

THE BIOGRAPHY OF A LOWER EAST SIDE TENEMENT; 97 ORCHARD STREET,
TENEMENT DESIGN, AND TENEMENT REFORM IN NEW YORK CITY

by

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97 Orchard Street, the home of the Lower East Side Tenement Museum, is a fitting site for the physical commemoration of the immigrant experience in urban America. The building stands as a survivor from the first major wave of tenement-house construction in New York City and continued to be fully occupied for over sixty years as successive waves of immigrants moved through New York's Lower East Side. Built in 1863-64, during a period when building and design were subject to only the most minimal regulation, 97 Orchard Street exemplifies the multiple dwellings, erected in enormous numbers in the nineteenth century, that were home to tens of thousands of urban households. The building was designed to house a maximum number of poor, mostly immigrant families on a typical narrow city lot while providing these residents with few amenities. When new, the building was crowded, poorly ventilated, and contained minimal sanitary facilities, although in some cases the owner provided tenants with features that exceeded the minimal requirements of the law. As the building aged and as the number of tenants increased in number, conditions deteriorated. By modern standards, and even by the standards of the late-19th- and early-twentieth-century middle class, conditions in tenements such as 97 Orchard Street were intolerable. Nonetheless, this building was the residence (and in some cases workplace as well) of hundreds of immigrant families from 1864 until the early 1930s. Most of these families did not remain in the tenement for long, but while there, this was home and most struggled, despite the conditions, to create the best environment possible. The success of so many of these immigrants is a testament to their strength, despite the harsh realities of daily lives.

The history of 97 Orchard Street is not the history of all tenements, since each privately-owned tenement had its own history of design, construction, and alteration. However, 97 Orchard Street is representative of the thousands of tenements erected during the first wave of tenement construction in New York City. Some features of the building were relatively up-to-date for 1864, while others were extremely conservative and did not reflect the technological advances of the day. The Orchard Street tenement was occupied during a period of dramatic change in tenement design and regulation. Although no longer inhabited, the physical fabric of

97 Orchard Street continues to illustrate the nature of Lower East Side tenement life in the second half of the 19th century and first decades of the 20th century and, through its many alterations, illustrates the effect that tenement reform laws had on older tenement apartments and the quality of life of their residents. The evolution of tenement laws has been examined by architectural and urban historians and the motives of the reformers who campaigned for the passage of tenement house laws has also received critical examination, but the specific impact that these laws had on individual buildings has not been explored in detail.¹ The creation of the Tenement Museum provides the opportunity for such an examination.

¹. The most detailed critical examination of tenement and other housing law is Richard Plunz, *A History of Housing in New York City* (NY: Columbia University Press, 1990); also, see Anthony Jackson, *A Place Called Home: A History of Low-Cost Housing in Manhattan* (Cambridge: MIT Press, 1976), Roy Lubove, *The Progressives and the Slums: Tenement House Reform in New York City 1890-1917* (Pittsburgh: University of Pittsburgh Press, 1962), Gwendolyn Wright, *Building the Dream: A Social History of Housing in America* (NY: Pantheon, 1981).

Many elements contributed to the unsatisfactory conditions in New York's over-crowded tenement neighborhoods, but the root of the problem lies in the basic manner in which New York City's blocks were divided into building lots and the ownership pattern that arose from this division. During the 17th and much of the 18th centuries, New York City was a relatively small settlement located at the southern tip of Manhattan Island, with buildings erected along the haphazard street pattern of the colonial city. As the city's population grew and residential neighborhoods were established to the north of the old settlement, landowners laid out streets on a series of varied grid plans (after 1811, the grid was established by law).² Each block was divided into individual lots that were typically 25 feet wide by 100 feet deep. These lots were then sold or leased to owners or developers who generally erected single-family rowhouses. Often there would be one single-family rowhouse on each lot, although developers would frequently acquire several lots and build a larger number of narrower homes.

This 25 x100 foot lot size was fairly generous for rowhouses and was suitable for a growing city located on an island with limited land area. Only later did the size of building lots become a problem; a problem that turned especially acute with the construction of the multiple dwellings referred to as tenements. Frequently, these were built to house 20 or more families on a lot that was intended for only one single-family rowhouse. By the late 19th century, the noted architect Ernest Flagg, one of the leaders of the tenement reform movement wrote that:

The greatest evil which ever befell New York City was the division of the blocks into 25x100 feet. So true is this, that no other disaster can for a moment be compared with it. Fires, pestilence and financial troubles are nothing in comparison, for from this division has arisen the New York system of tenement-houses, the worst curse which ever afflicted any great community.³

The Lower East Side, the area surrounding the Tenement Museum, was initially

². Edward K. Spann, "The Greatest Grid: the New York Plan of 1811," in Daniel Schaffer, ed., *Two Centuries of American Planning* (Baltimore: Johns Hopkins, 1988), pp. 11-39.

³. Ernest Flagg, "The New York Tenement-House Evil and its Cure," *Scribner's* 16 (July 1894), p. 109.

developed in the early decades of the 19th century when landowners subdivided their property into lots in response to the demand for housing in areas close to, but outside of the city's Lower Manhattan business district. Before the Revolutionary War, the land on which the Tenement Museum is located was part of the large farm of James De Lancey. During the war, De Lancey had been a supporter of the British and, in accordance with New York State's 1779 Act for the Forfeiture and Sale of the Estates of Persons who have adhered to the Enemies of this State the farm was confiscated by New York City and sold in several parcels in 1784-86.⁴ Apparently, the city laid out the grid of rectangular blocks with the long blockfronts running in a north-south direction before the land was sold. The sale was without restrictions on what could be built on the property. Thus, the former De Lancey Farm, including much of the Lower East Side north of Division Street, developed with a mix of wooden buildings and more substantial brick or stone rowhouses, some of which are extant on Grand and Rivington streets. This contrasted with development on the Rutgers Farm, separated from the De Lancey property by Division Street, where the Rutgers family required more substantial brick houses.⁵

Some purchasers of land on the former De Lancey property erected buildings soon after they made their purchases, but others held onto the property, hoping to sell or lease at a substantial profit as the land became more valuable. Among the later was John Jacob Astor, who purchase land on Orchard Street between Broome and Delancey streets in 1811. In 1828 Astor sold three lots, at 95-99 Orchard Street, to the Orchard Street Reformed Dutch Church. The purchase of this site by a Protestant church congregation reflects the general character of the population of the area as it developed into a prosperous residential community. Almost all of the religious buildings erected on the Lower East Side during the first half of the nineteenth century were Protestant churches.⁶ The Dutch Reformed congregation apparently erected a substantial

⁴I.N. Phelps Stokes, *The Iconography of Manhattan 1498-1909*. (NY: Robert H. Dodd, 1918-1928), vol. 5, pp. 1095, 1193; vol. 6, pp. 86-94.

⁵ Stokes, *Iconography*, vol. 4, p. 752, notes that on October 31, 1765 "Hendrick Rutgers and James Delancey enter into an agreement 'for the settling & establishing of partition Lines between their respective Lands in the Out Ward & for opening & establishing a public Street or Highway' between their lands." This "Street or Highway" became Division Street.

⁶ A number of these early Protestant churches are extant, although few are still owned by their original congregations. Among the more prominent survivors are the Willett Street Methodist Episcopal Church (now the Bialystoker Synagogue; 1826) on Bialystoker Place (formerly Willett Street); the Norfolk Street Baptist Church (now Beth Hamedrash Hagodol Synagogue; 1850) on Norfolk Street; All Saints' Free

church that was the most significant structure on either side of Orchard Street between Broome and Delancey streets, a block otherwise filled with wood houses. Construction of this church was not a wise decision on the part of the Dutch Reformed church since the congregation lost the property in a foreclosure action in 1831. In 1836, the property was transferred to the Second Universalist Society of New York and, by 1862 when the site was sold to private individuals, it was owned by the Second Reformed Presbyterian Church of New York.

Throughout the 19th century, New York's affluent population migrated north into newly developing neighborhoods. In the 1820s, the Lower East Side was fashionable, but by the 1830s the area around Bond Street and St. Mark's Place in what is now the East Village had become New York's most prestigious residential area; in the 1840s prominent New Yorkers moved into the Gramercy Park area, while in the 1850s Murray Hill developed with substantial rowhouses.⁷ As prosperous people moved north, their old neighborhoods changed character. In the 1840s and 1850s, as more and more old families were moving out of the Lower East Side, a major wave of immigrants was arriving in New York. Between 1840 and 1850, New York's population increased by more than 60% from 312,710 to 515,547, rising to 813,669 in 1860, an additional 57.8% increase.⁸ A substantial proportion of the new arrivals were Irish and German immigrants, many of whom settled on the Lower East Side where the exodus of old residents resulted in the widespread availability of housing. The German community soon centered in the Tenth Ward, the area north of Division Street and east of the Bowery that includes the block on which the Tenement Museum is located. These poor immigrants could not afford to rent an entire single family house; rather, the rowhouses were converted into multiple dwellings or were replaced by new tenements.

Episcopal Church (now St. Augustine's Episcopal Church; 1849) on Henry Street; and the Rutgers Presbyterian Church (now St. Teresa's R.C. Church; 1841) on Rutgers Street.

⁷. For a discussion of the development of new neighborhoods in the 19th century, see Charles Lockwood, *Bricks and Brownstone: The New York Row House, 1783-1929 An Architectural and Social History* (New York: McGraw-Hill, 1972) and Lockwood, *Manhattan Moves Uptown: An Illustrated History* (Boston: Houghton Mifflin, 1976).

⁸. For population figures, see Ira Rosenwaike, *Population History of New York City* (Syracuse: Syracuse University Press, 1972), p. 36.

Before examining the development of tenements on the Lower East Side of New York and specifically the design of 97 Orchard Street, it is necessary to define exactly what is meant by a "tenement." The first official definition was promulgated in the Tenement House Law of 1867 which defined a tenement as "any house, building, or portion thereof which is rented, leased, let, or hired out to be occupied, or is occupied, as the home or residence of more than three families living independently of one another, and doing their own cooking upon the premises, or by more than two families upon a floor, so living and cooking and having a common right in the halls, stairways, yards, water-closets, or privies, or some of them."⁹ This definition can, of course, apply to almost all of New York City's 19th-century multiple dwellings no matter how luxurious. Officially, multiple dwellings intended for affluent households were classified as tenements, but in common parlance these were called French flats or apartment houses. The word tenement generally defines only those multiple dwellings built for the poor and which contain few if any of the amenities demanded by wealthier apartment dwellers such as private toilets, water, and rooms with windows. The Superintendent of Buildings provided one of the most succinct definitions of a tenement in his report dated December 31, 1862, when he referred to tenements as those buildings where "the greatest amount of profit is sought to be realized from the least possible amount of space, with little or no regard for the health, comfort, or protection of the lives of the tenants."¹⁰

Exactly when the first tenement was erected in New York is not known, but it is often traced back as far as the mid 1820s.¹¹ By the 1840s, the number of tenements (both older converted buildings and new structures) had increased and conditions deteriorated to the point where residents of New York's more affluent neighborhoods became concerned about conditions in overcrowded areas such as the Five Points. In 1842, Dr. John H. Griscom, the City Inspector of the Board of Health, was the first to investigate and publicly discuss conditions in tenement

⁹. Laws of New York, Chapter 908 (1867). The same definition is used in later tenement house laws; see, for example, the Tenement House Law of 1901, Laws of New York, Chapter 334 (1901).

