

MOUNT WASHINGTON: A DEMOGRAPHIC STUDY OF THE INFLUENCE OF CHANGING TECHNOLOGY, 1870-1910

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As Pittsburgh emerged from the turbulence of the Civil War years, it entered a new period of expansion. During the preceding half-century, Pittsburgh accumulated the necessary ingredients to become an industrial center. People of different ethnic origins, possessing diversified skills and crafts, migrated to the city, thus helping to increase the population to approximately 90,000 by 1870. Businessmen invested large sums of money in industry. According to the 1850 Industrial Census, boroughs along the South Side were the location for many industrial plants with capital investments worth thousands of dollars. Businesses such as brickmaking, saddlery, brewing, wagon-making, glass manufacture, and coal mining employed thousands of workers.¹

Closely aligned with the post-Civil War industrial growth were technological innovations that had a profound impact upon downtown Pittsburgh. Streetcars, electricity, sanitation, and inclined planes brought about drastic changes to the demographics of the city. In a recent work, *Transportation Innovation and Changing Spatial Patterns in Pittsburgh, 1850-1934*, Joel A. Tarr suggests that "a good deal of work still needs to be done on the micro-level" to enhance the understanding of transportation in Pittsburgh. Consequently, it is the purpose of this study to analyze and describe the impact of changing technology upon a small Pittsburgh neighborhood.

Mount Washington: Growth Before 1882

With the end of the Civil War in 1865, the city fathers of Pittsburgh faced many problems. Of prime importance was a rapidly in-

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1 U.S., Seventh Census, Manufacturing: 1850 (manuscript), Mount Washington, Pa.

creasing population and an equally decreasing amount of usable land. Land situated between the Allegheny and Monongahela rivers served as the location for either private residences or existing business enterprises. High cliffs flanking the Monongahela along the South Side and gently rolling terrain bordering the Allegheny River on the North Side restricted urban growth. The rough topography further hindered the development of transportation as Pittsburgh continued to be primarily a "walking city."

City leaders considered the boroughs along the South Side, especially Mount Washington, to be the most logical solution to their dilemma. The level terrain between the Monongahela River and the base of Mount Washington attracted diversified business enterprises. West Carson Street was the main transportation artery with private residences located near places of employment. However, the steep escarpment leading up from the base of West Carson Street to the borough of Mount Washington retarded the development of this area. Although situated less than two miles from the heart of Pittsburgh, Mount Washington remained largely unoccupied due to its inaccessibility. For those few inhabitants, a steep, winding path down the face of the mountain led to the busy streets of the South Side. Men working in the mills and factories along the Monongahela River made daily use of the path. With every payday, men carried a week's supply of groceries back up the path to their homes on Mount Washington.²

The inaccessibility of Mount Washington had long been a problem. As early as 1854, when the area was commonly referred to as Coal Hill, Gray's Gardens, or Cowanville, residents realized how isolated they were.³ Coal merchants found it extremely difficult to transport coal to the railroads along the Monongahela River. At least ten coal mines could be found along the steep face of the hill by 1837. Mined coal was sent tumbling down a chute to waiting barges along the Monongahela River.⁴

To resolve the transportation dilemma, businessmen turned to technology. This took the form initially of the Mount Washington Inclined Plane Company, incorporated in February 1854. An incline used steam power to move two cars by cable on a track, one up and one down the side of the mountain simultaneously. In this manner, both passengers and freight could be moved. Under the terms of the

2 C. V. Starrett, "Observations on — and From — Mount Washington," *Carnegie Magazine* 43 (Dec. 1969): 343-44.

3 Leland D. Baldwin, *Pittsburgh: The Story of a City* (Pittsburgh, 1938), 245.

4 *Mount Washington News*, June 3, 1976.

agreement, the company would construct an inclined plane connecting Mount Washington's High Street to the Monongahela River near the Monongahela Bridge.

Although inclined planes were a novel approach to the solution of one of Pittsburgh's transportation problems by the 1850s, the state of Pennsylvania had used them previously. The Allegheny Portage Railroad, opened in 1834 and connecting the eastern and western portions of the Pennsylvania Main Line Canal, included ten inclined planes totaling 4.38 miles. These enabled passengers and freight to be transported more than two thousand feet in elevation between Hollidaysburg and Johnstown, a distance of approximately thirty-seven miles.⁵

Construction of the Mount Washington Incline began in May 1854 but came to an abrupt halt when Lyon, Shorb and Company, iron manufacturers located at 121 Water Street, secured an injunction against the developers concerning the right-of-way and passage over land.⁶ By July 1854, construction resumed, and an article appeared in the *Daily Morning Post* describing the project:

MOUNT WASHINGTON INCLINED PLANE—We understand that this work is so near completed that no doubt it will be in operation sometime early in August. The contract for the building of the engines and cars has been given to a couple of firms in our own city, whose well known reputations will insure that they will be constructed in the best manner.⁷

By 1856, however, lack of funds apparently forced the company to abandon completion of the incline project. For the next eleven years, transportation to and from Mount Washington continued to pose serious problems.

In 1866, an act of the Pennsylvania General Assembly called for the incorporation of the communities of Shalerville, Dutchtown, and Mount Washington into the borough of Mount Washington. The new borough assumed the following boundaries:

Beginning on the southern line of the borough of West Pittsburg, at the intersection of the Old Manor line, thence southwardly, along the Old Manor Line, to Saw Mill Run; thence along said run, eastwardly, to Bogg's bridge; thence northeastwardly, along the Saint Claire turnpike road to the township road

5 Pennsylvania Writer's Project, *Pennsylvania Cavalcade* (Philadelphia, 1942), 386-87.

6 Margaret Pearson Bothwell, "Incline Planes and People — Some Past and Present Ones," *Western Pennsylvania Historical Magazine* 46 (Oct. 1963): 314-15.

7 *Daily Morning Post* (Pittsburgh), July 27, 1854.

dividing the Allen and Bailey farms, at the powder magazine; thence northwardly, along said township road, to the southern line of the borough of South Pittsburg; and thence westwardly, along the southern lines of the boroughs of South Pittsburg, Monongahela, and West Pittsburg, to the Old Manor line, the place of the beginning.⁸

The statute further described the form of government to be a town council composed of five citizens headed by a burgess, all elected by the residents.⁹

By the end of the 1860s, the population of Mount Washington approached 2,000. Yet plenty of open, wooded land ideal for residential use continued to attract an increasing number of German, English, Irish, and Italian immigrants.¹⁰

The continual buildup of industrial smoke and grime within the downtown area created a demand for better residential conditions beyond the city limits. As the city population approached 90,000, the need for suitable land became increasingly apparent; consequently, between 1866 and 1870, a movement to annex the desirable area along the south side of the Monongahela River took place. Opposition to the annexation mounted and persisted until 1872 when the eleven South Side boroughs became a part of Pittsburgh. With the enactment of a law passed by the Pennsylvania General Assembly on April 2, 1872, the boroughs of Temperanceville, Union, Allentown, Birmingham, East Birmingham, Monongahela, Ormsby, St. Clair, South Pittsburg, West Pittsburg, and Mount Washington were added to the city.¹¹ The new boroughs added 4.2 square miles to the city's area.¹² A city ordinance on July 29, 1872, divided the new area into thirteen additional wards with Mount Washington becoming the Thirty-second Ward.¹³

With the increased industrialization of the South Side following the Civil War, there was a renewed interest in the incline. Prominent Pittsburgh businessmen held frequent meetings to discuss the feasibility of constructing an incline, and, under the guidance of Joel L. Bigham, the Monongahela Inclined Plane Company came into existence in April 1867. With James J. Bailey as chairman and T. J. Bigham, secretary, the company adopted a proposal to build and main-

8 Pennsylvania, *Laws of the General Assembly of the State of Pennsylvania Passed at the Session of 1866* (Apr. 12, 1866), 857-58 (hereafter cited as *Pa. Laws*, with year).

