

Blackwell's Almanac

A Publication of the Roosevelt Island Historical Society



Flushing Cemetery boasts two very famous residents: singer and trumpeter Louis Armstrong and jazz trumpeter Dizzy Gillespie. See "Dead Queens," p. 5. Photo courtesy of Richard Panchyk.

Contents

P. 2 The 1890
Census: Dawn of
Electric Automation

P. 5 Dead Queens

P. 8 Notes from
RIHS

P. 9 Old New York:
Part VI—1901–
1914

P. 13 RIHS
Calendar

Blackwell's Almanac

Published quarterly
in February, May,
August and
November. Back
issues may be
viewed at rihs.us.
Click on
*Blackwell's
Almanac* at left.

Publisher:
Judith Berdy

Writer/editor:
Bobbie Slonevsky

© 2022, Roosevelt
Island Historical
Society

The 1890 Census: Dawn of Electric Automation

With the release of 1950 census data to the general public on April 1, we've been barraged with articles about the population count and its history. We've learned that the first census took place in 1790. We've learned that we were the first country in the history of the world to enumerate its people simply for the formulation of policy—not for taxation or conscription. And we've learned that the 1950 census was the last exclusively house-to-house canvass; in 1960 it was conducted largely by mail and 2020 saw the first collection of data online.

Most astonishing, though, was the revelation that the 1890 census employed an electrically automated tabulation system!

By the time of the previous 1880 census, the U.S. had grown to unimagined proportions and the census operation was overwhelmed. So much so that it took almost a decade, till 1887, to complete. Herman Hollerith, a former Census Office employee, was convinced there was a better way.

Bear in mind that the first practical, wide-scale use of electricity didn't occur until 1882, when Thomas Edison switched on his Lower Manhattan distribution complex to light New York homes and industry. So Hollerith must have already been thinking quite early about the use of electricity for population enumeration. For by 1890 he had invented and perfected his system, and manufactured the fleet of machines leased by the U.S. Census Office.

How did the system work? The overall operation was comprised of five phases.

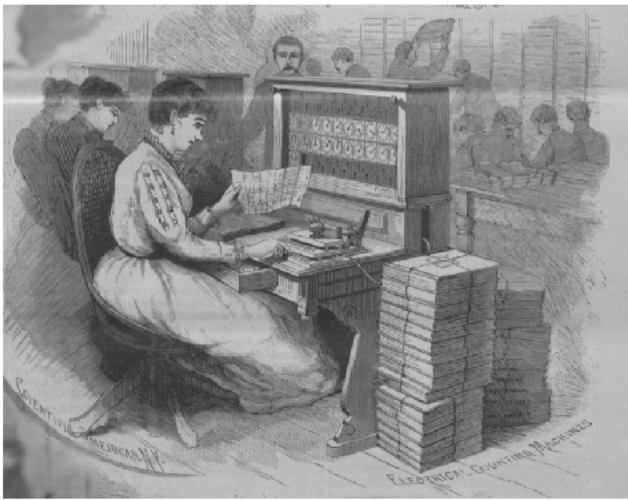
1. Data collection and transfer: Fifty thousand "enumerators" fanned out across the country to collect the required information via a personal visit to each dwelling and family. Not only was the population larger than 10 years before; the personal particulars to be recorded had been substantially increased to include: country of birth, age, race (Japanese, Chinese, Negro, mulatto, quadroon, octoroon and white), health data, home or farm ownership and related debt, literacy or non-literacy, military service and more. For the first time, each family's data was recorded on a separate sheet of paper.

The individual data sheets were bundled by enumerator. Then a number of such bundles were placed in a custom-designed 18" x 18" x 27" box, sealed and sent by mail to the Washington DC Census Office, where some 100 boxes were received daily.



The Census Bureau in 1890.