¹⁰. *Communications from the Superintendent of Buildings, Transmitting His Semi-Annual Report for the Half Year Ending December 31st, 1862*, p. 12.

¹¹. The issue of the first tenement is discussed in Edward Lubitz, "The Tenement Problem in New York City and the Movement for its Reform 1856-1867" (Ph.D. diss., New York University, 1970), p. 4 and in Plunz, *A History of Housing*, p. 6.

districts.¹² The following year saw the establishment of the Association for Improving the Condition of the Poor (AICP), the first charitable organization that was organized to focus the attention of the city's affluent residents on conditions in tenement districts. As tenement reformer Lawrence Veiller noted in 1903:

Prior to this time [1843], the dwellings of the poor had not been a subject of interest or attention on the part of the more fortunate members of the community, little attention being paid to their condition except by the City Inspector and by those members of the clergy whose labors took them among the poor as "City Missionaries."¹³

In his history of tenement reform, Veiller quotes from an early AICP report containing one of the first discussions of the conditions in which tenement dwellers lived:

The tenements of the poor in this city are generally defective in size, arrangement, supplies of water, warmth, and ventilation; also the yards, sinks [i.e., outdoor toilets], and sewage are in bad condition.¹⁴

What is especially interesting about this description is that, although it was written in the 1840s, it could just as easily have been applied to tenement conditions in 1900. In fact, many descriptions of the Lower East Side in the late 19th and early 20th centuries point out the same problems -- overcrowding, lack of light, air, and water, and inadequate toilets and sewage.

A few efforts were made to improve conditions in tenement-house districts during the 1850s and 1860s. In 1855, the AICP erected the first "model tenement" on a narrow lot between

¹². Dr. Griscom's ideas, especially as stated in his pamphlet, "A Brief View of the Sanitary Conditions of the City" (1842), are discussed in detail in Lawrence Veiller, "Tenement House Reform in New York City, 1834-1900," in Robert E. DeForest and Lawrence Veiller, ed., *The Tenement House Problem*, vol. 1 (New York: Macmillan, 1903), pp. 71-75, and in Plunz, *A History of Housing*, pp. 4-5.

¹³. Veiller, "Tenement House Reform in New York City," p. 76. The importance of the AICP is also discussed in Lubove, *The Progressives and the Slums*, pp. 4-11.

¹⁴. Veiller, "Tenement House Conditions in New York City," p. 76.

Mott and Elizabeth streets. Known as the Workingmen's Home, the six-story building housed African-American families.¹⁵ Although this particular model tenement was sold in the late 1860s and soon deteriorated, it established the idea of privately built model housing which was carried forward, later in the 19th century and into the early 20th century, by Alfred T. White in his Home, Tower, and Riverside projects near the Brooklyn waterfront, by Charles Pratt at his Astral Apartments in Greenpoint, Brooklyn, and by the City and Suburban Homes Company, the Improved Dwellings Association, the Open Stair Dwellings Company, and other organizations. Although often successful, only a limited number of these experimental buildings were erected. They were expensive to erect since the quality of design and construction and the provision of amenities were costly. The model tenement companies relied on private investment and a limited return on investment and, as such, they were never as financially rewarding as the speculative tenements that continued to constitute the bulk of low-cost housing.¹⁶

In 1862, the New York State Legislature established the New York City Department of Building and mandated, for the first time, minimum standards for building construction. All buildings, including tenements, erected after May 1, 1862 had to adhere to such basic requirements as party walls of stone, brick, or iron, a use of quality mortar, minimum thickness for walls, minimum size for structural members, and standards for doors, windows, and cornices.¹⁷ Two years after the formation of the Department of Building, a group of leading New

¹⁵. The Workingmen's Home contained 87 apartments of three rooms each plus a large clothes closet. The staircases were fireproof, each family had its own toilet in the yard, Croton water was available, and the halls were lighted by gas. The Workingmen's Home is discussed in Veiller, "Tenement House Reform in New York City," pp. 85-87 and Plunz, *A History of Housing*, pp. 7-8.

¹⁶. For A.T. White's projects see Veiller, "Tenement House Reform in New York City," pp. 97-99, Plunz, *A History of Housing*, pp. 89-93, Olive and Ari Hoogenboom "Alfred T. White: Settlement Worker and Housing Reformer," *Hayes Historical Journal* 9 (Fall 1989), pp. 5-31, and Alfred T. White, *Better Homes for Workingmen* (NY: Putnam, 1885), *Improved Dwellings for the Laboring Classes* (NY: Putnam, 1877 and 1879), and *Sun-Lighted Tenements: Thirty-Five Years' Experience as an Owner*, Publication No. 12, National Housing Association, March 1912. For City and Suburban Homes, see Veiller, "Tenement House Reform in New York City," pp. 107-109, Plunz, *A History of Housing*, pp. 99-103, Andrew S. Dolkart and Sharon Z. Macosko, *A Dream Fulfilled: City and Suburban's York Avenue Estate* (NY: Coalition to Save City & Suburban Housing, Inc., 1988), and New York City Landmarks Preservation Commission, "City and Suburban Homes Company, Avenue A (York Avenue) Estate" and "City and Suburban Homes Company, First Avenue Estate" designation reports prepared by Gail Harris (1990). For other model tenement projects, see Plunz, *A History of Housing*, pp. 88-112.

¹⁷. Laws of New York, Chapter 356 (1862).

Yorkers organized the Citizens' Association "for the purpose of taking steps to improve the sanitary condition of the city."¹⁸ The Association formed a subcommittee known as the Council of Hygiene and Public Health. The first survey of housing and sanitary conditions in New York City was undertaken by this committee and an extensive report was issued in January 1865.¹⁹ The report described just how appalling conditions were in some of New York's most crowded wards.

The Council of Hygiene and Public Health's survey was undertaken in the year that 97 Orchard Street was completed; thus, it presents an important picture of housing conditions in New York at exactly the time the Tenement Museum's building was erected. The Council found that as of December 1864, when their sanitary survey was completed, 495,592 people lived in what they referred to as "tenant-houses" (the entire population of the city, as recorded in the 1860 census, was 813,669). There were 15,309 tenant-houses with an average of 7 1/6 families in each.²⁰ In regard to crowding, the report found that:

the tenant-house population is actually packed upon the house-lots and streets at the rate of 240,000 to the square mile; and it is only because this rate of packing is somewhat diminished by intervening warehouses, factories, private dwellings, and other classes of buildings; that the entire tenement-house population is not devastated by the domestic pestilences and infectious epidemics that arise from overcrowding and uncleanness....Such concentration and packing of a population has probably never been equalled in any city as may be found in particular localities in New

¹⁸. The formation of the Citizens' Association has often been seen as a response to the New York Draft Riots of July 1863; see Veiller, "Tenement House Reform in New York City," p. 93. Iver Bernstein, *The New York City Draft Riots: Their Significance for American Society and Politics* (NY: Oxford, 1990) discusses the reaction of the progressives, particularly the AICP, to the draft riots (pp. 68-69).

¹⁹. Citizens' Association of New York. *Report of the Council of Hygiene and Public Health of the Citizens' Association of New York Upon the Sanitary Condition of the City* (NY: D. Appleton & Co., 1865).

²⁰. In comparison to a building such as 97 Orchard Street that housed twenty-two families, the figure of 7 1/6 families per tenement does not seem excessive. However, it must be remembered that this survey was undertaken before the major wave of tenement construction. Many of these families were crammed into small converted single-family houses.

York.²¹

The report goes on to compare New York's statistics with those prepared by the Royal Commission that examined conditions in London. East London, the most densely populated area of that city, had a density of 175,816 people per square mile, substantially lower than that for New York's most densely populated wards.²²

The report and its pleas for reform had a major impact on housing reform, leading to passage of the Tenement House Act of 1867.²³ Even more important than the actual provisions of this law, many of which were ignored, the bill succeeded in establishing a precedent for government regulation of conditions in tenement houses. The idea of government intervention as a force for change was now in place; later laws were to have a profound influence on the design of new tenements and the improvement of conditions in older buildings.

As has been noted, 97 Orchard Street was erected at exactly the time the Council of Hygiene and Public Health was undertaking its survey. No. 97 was one of three adjoining tenements built in 1863-64 on the site previously occupied by a church. In 1863 the Second Reformed Presbyterian Church sold its building to three developers -- Lucas Glockner, Adam Stumm, and Jacob Walter, all of whom were tailors from Germany. The Second Reformed Presbyterian Church owned the Orchard Street property for only three years, having purchased it in 1860. This would appear to have been a poor investment for the Presbyterians since by the 1860s the composition of the Lower East Side's population was changing rapidly. With its increasing German immigrant community, composed largely of Catholics and Lutherans with some Jews, the neighborhood was no longer one where Protestant denominations such as the Presbyterians were likely to garner congregants.

²¹. Citizens' Association, p. lxx.

²². Citizens' Association, p. lxxii.

²³. Laws of New York, Chapter 908 (1867). Among the provisions of the 1867 law were requirements for transoms in sleeping rooms, fire escapes, banisters on hall stairs, one water closet or privy for every twenty occupants, connection of privies to the city's sewer system (when available), minimum ceiling heights, a ban on animals (except for dogs and cats).

Glockner, Stumm, and Walter purchased the church property together, but they immediately divided the plot into three separate units, each 24'10" wide by 88'6" deep, aligning with the three lots that the Dutch Reformed Church had combined in 1828. Jacob Walter received no. 95, Lucas Glockner no. 97, and Adam Stumm no. 99. The church was soon demolished, and in 1863-64 all three men erected tenements on their lots. Walter built a five-story tenement by himself, while Glockner and Stumm erected a pair of identical five-story and raised basement buildings. The 1864 tax assessments record that Glockner and Stumm's properties were valued at \$8,000 each, while Walter's somewhat smaller building was worth one thousand dollars less.²⁴

At the time Glockner, Stumm, and Walter built their tenements, the size of the block bounded by Orchard, Allen, Broome, and Delancey streets was considerably different from the narrow rectangle that now exists. It measured approximately 353x175 feet, with the longer frontages on Orchard and Allen streets (the block now measures approximately 253'x88'). Nos. 95-99 are the oldest extant buildings on this block and were the first new tenements built along the Orchard Street frontage.²⁵ In the 19th century, all four boundary streets (including Delancey and Allen streets which are now wide boulevards) were typical Lower East Side thoroughfares, measuring 54 feet from lot line to lot line. Nos. 95-99 Orchard Street were near the southern end of the block, with eight building lots to the north.²⁶ The three tenements were erected during the Civil War, at a time when new construction was declining in New York City. It was estimated

²⁴. New York City Tax Assessment Books, Ward 10 (1864).

²⁵. At the time 95-99 Orchard Street were erected there was only one other five-story building on the block. This was a rear building at No. 103 (demolished) which was probably a tenement.

