form, No. 850.” Nearby, at the northwest corner of the same intersection, was the Penberthy Injector Co. Founded in 1886, Penberthy made high pressure **brass injectors** used in steam boilers. Ironically, on the morning of November 26, 1901, a boiler explosion demolished the three-story factory, killing 29 workers and injuring at least 47 others—at the time, the second worst industrial accident in Detroit history.

Using the Detroit city directory for 1905 and Sanborn insurance maps for 1897, I was able to quickly survey Southwest Detroit and identify some representative manufacturing firms in the area and plot them on the Industrial Map of Southwest Detroit, 1897-1905 (see attached). On River Rd. near Vermont, the Chas. Pohlman & Co. (#28) manufactured **furniture**. In 1890, a trio of Gardner brothers went into the **elevator** business (#3). They sold out to the New York-based Otis Elevator Co. in 1898. After 1905, the Detroit factory was used to handle service and installation in the Detroit area. Quite a number of **lumber and coal** yards dotted the area. The Detroit Coal & Coke Company’s dock and coal yard (#24) was located at Nineteenth Street and the Wabash Railroad. Anna R. Schultz—secretary and treasurer of the firm and one of the few female company officers in the city—resided nearby at 411 Vinewood (#25). The factory of the Hamilton Carhartt Co. (#30), a noted producer of workmen’s **overall**s and a self-proclaimed friend of the labor movement, was located on the west side of Tenth Street, south of Michigan Ave. On River Rd. near Campbell, the Fischer-Hughes Gelatin Co. (#16) produced **gelatin capsules**. Beginning in 1882, the Frederick Stearns Co. (#39), a pioneer in **pharmaceutical** manufacturing in Detroit, occupied facilities at the corner of Twenty-first and Marquette streets. The Scotten-Dillon Co. (#36) made

**tobacco products** at W. Fort and Campau. **Florists** with greenhouses did business along West Fort at Twenty-fourth Street (#23) and near Distel (#65-66). A pair of **breweries** (#31) stood at the northeast corner of Howard and Twelfth Street. Adding to the industrial mix, **meatpacking** firms (#19 and #55) operated along the Michigan Central Railroad. Metal-working companies concentrated along Beecher Ave. (#21, formerly Foundry St.). Among these were Griffin Car Wheel Co., which produced **railway car wheels**; the Stephen Pratt **boiler** factory; and the Detroit **Bridge & Iron Works**, part of the American Bridge Company empire.

In the 1890s there were two dozen **brickyards** within or near Detroit. They employed some 750 workers and made nearly 100 millions bricks per year. Eight of these are indicated on the map (#57-64). Going back to the early 19<sup>th</sup> century, brick making centered in Springwells Township, in the vicinity of Michigan Ave. and Lonyo, due to the exceptional quality of its “blue clay.” Sanborn maps for 1897 reveal that a typical brickyard consisted of a pond of water, several brick-making machines, a kiln, and a large covered drying area.

According to an 1883 study by the State of Michigan of brickyards in Springwells, those operating on a piece-rate wage basis ran a nine-hour workday, starting at 4 a.m and going until 9:30 a.m., then resuming from 12 noon until 4 p.m. The workers, mainly German and Polish immigrant males, earned \$40 to \$50 a month, “but the work is very laborious.” Those employed at day wages were under less pressure, but they worked 11 or 12 hours a day. The industry, however, ran only about six months a year, from April to about the middle of October. During the colder months workers had to seek employment elsewhere. “Some go to the [railway] car shops, some on the railroad, but they are mostly re-employed by the brick-bosses at a reduced rate of pay, and an increased number of hours.” The fortunate ones obtained work in the stables as teamsters. The majority, though, went into the woods to chop the next year’s supply of firewood, “their average earnings ranging from 50 to 70 cents a day, exclusive of the large amounts of time necessarily lost by cold, wet, sickness, etc.”

The “appalling poverty” of brickyard workers was made apparent “by reason of the filthy, dilapidated little hovels into which the laborer is crowded.”

These usually consist of one room and a shed, and are built of ten-foot boards, standing on end, with the floor raised about two feet, making a room eight feet high, by about ten feet square. As their families will average about six persons, this gives 100 square feet to the family....Generally they are plastered inside, but dimly lighted, with broken glass and sash, approachable only through mud during a great part of the year, often tilted up at various angles by frost, never painted, and perfect sieves for the chilling blasts of winter. Standing on mud banks, along the edges of stagnant pools, with door opening directly into the room, their extreme wretchedness, as human habitations, may well be imagined.