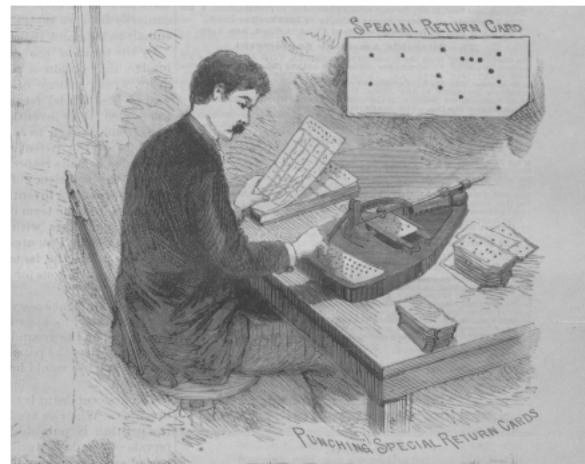
2. Individual, family and family size count: This work was done on the machine shown below. It had a keyboard with keys numbered from 1 to 20, and a panel facing the operator with 21 dials. One dial logged in individuals. The other 20 logged in the size of each family from 1 to 20 members. (If a rare family had more than 20 members, it had to be noted manually.)



The keys activated the dials via electricity. So, reading off a data sheet reflecting a family of six, the operator pressed key number 6. This activated two dials: the tabulator of individuals advanced by 6, and the family-of-6 dial advanced by 1. At the end of the work day, the machine displayed how many individuals and how many families of each size had been counted. A simple tally gave the total number of families.

Many operators could reach an input speed of 50,000 persons per day. The entire count—some 15 million data sheets representing 15 million families—was done twice to verify the work; each time it showed a total population of 64 million.

3. Encoding other information on punch cards: This was a mechanical, not an electrical, process. The white

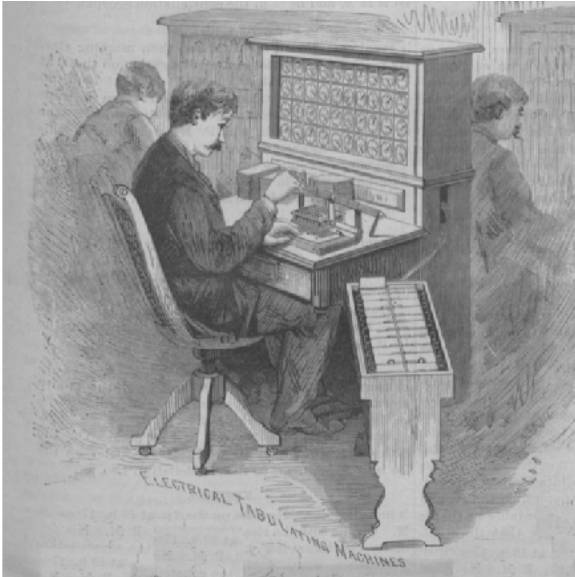


rectangle in front of the operator (above) is a plate with 240 perforations, each one with a category designation marked at its side. One set of perforations is marked with ages in five-year intervals up to 100. Another set lays out possible countries of birth. Others list the various races, a selection of common health conditions/diseases, and whatever other answers census subjects might give to the questions asked.

The white rectangle farther away from the operator is a punch card, obviously of smaller dimensions than the perforated plate. The operator has a punch and there is a second punch hanging over the card. These two punches are connected by a type of sliding frame (called a pantograph, difficult to see in the illustration). When the operator punches the hole in the plate that, let's say, categorizes the subject as being between 26 and 30 years old, the second punch makes a hole in the card in the corresponding spot—adjusting for the fact that the card is of a smaller format.

For each person, all the information gathered on the data sheet is transferred to a single punch card. A skilled operator could read the information off these cards as though they were a book. But this wasn't necessary since the cards served to tabulate the number of people in each category automatically.

4. Tabulating the categories: As pictured (p. 4), the operator of this



machine sat in front of a frame that held a perforated punch card and had a number of metal pins that could be lowered into the perforations. Facing the operator were 40 dials. When the handle that controlled the metal pins was depressed, the pins came into contact with a mercury cup below the penetrated perforations. This electric contact caused the corresponding dials to move forward one notch, thus enumerating one more person in each punched category. Where there was no perforation on the card, the metal pin did not make contact with the mercury cup and so the corresponding dial was not activated.