²⁶. The only streets in the Tenth Ward that were wider than 54 feet were Grand Street at 75 feet and Canal Street at 90 feet. Delancey Street was widened in the first years of the 20th century as a result of the construction of the Williamsburg Bridge. The idea for widening Delancey Street 150 feet on its south side, east of the Bowery, was first presented in 1901. Plans were formally adopted in 1903 and condemnation proceedings began in that year. This entailed the destruction of the three tenements erected in the 1870s at 109-113 Orchard Street, the tenements at 108 and 114 Allen Street that had been built in 1866, and the entire Delancey Street frontage. Allen Street was widened and the buildings on the east side, facing the rear of 97 Orchard Street, were demolished as part of a slum clearance project that originated in 1930. Allen Street was a particularly unpleasant street on which to live since the Second Avenue Elevated, built in 1879-80 ran up the center of the street. El service ceased on June 12, 1942 and the line was dismantled for the World War II scrap steel drive. According to Timothy J. Gilfoyle, *City of Eros: New York City, Prostitution, and the Commercialization of Sex, 1790-1920* (NY: W.W. Norton & Co., 1992), pp. 144, 216, Allen Street was a notorious center for prostitution in the 19th century.

that in the twelve months prior to the organization of the Department of Building on May 1, 1862, 2,250 buildings were erected in Manhattan. In 1863, the number had declined to 1,247, while in the following year construction began on only 755 buildings.²⁷ Nos. 95-99 Orchard Street were three of 55 tenements begun in the Tenth Ward in 1863; in the following year, only nine tenements were erected.²⁸

The three Orchard Street buildings were part of the first wave of large tenements, each housing approximately 20 families, to be erected in New York City. Prior to the construction of buildings such as these, most tenements were either converted rowhouses or new three- or four-story structures. In the Tenth Ward, large-scale tenement construction only occurred after the Civil War, culminating in the years prior to the onset of a financial panic and depression in 1873. Although the new tenements had few amenities and each family lived in an apartment with minimal space, light, and air, such buildings were often an improvement over conditions in the converted rowhouses, which had never been designed for multiple tenancy and which, by the 1860s were becoming aged and deteriorated. This may explain why Lucas Glockner, the builder of 97 Orchard Street, moved from a converted rowhouse at 119 St. Marks Place into his tenement at its completion.

Glockner was probably typical of the small investors who became active in the construction of tenements during the 1860s and 1870s.²⁹ The Orchard Street tenement remained

²⁷. Lubitz, "The Tenement Problem in New York City," pp. 319-20.

²⁸. *Annual Report of the Superintendent of Buildings*, 1863, p. 77 and 1864, p. 123. Besides the 55 tenements begun in 1863, only three other buildings were erected in the Tenth Ward. In 1864, five other buildings were erected.

²⁹. Biographical information on Glockner provided by genealogist Marsha Dennis. An investigation of the construction of tenements that line that portion of Orchard Street located in the Tenth Ward shows a mix of buildings erected by individuals involved with only a single structure and those built in larger groups. There are several instances where a single owner erected one row of adjacent buildings -- owner/builder A. Dooper erected the four tenements at 27-33 Orchard Street in 1871. Only one major developer seems to have been active on the street -- Frederick Heerlein who, by himself, or in the partnerships of Folz & Heerlein and Heerlein & Rabinstein, was responsible for the construction of thirteen tenements (nos. 70-78, 118, 132-38, and 133-37), all designed by William Jose in 1872-73. In 1873, Heerlein is listed in city directories as an upholsterer living on Eldridge Street. In the following year he is listed as a builder at 138 Orchard Street. Glockner was responsible for the construction of at least two other Lower East Side tenements. In 1866 he erected 23 and 25 Allen Street (demolished). The architect of these buildings was Theodore J. Bein. Bein first appears in city directories in 1863 when he is listed as an architect at 66 Norfolk Street on the Lower East Side. Since Bein was active on the Lower East Side in 1863, it is

in Glockner's hands for 23 years; he sold it in 1886.³⁰ Although the architect of 97 Orchard Street is not known, similar five-story tenements designed immediately after the recording of building permits was instituted in mid 1865 indicate that these buildings were designed by obscure architects most of whom were immigrants (many from Germany). Some of these men (all of the architects identified as having designed tenements were men) may have been trained as builders; others may have studied architecture in Europe before moving to the United States where they either chose to work for their fellow immigrants or were forced to enter the American market at a low end of the design scale.³¹

Glockner's tenement at 97 Orchard Street and Stumm's identical building to the north extend back 68 feet on a lot that was 88'6" deep. They have facades designed in an extremely simple version of the Italianate style. This was the style of architecture that was most common for buildings erected in New York during the early 1860s.³² By the time that the tenement at 97 Orchard Street was built, Italianate style features such as a general horizontal massing of facade elements and a use of arched openings, projecting stone lintels, and foliate brackets, had filtered down to even the most modest building projects. Unlike the brownstone rowhouses erected in large numbers during the 1850s and 1860s for affluent households and the marble and cast-iron commercial palazzi erected in the burgeoning commercial districts now known as Tribeca and SoHo, tenements were almost always faced with inexpensive brick. Stone trim was used sparingly, if at all.

possible that he was also the architect of 97 Orchard Street. By the 1870s, Glockner had moved into 25 Allen Street; in the 1874 City Directory he is listed as an "agent."

³⁰. Following Glockner's sale of the property in 1886 it changed hands many times until the Helpern family purchased it in 1919; the Helpern's sold the building to the Tenement Museum in 1994.

³¹. Architects active on Orchard Street in the 19th century include Thomas J. Bein, Leopold Biela, Julius Boekell, Louis Burger, Frederick Ebeling, William Graul, Herter Brothers (Peter and Francis Herter's buildings, including the tenements at 14 and 16 Orchard Street and the Eldridge Street Synagogue, are more sophisticated than those of other architects active in the area and they are thought to have trained in Germany), Frederick Jenth, William Jose (by far, the most active architect on the street, designing at least fifteen tenements), Rentz & Lange, Frank Schuck, and William Taft. Many of these architects appear of have been German. Several of the architects had their offices on the Lower East Side.

³². For a detailed discussion of Italianate style design as it appeared on New York's rowhouses and mansions see Charles Lockwood, "The Italianate Dwelling House in New York City," *Journal of the Society of Architectural Historians* 31(May 1972), pp. 145-51 and his *Bricks and Brownstone*, pp. 125-225.

No. 97 Orchard Street is a five story brick building set on a raised basement with a storefront supported by cast-iron piers.³³ The street facade was constructed of red face brick with lime-rich white mortar. The building originally had a centrally-placed first-floor entrance reached by a steep stone stoop; the entry was framed by a segmental-arch stone surround with modest projecting moldings. Flanking the entrance were single segmental-arched windows. This floor was altered in 1905 when shopfronts were added. The largely intact upper facade is four bays wide with horizontal bands of segmental-arch windows, each with a modest projecting brownstone lintel and sill (all shaved back). Each window had double-hung two-over-two wood sash. The street facade was crowned by a projecting metal cornice coated with a brownstone-colored sand paint.³⁴ The cornice was designed with fashionable Italianate acanthus-leaf brackets, modillions, and rosettes, but their presence does not connote an effort on the part of the tenement builder to create an architecturally-distinguished structure. Rather, cornices with this design were stock items, widely available from catalogues or builder's yards in the 1860s; other details on the building (lintels, doors, etc.) were also probably available from these sources.³⁵ The rear elevation was even simpler than the front. The rear wall was built of common brick with a coarse mortar. The wall is articulated by rectangular window openings with the simplest lintels and sills. In the center of the first floor was a doorway. Wooden stairs originally led from this doorway to the rear yard. An additional rear door connected the commercial establishments located in the basement with the rear yards. This door permitted tenants, guests, and patrons of the stores access to the rear yard with its privies.

³³. The construction of five-story and raised basement tenements appears to have been fairly common during the 1860s and other examples can be seen on Orchard Street (e.g. no. 96) and other streets in the area. Other five-story tenements from the 1860s, such as no. 95, dispense with the raised basement and by the early 1870s this was the predominant type of tenement erected in the Tenth Ward.

³⁴ The 1862 "act to provide for the Regulation and Inspection of Buildings, the more effectual prevention of fires, and the better preservation of life and property in the City of New York," (Chapter 356) which established the Department of Building, also regulated the use of wood cornices. According to this law, wood cornices could be used only on buildings up to forty feet in height and on three-story and basement dwellings. Since 97 Orchard Street is 58 feet high, a wood cornice was not permitted.

³⁵. No. 96 Orchard Street, across the street from no. 97 has an identical cornice. Erected in 1866, the facade of No. 96 is very similar to those at 97-99 Orchard Street, except that in place of the brownstone lintels and sills, no. 96 has cast-iron elements that are very well preserved.

As required by the 1862 law that established the Department of Buildings, an iron fire escape was originally attached to this front elevation. The original fire escape was removed at no. 97 in about 1980. However, it appears in photographs dating from the late 1930s and late 1970s, and the identical original fire escape is extant at no. 99. These represent an early example of fire escape design -- the fire ladder. Instead of the stairways found on most New York fire escapes, the original structures at 97 Orchard Street employed a vertical ladder. Reformers considered these fire ladders to be unsafe since children and older people would have trouble using them. Bonner and Veiller suggest that "in no case should vertical ladders be permitted."³⁶ The construction of fire ladders was finally banned in 1901, but those in place were permitted to remain and many can still be seen on the Lower East Side.³⁷ Another fire ladder was employed outside of the windows of the rear apartment on the south side of 97 Orchard Street. The adjoining north apartment in the rear has a "party-wall balcony" that links 97 and 99 Orchard Street. In case of a fire in 97 Orchard Street, the residents were supposed to climb onto the balcony and escape by entering the apartment in the adjoining building.³⁸ One other means of escape from a fire was mandated for the interior of each tenement apartment, a narrow door between the front and rear apartments. These doors were a response to a law passed by the State Legislature in 1860.³⁹ The notion was that in case of fire, residents in one apartment could escape through the neighboring unit. At 97 Orchard Street the doors are located in small inner bedrooms and are extant on the north side of the structure. The practicality of these doors must have been negligible since the bedrooms contained so much furniture and bedding it would have been exceedingly difficult to open the door in case of emergency.

The tenement at 97 Orchard Street typifies those erected on the Lower East Side in the 1860s and 1870s, prior to the passage of the Tenement House Act of 1879, although individual

³⁶. Hugh Bonner and Lawrence Veiller, "Tenement House Fires in New York," in DeForest and Veiller, *The Tenement House Problem*, vol. 1, p. 287.

³⁷. Laws of New York, Chapter 334, Section 29 (1901).

³⁸. A party-wall balcony was only possible on the north side of the building because nos. 97 and 99 Orchard Street share a party wall and have identical floor and window heights. Nos. 95 and 97 Orchard Street have differing floor and window heights.

³⁹. Laws of New York, Chapter 470, Section 25 (1860).

tenements put up by different builders might differ in minor details, with certain amenities provided in one building, but not in others.⁴⁰ Upon completion, the building contained 20 apartments on five residential floors, and had two stores in the basement; the storekeepers generally lived in the rear of their establishments.⁴¹ Each residential floor contained four apartments, two in the front and two in the rear. The building's front door opened into a small vestibule with inexpensive white marble wainscot. The vestibule door led into a hall with wood, beaded-board wainscot, plaster walls and ceiling, and an Italianate style plaster arch supported on foliate brackets. Each apartment was entered through a solid wooden door divided into four panels, with a single-light transom above. The door that originally led into the front apartment on the north side of the first floor is the only unaltered original door extant. Apartments were reached by an unlighted wooden stair with heavy newel post and turned baluster. This stairway ran through the center of the building. One entered an apartment directly from the hall into the kitchen, a windowless space in the center of the unit that originally lacked all typical kitchen accouterments such as cupboards or a sink. The largest room in each apartment was the parlor or living room, generally referred to by residents as simply the "front room." Analysis of the layers of paint in the front rooms shows that wood baseboards, chair rails, and enframements, with crude, light-tone graining, were part of the original decor, and that each room had a wood closet.⁴² Behind the kitchen was a tiny inner bedroom. The exact use to which the tenants of 97 Orchard Street put each room is not known, but considering that households of seven or more people were not unusual, most spaces must have had multiple uses. The rooms were initially

⁴⁰. The plan of a building such as 97 Orchard Street was illustrated as typical of tenements erected after 1850 in James Ford, *Slums and Housing* (Cambridge: Harvard University Press, 1936), Appendix by I.N. Phelps Stokes, plate I.