The State of Michigan’s analysis concluded: “The inmates of our houses of correction and our prisons are better fed, more comfortably clad and housed than these people are.”

One of Detroit's leading industries was **stove manufacturing**, and one of the four stove firms in the city lay in Southwest Detroit. Established in 1881 by James Dwyer, Frederick Moran, and others, the Peninsular Stove Co. (#1) erected a factory complex on the south side of W. Fort between Eighth and Tenth streets (now the site of Detroit's main post office). At the heart of stove manufacturing was a pair of large foundries where highly skilled iron molders, proud metal-working aristocrats, turned out the valuable sand molds required for the cast iron components of stoves. (Among the largest, most combative, and best organized of the city's trade unions was Iron Molders' Union No. 31, a union representing the city's stove molders. During the 1890s, the international molders' union worked out a system of nation-wide collective bargaining with an association of leading stove manufacturers, a system that served as a model for other metal-working trades.)

Southwest Detroit was also home to one of the city's largest **railway car** factories. The Michigan Car Company was organized in 1864 by James McMillan and John S. Newberry to produce rolling stock for the Union war effort. In 1873 it moved to a large site at the junction of the Grand Truck and Michigan Central railroads (#8-9)—at the time some distance beyond the western boundaries of the city. The company and its east-side counterpart, the Peninsular Car Co. (founded in 1879 by Frank Hecker, Charles Freer, and Russel Alger) produced wooden freight cars, primarily box cars, coal and coke cars, and logging cars. In terms of value of annual output and number of employees, the industry was the most important one in late-19<sup>th</sup> century Detroit. By the early 1890s, it generated \$14.7 million in cars, car wheels, roofs, and repair work, and it employed some 6,000 workers who turned out an average of 76 railway cars per day.

Although railway cars were made of wood, they also required numerous metal objects, most notably the 570-pound, 33" diameter, cast-iron car wheels. The development of quantity production of standardized parts and components had an impact on relations between workers and managers. Iron molders, for instance, who labored in the car wheel and components foundries did not possess the same kind of bargaining leverage with respect to management that molders in stove factories enjoyed. Hence, they were unable to prevent the employment of an army of "helpers" who performed much of the routine and back-breaking labor involved in molding. "This is usually performed by Poles or Italians," remarked a local journalist in 1889. "They will work for a pittance, three or four of them often getting less than one skilled molder." Indeed, these immigrants often found themselves working for the relatively few skilled molders who were typically native-born or of old immigrant (German and Irish) stock.

A molder looking for work in the late 1890s at the Michigan Car Co. presents us with a rare view of its internal operations. He observed in one of its foundries an exceptionally large number of Slavic immigrants. Work rules that had customarily governed the molding trade were not practiced, and a frantic pace was everywhere in evidence. He was struck particularly by the brutal methods by which one of the foremen drove workers:

It still wanted an hour or more of noon, and yet on every side men were pouring off and shaking out whole acres of work, while others were pounding sand for dear life. A man passed us with a club in his hand yelling and swearing at a couple of

Pollacks who had struck a snag with a buggy ladle and spilled a lot of iron in the gangway. Jerry informed us that this was the foreman and he carried the club to prod the Pollacks up and help carry out the orders of Jim Foley, the superintendent. The foreman's name was Moore, and he knew nothing about the foundry at all, but having successfully handled a gang of laborers in the scrap yard he had been appointed to the foremanship of the foundry about a year before. Foley was the 'main guy,' though....Moore was only employed to walk up and down the gangway with the club in his hand to scare the Pollacks into putting up a 'fair day's work'

Although in need of a job, the visitor resolved that he would "rather work in a ditch for a dollar a day than in a sweat-box like this for double the wages they're paying."