9 *Ibid.*, 858.

10 *Mount Washington News*, June 8, 1972.

11 *Pa. Laws*, 1872, 743.

12 Hiram Schock, ed., *Digest of the General Ordinances and Laws of the City of Pittsburgh* (Pittsburgh, 1938), 928.

13 *Atlas of the County of Allegheny, Pennsylvania* (Philadelphia, 1876), 4.

tain a passenger incline between Monongahela Borough (now Carson Street) and Mount Washington. The firm issued stock certificates totalling \$50,000 to secure the necessary funds to cover initial construction expenditures.¹⁴

J. S. Kirk, a local engineer, selected two locations for the incline. One site was situated near the Smithfield Street Bridge, and the other was located near the Point. The company selected the Smithfield site because of its proximity to the downtown area.¹⁵

To meet the challenge of a thirty-eight-degree slope along the side of Mount Washington, the company employed the best available engineers for the project. John Endres and Samuel Diescher, of Cincinnati, designed and supervised the construction; John Roebling, a prominent Pittsburgh engineer who previously had helped to build the Allegheny Portage Railroad of the Pennsylvania Main Line Canal, drew up specifications for the critical wire rope cables.¹⁶

As work on the incline moved slowly and cautiously, details concerning the incline's operation were resolved. The board of directors determined that the incline would be in operation from 6:00 A.M. to 11:00 P.M. All conductors would receive a daily wage of \$2.25.¹⁷ The following passenger rates applied:

1. transient passengers, six cents each.
2. ten- and twenty-ticket packages sold at five cents per ticket.
3. a family ticket of 125 tickets sold for \$5.00.
4. children under ten years of age could purchase for \$1.00 a school ticket good for thirty-three trips.
5. regular fare for anyone five years or older.¹⁸

To protect passengers from injury, a unique warning system was devised: "1 bell — alarm; 2 bells — ready; 3 bells — starting."¹⁹

The grand opening of the incline occurred on May 28, 1870, with service between the hours of 3:00 P.M. and 8:00 P.M. Passengers traveled free that day, and approximately 1,600 tested this new means of transportation.²⁰ The incline ran between West Carson Street, just

¹⁴ *100 Year Pittsburgh History of Inclines, 1863-1963* (Pittsburgh, 1962), 3.

¹⁵ *Ibid.*, 3-4.

¹⁶ Port Authority Transit, *The Monongahela Incline* (Pittsburgh, n.d.), 2.

¹⁷ Minutes of the Board of Directors, May 18, 1870, Monongahela Inclined Plane Company, I (Minute Book, Nov. 29, 1868-Jan. 1, 1874), Records of the Monongahela Inclined Plane Company, Archives of Industrial Society, University of Pittsburgh, Pittsburgh (hereafter cited as Monongahela Incline Records, AIS).

¹⁸ *Ibid.*, Feb. 10, 1870.

¹⁹ *Ibid.*, May 18, 1870.

²⁰ *Ibid.*, June 2, 1870.

west of the southern terminus of the Smithfield Street Bridge, and High Street (now Grandview Avenue) on Mount Washington.²¹

Passengers came in great numbers to try out the novel form of transportation. By the end of 1870, 218,732 passengers used the incline.²² It continued to operate as a profitable business throughout the remaining decades of the nineteenth century. As indicated in Table 1, the incline after 1870 never carried fewer than 330,000 passengers and attained a high of almost 1.6 million by 1892-93.

TABLE 1
PASSENGERS CARRIED
ON MONONGAHELA INCLINE

Year	Passengers
1870	218,732
1871	355,760
1872	436,299
1873	506,493
1874	464,735
1875	418,971
1876	341,022
1877	334,604
1878	331,146
1879	385,489
1880	539,201
1881	659,067
1882	?
1883	?
1884	831,383
1885	725,865
1886	837,598
1887	988,249
1888	1,064,675
1889-90	1,150,339
1890-91	1,248,794
1891-92	1,427,195
1892-93	1,588,991
1893-94	?
1894-95	1,269,942

²¹ *The Monongahela Incline*, 4.

²² Daily Report Book, June 1870-Jan. 1880, Monongahela Incline Records, AIS.

Increasing passenger use led to demographic changes affecting the physical appearance of Mount Washington. Consequently, on May 2, 1882, the incline's board of directors authorized the construction of a second plane parallel to the existing one to serve both passengers and freight. Completed on March 31, 1884, through the engineering efforts of John Endres and Samuel Diescher, the new plane had an immediate impact upon the growth of Mount Washington. The high cost of transporting building materials and various foodstuffs to the hilltop residents decreased, and vacant farmland now attracted prospective homebuilders. With the increase in population came street paving and other public services.²³

Table 2 indicates that the Monongahela Incline showed a profit for every year through 1910.²⁴ However, profits fluctuated during the

TABLE 2
MONONGAHELA INCLINED PLANE COMPANY
NET INCOME

Year	From	Amount
1870	Passenger Plane	\$5,059.38
1871	" "	5,751.73
1872	" "	8,642.17
1873	" "	13,126.71
1874	" "	11,787.05
1875	" "	11,117.97
1876	" "	2,327.54
1877	" "	4,276.26
1878	" "	7,121.32
1879	" "	8,439.10
1880	" "	9,921.36
1881	" "	14,686.07
1882	" "	15,439.04
1883	" "	16,169.02
1884	Passenger and Vehicle Planes	15,671.83
1885	" " " "	16,905.46
1886	" " " "	13,956.18
1887	" " " "	19,034.88
1888	" " " "	21,346.09

²³ *100 Year Pittsburgh History of Inclines*, 5-6.

²⁴ "Brief History, Monongahela Inclined Plane Company 1867 to 1935 Inclusive," Monongahela Incline Records, AIS.