⁴¹. The *Perris Atlas of the City of New York* of 1857 (updated to c.1864) notes that 97 and 99 Orchard Street did not have stores. However, the 1870 census records twenty households in the building (four on each of the upper floor); thus, it is probable that there were stores on the basement that were either original (in which case the atlas is incorrect). There is surviving evidence of cast-iron piers supporting a basement storefront; these appear to be part of the original construction. In addition, all of the tenements on Orchard Street built after the Department of Building began to keep records in 1865 contained stores. No. 96 Orchard Street, a building erected in 1867 that is very similar to 97 Orchard Street, was built for 22 families and two stores. According to genealogist Marsha Dennis, one of the earliest tenants of 97 Orchard Street was John Schneider who appears to have lived here and run a saloon in the building (probably in the basement). Schneider's name first appears in the City Directory as an occupant of 97 Orchard Street in 1865.

⁴² Analysis of paint surfaces was undertaken by Acroterion Historic Preservation Consultants and its successor firm Historic Preservation & Illumination in 1997-98.

colored with inexpensive, water-based calcimine paints. Pastel blue, green, and salmon pink were common hues for walls, while ceilings were painted light blue. Floors were pine boards; the boards may have been painted, but evidence is inconclusive since original paint would have worn off over the years.

The apartments that the new residents moved into were extremely small, totaling only about 325 square feet. Apartments on the first floor were even smaller, since on this level the hall ran through the building from the main entrance to the rear doorway leaving a width of only about 10'3" per apartment. The individual units at tenements erected in the 1860s and 1870s were extremely dark, with forty of the sixty rooms on the five residential floors receiving no direct light. The front room was the only space that received direct light and ventilation, opening either onto noisy, densely crowded Orchard Street or onto the backyard and rear wall of a building facing Allen Street. The kitchen, one room away from the windows, and the bedroom, two rooms away, received very little direct light or air. Although gas for lighting was available on Orchard Street in the 1860s, Lucas Glockner did not to install it in his building.

Light and air could filter from the front room into the kitchen via the doorway between the rooms, when the original multi-paneled door was ajar, or through a glass transom above.⁴³ Ventilation in the inner bedrooms, measuring a mere 70 square feet, was a particular problem since these small rooms receive little natural light or fresh air. Such rooms were seen as dangerous by housing reformers. An 1857 *Report of the Conditions of Tenant Houses in New York* complained that they were "completely shut off from fresh air. In the summer, in the absence of a breeze the air in the tenement bedroom became stagnant; in the winter, when doors, windows and other outlets were closed the dry stove or the smoky chimney added further pollutants to an atmosphere already poisoned by the accumulated odors of natural secretions and other sources of filth."⁴⁴ Unlike the kitchen-parlor door, the door between the kitchen and bedroom did not have a transom; however, Lucas Glockner did provide a window opening, measuring approximately 3'-8" x 4'-10", that was cut into the wall between these two inner

⁴³ These transoms were either original or added shortly after the building opened.

⁴⁴ *Report of the Conditions of Tenant Houses in New York* (1857), p. 34; quoted in Lubitz, "The Tenement Problem in New York City," pp. 81-82.

rooms. Evidence obtained by examining early layers of paint suggest that these windows are either original or were added shortly after the building was completed. These openings were glazed with horizontal sliding sash made up of two sliders, each with three panes of glass.⁴⁵ The interior windows did not permit much light to enter the inner bedrooms, but probably did improve air circulation. The appearance of these windows in a building erected in 1863-64 is of great interest since they were not legally required and, in fact, would not be required in older buildings until 1901. There was also little light or ventilation in the hall or on the stairs except for that which came in through the front and rear doors on the first floor, or which flickered through the doorway transoms and through small casement windows cut into the wall between the hall and inner bedroom of each apartment.

Original water and sewer facilities at 97 Orchard Street appear to have been crude. Pipes delivering fresh water from the Croton Aqueduct had already be installed beneath Orchard Street in 1863, but the law did not require that building owners hook into this system.⁴⁶ The 1864 survey undertaken by the Council of Hygiene and Public Health recorded the presence of "Croton-water upon each floor, with sinks for ordinary slops" in many of the area's new five- and six-story tenements.⁴⁷ In this respect, 97 Orchard Street was not up to the minimal standards of other tenements erected the 1860s since there was no water available inside the building. In all probability, there was a water pump, connected to the Croton system, in the rear yard where tenants filled buckets and basins and hauled the heavy receptacles to their apartments.

Sewer pipes had also been set beneath Orchard Street by the time that no. 97 was erected and it would have been possible for Lucas Glockner to have provided indoor water closets. Indoor toilets were still rare in New York in the 1860s and were unheard of in tenements erected

⁴⁵ Initially, it was assumed that these windows had been cut into the walls between the kitchens and bedrooms later in the 19th century. However, research undertaken by Acroterion and Historic Preservation & Illumination shows that the graining on the enframements of these windows is identical to that on the baseboards and other original woodwork and that the number of paint layers corresponds with that of original detail.

⁴⁶. The 1864 *Report of the Council of Hygiene and Public Health* records that "the sewerage...through the centre of each street [in the Tenth Ward], is very complete, and abundantly sufficient to under-drain and carry off any accumulation of debris" (p. 92).

⁴⁷. *Report of the Council of Hygiene*, p. 94.

for the poor. However, Glockner did provide toilet facilities that, however primitive, were more advanced than required by law. Simple brick-lined privies were constructed at the rear of many tenements, but Glockner appears to have provided his tenants (and himself, since he was an original resident) with a privy vault. A privy vault was an outdoor toilet or group of toilets with a common waste compartment that was connected to a sewer. It had a mechanism that permitted someone (such as a building janitor or housekeeper) to regularly flush out the vault. Such vaults were later referred to as school sinks, so named because of their popularity at public schools. Apparently, there were six privy vaults at 97 Orchard Street aligned in two abutting rows of three running along the lot line between nos. 97 and 99. Typically, these outdoor toilets were divided into small wood compartments, generally measuring 2'-6" wide by 3'-9" deep. Each compartment had a wood seat and a door with some sort of slit or hole for light and ventilation.⁴⁸

Heat inside tenement apartments may have been generated from coal burned in a fireplace. The front room of each apartment at 97 Orchard Street contained a shallow fireplace designed to burn coal. The fireplace had a cast-iron fire-box frame with a patent date of 1862, a slate hearth stone, and a simple wooden mantel that was originally painted a glossy black. Many of the fireplaces also had wooden shutters (also painted black) that could be closed when the fireplace was not in use; others have fixed enclosure boards. These fireplaces may never have been used since the fixed enclosure boards appear to be either original to the apartments or to have been added very early. The fireplaces and their mantels may have been placed in the front rooms because the traditional focal point of a parlor, even one planned for poor immigrants, was a homey fireplace. There were also originally fireplaces with cast-iron fire boxes and hearth stones (larger than those in the front room) in the kitchens; it is not know if these fireplaces also had mantels. All of the kitchen fireplaces were filled in later in the 19th century. The large hearth stones could easily have supported wood- or coal-burning cast-iron stoves. the stoves would have been used for cooking and were probably also the primary source of heat in each apartment. Cylindrical water heaters could be attached to the stoves. Such a stove was generally the property of the tenant and was not provided by the landlord.⁴⁹

⁴⁸ Tenement toilet facilities are discussed in detail in Albert L. Webster, "Tenement House Sanitation," in DeForest and Veiller, *The Tenement House Problem*, vol. 1, pp. 303-327.

⁴⁹. The stoves are discussed in "Life in the Tenements," *Real Estate Record and Builders Guide* 67

Tenants were supposed to place their garbage in garbage-boxes set in front of the house, but these boxes were "not at all sufficient for the people disposed to be cleanly."⁵⁰ Even when they were available, they often proved to be less than ideal, as reported, in a somewhat melodramatic manner, in the *New York Tribune* in 1863:

In front of each of these tenement blocks is placed a garbage-box, which is only another name for a receptacle of heterogeneous filth and corruption, composed of potato-peelings, cabbage-heads, turnips, dead lobsters, oyster-shells, night-soil, rancid butter, dead dogs and cats, and ordinary black street mud, all forming one festering, rotting, loathsome, hellish mass of air poisoning, death-breeding filth, reeking in the fierce sunshine, which gloats yellowly over it like the glare of a devil whom Satan has kicked from his councils in virtuous disgust.⁵¹

Although all of the apartments were small and had few amenities, some apartments were more desirable than others and rents were allotted accordingly. A list of tenement rents compiled by Lawrence Veiller in 1900 for the block bounded by Canal, Bayard, Chrystie, and Forsyth streets, records that rents in tenements similar to 97 Orchard Street increased with the number of rooms and decreased as one ascended in a building. Apartments that faced the street were more expensive than those that looked onto the yard. For example, at 5 Forsyth Street, three rooms on the first floor rented for \$12-13.00 per month, while on the fourth floor, a similar apartment rented for \$9.50-10.00 per month. At 13 Forsyth Street, a two room apartment rented for \$7.50 on the first floor and \$6.50-7.00 on the third floor.⁵² A similar rental spread was undoubtedly in

(February 16, 1901), p. 278. The *Report of the Council of Hygiene* notes that "stoves are principally used for giving warmth as well as for culinary purposes (p. 94).

⁵⁰. *Report of the Council of Hygiene*, p. 95.

⁵¹. "The Streets of New York," *New York Tribune*, September 19, 1953, p.1. This is part of a description of the Eleventh Ward to the northeast of the Tenth Ward, but such garbage-boxes were common throughout the tenement neighborhoods.

⁵². Lawrence Veiller, "Tenement House Rentals," in DeForest and Veiller, *The Tenement House Problem*, vol. 2, appendix 9, pp. 439-58.

effect in the 1860s when the tenement at 97 Orchard Street first attracted tenants. In fact, the most valuable apartment in the building, the front apartment on the second floor, is the only apartment with hand-painted ornament on the parlor ceiling. This painting was commissioned by or actually painted by the first, or one of the first residents of the unit. This initial resident may very well have been Lucas Glockner who may have chosen this prime apartment in his new building as his own home.

The apartments at 97 Orchard Street were first occupied in 1864.⁵³ At this time the surrounding neighborhood was largely German in character.⁵⁴ The first official record of residents is the 1870 census which lists occupancy by 72 individuals in twenty households ranging in size from one to seven people. Almost all residents were immigrants or the young children of immigrants from German speaking states.⁵⁵

In 1864, the year that 97 Orchard Street was completed, the Council of Hygiene and Public Health undertook its detailed survey of conditions in all of New York's neighborhoods. The Council divided the city into sanitary inspection districts and sent a sanitary inspector to each. Dr. J. T. Kennedy was the inspector for the Eighth Sanitary Inspection District, an area coterminous with the Tenth Ward, bounded by Rivington Street on the north, Division Street on the south, Norfolk Street on the east, and the Bowery on the west. The results of this survey and the report prepared by Dr. Kennedy provide evidence as to living conditions in this increasingly crowded neighborhood.