One of the most important business mergers in Detroit history occurred on September 1, 1892, when Michigan Car Company joined hands with the Peninsular Car Company. The Michigan-Peninsular Car Co. emerged the single largest manufacturer of rolling stock in the United States. In February, 1899, it combined with a dozen other firms from across the United States to form the American Car & Foundry Company (ACF). The two Detroit plants represented about one-third of the corporation's freight car capacity, and with nearly 5,000 workers ACF was by far the city's largest employer. According to Clarence Burton, the "high water mark" of the Detroit plants was reached in 1907 when they employed some 9,000 workers. With the formation of ACF, however, Detroit's powerful and influential elite of railway car industrialists appeared to withdraw from active participation in the business. Indeed, Donald Davis, an historian of the early automobile industry, has argued that Detroit's financial elite was "decapitated" by the merger. To be sure, Detroit capitalists continued to own stock in the St. Louis-based ACF, and in the early days their financial interests in the railroad car trust were guarded by a number of individuals. In the 1899-1901 period, William C. McMillan, the eldest son of James McMillan, served as the first chairman of the board and treasurer of ACF. William Bixby of the Missouri Car & Foundry Co., a firm which was principally owned by the McMillans, served as the first president. Three men associated with Michigan-Peninsular moved into ACF in varying capacities: George Hargreaves became a director and local manager of the Detroit operations; James Buick became auditor; and Walter McBride became general manager of the corporation. Nevertheless, the trend under ACF was clear: Detroit's future as a major railway car manufacturing center lay largely in the hands of businessmen not resident of the city.

The Michigan Car Company of Southwest Detroit was at the center of a network of McMillan and Newberry-owned firms. Some of these became part of the ACF empire. The Detroit Car Wheel Co. and the Detroit Pipe & Foundry Co. were located on the company's primary site (#9). The latter plant produced cast iron pipe for water and gas mains and drainage systems. The Michigan Forge & Iron Co., a rolling mill and steam forge located at the foot of Clark St. (#7), manufactured wrought iron bars and car axles. The Detroit Steel & Springs Works (#41) specialized in railway car springs. The McMillan-Newberry investments in Detroit extended far beyond railway freight cars. Transportation interests included the Detroit Shipbuilding Co., which operated a dry dock at the foot of Clark St. (#10), and the Detroit-Cleveland Navigation Co., a leading Great

Lakes transportation company. The Michigan State Telephone Co. and the Union Trust Co. were part of their business empire. Among other industrial properties were the west-side Detroit Steamless Steel Tubes Co. and the Michigan Malleable Iron Co. (#18). In 1888, they established the Michigan Radiator & Mfg. Co. Four years later it merged with the Detroit Steam Radiator Co. and a Buffalo, NY, firm to create the American Radiator Company, the largest manufacturer of steam radiators and hot water boilers in the country.

James McMillan's business prominence helped elevate him to the United States Senate, a position he held from 1889 until his death in 1902. During this period he was undoubtedly the dominant figure in Michigan's Republican party. Naturally he received many tributes. McMillan and Newberry streets in the Southwest Detroit were named for the two families who had such a profound affect on the area. In 1895, an elementary school (#44) was built in Delray village and named in the Senator's honor.

The rapid industrial development of Delray prior to its annexation by the City of Detroit is a story in itself. Delray lay northeast of where the Rouge River emptied into the Detroit River. One of the keys to its industrialization was **salt**. Utilizing subterranean salt beds businessmen, led by Capt. J.B. Ford of Ford City, Pennsylvania, fashioned a "downriver" **chemical industry**. Ford was a large producer of plate glass and, therefore, a large consumer of **soda ash** (a derivative of salt), which at the time had to be imported from Belgium and England. After conducting a series of tests, Ford concluded that soda ash and other salt-based products could be made profitably in the Detroit area. In 1889, construction began on the first plant of the Michigan Alkali Company in the downriver village of Wyandotte.

For Delray the turning point came in 1895 when the Solvay Process Company of Syracuse, New York, obtained the 67-acre former exposition grounds along the Detroit River (#15), plus the greater part of Zug Island just across the Rouge River. Licensed by its Belgian parent to use the Solvay or ammonia method to transform salt into soda ash and other products, the company started operations in Delray in June, 1897. Within a few years the factory complex consisted of a "main building, where soda ash is made, an immense boiler house, gas producer plant, paper filler plant, coke ovens and by-product building, lime kilns, machine shop, cooper shop, stables, and houses." Some of these were already existing structures when Solvay Process purchased the property, while others were erected by the company using cement and steel construction. Andrew H. Green, Jr. (for whom Delray's Green Street is named) was the general manager of the plant.