Because the tabulating machine had room for only 40 dials, it could not process all 240 categories contained on the punch cards. Logic suggests that there would have to have been at least six different versions of the tabulating machine programmed to handle six different sections of the perforated cards.

The box in the foreground of the illustration (above and right) was divided into lidded compartments electrically connected to the tabulating machine. Depending on the version of the machine (i.e., the section of the punch card being processed), the depressed handle caused one of the compartments to open so that the card could be appropriately placed to be processed by the next

machine in the sequence. According to a contemporaneous description of the box, it had 26 different compartments. This may perhaps have envisioned a future expansion of the system.

5. Recording the data: At the close of each day, the dial tallies from all the tabulating machines were recorded in books.

Some 4,000 employees were involved in the tabulations and related work. Because of the vastly improved efficiency of the electrically automated system over hand-counting, it took just six weeks to do the initial tabulation of 64 million people plus the confirming tabulation. In fact, the census was completed months ahead of schedule and far under budget.



Editor's note: In 1896, Hollerith founded the Tabulating Machine Company. Some 20 years later, following several mergers and management changes, the company became the International Business Machines (IBM) Corporation.

Source:

Most content and all images came from an article that appeared in *Scientific American*, August 30, 1890, available at <https://www.discerningreaders.com/the-tabulator-ibm-us-census-of-1890.html>.

Dead Queens

On October 19, 2021, Richard Panchyk gave a talk at our branch of the New York Public Library based on his latest book, Dead Queens:

The Cemeteries of New York City's Largest Borough.

The lecture was sponsored by the Roosevelt Island Historical Society in collaboration with the library. It was presented both live and via Zoom.

“There are more dead people in Queens than living.” So said speaker Panchyk by way of underscoring the extraordinary number of cemeteries located in Queens. In case you were wondering, this was not a random occurrence. It was the natural consequence of historic Manhattan’s burgeoning population and shrinking space.

In 1811, city planners laid out the streets above 14th Street in a grid. As tenements, row houses and businesses filled the circumscribed plots, there were almost no open spaces left. What’s more, Manhattan was growing rapidly, its population increasing from 185,000 in 1830 to 590,000 in 1850. More live people eventually meant more dead people, and there was nowhere to put them.

Enter Queens—conveniently close but relatively unpopulated and many times the size of Manhattan.

According to Panchyk, cemeteries originally existed only in churchyards or family backyards. But in 1847, legislation was passed allowing for commercial for-profit cemeteries

independent of churches in rural areas. Thus, added to the smaller 17th- and 18th-century burial grounds found in Queens was a vast continuum of much larger cemeteries that so dominated the borough’s landscape, they actually dictated where subsequent roads and residential communities could be placed.

The speaker’s book describes 33 Queens cemeteries, although there are more. Each has its own personality and share of celebrities (who can be researched in any cemetery). Collectively, they offer an insight into the changing ethnic composition of our city—the earliest headstones reflecting Dutch and English surnames, followed by Irish, German, Italian and other European immigrants, and capped most recently by Asian, African-American and South American residents.

Pictured here is a limited selection of the burial environments one can explore. Take in the statues, the monuments, the landscaping, the aura. (Photos courtesy of Richard Panchyk.)

Calvary Cemetery, Woodside: Three hundred sixty-five acres and 1.75 million graves in four sections make this the largest cemetery in Queens and one of the largest in the country. Founded in 1848, it is also the

oldest for-profit burial ground in the borough. Notable: Calvary is the resting place of Mayor Robert Wagner, his father, U.S. Senator Robert F. Wagner, and New York governor, and 1928 presidential candidate Alfred E.



(l. to r.) A monument that is a true work of art; the main Calvary gate as seen in The Godfather.