⁵³. According to Marsha Dennis, occupancy in 1864 is confirmed by the fact that in May and June of that year eight residents of 97 Orchard Street with last names beginning with the letters A-K registered for the draft (draft books only survivor for these letters), see Consolidated Draft Lists, Class I, Fifth District, N.Y. "Corrections of Enrollment, May and June 1864, Names Added A-K" (National Archives Record Group 110).

⁵⁴. In 1855 the Tenth Ward was 45% German, up from 26% German in 1845. The German population continued to increase after 1855; see Stanley Nadel, *Little Germany: Ethnicity, Religion, and Class in New York City, 1845-80* (Urbana: University of Chicago Press, 1990), p. 32.

⁵⁵. Forty-three foreign-born residents are recorded from Prussia, Bavaria, Wurttemberg, Baden, and Austria. There were also three residents from Russia (possibly Volga Germans), four from England, and one from Ireland. The figure for 1870 is from the second census enumeration of that year. In the first enumeration, New York City claimed to have been grossly under counted (only 61 people were recorded at 97 Orchard Street) and the government undertook a second enumeration. The 1880 census also indicates a large German population.

At the start of his report, Dr. Kennedy discusses the change occurring in the neighborhood's population and housing stock:

This part of our city at one time was inhabited by some of our most respected citizens of moderate ideas, confined to houses of two stories in height; but time has changed the whole character of the inhabitants. The "Teutonic" race seems to have rushed in here in sufficient numbers to predominate, and landholders have found it profitable to erect very many substantial tenant-houses, to accommodate the increase of the population.⁵⁶

At the time of the survey, there were 596 tenements in the Tenth Ward with a total population of 18,140.⁵⁷ Many of the tenements were relatively new. Although only one-fifth of the buildings in the ward were tenements, so many large new tenements had been built and so many older houses had been converted into multiple dwellings, that the Tenth Ward had the city's highest average number of families per tenement. Despite the rapidly increasing crowding and the fact that the ward had 526 drinking shops (one of which was in the basement of 97 Orchard Street) and at least 30 houses of prostitution, Kennedy found the area to be relatively sanitary, a finding that he attributed to native German habits:

...the Germans, principally mechanics, predominate in this district, and having brought with them from the "Fatherland" all of their institutions, not excepting "*lager bier*," they present excellent illustrations of the effects of healthful out-door exercise and clanish [sic] enjoyment. They have more pastimes and festivals than the people of other nations, and as a class they may be looked upon as proficient in all athletic exercises which tend to promote the healthful development of their systems....[Visitors] will be astonished at the immensity of the vast throngs of orderly, and

⁵⁶. Dr. J. T. Kennedy, "Report of the Eighth Sanitary Inspection District," in *Report of the Council of Hygiene and Public Health*, p. 91.

⁵⁷. Kennedy, "Report of the Eighth Sanitary Inspection District," p. 349.

cleanly, well-dressed people, and be struck with the excellent sanitary condition, as evinced by the[ir] healthful appearance.⁵⁸

Overcrowding and population density in the Tenth Ward increased dramatically in the years following the Council of Hygiene and Public Health's survey of 1864. The major boom in tenement construction in the ward occurred soon after the report was published; on the 5¼ blocks of Orchard Street located within the Tenth Ward, at least 34 five- and six-story tenements were erected between 1866 and 1873.⁵⁹ Construction of these buildings remained largely unregulated, although a few codes, mandating fire escapes, use of fireproof materials, and other features did affect new construction.

The first law that had any effect on pre-existing buildings such as 97 Orchard Street was the Tenement House Act of 1867.⁶⁰ Among the requirements of this law were the provision that one toilet or privy be provided for every 20 people, that privies be connected to sewers where these were available, and that all interior bedrooms be provided with a three foot square transom over the door. The privies at 97 Orchard Street were, apparently, already connected to a sewer. Lucas Glockner did not add transoms over the kitchen-bedroom doors. Glockner probably did not undertake this work because he had either already provided a window in the wall between these two rooms, or these windows were cut into the wall in response to the law. He may have chosen to cut the windows through the walls because there was actually no room above the door for a transom of the size required.

Demands by reformers for improvements in the laws governing the design of tenements continued in the 1870s, especially as speculative tenement construction increased late in the decade as the real estate industry recovered from a depression that had begun in 1873. This agitation resulted in the Tenement House Act of 1879 (often referred to as the “old law”), a law

⁵⁸. Kennedy, “Report of the Eighth Sanitary Inspection District,” p. 93; statistics on drinking establishments and houses of prostitution, pp. 95-96. As has been noted, John Schneider appears to have been running a saloon from 97 Orchard Street by 1865.

⁵⁹ Of the 34 tenements erected, 32 were five stories and two were six stories. They were planned to house from eight to 20 families.

⁶⁰.. Laws of New York, Chapter 908 (1867).

that had little effect on pre-existing tenements, but succeeded in outlawing the construction of buildings such as 97 Orchard Street which contained interior rooms with no windows.⁶¹ The law required that all rooms have windows facing the street, rear yard, or a small interior shaft. The result was the construction of "dumbbell" tenements so named because the indentations of the shafts created a building footprint that resembles the shape of a dumbbell weight; these buildings are also referred to as "old law" tenements. Unfortunately, the shafts required by the 1879 law were so small that they provided little light and air to apartments below the top floor, the windows of adjoining apartments were so close that privacy was impossible, and the shafts became receptacles for garbage and flues that sucked flames from one floor to another during a fire. Soon after the dumbbell plan was first suggested, a *New York Times* editorial noted that if the dumbbell was the best solution to New York's housing problem, "the problem is unsolvable."⁶²

Between 1879 and 1901, when a new tenement house act banned the construction of dumbbells, many of these buildings were erected on the Lower East Side. On the section of Orchard Street in the Tenth Ward, at least 21 dumbbell tenements were built, including the four buildings at 101-107 Orchard Street (Rentz & Lange, architect, 1888), to the north of the Tenement Museum. Despite the fact that many dumbbell tenements were built in the Tenth Ward, the type was never as common here as in other tenement areas since this ward had been heavily developed with tenements prior to 1879. Larger concentrations of dumbbell tenements can be found, for example, in Yorkville and East Harlem, two areas that were undergoing major tenement development during the final decades of the 19th century.

In the 1880s, the population of the Tenth Ward changed as the Germans who had inhabited this district moved to other neighborhoods and as new German immigrants settled in these newly popular sections (the East Village and Yorkville in Manhattan and Williamsburg and

⁶¹. Laws of New York. Chapter 504 (1879).

⁶². "Prize Tenements," *New York Times*, March 16, 1879, p. 6; noted in Lubove, *The Progressives and the Slums*, p. 32. The dumbbell plan originated as part of a reform effort on the part of the magazine *Plumber and Sanitary Engineer* which held a competition for the design of an improved tenement on a 25x100 foot lot in 1878. James E. Ware's dumbbell design won the competition and it became the model for thousands of tenements built between 1879 and 1901; see Veiller, "Tenement House Reform in New York City," pp. 100-102 and Plunz, *A History of Housing*, pp. 24-28.

Bushwick in Brooklyn became major German centers). Increasingly, Eastern European Jewish immigrants were settling in the Tenth Ward. The start of this movement is evident in the 1880 census which records ten Russian-born residents living at 97 Orchard Street. By 1900, only two German-born residents were left in the building, while the vast majority of inhabitants were now Russian Jews, with a smaller number of Jewish residents from Romania and Poland.⁶³ As the building aged and undoubtedly deteriorated, more and more people were occupying the small apartments. Although census records are not always totally accurate, they provide a general picture of the overcrowded conditions in the building. In 1870, 72 people are recorded at 97 Orchard Street. This rose slightly to 80 people in 1880 and then to 96 people in 1890. In 1900 the number of residents reach its peak -- 111 residents. By 1910, the population had declined slightly to 101. Despite the best efforts of the women who maintained most households in tenements such as 97 Orchard Street to create living environments that were as comfortable as possible, with over 100 poor immigrants living, cooking, sleeping and, in many cases, working in the small, poorly ventilated, and antiquated apartments, conditions must have been less than ideal.

The legislation that was to have the greatest impact on the physical character of 97 Orchard Street was the Tenement House Act of 1901 (often referred to as the “new law”).⁶⁴ Even before this law was passed, however, extensive changes had been made to apartments at 97 Orchard Street, alterations indicative of the changes that occurred in thousands of other tenements as new laws were passed, lifestyles changed, new technologies filtered down into housing for the poor, and owners attempted to make the rental of apartments in aging buildings competitive with apartments in newer buildings erected with amenities not originally provided in pre-law tenements. Some of the changes were purely cosmetic, such as new types and colors of paint or new wall and floor coverings, but others entailed significant structural changes to buildings, such as the moving of walls or introduction of stores, while still other changes, such as efforts to improve lighting, ventilation, and sanitary facilities, made apartments more habitable.

⁶³. The federal census of 1890 was lost in a fire. A police census from 1890 provides population data, but no information about nativity.

⁶⁴. Laws of New York, Chapter 334 (1901). This law was amended in Chapter 352 (1902), Chapter 179 (1903), Chapter 346 (1904), Chapter 739 (1904), Chapter 507 (1905), Chapter 148 (1906), Chapter 622 (1907), and Chapter 250 (1908).

The most dramatic change to the tenement apartments at 97 Orchard Street during the 19th century was the enlargement of the kitchens as the wall between the kitchen and parlor was moved two feet four inches into the parlor. This costly alteration appears to have occurred in conjunction with the introduction of water into the apartments. In 1887, New York State passed a law mandating the installation of water in all tenements erected after May 14, 1867 and permitting the New York City Health Department to order the installation of water in older tenements such as 97 Orchard Street.⁶⁵ The law only required the installation of a water line with one sink on each floor of a tenement, but since the halls at 97 Orchard Street are so narrow there was no space for a common hall sink. Instead, a soapstone tub-sink was installed in each apartment. The earliest date that the sinks could have been installed was 1893, the year that the Alberene Stone Company, supplier of the sinks, was incorporated. The owner of 97 Orchard Street probably did not actually install the water system until after 1895 when the New York State Court of Appeals upheld the legality of the 1887 law which had been challenged by Trinity Church, owner a great deal of land on which old and substandard tenements and converted rowhouses stood.⁶⁶ It is not known if the Department of Health actually ordered the owner of 97 Orchard Street to install a water supply or if he chose to instal water lines and sinks to keep the building competitive with the increasingly large number of tenements that had water.

As with most changes within tenement buildings, the addition of water pipes and sinks was undertaken in the least expensive way possible with the actual installation varying in different lines of apartments. The history of pipe installation remains something of a puzzle at 97 Orchard Street. However, it appears that pipes were placed within the walls between apartments to serve the units on the south side of the building, with the sink placed on the north wall of the kitchen between the apartment entrance and the entry into the parlor. These pipes did not serve the northern apartments; instead pipes rose in the corner of the kitchen adjacent to the inner bedroom, with the sink placed beneath the window on the wall separating the kitchen and

⁶⁵ Laws of New York, Chapter 84 (1887).