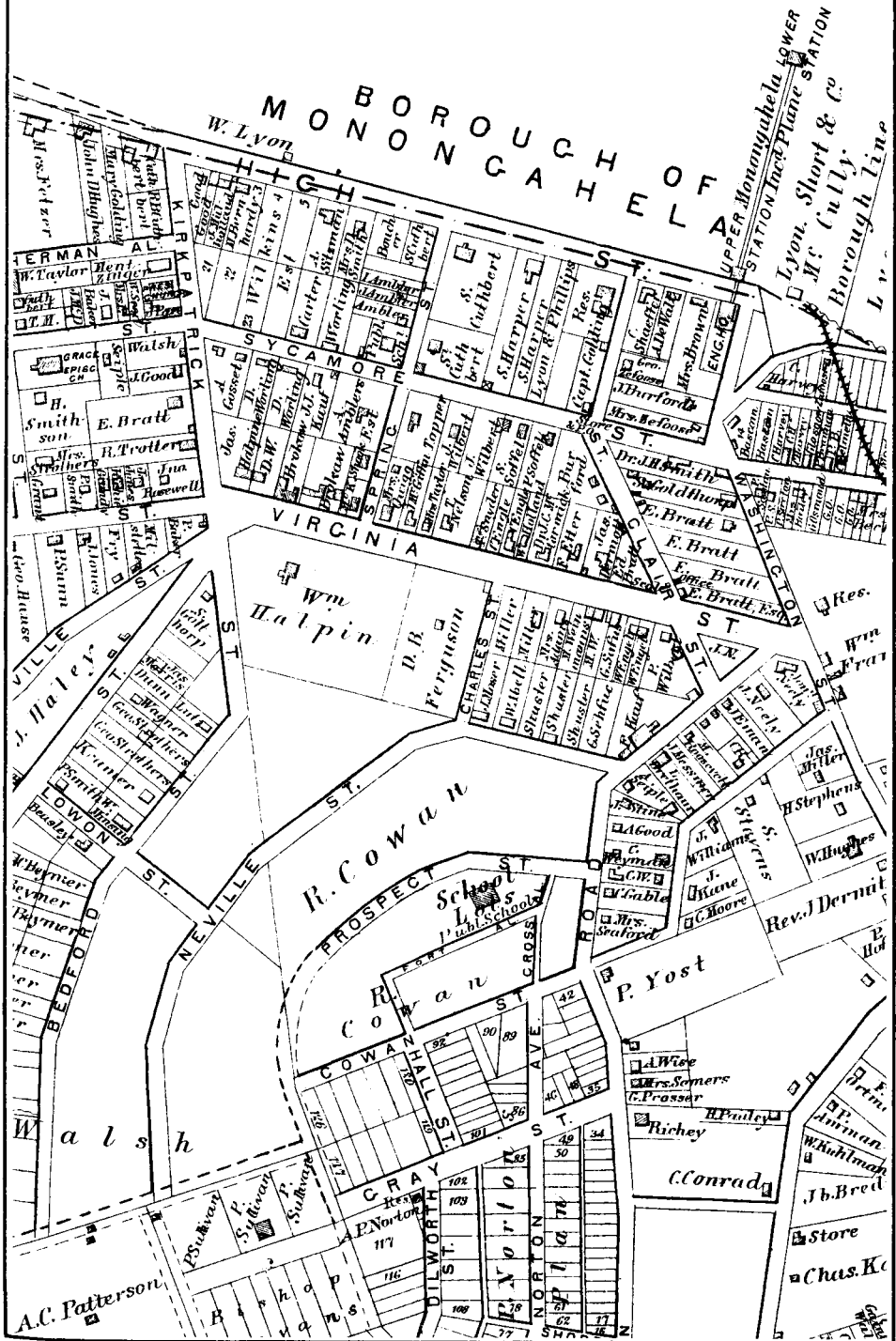
TABLE 2 (Continued)

Year	From			Amount
1889	"	"	"	23,903.52
1890	"	"	"	19,835.02
1891	"	"	"	27,388.74
1892	"	"	"	22,334.18
1893	"	"	"	22,331.11
1894	"	"	"	23,620.72
1895	"	"	"	20,223.27
1896	"	"	"	23,845.97
1897	"	"	"	23,578.79
1898	"	"	"	23,148.72
1899	"	"	"	25,292.22
1900	"	"	"	25,552.44
1901	"	"	"	30,323.48
1902	"	"	"	35,416.09
1903	"	"	"	34,923.39
1904	"	"	"	20,793.00
1905	"	"	"	19,248.76
1906	"	"	"	25,736.23
1907	"	"	"	29,549.35
1908	"	"	"	23,781.94
1909	"	"	"	26,854.93
1910	"	"	"	26,860.36

first ten years of operation until a consistent pattern of economic growth emerged in Mount Washington. With the beginning of the 1880s, the landscape of the area underwent yearly change as more and more new homes and businesses came into existence. Public services such as police and fire protection encouraged economic investments which were reflected in augmented profits by the incline company. By 1887, the net income of the Monongahela Incline approached \$20,000; between 1890 and 1910, the incline's net income varied between \$20,000 and a high of slightly over \$35,000 by 1902. As Mount Washington prospered, so too did the incline.

Based upon the 1872 atlas of Pittsburgh, the physical appearance of Mount Washington underwent a change from the early years. Map 1, taken from the atlas, shows this. By 1872, Mount Washington was developing its own community identity. The area between High Street and Virginia Street became the main residential area because

MOUNT WASHINGTON, 1872



people preferred to live within walking distance of the Monongahela Incline. Almost all the residents clustered within a one-mile walking distance of the incline. Most residential and business establishments were of wooden frame construction. Stone houses were considered a luxury, affordable only to the socially prominent. Wealthy families tended to live along High Street overlooking downtown Pittsburgh. Physicians, attorneys, judges, and real estate men owned the choice land along High Street.

Records indicate that approximately sixteen buildings served as both residences and businesses by 1900. The first floor was the business location while the owner and his family occupied the second floor. Grocery, clothing, jewelry, dry goods, and tailor shops generally came under this type of classification. Approximately twenty individuals established Mount Washington as their residence while maintaining business interests in downtown Pittsburgh.²⁵

The vacant land between Virginia Street and Cowan Street was privately owned. In several cases, subdivision of land into building lots occurred in anticipation of population growth leading to a demand for residential lots. The designation of land for school construction by 1872 also appears to have aided in the population increase. The building of the school increased the retail value of surrounding land and stimulated the construction of new homes.²⁶

Mount Washington served the residential needs of two groups — industrial workers and small businessmen. Industrial workers composed the largest segment of the working class, and for most of them the Monongahela Incline was the only means of transportation from their homes to the factories along Carson Street and the South Side of Pittsburgh. By 1872, Mount Washington possessed only a few businesses considered to be industrial. Coal, which in previous decades employed hundreds of workers, was virtually nonexistent, and the abandoned mines were converted for use as the tunnel for the Pittsburgh and Castle Shannon Railroad. Some coal reserves remained but were located farther south along Saw Mill Run.²⁷

By 1875, Mount Washington possessed many small businesses located along St. Clair Street (now Shiloh Street) and Washington Avenue (now Wyoming Avenue). Drug stores, saloons, tailors, dry

²⁵ *Directory of Pittsburgh and Allegheny Cities, the Adjacent Boroughs and Parts of the Adjacent Townships for 1871-72* (Pittsburgh, 1871).

²⁶ *Atlas of the Cities of Pittsburgh, Allegheny, and the Adjoining Boroughs, 1872* (Philadelphia, 1872), Plate 107.

²⁷ *Annual Report of the Geological Survey of Pennsylvania for 1886, Part I* (Harrisburg, 1887), 161.

goods, blacksmiths, grocery stores, cigar shops, shoemaker shops, and stables were typical of the many small business concerns. Most small businessmen faced one common problem — almost total dependence on the neighborhood population for the success of their business.