"The policy of the company has always been to look after the welfare and best interests of its employes," reported the State of Michigan in 1904. "It aims to secure the best men and is willing to be at some pains to retain their services and their good will." Solvay Process employed 1,000 workers by 1900. Because Delray was relatively isolated from Detroit and lacked many institutions needed to support a large labor force, the also company found itself playing a leading role in the wider community. The Solvay Hospital (#13), for example, had a staff of doctors and nurses to tend to the illness and injuries of employees. "Outsiders," noted the State of Michigan, "are admitted under certain conditions which enables other plants in the vicinity to avail themselves of its privileges." The Solvay Lodge—located at the entrance to the factory and surrounded by well kept lawns—was established in the mid-1890s to provide living quarters for foremen

and members of the office staff who were without families. For their turn, factory employees enjoyed company-subsidized lunches. They were eligible to join a mutual benefit association for 40 cents per month which entitled them to free medical care at the Solvay Hospital and a sick benefit of \$6 a week after the first week. The company provided athletic and recreational activities for employees. And in order to allow the plant to operate on a 24-hour basis, the company scheduled work around eight-hour shifts.

By the time of Delray's annexation by Detroit in 1906, the Detroit Board of Commerce could report that the area's 6,627 residents were served by schools, garbage collection, sewers, and water service. The water pumping station for the district was located on the grounds of the Solvay works. The village also had an annual contract with the company for street lighting at \$60 per light. Banks and retail stores had recently opened—some of structures still stand along W. Jefferson Ave. Vital to any industrial settlement such as Delray's were saloons and hotels. Martin Kilian's hotel stood at the corner of Louis (now Post) and River Rd. The Sanborn map for 1897 shows it as a two-story brick structure. It remains in business today as Kovacs Bar.

Industrialization also brought the Hungarians to Delray. The first Hungarians came to Detroit in 1896. In 1898, following the move of the McMillan-owned Michigan Malleable Iron Co. plant (#18) to Delray, a contingent of Hungarians from Cleveland and Toledo arrived. It appears the company discovered the value of Hungarians as iron molders and coremakers following their use as strikebreakers in Cleveland. Other Hungarians followed to take up work at Solvay Process, the Michigan Pulp & Sulphite Co. (#45), and other emerging factories in the area, such as the Detroit Iron & Steel Co. (#54) which began pig iron production on Zug Island in 1902.

Soon the Hungarians pushed out from their initial settlement along Medina and Barnes streets (where Delray's earlier French and German residents had confined them) and began spreading out along and across River Rd. In 1901, the first Hungarian saloon opened on River Rd. near West End Ave. The saloon was a multi-purpose business enterprise typical of early immigrant colonies. "Our saloon was everything, all in one, for the people who came to us," recalled the widow of its proprietor for University of Michigan sociologist, Erdmann Beynon.

We did all kinds of business besides selling liquor. We made the place home-like and lots of single men ate in our saloon. We had a kind of bank too as well as a restaurant. The people brought us their money to deposit for them. We remitted money to Europe for the people. We sold steamship tickets and real estate. If the people wanted to have a meeting, they held it in the hall above our saloon. We conducted a sort of general merchandise also. Men could buy their overalls and women their groceries at our bar.

Before long more specialized businesses began to function: meat and grocery stores, clothing stores, insurance agencies, real estate offices, and print shops. Small, densely packed, frame homes sprang up north of River Rd. In 1904, the Hungarian Reformed

Church (8020 Thaddeus St.) was established in Delray. The following year, construction began on Holy Cross Roman Catholic Church (8423 South St.).

Initially, Delray functioned much like a self-contained mill-town, with local factories draw upon a local reservoir of labor. This isolation did not last long. In 1907, Hungarians from Delray were recruited for strikebreaking by brass manufacturers located in the central sections of Detroit. Around 1910 many began taking the long commute across town via streetcar to jobs making Model T's at Ford Motor Company's ultra-modern plant in Highland Park. From the 1920s on, many would seek employment to the west at the enormous Ford Rouge complex in Dearborn.

The **automobile industry** transformed work and business in Detroit. Oldsmobile opened the first automobile factory in Detroit in 1899 near the Belle Isle bridge. Ford, Packard, and Cadillac started in the 1902-1904 period. By 1905, automobile manufacturing was already highly concentrated in Detroit. Part of the story of the emergence of the auto industry can also be told in Southwest Detroit. One of the early pioneer automobile companies began in Southwest Detroit. Around 1901, Charles H. Blomstrom, a machinist born in Grand Rapids, Michigan, came to Detroit and began producing automobiles. From its factory on River Rd. near Clark Street, the C.H. Blomstrom Motor Company (#5) manufactured the "Queen automobile," gas engines, and launches until 1909. Blomstrom lived not far from his factory. The 1905 City Directory showed him living on Clark St., three houses south of Porter (#6). In 1908, the year before Blomstrom quit the business, the Paige-Detroit Motor Car Co. was incorporated. The company's principal plant was at West Fort and McKinstry (#67).