⁶⁶ *The Health Department of the City of New York v. The Rector, Church Wardens and Vestrymen of Trinity Church in the City of New York*, 145 N.Y. 32 (N.Y. Ct. of App. 1895); "The Supply of Water to Tenements," *RRBG* 55 (Mar. 16, 1895), p. 412.

bedroom. The Alberene Stone Company of Virginia supplied gray soapstone fixtures that were referred to in the firm's catalogues as "laundry tubs." These four-foot long sinks were divided into two basins and, at \$16.00 each (in 1899-1900), were the company's cheapest such fixture and were its best seller, referred to in an 1899-1900 catalogue as "Our Leader." The tubs rested on galvanized-iron legs that cost an additional \$1.40.⁶⁷

Other changes to the tenement apartments were more cosmetic. While pastel-colored calcimine paints were common in the earliest years of tenement occupancy, the character of paint employed in the tenement apartments changed as American paint companies introduced new products and new colors. In the 1870s or 1880s longer-lasting oil-based paint appeared on the walls, with blue and green, often varnished, on bedroom and kitchen walls, and pinks and roses in the parlors. By the early twentieth century, cream and yellow paints were becoming common.⁶⁸ In addition, wallpaper began to replace paint on the parlor walls, probably in the 1890s. Layers of wallpaper survive on many parlor walls, since owners and tenants apparently felt no need to undertake the laborious job of stripping an earlier layer of paper when a new one was applied. In some cases the tenement owner may have put up the wallpaper (the same pattern appears in several different apartments indicating that the owner may have purchased a large number of wallpaper rolls), but in other cases the tenant apparently added wallpaper in the parlor in order to beautify the room. Wallpaper patterns include popular 19th- and 20th-century floral, striped, and scrollwork patterns, and many of the walls were highlighted with borders. Parlor ceilings were also frequently papered, but here gravity resulted in the papers peeling off and only one layer is generally found.⁶⁹

⁶⁷. *Catalogue of the Alberene Stone* (1899-1900), pl. 103. All Alberene fixtures contained a trademark plate; these were placed on the front face of the laundry tubs. The water pipes were manufactured by the Monitor Iron Works, a firm that was incorporated in May 1864. In 1892, the E.G. Blakslee Manufacturing Co., which manufactured iron pipe, changed its name to Monitor Iron Works. Apparently, Monitor only began manufacturing water pipes after it became involved with the Blakslee firm, adding additional evidence for an installation date in the mid 1890s; information on Monitor supplied by Frank Biebel.

⁶⁸ The kitchen walls have more layers of paint than the parlor and bedroom walls, undoubtedly because kitchen walls became soiled far more rapidly than those in rooms where no cooking took place.

⁶⁹ Analysis of the wallpaper was undertaken by paper conservator Reba Fishman Snyder in 1994 and 1997. Parlors had up to 21 layers of paper. It would appear that the parlors were repapered approximately every two or three years.

Apartment floors also underwent changes. Early tenants undoubtedly placed inexpensive rugs on the wooden floors, and there is evidence that floorboards were originally painted. In the 1910s, as inexpensive linoleum became available, these were placed on the floors, especially in the kitchen and parlor. Linoleum is a linseed-oil product; the oil is mixed with fillers (such as ground cork or wood flour) and pressed onto a backing of burlap, canvas, or another cloth. The patterns chosen by residents range from imitation Persian and Chinese rugs to modernist geometric abstractions. In some rooms, layers of linoleum are extant, since tenants did not always remove the old material when laying a new sheet. Often, as the linoleum wore out in one spot, such as at entrance portals or near sinks, it was patched with a new and unrelated pattern.⁷⁰ Other 19th-century changes include the addition of picture moldings in the parlors, cupboards in the kitchens, and pressed tin ceilings in the hallways. These metal ceilings were added relatively early since beneath the tin the plaster is covered with only three layers of paint. Tin ceilings were popular because they were easier to maintain than easily damaged plaster. Different ceiling patterns are visible in the halls of 97 Orchard Street since sections were often patched with a piece of tin that did not match the original.⁷¹

The passage of the 1901 Tenement Act resulted from deteriorating conditions in the increasingly overcrowded tenement districts of New York and the alarm that these conditions incited among middle-class progressive reformers. The *New York Times* summarized the problems of life in tenement districts in 1896 as seen through the eyes of the reformers:

The chief objections to the old-style tenements are contracted quarters, lack of family privacy, and promiscuous toilet arrangements, inviting moral deterioration; lack of light and air, and of sanitary accommodations, insuring a large death rate, and danger from fire--that ever-present tenement horror. All of these are wickedly cruel when such houses are new; when they become old, dilapidated, infested with vermin and infected with disease

⁷⁰ For linoleum, see Leo Blackman and Deborah Dietsch, "A New Look At Linoleum," *Old House Journal* 10 (January 1982), pp. 9-12.

⁷¹ According to historian Mary Dierickx, it is impossible to date the various patterns because each was manufactured over a very long period.

germs, they are a disgrace to humanity and a menace, not only to the health of the unfortunate residents therein, but to the health of the whole community.⁷²

Under the leadership of Lawrence Veiller and the Charity Organization Society of the City of New York (CSO), the movement to improve tenement conditions broadened. Veiller believed that "bad tenement house conditions were the cause of most of the problems in our modern cities."⁷³ He presented a plan to the CSO that proposed the establishment of an organization that would seek to improve conditions in tenement houses by securing new remedial legislation that would regulate new construction, assure that existing laws were enforced, stimulate the construction of model tenements, and improve conditions in older tenements.⁷⁴

Veiller's plan led, in 1899, to the founding of the Tenement House Committee of the CSO. The new committee attempted unsuccessfully to have new building regulations instituted in the city. Their inability to have the city pass new regulations convinced the committee that "no real progress in tenement house reform was to be made unless the whole community was aroused to a knowledge of existing conditions."⁷⁵ With this in mind, the committee organized an exhibition that ran for two weeks in 1900 and included photographs, maps, charts, and models of typical Lower East Side blocks, graphically illustrating conditions of overcrowding, poverty, and disease in the tenement house districts. The exhibition itself (held on Fifth Avenue and visited by over 10,000 people), and publicity that surrounded it successfully introduced its prosperous audience to the conditions that the reformers thought needed to be changed in tenement districts and led the New York State Legislature to appoint a Tenement House Commission.⁷⁶ The

⁷². "Health and Profit," *New York Times*, November 29, 1896, p. 13.

⁷³. Veiller, "Tenement House Reform," p. 109.

⁷⁴. Veiller, "Tenement House Reform," p.109.

⁷⁵. Veiller, "Tenement House Reform," p. 111.

⁷⁶. Laws of New York (1900), Chapter 279.

Commission's report, submitted to the governor on February 18, 1901 and to the legislature a few days later, proposed a new tenement act. So effective was the CSO and the Tenement House Commission that a new law was passed with great rapidity. On April 12, 1901, only two months after the Commission issued its report, the Tenement House Act of 1901 became law.⁷⁷ Real estate interests were outraged. They felt that the law "came unannounced and unheralded upon an unsuspecting real estate public like a thunderbolt from a clear sky," and were shocked by the way they felt that its passage had been "railroaded through the Legislature."⁷⁸ Although certain sections of the law were amended between 1902 and 1908, the basic thrust of the bill, to improve conditions in both new and preexisting tenements, remained unchanged.

The 1901 Tenement House Act was the most far-reaching of all the tenement reform bills. The law set standards for new building that basically outlawed the construction of tenements on 25 foot wide lots (tenements erected after 1901 are often referred to as "new law" buildings), required improved light and sanitary arrangements, and, most importantly for the history of 97 Orchard Street and other older buildings, mandated a series of changes designed to improve conditions in pre-existing tenements. A related act established the Tenement House Department as a mechanism for insuring the implementation of the law.⁷⁹

Opposition to the new law focused on the belief that it would inhibit the construction of new buildings and that the required improvements would increase owner's expenses and lower rent rolls in older buildings. In March, 1901, the *Real Estate Record and Builders Guide*, a weekly magazine that generally expressed the interests of the real estate community, editorialized against the proposed law:

Maintaining, as we have always done, that the solution of the tenement house problem can be found rather in encouraging the building of tenement houses than by discouraging it; and being

⁷⁷. Laws of New York (1901), Chapter 354. The proceedings of the Tenement House Commission and its proposed tenement house act are reprinted in DeForest and Veiller, *The Tenement House Problem*, vol. II, pp. 91-146.

⁷⁸. Adolph Bloch, "History of Tenement House Legislation," *RRBG* 84 (July 21, 1909), p. 227.

⁷⁹. Laws of New York, Chapter 466 (1901).

strongly averse to any experimental increases in the public expenses at the present time, we feel compelled to oppose the bills of the Tenement House Commission.⁸⁰

The editorial went on to decry the loss of rentable space that would result if the law were passed, warned that builders might stop developing tenements and invest their money elsewhere, suggested that the new tenements required by the law might not be marketable, and criticized the expense of establishing a tenement house department.⁸¹ However, by 1902, even the *Real Estate Record* had grudgingly agreed that the law was not as dire as had been predicted, noting that new law tenements "can be made to yield almost if not quite as good a return as the houses formerly built on a single lot" and that the requirements, with regard to older buildings were "with one exception [i.e., toilets]...trivial and would cut but a small figure in an investment calculation."⁸² In the following year, the magazine was even more emphatic, sneering at the remaining opposition to the law, primarily on the part of Brooklyn and Bronx owners, and declaring that "it is creditable to the tenement-house builder of this Borough [Manhattan] that he is not more active in the present opposition, and it is one of the strongest evidences of the practicality of the new law that it has converted its chief and most weighty opponents so speedily....[T]he measure has been found to be a sane, moderate, workable reform."⁸³

After its establishment, the Tenement House Department of the City of New York undertook a detailed survey to determine the condition of housing in the city. No such survey had been undertaken since that of the Council of Hygiene and Public Health in 1864. The Tenement House Department's new staff of inspectors examined conditions in every tenement and the results were published in the department's first annual report.⁸⁴ The survey accumulated

⁸⁰. "The Tenement House Commission's Bills," *Real Estate Record and Builders Guide* 67 (March 2, 1901), p. 349.

⁸¹. "The Tenement House Commission's Bill," pp. 349-50.

⁸². "Effects of the Tenement House Law," *Real Estate Record and Builders Guide* 70 (July 12, 1902), p. 38 and "Old Law Tenements," *Real Estate Record and Builders Guide* 70 (September 27, 1902), p. 433.

⁸³. "The Tenement House Law Opposition," *Real Estate Record and Builders Guide* 71 (February 14, 1903), p. 290.

⁸⁴. Tenement House Department of the City of New York, *First Report*. As part of the review of each tenement, the inspector prepared an I-cards (I stands for Improvements) as a means of recording

information on the total number and physical characteristics of tenements, including statistics on toilet facilities, dark rooms, and fire escapes, as well as information on the number, size, and nationality of tenement residents.