Mount Washington: Development and Growth

By 1882, as the population of Mount Washington exceeded 3,745, the area became more residential. Residential construction increased to meet the demands of the increasing population. Map 2, adapted from the 1882 atlas, indicates the demographic changes that occurred in all directions around the Mount Washington school, previously an area largely vacant. Prospect Street now served as the location for many new homes, a neighborhood church, and a branch of the Peoples Savings Bank. Residential housing expanded between Prospect Street and Gray Street, and many new streets and alleys came into use. Land became a valuable commodity in Mount Washington.²⁸

Between 1877 and 1890, an additional 682 housing permits were issued to meet the needs of the new population.²⁹ Most new workers sought employment in the various mills and foundries along Carson Street. The Monongahela Incline carried workers to within a short walking distance of the Sligo Iron Works, Washington Iron Works, Clinton Iron Works, Pittsburgh and Lake Erie Railroad depot, White House Glassworks, and William McCully and Company Glassworks.³⁰ Residents of Mount Washington came to be almost totally dependent on the incline both economically and commercially. The incline was now the vital link to the future prosperity of Mount Washington.

Available statistics indicate a strong correlation between the issuance of building permits and transportation improvements within Mount Washington. Between 1877 and 1890, construction of new homes occurred primarily within walking distance of the incline. Neighborhoods within the vicinity of Sycamore Street and Virginia Avenue underwent a heavy construction boom, with one-story and two-story structures soon dotting the landscape. As was previously the case, most residential homes in middle-class neighborhoods were constructed of wood. Stone homes were usually built by the wealthy but were not significant in number.

²⁸ *Atlas of the City of Pittsburgh Comprising the 24th to 36th Wards*, Vol. 5 (Philadelphia, 1890), Plate 19.

²⁹ *Yearly Docket of Building Permits, 1877-1885* (Pittsburgh, n.d.), vols. 1-3.

³⁰ *Atlas of the Cities of Pittsburgh and Allegheny* (Philadelphia, 1882), Plate 27.

PLACES OF RESIDENCE
MOUNT WASHINGTON, 1882

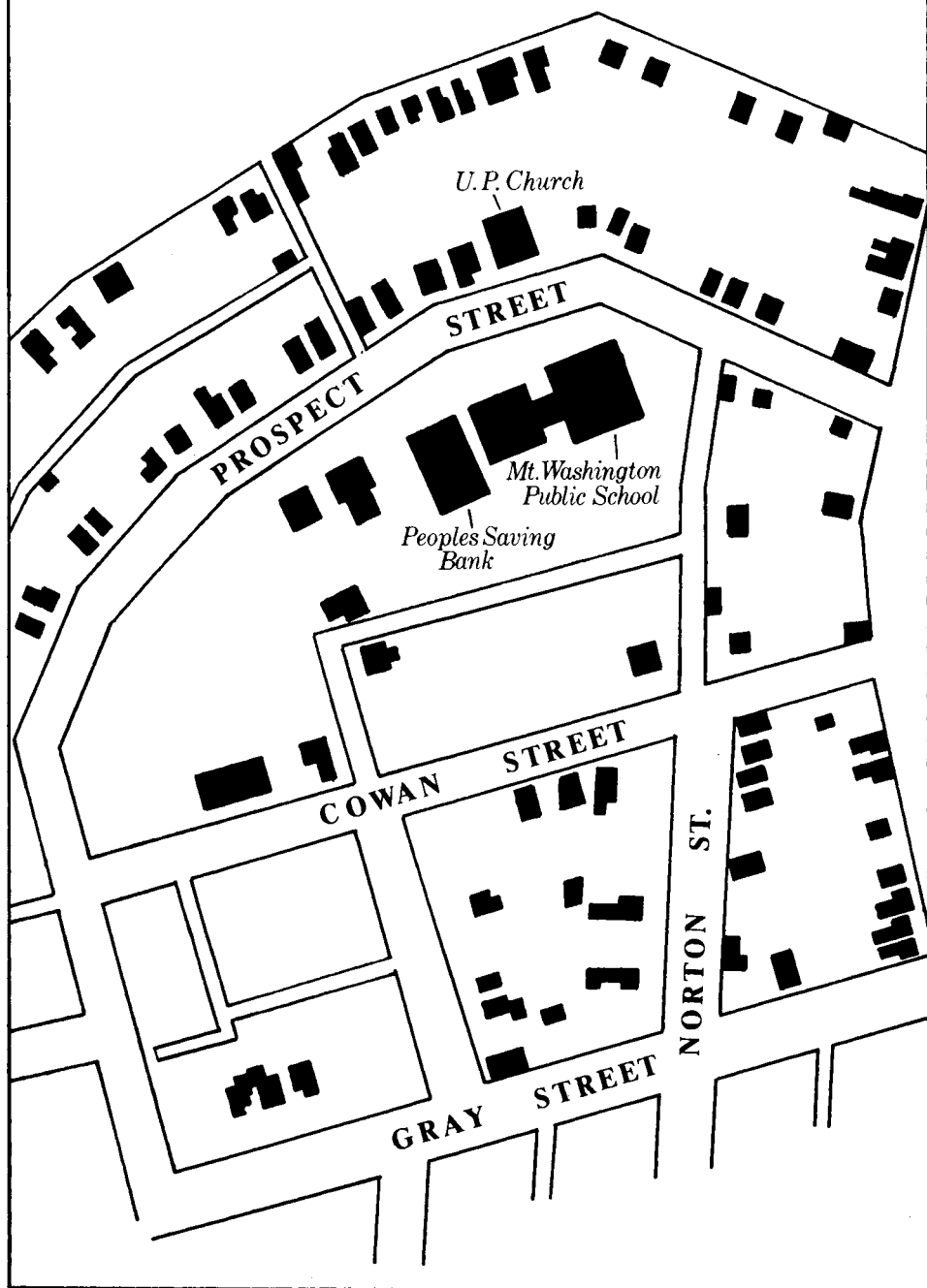


Table 3 reflects the total number of housing permits issued for 1877-1908 and the number of families which constructed their own homes.³¹ Three conclusions can be drawn from these statistics. First, the opening of the Monongahela Incline freight elevator in 1884 was a stimulus to the housing industry in Mount Washington, as shown by the issuance of 1,202 building permits between 1884 and 1900. Residential living became more practical since the freight elevator decreased the cost of transporting building materials to Mount Washington and brought down the costs of individual homes. From 1884 to 1900, 278 homeowners erected their own places of residence. Second, by 1901, the availability of electric streetcar service between Mount Washington and downtown Pittsburgh contributed to making the Thirty-second Ward an even more attractive area for commuters. Between 1901 and 1908, 862 building permits were issued. Home building spread to the vacant areas along Southern Avenue, Boggs Avenue, and Saw Mill Run. Third, about 77 percent of all building permits went to private builders or building companies. Frequently, men would contract out their services to build homes as a means of attaining their livelihood. Builders of this type usually constructed homes costing between \$500 and \$1,500. Large building companies such as the Erie Land Company, Shiloh Building Company, and Whitesell Building Company built larger structures such as churches, apartments, and homes for the wealthy costing \$3,000 to \$5,000. The remaining 23 percent of building permits indicate that the individual property owner personally constructed his own home.