Already existing companies in Southwest Detroit also responded to the opportunities afforded to them by the explosive growth of the auto industry. For example, the Diamond Stamped Ware Co. (#37), a subsidiary of the Detroit Copper & Brass Rolling Mills (#38), supplied Ford Motor Co. with radiators until 1912. Another enterprise, the Barcy-Nicholson Co. (#50), began in 1902 in a small woodshed on Howard near Clark Park. The founders were William Barcy, Jr., an electrician, and Samuel Nicholson, an employee of the Peerless Switch Co., a manufacturer of "auto specialties," according to the 1905 City Directory. Barcy-Nicholson produced electrical supplies, including timer wires, for gas engines. The company likewise enjoyed a contract with Ford Motor Co.

In 1902 the Detroit Steel Castings Co. was formed out of the reorganization of the old Detroit Steel & Spring Works (#41). Truman Newberry was president of the firm which sold a sizeable amount of its steel spring output to the Packard Motor Car Company, one of the other firms in which Newberry had a financial stake. However, not all factories made the transition to the automobile age. For example, American Car & Foundry sold the property of the old Michigan Car Company to the General Motors Corporation (#8-9). Beginning in 1921 an army of workers at the new Clark Street plant of the Cadillac Motor Car produced luxury automobiles on a site where an army of laborers turned out railway cars in year's past.

## BIBLIOGRAPHY



- Abonyi, Malvina Hauk and James A. Anderson. Hungarians of Detroit. Detroit: Center for Urban Studies, Wayne State University, 1977.
- Beynon, Erdmann Doane. "The Hungarians of Detroit." Michigan History 21 (Winter 1937): 89-102.
- Burton, Clarence M. History of Wayne County and the City of Detroit, Michigan. Chicago: S.J. Clarke Publishing Co., 1930), 5 volumes.
- City of Detroit, Mayor's Riverfront Task Force. "The West Riverfront Area (Preliminary Draft)," 1984.
- City of Detroit, Planning Department. "Southwest Sector Planning Report." 1983.
- Davis, Donald F. Conspicuous Production: Automobiles and Elites in Detroit, 1800-1933. Philadelphia: Temple University Press, 1988.
- Detroit City Directory, 1905. Detroit: R.L. Polk & Co., 1905. (Alphabetical listing of companies [including officers] and individuals [often including occupation, company]; listing of streets and addresses [including occupants or company]; business directory and advertisements.)
- Detroit in History and Commerce. Detroit: Rogers & Thorpe, 1891.
- Detroit of Today: The City of the Strait. Phoenix Publishing Co., 1893.
- Edward, W. "James Chalmers: The History of a Tramp Molder." Foundry 9 (September 1896): 40-41. (A tramping iron molder's account of a visit to the foundry of the Michigan Car Company's, late 1890s.)
- Farmer, Silas. History of Detroit and Wayne County and Early Michigan. Detroit: Silas Farmer & Co., 1890.
- Henderson, Alexander. "Detroit Copper and Brass Rolling Mills, 1880-1927." Unpublished typewritten manuscript, ca. 1941. Burton Historical Collection, Detroit Public Library.
- Hyde, Charles K. Detroit: An Industrial History Guide. Detroit: Detroit Historical Society, 1980.
- Klug, Thomas A. "The Roots of the Open Shop: Employers, Trade Unions, and Craft Labor Markets in Detroit, 1859-1907." Unpublished Ph.D. dissertation., Wayne State University, 1993.
- Marquis, Albert Nelson, ed. The Book of Detroiters. Chicago: A.N. Marquis & Co.,