The Tenement House Department's survey found that the Tenth Ward was the most densely populated in the city. In 1903, it had a population of 69,944 or approximately 665 people per acre. The most densely populated block in the ward was that bounded by Orchard, Allen, Delancey, and Broome streets on which the Tenement Museum is located (the survey was undertaken before the size of the block was truncated). This block encompassed 2.04 acres and had a total population of 2,223 people (1,089 per acre) comprising 450 families. They resided in 34 buildings -- two surviving 2½-story rowhouses, 28 pre-law tenements such as 97 Orchard Street, and four dumbbell tenements.⁸⁵ The vast majority of residents were from Russia: of the 310 heads of families, 186 were of Russian parentage; the next largest groups were from Austria-Hungary (52) and Germany (29).⁸⁶ Statistics were similar for the entire ward; of the 13,544 heads of families, 8,369 were of Russian parentage.⁸⁷ The families living in the block's small apartments were large; of the 310 tenement families, 176 had five or more members.⁸⁸ 97 Orchard Street illustrates, in microcosm, the general population trend in the neighborhood. Of the 111 residents recorded on the 1900 census, 62 were born in Russia with an additional 19 children born in the United States to Russian immigrant parents.

The extraordinary population density in the Tenth Ward and neighboring Lower East Side wards was caused by several factors. The major cause of overcrowding was, of course, the

conditions and structural improvements. The use of these cards is discussed in *First Report*, Vol. I (1903), pp. 53-57. These cards are now in the possession of the Code Violations Division of the New York City Department of Housing, Preservation and Development. The I-card for 97 Orchard Street was prepared on July 10, 1902. Information provided on these cards is not always totally reliable.

⁸⁵. *First Report*, Vol. II (1903), map of 10th Ward.

⁸⁶. "Ward 10. Tenement House Population. Nativity and Parentage of Heads of Families." *First Report* Vol II, pp. 46-47.

⁸⁷. "Ward Summary--Total Population. Nativity and Parentage of Heads of Families," *First Report* Vol. II (1903), p. 103.

⁸⁸. "Ward 10. Tenement House Population. Number of Families having Given Number of Persons," *First Report* Vol. II (1903), p. 115.

increasing population as large numbers of immigrants, largely Eastern European Jews and Italians arrived in New York. Immigrants initially settled on the Lower East Side because this was an area with affordable housing where immigrants were welcome by building owners. Specific immigrant communities were perpetuated because members of a particular ethnic or religious groups tended to cluster where their compatriots had already settled. Here people spoke their language and shared their customs and the religious and social institutions and the commercial establishments that eased the transition to life in America were already in existence.

Overcrowding was aggravated by localized developments, some of which were unwittingly the result of projects instituted by the city or state and supported by the progressive reformers who sought to improve conditions. The demolition of blocks of tenements for the construction of schools, parks, and other structures sought by reformers resulted in the displacement of large numbers of people. For example, the establishment of Seward Park and Hamilton Fish Park in the primarily Jewish area of the Lower East Side in the late 1890s brought much needed recreational space to the neighborhood, but resulted in the demolition of entire blocks of tenements and the displacement of over 3,000 people for each project.⁸⁹ The widening of Delancey Street to create a boulevard leading onto the Williamsburg Bridge also displaced thousands of people and had a direct impact on the Tenement Museum's environment, truncating the northern portion of the block.⁹⁰ Although no statistical information is available, anecdotal evidence suggests that most of the people displaced by these projects remained on the Lower East Side where they were close to friends, family, and a community that spoke Yiddish, where

⁸⁹. Displacement was not an issue of concern to most people in the late 19th century. In fact, an effort was made to site the parks on particularly overcrowded sites. In March 1896, the Board of Health announced that it had chosen as a site for Hamilton Fish Park, a location that "would give an open air space in the most crowded locality and will remove the greatest number of conditions which may have become a menace to the public health."(quoted in *New York Times* March 25, 1896, p. 9). The 1890 police census gives some idea of the number of people displaced for the construction of parks. According to this census 3,568 people lived on the two square blocks that were cleared, later in the decade, for Hamilton Fish Park and 3,025 people lived on the three oddly shaped blocks that became Seward Park. For additional information on Hamilton Fish Park, see New York City Landmarks Preservation Commission, "Hamilton Fish Park Play Center," designation report prepared by Andrew S. Dolkart (1982); for the issue of displacement due to the construction of parks and other amenities, see "Life in the Tenements," p. 276; and "East Side Real Estate," *Real Estate Record and Builders Guide* 72 (November 7, 1903), p. 824.

⁹⁰. For displacement due to construction of the Williamsburg Bridge approach, see "The Delancey Street Hegira," *RRBG* 68 (July 27, 1901), p. 120.

people shared similar customs, and were synagogues, kosher food stores, and other community facilities were available. In a report on the effect of displacement due to the demolition of buildings on Delancey Street the *Real Estate Record* stated that "nearly all the tenants of the demolished buildings were Hebrews, whose friends and associates live in the vicinity. This class of Hebrews is extremely clannish, and although some of the real estate agents made attempts to get them to move into the cheaper tenement sections uptown, their efforts were futile. Several families moved in May up around 42d st. and they are now either back in the district or are seeking quarters there."⁹¹

The 1901 Tenement House Act not only banned the construction of dumbbell tenements and established the Tenement House Commission which undertook the detailed survey of local conditions, but also required that changes be made to old tenements in three areas -- light and ventilation in public halls, light and ventilation in apartments, and toilet facilities. Some of these changes were accepted by tenement owners with little controversy, but others were tenaciously resisted with varying degrees of success.

The least controversial changes were those established to increase the amount of light and air in the public halls of older buildings and which involved no structural changes. Halls had been seen as a problem for many years, since they generally received no direct natural light and seldom had adequate artificial light. The halls were not only dark, but in old buildings, were generally in poor condition with "bare boards worn into hollows by the tramping of many feet, with pine-knots sticking out of the surface now and then like a miniature mountain."⁹² A resident of Forsyth Street who testified before the Tenement House Committee in 1900 reported that the hallways "are dark in most houses that I have lived in [he had lived in fourteen different tenements in seventeen years]. One tumbles over human obstacles and other obstacles, especially little children."⁹³

⁹¹. "The Delancey Street Hegira."

⁹². "Life in the Tenements, p. 276.

⁹³. "Tenement Evils as Seen by the Tenants: Testimony of a Tenant [Mr. Henry Moscovitz]," in DeForest and Veiller, Vol. I, p. 414.

In order to increase light in "a public hall on any floor...not light enough in the daytime to permit a person to read in every part thereof without the aid of artificial light" translucent glass panels were to be inserted into the wooden apartment doors or a fixed sash window was to be cut into the partition wall between the hall and a room in each apartment that looked out onto the street, yard, or shaft.⁹⁴ At 97 Orchard Street, the law was followed by removing the upper panels from the apartment doors and adding sheets of translucent glass.⁹⁵ Another requirement that would increase light in the halls was the installation of a ventilating skylight with a glazed surface of not less than 20 square feet directly over the stair. A skylight was installed at 97 Orchard Street after July 1902.⁹⁶ Finally, the law required that a lamp was to burn from sunset to sunrise near the stair on the entrance floor and the second floor.⁹⁷ This may have been the impetus for the installation of gas lines throughout the building. Gas lines are extant beneath the floors and physical evidence indicates that the floor boards were removed and channels cut in the joists for the addition of these lines. A cap on a gas pressure reduction device on the first floor is inscribed "Property of the American Gas Reduction Co, NY"; this firm entered business in 1896.⁹⁸ Thus, although the exact date of installation cannot be pinpointed, it probably occurred between 1896 and 1905, when other major changes were made so that 97 Orchard Street would conform with the 1901 law. Each tenant would have paid for gas individually and each apartment would have had a coin-operated meter that had to be fed in order to turn on the gas. Ironically, by the time that gas was finally installed at 97 Orchard Street it was an out-of-date technology, as electricity was rapidly replacing gas in the homes of more affluent people and in newly built tenements.

As has been discussed, one of the major concerns of tenement reformers was conditions

⁹⁴. Laws of New York (1901), Chapter 334 Section 80.

⁹⁵. The Tenement House Department's I-card for 97 Orchard Street indicates that as of July 10, 1902, there were glass door panels on all of the doors on the second through fourth floors. No mention is made of the fifth floor doors. Windows were not placed in the doors on the first floor since the first floor apartments had been converted for commercial use.

⁹⁶. The I-card indicates that the stairwell skylight was not adequate.

⁹⁷ Laws of New York (1901), Chapter 334, Section 82.

⁹⁸ Information on the American Gas Reduction Co. provided by Frank Biebel.

in dark interior rooms. The survey undertaken by the Tenement House Department found that there were "over 350,000 dark interior rooms, without any light whatsoever; that in a great majority of these rooms there are no windows at all, not even a window connecting with another room in the same apartment, [and] that many of these rooms are two rooms removed from the outer air."⁹⁹ Although certainly not pleasant places in which to sleep, tenants probably appreciated the extra space that these small rooms provided and they paid additional rent for apartments with these inner rooms. In response to the concerns of the reformers, the 1901 law mandated that a window be cut into the partition between an interior room and a room with windows looking onto the street, rear yard, or an acceptable air shaft, such "sash window having at least fifteen square feet of glazed surface, being at least three feet high and five feet wide between stop beads, and at least one-half thereof being made to open readily."¹⁰⁰ As approved in 1901, the law only permitted a single interior room to be altered in this manner. Second inner rooms (e.g., the bedroom in each apartment at 97 Orchard Street) became illegal unless an air shaft was constructed for ventilation. The construction of such a shaft meant significant and costly structural change and would have resulted in the loss of rentable space since the shaft would cut into the square footage in each apartment.

The ban on second interior rooms provoked fierce opposition from tenement-house owners. The United Real Estate Owners' Association, a group "composed of the various local Real Estate Owners' and Taxpayers' Associations of the City of New York...organized for the purpose of safe guarding the interests of property owners" took the lead in protesting the law.¹⁰¹ In June 1901, the association established a Tenement House Committee "to oppose the restrictive and oppressive measures of the New Tenement House Law...[and] to test the constitutionality of its many burdensome features."¹⁰² By July, the committee had hired a lawyer and had decided that although "no attempt will be made to defeat such provisions as the lighting of halls and the

⁹⁹. *First Report*, pp. 85-6.

¹⁰⁰. Laws of New York (1901), Chapter 334, Section 79.

¹⁰¹. United Real Estate Owners' Association, "The Tenement House Law of the City Of New York," (1901), preface.

¹⁰². "The Tenement House Law of the City of New York"; also see "New Tenement Law," *Real Estate Record and Builders Guide* 67 (June 29, 1901), p. 1136.

ventilation requirements," they would oppose the provision that would force owners to remove from use second interior rooms.¹⁰³ In the fall of 1901, a lively debate ensued in the pages of the *Real Estate Record and Builders Guide* concerning the necessity of these changes, how interior bedrooms could be lit, and the expense that these changes would entail.¹⁰⁴ The vocal opposition prevailed; a 1903 amendment to the original act legalized second interior rooms as long as they had sash windows cut into the partitions.¹⁰⁵ A *Real Estate Record* editorial praised the "good sense of the Legislature" and suggested that owners promptly undertake the alterations required by the law.¹⁰⁶

97 Orchard Street was one of the minority of older tenements that already had windows cut into the walls between the kitchen and inner bedroom. However, windows had to be cut into the wall between the kitchen and parlor. These windows may have been added at 97 Orchard Street before 1901; all that is known is that they had definitely been cut through by July 10, 1902 when a Tenement House inspector surveyed 97 Orchard Street and reported the presence of these inner windows. Unlike the horizontal sliders of the earlier kitchen-bedroom wall windows, the windows added between the living rooms and kitchens were double-hung, with two panes in each sash.