Apartment complexes appear to have been the exception in Mount Washington. Only three apartment buildings, a 72-room structure along Grandview Avenue, and smaller buildings on Sycamore Street and Virginia Avenue, were constructed, but not until after 1900. The statistics also indicate that businessmen often built individual houses for rental purposes, especially after 1890.³²

Graphs 1 and 2 indicate the relationship between building permits and housing valuation in Mount Washington at five-year intervals. The relatively equal decrease in permits and valuation between 1891 and 1901 may reflect general economic conditions due to the Panic of 1893 in the United States during that period. The steadily increasing number of permits and valuation following 1901 may be a result of improved streetcar transportation between Pittsburgh and Mount

31 *Yearly Docket of Building Permits, 1877-1908* (Pittsburgh, n.d.), vols. 1-24.

32 *Ibid.*

TABLE 3
HOUSING PERMITS ISSUED, 1877-1908

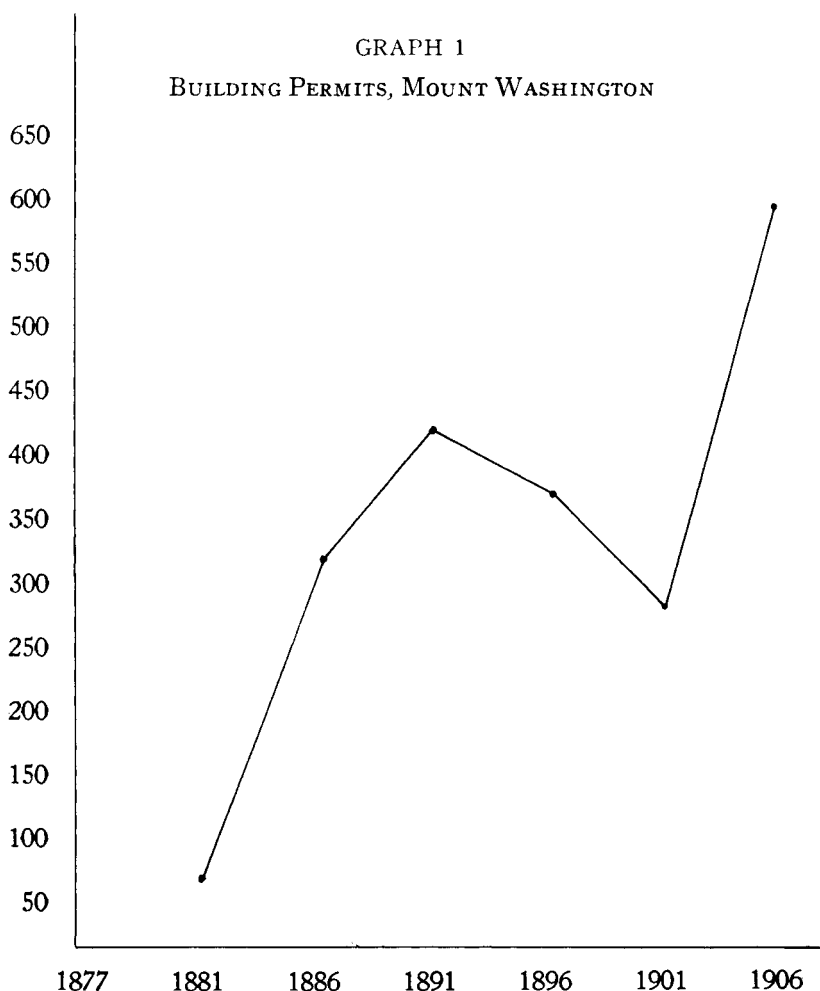
Year	Permits Issued	Owner Constructed
1877	4	?
1878	13	1
1879	16	3
1880	17	4
1881	26	1
1882	57	16
1883	75	20
1884	75	32
1885	56	26
1886	44	12
1887	66	11
1888	99	16
1889	?	?
1890	134	25
1891	129	33
1892	138	15
1893	84	23
1894	43	13
1895	51	13
1896	48	7
1897	68	14
1898	30	4
1899	46	7
1900	91	27
1901	54	13
1902	82	0
1903	68	7
1904	127	30
1905	192	46
1906	138	31
1907	110	42
1908	91	24
	<hr/> 2272	<hr/> 516

Washington and general economic recovery. The demand for residential lots along the lower portions of Southern Avenue and Boggs Avenue may explain the sharp increase in building permits and

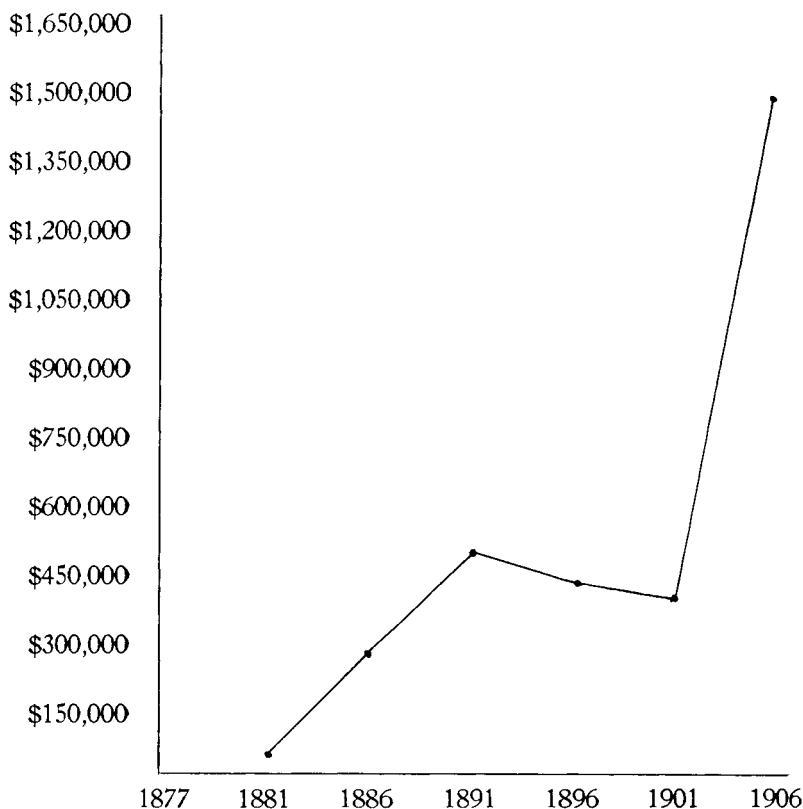
property valuation. As land became scarcer, property values increased.

Table 4 indicates the growth of the housing industry by streets in Mount Washington between 1872 and 1910. The table does not reflect construction of barns, businesses, apartments, or other incidental structures. From these data, two significant conclusions can be drawn. First, construction of the Mount Washington Public School and the development of banking facilities along Prospect Street by 1890 stimulated the housing industry in the central area of the Thirty-second Ward. Families preferred to live within reasonable walking

GRAPH 1
BUILDING PERMITS, MOUNT WASHINGTON



GRAPH 2
HOUSING VALUATION, MOUNT WASHINGTON



distance of the school, which in turn helped to establish the large German population between Natchez Street and Greenbush Avenue. The German Evangelical Protestant Church and the Mannerchor Hall located on Prospect Street assisted in promoting German solidarity. Second, the establishment of the Peoples Savings Bank on Southern Avenue and Boggs Avenue by 1901 may have been a direct result of the increasing population along the lower portions of Mount Washington. As people demanded more and more services, businessmen answered the challenge with improved transportation and business services.