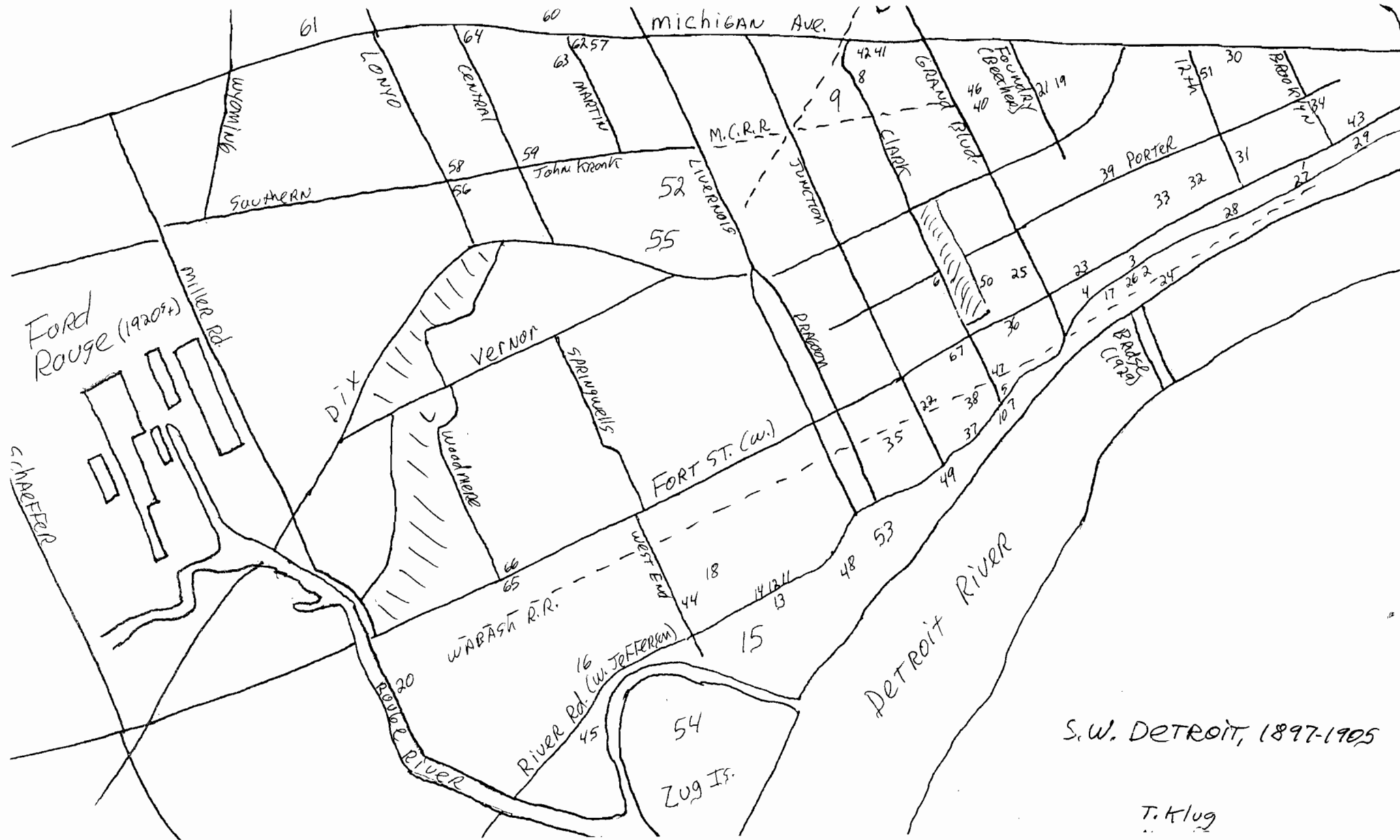
1914. (Short biographies of Detroit's business, professional, and political leaders.)
- Michigan, Bureau of Labor and Industrial Statistics. First Annual Report of the Bureau of Labor and Industrial Statistics. Lansing: W.S. George & Co., 1884. (On labor conditions in the brickyards of Springwells Township, see pp. 179-182.)
- Michigan, Bureau of Labor and Industrial Statistics. Twenty-first Annual Report of the Bureau of Labor and Industrial Statistics. Lansing: Robert Smith Printing Co., 1904. (On Solvay Process Company, see pp. 205-208.)
- Miller, Raymond C. Kilowatts at Work: A History of the Detroit Edison Company. Detroit: Wayne State University Press, 1957. (See for the Delray power plant)
- Moore, Charles. "James McMillan, United States Senator from Michigan." In Michigan Historical Collections, 39: 173-87. Lansing: Michigan Historical Commission, 1915.
- Oestreicher, Richard Jules. Solidarity and Fragmentation: Working People and Class Consciousness in Detroit, 1875-1900. Urbana: University of Illinois Press, 1986.
- Rankin, Lois. "Detroit Nationality Groups." Michigan History 23 (Spring 1939): 129-206. (On Detroit's Hungarians, see 146-52)
- Sanborn Insurance Maps of Detroit, Michigan. Volume 1 [1897]. (Insurance information on residences, commercial establishments, and factories. Information on factories includes: location, footprint of building, stories, construction materials, wall thickness, power sources for heating and lighting, number of employees, sprinkler system or other means of stopping fires, watchmen.)
- Zunz, Olivier. The Changing Face of Inequality: Urbanization, Industrial Development, and Immigrants in Detroit, 1880-1920. Chicago: University of Chicago Press, 1982.