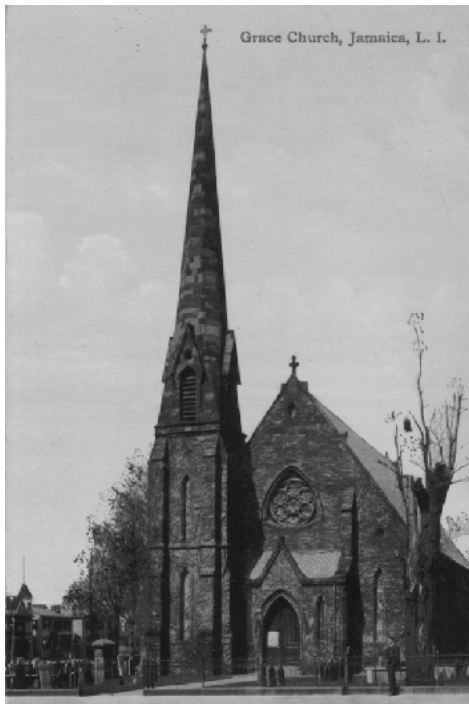


Smith. Also, the funeral procession of Vito Corleone in *The Godfather* was filmed entering the cemetery gates on Greenpoint Avenue.

Flushing Cemetery, Flushing: Established in 1853 and undeniably garden-like, the 75-acre cemetery in the month of May is a riot of fully flowering pink azalea bushes. The monuments are smaller overall than those of Calvary, but more personal. Notable: Its 41,000 inhabitants include famous musicians Louis Armstrong and Dizzy Gillespie. Fans have covered Armstrong's grave with beads, rocks, candles and other adornments.



(l. to r.) A picture of grief; Louis Armstrong's much visited and decorated grave; flowering Flushing Cemetery in May.



Grace Church Cemetery, Jamaica:

One of the few remaining churchyard cemeteries in Queens, it is located next to the Gothic-style Grace Episcopal Church on Jamaica Avenue. Notable: Gravestones date from the early 18th century through the 20th, with some of the finest surviving older grave markers in the city, many bearing poems. Among the 1,300 individuals interred here is Rufus King, a signer of the Constitution, whose home across the street is now a museum.

Grace Church and one of its early gravestones.

Montefiore Cemetery, Laurelton/St. Albans:

This Jewish burial ground, in operation since 1908, has some gravestones in Hebrew, some in English and some in both languages. Many societies and associations boast their own dedicated sections fronted by impressive memorial entrance gates. With over 160,000 burials and 114 acres, the densely packed markers extend for some 15 blocks along Springfield Blvd. Notable: The interred include Menachem Mendel Schneerson, the seventh Lubavitcher Rebbe, and actor Herb Edelman of *Golden Girls*.



(Top:) The sculptured gate to an association section of the cemetery; (Bottom:) the densely packed markers continue for some 15 blocks.



Dutch Reformed Church of Newtown Cemetery, Elmhurst:

The burial ground is just to the west of the church, which is one of the few surviving all-wood churches in the city and a premier example of Greek Revival architecture. While the structure was built in 1831, its original Dutch-settler congregation dates back to 1731. Notable: Many of the headstones are so old, the inscriptions are badly weathered and the stones are damaged or sunken. Dutch names are common, e.g., Brinckerhoff, Rapelje, Polhemus and Bragaw.



(Top:) The all-wood Greek Revival Dutch Reformed Church of Newtown; (l to r.) Three Bragaws in a row; some of the very old sunken stones.

Notes from RIHS

Cherry Trees

The RIHS has been busy; April was a great month. Our cherry trees are proving a grand attraction and we have had record numbers of visitors in the kiosk. It is wonderful to see families picnicking under the blooming trees and enjoying the ambiance of the island.

Speaking of cherry trees: an anonymous donor, thru Materials for the Arts, has gifted over 75 Kwasan and Weeping Higan cherry trees to the island. The first trees were planted last July opposite the Octagon Tennis Courts and along the West Promenade. Recently over 20 Weeping Higan Cherry trees were planted on the West Promenade opposite Coler. More will be arriving soon.

Pennies for Preservation

Last summer we started Pennies for Preservation. We collected over \$1200. from our generous neighbors. Aside from benefiting the RIHS, the coins were wrapped and exchanged with our local merchants, who are always in need of coinage. We have resumed the collection this spring. We will be at the Farmer's Market on Saturdays to collect all those stray pennies, nickels, dimes and quarters. Or you can leave your donation at 531 Main Street door station—Attention: Judith Berdy.