TABLE 4
HOUSES CONSTRUCTED, MOUNT WASHINGTON

Street	1872	1882	1890	1901	1910
Boggs Avenue	12	23	26	33	44
Shiloh Street	12	14	21	33	45
Wyoming Avenue	17	21	27	50	57
Grandview Avenue	10	15	21	19	25
Maple Terrace	8	8	21	33	51
Virginia Avenue	24	29	43	46	60
Sycamore Street	14	19	26	37	50
Prospect Street	—	6	35	40	50
Southern Avenue	20	32	47	60	75
Greenbush Avenue	10	13	23	34	44
Kearsarge Street	8	15	22	34	47
Natchez Street	3	16	20	65	87
	<hr/> 138	<hr/> 211	<hr/> 332	<hr/> 484	<hr/> 635

Urban Services Come to Mount Washington

Street improvements first came to Mount Washington in 1889 with the grading, curbing, and paving of Boggs Avenue, Wyoming Avenue, and Shiloh Street. Congested residential and business areas usually received improvements first. To improve streets demanded considerable time and expense, because existing arteries were either dirty and dusty in the summer or muddy and impassable during the winter months. Between 1889 and 1905, almost all streets in the area were improved. Irregular blockstone was the most common paving material. Occasionally asphalt was used, but records indicate that only streets such as Grandview Avenue, on which wealthy families lived, received this type of improvement.³³

Before street improvements could begin, one-third of the property owners were required to sign a petition requesting the city council of Pittsburgh to make the necessary improvement. City council then passed an ordinance before ordering the Department of Public Works to begin the construction. In many instances, securing signatures from one-third of the homeowners was not easy, and consequently street improvements within Mount Washington were re-

³³ *Department of Public Works, 1889-1905* (Pittsburgh, n.d.).

tarded.³⁴ Records indicate that the grading, curbing, and paving of Boggs Avenue, Wyoming Avenue, and Shiloh Street in 1889 required an appropriation of approximately \$61,000.³⁵

Improvements in other services came after 1889. Prior to that year, gas lamps were used for lighting the streets of Mount Washington. The gradual change from dingy gas lamps to bright arc lights began in 1889 and continued throughout the remaining years of the nineteenth century.³⁶ The use of electricity for the lighting of homes started in 1890, although only residents along Grandview Avenue received this luxury while other residents of Mount Washington waited until 1895 before receiving electric service.³⁷

Permits for electric wiring were first issued to homeowners in 1895. According to the statistics, permits were initially used for private dwellings. After 1900, an increasing number of wiring permits were issued for various business enterprises. Table 5 indicates the relationship of electric permits to street improvements. Three conclusions can be derived from the table. First, Shiloh Street developed as the primary business district of Mount Washington. Consumers could choose from a diversity of shops and businesses, among them drug stores, bowling alleys, pool rooms, clothing stores, markets, banks, nickelodeons, and medical services. Second, certain sections of Mount Washington remained solely residential. Grandview Avenue and Maple Terrace, two of the most attractive areas for homeowners, utilized electricity for home lighting. Plat maps indicate that very few businesses located along these two arteries. Since walking was still the principal means of moving around, businessmen tended to locate closer to Shiloh Street, the population center. Third, lower-class neighborhoods along Natchez Street, Greenbush Avenue, and Kearsarge Street apparently could not afford the cost of electricity. These homeowners appeared content to use gas, kerosene, or candles for lighting purposes and were satisfied just to have their streets paved.³⁸

As early as 1865, construction began of the Monongahela Water Company which provided service to the area south of the Monongahela and Ohio rivers. By 1875, completion of a pumping station at the Birmingham reservoir supplied water to the residents of Mount Washington. Service to over 55,000 residents was provided in 1904

³⁴ *Annual Report of the Department of Public Works, City of Pittsburgh, 1889* (Pittsburgh, 1890), 12.

³⁵ *Ibid.*, 72-73.

³⁶ *Ibid.*, 16.

³⁷ *Ibid.*, 1895, 16.

³⁸ *Records of Permits for Wiring, 1895-1910* (Pittsburgh), vols. 1-6.

TABLE 5
RELATIONSHIP OF ELECTRIC PERMITS TO STREET PAVING

Year Paved	1889 Boggs	1889 Shiloh	1889 Wyoming	1891 Grandview	1891 (Maple Terrace) Stanwix	1893 Virginia
1895						
1896					D	D
1897	D				D	
1898		BB				
1899		BB				
1900		B		B		
1901		B				D
1902		B				
1903		BBBB	BB		DD	
1904	DBD	BDBB		DD	DDDD	
1905	Sch	BB	BDBD	DDDDDD		
1906	BDD	B		DDSchDD	DD	
1907	BBBDDBSch	BBBBDBBD		DDD	DDD	D
1908		BBChB		DDChDD		BBBB
1909	DBBBDCh	BBBB			DD	DB
1910	BBBB	BBChBBB	DB	BB	DDDD	D

Year Paved	1894 Sycamore	1898 Greenbush	1898 Prospect	1899 Southern	1900 Kearsarge	1901 Natchez
1895						
1896				D		
1897						
1898						
1899	Ch					
1900	D					
1901						
1902	D	D				
1903					D	
1904	ChDCh	D	Sch			
1905				DD		
1906	Ch	D		BDBD		
1907			Sch	DB		
1908			Sch	D		
1909	D		Ch	D		
1910	DBB		DCh	BBBBB	D	DDD

Key: D—Dwelling, B—Business, Ch—Church, Sch—School

with the completion of two additional tanks of the Allentown Service located at Grandview Park.³⁹

Sewage service came slowly to the residents of Mount Washington. At the beginning of the 1890s, sewer lines did not exist in the Thirty-second Ward. The nearest sewer lines were located in the Twenty-fourth Ward (Ormsby), Twenty-fifth and Twenty-sixth wards (East Birmingham), and in the Twenty-eighth and Twenty-ninth wards (Birmingham) in the South Side.⁴⁰

Sewer construction in Mount Washington did not begin until 1893 and continued through 1908. Records indicate that the middle-class neighborhoods of Virginia Avenue and Sycamore Street and the lower-class neighborhoods along Wilbert Street, Grace Street, and Southern Avenue were among the first areas to receive service.

By 1900, approximately one-third of Mount Washington had sewage service. Most residential areas within a ten-minute walk of the incline had previously received service. Main arteries such as Southern Avenue had sewer lines, but the streets branching off lacked service. In general, it appears that the heavily congested areas received service before less populated areas. Oddly, the wealthy residents along Grandview Avenue still lacked service by 1900. Sewer lines located along Kearsarge Street and Stanwix Street terminated at Grandview Avenue, but no service existed along the avenue itself.⁴¹

By 1910, residents along Boggs Avenue and Bailey Avenue and the intersecting streets received most of the service provided to Mount Washington. From Grandview Park to McKinley Park, middle-class and lower-class families also gained sewage service. Yet the residents along Grandview Avenue still only had partial service.⁴²

The Coming of the Streetcar

Transportation improvements came slowly to the residents of Mount Washington. From 1872 until 1897, no major improvements occurred except for the addition of the freight elevator to the Monongahela Incline in 1884. The hilly terrain atop Mount Washington prevented the use of horse-drawn vehicles. Even though population

39 Erwin E. Lanpher, *The Water Works of the City of Pittsburgh* (Pittsburgh, 1930), 27.

40 *Atlas of the City of Pittsburgh Comprising the 24th to 36th Wards, Volume 5* (Philadelphia, 1890), Plate 21.