INDUSTRIAL MAP OF SOUTHWEST DETROIT (1897-1905)

(note: addresses, where given, are the “old” pre-1921 addresses)

1. Peninsular Stove Co. / Diamond Match Co. (s.w. cor. Fort & 8<sup>th</sup> ...extending to 10<sup>th</sup>)
2. Michigan Malleable Iron Co. / Detroit Seamless Steel Tube Co. (1897: 833 River Rd., w. of 19<sup>th</sup>)
3. Gardner Elevator Co. [Otis Elevator Co.] (866 River Rd., n.e. cor. at 21<sup>st</sup>)
4. Detroit Sanitary Works (957-981 River Rd., w. of 24<sup>th</sup>)
5. C.H. Blomstrom Motor Co. (mfr. the “Queen” automobile 1284-1294 River Rd., east of Clark)
6. Charles H. Blomstrom, residence (399 Clark, three lots south of Porter)
7. American Car & Foundry Co. (steam forge, River Rd., foot of Clark)
8. American Car & Foundry Co. (lumber yard; east side of Clark, n. of M.C.R.R. crossing)
9. American Car & Foundry Co., Michigan Dept.; also plants of Detroit Car Wheel and Detroit Pipe & Foundry. Future site of the Clark Street plant of Cadillac Motor Car Co. (191 Clark, n. of M.C.R.R. crossing, s.e. of LS & MS RR)
10. Detroit Shipbuilding Co., Clark St. dry dock (River Rd., foot of Clark)
11. Martin Kilian Hotel (1894-1896 River Rd., n.w. cor. at Louis [now Post])
12. Solvay Guild Hall (1912 River Rd., n.e. cor. at Harrington)
13. Solvay General Hospital (1933 River Rd., just w. of Harrington)
14. Detroit Gas & Coke Co. (1998 River Rd., bet. Cottrell & Solvay)
15. Solvay Process Co. (soda ash, ammonia, foundry & domestic coke, tar & pitch, River Rd., foot of Solvay Ave.)
16. Fischer-Hughes Gelatin Co. (2285-2295 River Rd., w. of Copeland)
17. Schulte Soap Co. (945 River Rd., foot of 23<sup>rd</sup>)
18. Michigan Malleable Iron Co. (1905: Delray, bet. Crossley, St. Clair, and Anderson)
19. Hammond, Standish & Co. (meatpacking, 20<sup>th</sup> & M.C.R.R., near Standish St.)
20. Michigan Carbon Works (east of Rouge River, north of M.C.R.R.)
21. Foundry St./Beecher Ave. (ran from Baker St., north to Michigan Ave.): Griffin Car Wheel; Stephen Pratt; A. Laffrey; Peninsular Electric Light; Whitehead & Kales; Reinke & Shirray Mfg.; Wm. Vaughan; Detroit Bridge & Iron Works (part of American Bridge Co.); Acme Foundry
22. Detroit Chemical Works (240 Junction, n. of Wabash RR)
23. S. Taplin (florist & greenhouse, n.e. cor. Fort & 24<sup>th</sup>)
24. Detroit Coal & Coke Co. (dock & coal yard, 19<sup>th</sup> & Wabash RR)
25. Anna R. Schultz, residence (sec & treas Detroit Coal & Coke Co., 411 Vinewood)
26. Detroit Gas Co. (895-915 River Rd., w. of 21<sup>st</sup>)
27. Detroit Graphite Mfg. Co. (540-542 River Rd., M.C.R.R. & 10<sup>th</sup>)
28. Chas. Pohlman & Co. (furniture mfr., 604-608 River Rd., near Vermont)
29. American Injector Co. (brass injectors, 295-309 W. Congress, bet. 6<sup>th</sup>-7<sup>th</sup>)
30. Hamilton Carhartt Co. (workers overalls, w. side of 10<sup>th</sup>, s. of Michigan)
31. West Side Brewing Co. / W.F. Moloney Vienna Brewery (brewing & bottling, 412-416 Howard, at n.e. cor. of 12<sup>th</sup>)
32. Michigan Wire & Iron Co. / Detroit Sprocket Chain Co. (1897: 500-506 Howard, w. of 14<sup>th</sup>)
33. Hargreaves Mfg. Co. (picture frames & art supplies, s.w. cor. Howard & 17<sup>th</sup>)