Lecture Series

We have continued our lecture series with the NYPL branch. Thanks to Danielle Shur, Branch Librarian, our events on Zoom have been very successful. In February we had a joint presentation by Rosemary J. Brown, author of "Following Nellie Bly," and Amanda Matthews, artist of The Girl Puzzle. In March, Jessica Klein showed us the ins and outs of Wikipedia submissions. In April, Bob Sinclair of the Greater Astoria Historical Society led us thru the history of the LIRR Gantries in Long Island City.

See our Calendar on page 13 for upcoming lectures and fall lecture dates. If you have a suggestion for a program, please contact us.

Judith Berdy, President

531 Main St. #1704
New York, NY 10044
jbird134@aol.com
212 688 4836
917 744 3721 cell
rihs.us

Old New York: Part VI—1900–1914

The early 20th century unfolded against the backdrop of a newly consolidated (1898), five-borough city with 3.4 million people to be taken care of. Perhaps it was the sheer size of the civic challenge, perhaps it was the density of people and their growing needs, perhaps it was just the zeitgeist. But the outstanding feature of the era was its progressivism. Reform was the watchword, in addition to the natural technical progress expected with the passage of time. The result was transformational change in almost every facet of city life.

Sanitation

As of the year 1900, there were 200,000 horses in the city, producing nearly 2,500 tons of manure daily. It piled up in the streets and was just swept aside toward the curb along with the other filth and garbage that inundated the city. The stench and repulsiveness were unimaginable.

Herds of pigs were the early New York street cleaners, succeeded by a cadre of indifferent city employees who slacked off, worked selectively based on bribes and were generally ineffective. It took Colonel George Waring, a former Civil War officer and city engineer, to solve the problem. Waring assembled a force of more than 2,000 sanitation troops armed with brooms and carts and organized in a strict military hierarchy. Tasks were clearly defined and lines of responsibility rigidly adhered to.



Waring's "White Wings" on review. Credit: Library of Congress.

Waring's additional stroke of genius was to dress his minions completely in white—white caps, white jackets, white pants—in order to: a) associate them with hygiene, and b) dissuade them from goldbricking by making them immediately identifiable.

Within weeks the streets, even those in poor neighborhoods, were broom-clean: garbage and manure had disappeared, ash cans had been removed, and dead animals that had previously rotted in the street had been picked up. Waring's "White Wings," as they were called, were heroes.

Housing

The last two decades of the 1800s and early 1900s saw a tsunami of immigrants from Poland, Russia, Austria-Hungary and the Balkans arriving in New York. Most settled on the Lower East Side in row upon row of cheaply built tenements in which living conditions were deplorable. On each of five floors were four tiny apartments barely big enough for a small family, much less the large families and their borders who were the usual occupants. Overcrowded, airless, lightless and devoid of plumbing, these rooms actually fostered ill health, including rampant tuberculosis and a high infant mortality rate.

Through the efforts of photographer Jacob Riis and other reformers, both the city and state passed the watershed Tenement House Act of 1901. Newly built "new law" tenements had to comply with specific requirements that dictated their size, amount of ventilation, light provided by outward-facing windows in each room, running water, indoor bathrooms in each apartment and fire safeguards. The law became a model for housing reform in other locales.

Health and Safety

Established in 1870, the city's Public Health Department was beginning to secure concrete results by the early years of the 20th century. Garbage collection, sewage systems to reduce contamination of drinking water,

vaccination programs, improvements in disease treatment, an appreciation of the benefits of fresh air and sunshine plus the aggressive use of quarantine combined to decrease the scourge of infectious disease. Cholera, smallpox, typhoid fever, diphtheria, even tuberculosis became less of a threat.

In addition, certain events moved the municipal government to take on additional responsibilities. Exposés such as “The Jungle,” Upton Sinclair’s 1905 indictment of the meat packing industry for its tainted products, led to the 1906 Pure Food and Drug Act and rigorous meat and milk inspections. The tragic Triangle Shirtwaist Company fire in 1911, in which 146 women died because they were unable to escape the locked doors of the garment factory, spurred formation of the Bureau of Fire to develop and enforce fire regulations.