The most important and by far the most controversial change required by the 1901 law was the removal of all school sinks and privy vaults from tenement yards. The law required that:

In all now existing tenement houses, all school sinks, privy vaults or other similar receptacles used to receive fecal matter, urine or sewage, shall before January first, nineteen hundred and three, be completely removed...[and] replaced by individual water-closets of

¹⁰³. "Tenement House Law," *Real Estate Record and Builders Guide* 68 (July 6, 1901), p. 2.

¹⁰⁴. All articles entitled "Ante-New Law Tenements," *Real Estate Record and Builders Guide* [editorial] 68 (October 5, 1901), p. 403; letter in response from Lawrence Veiller plus editorial rebuttal 68 (October 19, 1901), pp. 489-91; article with cost estimates and letter from realty firm 68 (October 26, 1901), pp. 530-32; reply from Lawrence Veiller 68 (November 9, 1901), pp. 611-12; article with cost estimates and letter in response to Veiller 68 (November 23, 1901), pp. 689.

¹⁰⁵. Laws of New York (1903), Chapter 179, Section 415.

¹⁰⁶. Editorial. *Real Estate Record and Builders Guide* 70 (July 12, 1902), p. 37.

durable non-absorbent material, properly sewer connected.

If necessary, the law permitted water-closets in the yard, so long as they had flush tanks and were protected against frost (an impractical alternative in New York with its harsh winters). Whether inside or outside, one water-closet was to be provided for every two families and each closet was to be placed in a separate compartment.¹⁰⁷ This section of the law was to go into effect on January 1, 1903. The provision that water closets be constructed inside the tenements required substantial structural changes to old buildings since water and sewage lines would have to be constructed and the space required for the water closets would have to be taken from the apartments. While building owners were able to have the provisions for interior rooms liberalized, the provisions for interior water closets were actually strengthened in a 1902 amendment to the law that required each interior water closet compartment be ventilated by a window of not less than three square feet opening directly to the outer air.¹⁰⁸ This meant that if the toilets were to be placed in the center of each tenement floor, air shafts would also have to be provided.

Most of the owners did not undertake the changes required for toilet facilities and in 1903 the Tenement House Department brought a legal action against Katie Moeschen, owner of a tenement at 332 East 39th Street, for failure to comply with the requirements of the 1901 act. The United Real Estate Owners' Association made this a test case to determine the legality of this provision of the law. An agreement was reached between the Owners' Association and the city's Corporation Council stipulating that the case would be framed in such a way that a final decision would apply to all buildings in the city with outdoor toilets. It was also agreed that no matter what the decision of the Municipal Court, the case would be automatically appealed.

A jury trial (*Tenement House Department of City of New York v. Moeschen*) was held at the Municipal Court. The defendant's lawyer asserted, among other things, that the tenement house act was a violation of the Fourteenth Amendment to the Constitution because it deprived an individual of property; that it imposed an unreasonable, arbitrary, improper, and unfair

¹⁰⁷. Laws of New York (1901), Chapter 334, Section 100.

¹⁰⁸. Laws of New York (1902), Chapter 352, Section 100.

requirement on owners without due process of law or adequate compensation and was, therefore, an illegal taking of private property not for public use; and that the school sinks were legal since they had been installed prior to 1890 in response to an order from the Board of Health. The jury at the Municipal Court held for the city and the case was appealed, going before the New York State Supreme Court, Appellate Term in 1903, and before the Supreme Court, Appellate Division, First Department and the Court of Appeals in 1904. All decisions in the state courts were unanimous in upholding the tenement law. Finally, the case was appealed to the United States Supreme Court which, in 1906, upheld the rulings of the New York State courts.¹⁰⁹

With the final decision in 1906, the Tenement House Department commented that it was the "culmination of what is and will be about the most important litigation under the Tenement House Law....Indeed the Moeschén case is a mile-stone in litigation relating to the enforcement of laws pertaining to health and sanitation."¹¹⁰ A few tenement owners removed school sinks from their buildings as early as 1902, but most owners waited until at least 1904.¹¹¹ On the section of Orchard Street in the Tenth Ward, at least twelve old tenements had their outdoor toilets removed in 1904 and work began on an additional ten buildings in 1905.¹¹² Some buildings did not remove their outdoor toilets for many years, perhaps because owners chose to weatherproof their backyard toilets, or because they were able to get away with simply ignoring the law. A resident of a tenement at 90 Orchard Street reported that as late as 1918 she was using a backyard toilet.¹¹³ At 97 Orchard Street, two water closets and an adjoining fireproof shaft of steel and terra cotta were constructed on each floor in 1905, in space that had previously been part of the inner bedrooms of the apartments along the south side of the building. Each of the small compartments had a wooden door with translucent glass panels, a window opening onto the air shaft, a slate floor, a porcelain toilet bowl with wood seat and wood water tank

¹⁰⁹. For the court decisions, see *Tenement House Department of City of New York v. Moeschén*, 84 N.Y. Supp. 577 (Supreme Court, Appellate Term, November 6, 1903); 89 App. Div. 526 (Supreme Court, Appellate Division, First Department, January 8, 1904); 179 N.Y. Rep. 325 (Court of Appeals, November 15, 1904); 203 U.S. 93 (United States Supreme Court, November 12, 1906).

¹¹⁰. Tenement House Department of the City of New York, *Third Report* (1906), p. 139.

¹¹¹. Three buildings along Orchard Street in the Tenth Ward were altered in 1902 and two in 1903.

¹¹² There is anecdotal evidence that some buildings retained their yard toilets through the 1920s.

flushed by a pull chain, and was lit by gas.

The toilet rooms and shaft occupied a substantial part of the old bedrooms of 97 Orchard Street and similar buildings, making these inner rooms uninhabitable. To alleviate this problem, but keep a three-room arrangement in each apartment, the partitions in all of the south apartments at 97 Orchard Street were rearranged.¹¹⁴ Each of the new inner bedrooms was provided with a window onto the new shaft. This work was undertaken by architect Otto Reissmann. Little is known about Reissmann except that he established his office in about 1897 and continued in practice until at least 1930.¹¹⁵ Reissmann was one of a number of architects who specialized in tenement work and whose offices were on the Lower East Side. He was the architect most active on Orchard Street in undertaking the required alterations to accommodate water closets. Of the 44 buildings on Orchard Street for which water-closet documentation has been found, ten were altered by Reissmann between 1904 and 1908. He is also known to have designed a single building on the street, the new-law tenement at no. 18 (1914). The work of reconfiguring the apartments impacted by the addition of toilets was done as inexpensively as possible and a great deal of woodwork and other old material was reused in the reconstruction.

At the same time that Reissmann inserted the water closets at 97 Orchard Street, he also added new fronts for the commercial establishments on the first floor. Reissmann's alteration entailed the removal of the front wall of the first floor and the construction of wood and cast-iron storefronts that rest on the cast-iron piers of the earlier shopfronts at the basement level. These storefronts, originally painted light brown and varnished, are largely intact. It is also probable that at this time the main hall on the first floor was redesigned with the addition of an inexpensive, but durable wall covering consisting of shellacked, dark red burlap (the burlap was later painted a cream color); the edges of the burlap and the joints created where the sheets of burlap meet are covered with composite bead-and-reel moldings. Immediately after the burlap

¹¹³ Fay Adler, interviewed by Marion Barak for Tenement Museum, July 21, 1997.

¹¹⁴. Bureau of Buildings for the Borough of Manhattan. Application to Alter, Repair, etc., no. 2105-05.

¹¹⁵. Dennis Steadman Francis, *Architects in Practice in New York City 1840-1899* (NY: Committee for the Preservation of Architectural Records, 1980), p. 64; James Ward, *Architects in Practice New York City 1900-1940* (NY: Committee for the Preservation of Architectural Records, 1989), p. 64.

was applied, a painter decorated the new wall covering with landscape scenes placed in roundels. According to city directories, there were many immigrant painters living in the neighborhood who could have undertaken this work. Additional ornamentation is provided by three-dimensional plaster arabesques that appear to have been applied on site with a device akin to a cake icer. Romantic paintings and swirling arabesques may seem incongruous in the hall of an overcrowded tenement, but this type of decor, while never common, was not unique to 97 Orchard Street.¹¹⁶ The colorful burlap wall covering hid deteriorated plaster walls, and may also have been applied as a means of improving the environment for the commercial tenants and their customers or as an inducement to potential residential tenants in the competitive and extremely lucrative business of renting tenement apartments. Red burlap was also placed on the walls of the halls on the upper floors; however, soon after its application it was covered with sheet metal. The floor of the entrance vestibule was also redesigned, with the addition of white hexagonal ceramic tiles, with a border of red square tiles and a decorative pattern of blue square tiles. It is also probable that the buildings stairway was rebuilt in 1905. The treads on the wooden stair would have been worn down from the friction of thousands of feet. Thus, a new stair was constructed and the treads protected by cast-iron guards. The profile of the original treads can be read on the wall. The original railings and newel post were salvaged and reapplied to the new staircase.

Two notable changes took place in the apartments at 97 Orchard Street after 1905. At an unknown date, additional water lines and sinks were added. Each apartment received an inexpensive iron sink with porcelain-enamel finish that was hung from the wall. These sinks were the least expensive unit manufactured by the Standard Company, a major supplier of kitchen and bathroom fixtures. Electricity was added to the building at some point after 1918, the patent date on the electrical panels located at the rear of the hall on the first floor. One former tenant remembers that electricity was added in 1924, the year he entered kindergarten.¹¹⁷

In the 1920s, the resident population of 97 Orchard Street declined; there were only 56

¹¹⁶ A similar tenement hallway is illustrated in Tenement House Department of the City of New York, *Fourth Report* (1908), p. 137.

¹¹⁷ Albert Rosenthal, interviewed by Steve Long for Tenement Museum, May 17, 1998.

residents listed on a state census of 1925 and their ethnicity was more varied than in earlier decades, with Sephardic Jews from the former Turkish Empire, Italians, and Irish joining the Eastern European Jews. By 1930, the Lower East Side had lost a significant part of its population. The passage of restrictive immigration laws in 1924 almost totally ended the flow of new residents to the Lower East Side. This was coupled with the fact that as older immigrants prospered, they moved out of the Lower East Side to less densely populated neighborhoods, especially in Brooklyn and the Bronx, that had newer buildings of higher quality. According to the United States Census, between 1920 and 1930 the population of the Lower East Side declined from 414,909 to 248,696, a loss of 166,213 people. By 1933, the apartment vacancy rate had reached 22.4 per cent in the neighborhood.¹¹⁸ The abandonment of apartments continued after 1933; on October 11, 1935, an inspector reported that 97 Orchard Street was vacant except for its stores and a caretaker's apartment.¹¹⁹

A significant number of tenements on Orchard Street were vacated during the 1930s, but, as at no. 97 the popularity of Orchard Street as a commercial center assured adequate rents from the shops alone and, therefore, the survival of the buildings. In 1988, 97 Orchard Street was rediscovered by the Lower East Side Tenement Museum which was searching for a home in which the history of tenement life and the immigrant experience on the Lower East Side could be illustrated. This tenement was an appropriate choice for the museum, since it retains its historic features and is a powerful testament to the resolve of its many residents to make new lives in a new land.

¹¹⁸ "Manhattan Apartment Vacancies by Census Tract," *Real Estate Record and Builders Guide* 132 (August 5, 1933), p. 6.

¹¹⁹ Vacancy report, October 11, 1935.

Notes