41 *Real Estate Plat Book of the City of Pittsburgh Comprising the 24th to the 36th Wards, Vol. 4* (Philadelphia, 1901), Plate 29.

42 *Map of Greater Pittsburgh, Pa.* (Philadelphia, 1910), Plate 44.

was increasing, existing modes of transportation continued to meet the needs of the people.

Mount Washington did not have any streetcar lines in service by 1897. The nearest available streetcar service was on Woodville Avenue which came from the Thirty-fifth Ward, passing through Shalerville and terminating at the intersection of Kearsarge Street and Virginia Avenue. Residents riding the Monongahela Incline down to Carson Street could board streetcars traveling east and west, or across the Smithfield Street Bridge to downtown.⁴³ In 1896, the proposed West Side Belt Line, which would have provided streetcar service parallel to the Pittsburgh and Castle Shannon Railroad, failed to reach construction stage. At the base of Mount Washington near the lower station of the Monongahela Incline, the Second Avenue Passenger Railroad provided service to the city. Passengers utilizing these modes of transportation generally worked in the South Side.⁴⁴

Streetcar lines operating in Mount Washington utilized electricity as the means of power. As early as 1889, the Virginia Avenue Street Railway Company drafted articles of association to provide service along Virginia Avenue, a distance of one mile. As proposed, service extended from the corner of Bailey Avenue to Woodville Avenue where it intersected with the West End Traction Company.⁴⁵ However, for unknown reasons, the company apparently failed to pursue its franchise until 1898. Not until 1897, when the Pittsburgh and Mount Washington Electric Street Railway Company received a charter, did actual service come into operation. This streetcar line was the first to provide service to the heavily congested areas along Grandview Avenue, Virginia Avenue, and Wyoming Avenue.⁴⁶

Frequently, capital was invested in small streetcar lines which served only the street or avenue bearing its name. The Natchez Street Railway Company, Sycamore Street Railway Company, Grandview Park Street Railway Company, and the Southern Heights Street Railway Company were four such companies.⁴⁷

43 Jenks B. Jenkins, *Map of the Cities of Pittsburgh, Allegheny, and Environs, 1897* (Pittsburgh, 1897).

44 Alex Y. Lee, *Map of the Railroads and Electric Car Lines in and Around Pittsburgh, Pa.* (Pittsburgh, 1896).

45 W. C. Farnsworth, ed., *History of the Southern Traction and Its Underlying Companies and History of the Southern Rapid Transit Street Railway Company and Its Underlying Companies*, 11 (Harrisburg, 1901), 343-44.

46 "Articles of Association, Pittsburgh and Mount Washington Electric Street Railway Company, January 28, 1897," Monongahela Incline Records, AIS.

47 W. C. Farnsworth, ed., *History of the Street Railway Companies, Surface, Elevated, and Underground, Incorporated to Build, Operate, and*

Real estate developers welcomed small transportation companies because they usually spurred the housing industry. By the early 1900s, as the demand for business services increased, families apparently became more conscious about residing along arteries with improved transportation facilities. Businessmen in the southern one-third of Mount Washington found this to be a blessing as their profits went up accordingly.

Not until October 1901 did streetcars connect Mount Washington to downtown Pittsburgh. With the establishment of the Mount Washington Tunnel Company, streetcar service became available to a greater number of people. The company constructed a tunnel from Carson Street, on the South Side, under the steep, rugged terrain to Washington Avenue and Saw Mill Run.⁴⁸ Additional streetcar transportation came to the Thirty-second Ward with the incorporation of the Mount Washington Street Railway Company on October 8, 1901. Service extended from Pittsburgh, across the Smithfield Street Bridge, and through the tunnel to the southern end of Mount Washington before passing through the middle of the ward to Grandview Avenue.⁴⁹ With the completion of the tunnel and streetcar service, two immediate benefits became apparent: first, residents along Saw Mill Run were free of the isolation imposed by the rugged terrain which virtually prevented their traveling to Pittsburgh; second, areas such as lower Southern Avenue and Boggs Avenue became attractive residential neighborhoods.

By 1903, the Mount Washington Street Railway Company absorbed the Mount Washington Street Railway Company Number 2, which had been formed by the merger of the Mount Washington Street Railway Company Number 1 and the Sycamore Street Railway Company, to provide service from the Smithfield Street Bridge through the Mount Washington tunnel to the borough of West Liberty, Union Township, and Scott Township.⁵⁰ At the same time, the firm took over the Mount Washington Tunnel Company, chartered in 1901, to construct, maintain, and operate the tunnel between

Maintain Street Railways in Allegheny County Under the Act of June 8, 1901, From that Date to February 25, 1902 (Harrisburg, 1902).

48 W. C. Farnsworth, ed., *History of the Pittsburgh Railways Company and Its Underlying Companies*, 2, Book 5 (Harrisburg, 1903), 547-48.

49 W. C. Farnsworth, ed., *History of All Street Railway Companies in Allegheny County, Incorporated under the Amendments of June 7, 1901, the Capital Stock of which is owned by the Philadelphia Company, October 1, 1901*, 1, No. 1 (Harrisburg, 1901), 217-19.

50 *Mt. Washington Street Railway Company*, 14: 382-85, Monongahela Incline Records, AIS.

Carson Street and Washington Avenue.⁵¹ Residents of Mount Washington were now within brief walking distance of streetcar service and could travel directly to downtown Pittsburgh in a matter of minutes.

As streetcars prospered, so too did Mount Washington. By 1910, most new businesses preferred to locate along transportation lines. Banks and small businesses, which served a large number of people, tended to locate in major residential areas served by streetcar lines. Subdivision of vacant land and construction of new homes revolved around transportation improvements.⁵² Map 3 shows the streetcar lines of Mount Washington in 1910, after the Pittsburgh Railways Company had taken over the Mount Washington Street Railway Company.

Streetcars provided several solutions to the social and economic problems of Mount Washington residents. The extension of streetcar lines down Southern Avenue to Saw Mill Run opened up a large area for new homeowners and helped to alleviate congestion. With the continual migration of families into the Thirty-second Ward, the housing industry prospered. During the 1890-1910 period, very few apartment complexes were constructed. Instead, detached homes were built. The typical single-family dwelling was a two-story structure surrounded by open land and valued between \$1,000 and \$2,000.⁵³

With the availability of rapid and inexpensive means of transportation, manufacturing and commercial enterprises located along streets convenient for their customers. By 1910, the main business district of Mount Washington expanded from Shiloh Street to include Southern Avenue. Records show that with the availability of streetcar service along Shiloh Street, small and large business concerns emerged during the early years of the twentieth century.