The result of these collective measures was an astonishing 32% decrease in New York’s mortality rate over just 14 years— from 19.90 per thousand in 1901 to 13.52 per thousand in 1915.

Education

Mandatory education in the primary grades was already in force in the city dating back to



Triangle Shirtwaist factory fire in 1911. Credit: en.wikipedia.

1874. By 1900 there were over 550,000 children enrolled in primary and secondary public schools (compared with 1.1 million today), plus another significant number attending parochial schools. When the teeming influx of immigrants overloaded the school system at the turn of the 20th century, the city undertook a massive school-building program, hoping eventually to provide primary education plus high school or specialized schools for everyone.

For adults, citizenship and English classes were available at night school. These were taught both in the public schools as well as in neighborhood “settlement houses.”



Open-air school on a ferry dock, 1908. Credit: Ephemeral NY.

Perhaps the most “creative” and unusual educational innovation of that era was “open-air” classrooms. In the face of an outbreak of tuberculosis, school authorities decided to harness the power of fresh air and sunshine. So they built outdoor classrooms on rooftops, in schoolyards and even on ferryboats.

A ferry docked in the East River (see photo) was one of the sites used specifically for children already suffering from TB. For the most part, the pupils wore their own clothing. But in really cold weather some provision was made for blankets, parkas and “sitting-out bags.”

Transportation

The mix of horse-drawn carriages, horse-drawn and electrified trolleys plus new-fangled automobiles and trucks engendered absolute gridlock. It was obvious that consolidation of the boroughs in 1898 and New York's continuing population growth required new strategies for moving residents around the city.

A key piece in solving the transportation puzzle was the subway system. Opening in 1904 as a publicly owned but privately run enterprise, the first line ran from City Hall to 42nd Street, then west to Times Square and finally north along Broadway to 96th Street. Subsequently a line was extended into Brooklyn and ultimately into Bronx. The system ran for 22 miles with train speeds as high as 40 miles per hour and was soon carrying 600,000 passengers daily.

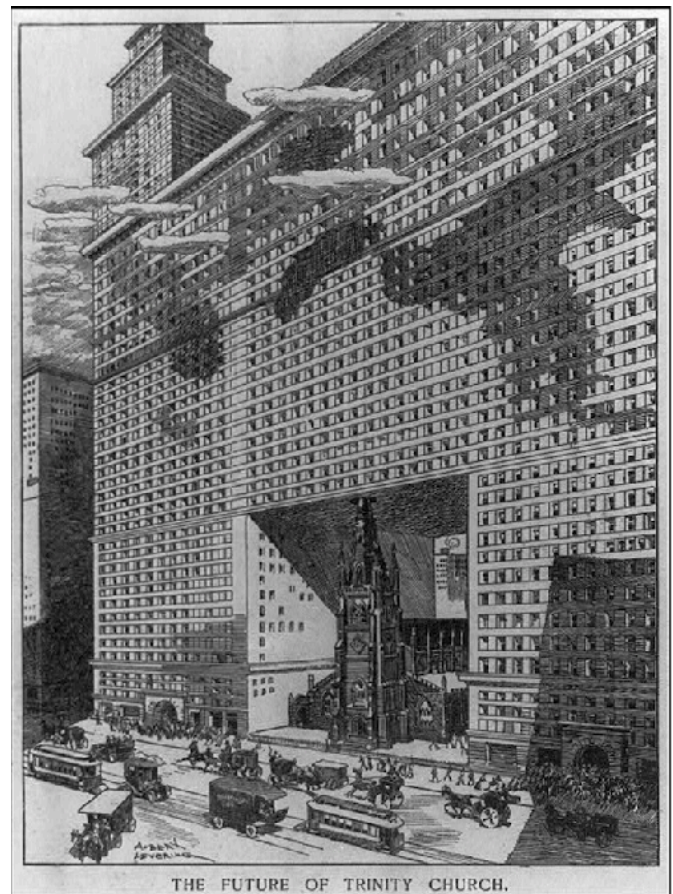
Bridges from Manhattan to the outer boroughs also conferred major benefits. The Williamsburg (1903) and Manhattan (1909) Bridges to Brooklyn and the Queensboro Bridge (1909) further knit the city together and gave rise to an industrial base for which there was no room in Manhattan.