- 34 Penberthy Injector Co. (injectors; n.w. cor. Brooklyn & Abbott) / Schilling Corset Co.
- 35 McRae & Roberts Brass Mfg. Co. (steam brass goods, 227-237 Campbell, n. of Driggs St.)
- 36 Scotten-Dillon Co. (tobacco; s.e. cor. Fort & Campau, bet. Hubbard & Scotten)
- 37 Diamond Stamped Ware Co. (Summit Ave., just n. of River Rd.)
- 38 Detroit Copper & Brass Rolling Mills Co. (89-149 McKinstry, at Wabash R.R.)
- 39 Detroit Twist Drill Co. /1897: Frederick Stearns Co., mfg. pharmacists (224-234 21<sup>st</sup>, n. of Porter)
- 40 John Brennan Co. (boilers; s.w. cor. 24<sup>th</sup> & Toledo)
- 41 Detroit Steel & Spring Co. (1291-1231 Michigan, s.w. cor. of intersection with Hubbard)
- 42 Detroit Steel Castings Co. (1243 Michigan, w. of M.C.R.R.)
- 43 American Lady Corset (282 W. Fort, at cor. of 6<sup>th</sup>)
- 44 James McMillan School (Delray, West End facing Thaddeus)
- 45 Detroit Sulphite Pulp & Paper Co. (Delray, at foot of Sulphite Ave.)
- 46 Detroit Range Boiler Co. 609-619 24<sup>th</sup> St., n. of M.C.R.R.)
- 47 Fort Wayne & Belle Isle Street Railway, power house (118-128 Clark, s. of Wabash R.R.)
- 48 Detroit Edison, Delray #3 power plant [1929] (west of Fort Wayne)
- 49 Detroit Public Lighting Dept., Mistersky power plant [1927]
- 50 Barcy-Nicholson Co. (electrical supplies for gas engines, Howard St. near Clark Park)
- 51 Dearing Water Tube Boiler Co. (258 12<sup>th</sup> St., n. of Leverette)
- 52 Michigan Central Railroad, repair shops (M.C.R.R., west of Livernois)
- 53 Fort Wayne (foot of Artillery)
- 54 Detroit Iron & Steel Co. (Zug Island)
- 55 M.C.R.R. stock yards; Stock Yards Hotel; R.S. Web (pork packing); Michigan Beef & Provision Co.
- 56 Michigan Brass & Iron Works (Lonyo & M.C.R.R.)
- 57 Daniel Bros., brick mfg. (Michigan & Clippert)
- 58 Andrew Lonyo, brick mfg. (n.e. cor. Lonyo & M.C.R.R.)
- 59 Fred Wolf, brick mfg. (n.e. of Central & M.C.R.R.)
- 60 Goldner Bros., brick mfg. (n. of Michigan, e. side of Larkins)
- 61 L.D. Haggerty & Son, brick mfg. (n. of Michigan, w. of Lonyo)
- 62 Francis Hines, brick mfg. (Michigan & Clippert)
- 63 Fred McDonald, brick mfg. (Martin, s. of Michigan)
- 64 Conrad Clippert & Son, brick mfg. (s. of Michigan, e. of Central)
- 65 Gus Knoch (florist & greenhouse 2381 W. Fort) / Chas. Warncke (florist & greenhouse, 2369 W. Fort)
- 66 A.W. Steincke & Son (florist & greenhouse, 2381 W. Fort, cor. of Distel)
- 67 Paige-Detroit Motor Car Company (W. Fort and McKinstry)



S.W. DETROIT, 1897-1905

T. Klug