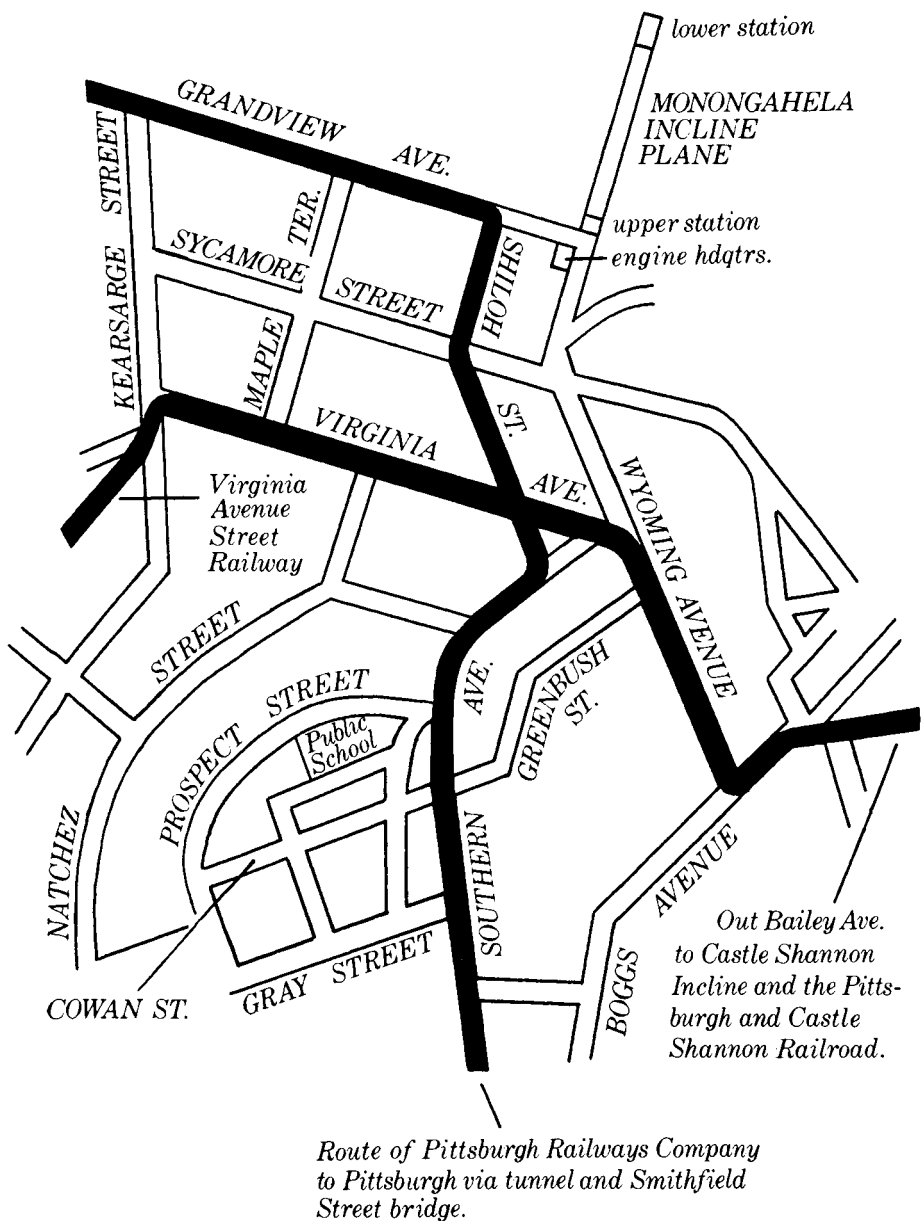
Streetcars also provided a social benefit for residents of Mount Washington: they enabled a larger portion of the population to enjoy diversified forms of entertainment, including theaters, music, and sporting events. Streetcars transported people to various forms of outdoor recreation at Grandview Park and McKinley Park. Improved transportation had changed the life styles of thousands of people by 1910.

51 *Ibid.*, 422-23.

52 *Atlas of Greater Pittsburgh, Pennsylvania from Official Records, Private Plans, and Actual Surveys* (Philadelphia, 1910), Plate 30.

53 *Yearly Docket of Building Permits, 1900-1910* (Pittsburgh), vols. 17-25.

MT. WASHINGTON TROLLEY LINES, 1910



Summary

Mount Washington is illustrative of the crisis Pittsburgh as a whole faced in the latter part of the nineteenth century: there was not enough usable land for an increasing population. Technology answered the challenge, initially with the Monongahela Incline, which scaled the steep cliffs of Mount Washington and opened new areas to prospective homeowners. The incline became an instrumental factor in the early growth and development of a previously isolated area.

In 1872, most of Mount Washington's residents lived within a quarter-mile of High Street (Grandview Avenue) and the incline. A particularly heavy concentration of people could be found within the areas of High, Sycamore, and Virginia streets because residents preferred to live within brief walking distance of the incline. The cutoff point for building development appears to have been at Neville Street (Natchez). Between Neville and High Street lived approximately 90 percent of the population.

The area south of Neville Street to Saw Mill Run was predominantly vacant farmland owned by private individuals. At the extreme southern end of Mount Washington, a few houses existed, probably attributable to scattered coal mining along Saw Mill Run. Crude roads connected these residents to the business district closer to the incline.⁵⁴

By 1890, the impact of the Monongahela Incline was even more apparent. Development progressed farther south to Gray Street, Cairo Street, and Whitworth Street. Between these streets and High Street, an increasing population resulted in the construction of new streets, homes, churches, and schools. Almost all potential residential lots were privately owned.

South of Gray Street and Whitworth Street could be found the housing plans of businessmen looking for immediate profit. Most of the vacant land of the 1872 period was now subdivided into housing lots with new streets constructed approximately every 200 feet. Most of this area remained unoccupied, but homeowners began to find it increasingly attractive to their needs. The region closer to Saw Mill Run remained basically the same as in 1872. A few more families resided there, but they did not constitute significant demographic change in the area. Large parcels of land still remained in the hands of private individuals and in some cases absentee owners.⁵⁵

⁵⁴ *Atlas of the Cities of Pittsburgh, Allegheny, and the Adjoining Boroughs* (Philadelphia, 1872), Plates 107-08.

⁵⁵ *Atlas of the City of Pittsburgh Comprising the 24th to the 36th Wards from Official Records, Private Plans, and Actual Surveys*, 1890, Plates 19-20.

By 1902, a new factor, the streetcar, influenced the development of Mount Washington. Streetcar service came down Southern Avenue and crossed Soffel Street to the tunnel near the south end of Mount Washington. The new form of transportation contributed to the development of the region south of Gray, Cowan, and Whitworth streets. Between 1890 and 1910, hundreds of homes were constructed as building lots became more scarce, and transportation to downtown Pittsburgh became faster and more convenient. As important as the Monongahela Incline was to the birth of Mount Washington in 1872, the streetcar appears to have been equally important to the continued growth of the region by 1910. As Pittsburghers moved into the twentieth century, convenience became the demand of most citizens and the streetcar answered the demand.

After 1900, Mount Washington, which for years had been isolated from the rest of the city, became an integral part of Pittsburgh. This came about in large measure because of the employment of technological innovation — first the incline, and later the electric streetcar — to overcome geographical limitations and stimulate the community's growth.