Of course, residents often needed to leave the city, while crowds of visitors streamed in. The Long Island Railroad Tunnel (1910), the amazingly beautiful Pennsylvania Station (1910) and the world-famous and still magnificent Grand Central Terminal (1913) were all emblematic of New York's central importance in the life of the region and country.

Construction

Business boomed at the turn of the century and development boomed along with it. Scores of the city's low-rise buildings were bulldozed to be replaced by steel-frame office skyscrapers of 20 stories or more, as well as imposing private mansions and cultural institutions. Many of these, if not most, embodied the eclectic Beaux-Arts style, a harmonious and elegant pastiche of French neoclassicism, Gothic, Renaissance and Baroque taught at the Ecole des Beaux-Arts in Paris.

Among the now iconic buildings erected at the time were the New York Yacht Club and the House of Andrew Carnegie, now the Cooper Hewitt Museum, in 1901. 1902 saw construction of the Flatiron Building, the Metropolitan Museum of Art and Macy's Herald Square Department Store, the world's largest emporium, followed by the New York Stock Exchange in 1903. In 1905, One Times Square was completed and two years later, the first New Year's Eve ball dropped from its heights.



Until 1890, Trinity Church was the tallest structure in the city. By 1907, skyscraper madness prompted this cartoon by Albert Levering that appeared in Puck Magazine. Credit: Library of Congress.

Other landmark structures included the Morgan Library (1907), the New York Public Library (1911), Grand Central Terminal (1913) mentioned above in Transportation, and the ornate Woolworth Building (1913), for many years the tallest building in the world until it was eclipsed during the Depression, first by

the Chrysler Building and then the Empire State Building,



The Woolworth Building, built in 1913, was for two decades the tallest building in the world. Credit: en.wikipedia.

Unions

Despite formation of the American Federation of Labor in 1886, the plight of factory workers in the early 20th century was still desperate. Factory buildings were poorly ventilated fire traps. Industrial machines emitted noxious fumes and routinely maimed and killed. In New

York City, unskilled laborers' low wages were depressed further by the almost unlimited pool of immigrant labor. The result was less than a living wage, which meant that children were forced into factory work to supplement their family's income. Adults typically worked 10 hours a day six days a week; those children who lived at the factory could work up to 18 hours/day. Their work often resulted in curvature of the spine and stunted growth.

In an attempt to remedy the situation, union membership in the country surged in the early 1900s. In New York City, the greatest success belonged to women. In 1900, several trade unions joined together to form the International Ladies Garment Workers

Union. In 1903, the Women's Trade Union League was founded as part of the AF of L. It was composed of both working women and middle class reformers. Both organizations lobbied for better wages, safer working conditions, and restrictions on work hours and child labor. In 1909, 20,000 female shirtwaist makers in New York struck against sweatshop conditions. The fire and resultant deaths at the Triangle Shirtwaist Factory in 1911 spurred renewed efforts to increase factory safety measures and strengthened the validity of union demands.

While it took decades before significant benefits were won, the Department of Labor was created in 1912 and the first Secretary of Labor was appointed in 1913. And in 1914, the Clayton Antitrust Act made strikes and boycotts against employers legal. Clearly awareness of workers' problems and progressivism were gaining traction.

Sources:

Eric Homburger, "The Historical Atlas of New York City," Henry Holt and Company, New York, 1996.

https://en.wikipedia.org/wiki/Labor_history_of_the_United_States

<https://classroom.synonym.com/successes-did-unions-experience-early-1900s-16125.html>

<https://ephemeralnewyork.wordpress.com/2017/04/17/what-if-this-actually-happened-to-trinity-church/>

[https://en.wikipedia.org/wiki/History_of_New_York_City_\(1898-1945\)](https://en.wikipedia.org/wiki/History_of_New_York_City_(1898-1945))

<https://www.loc.gov/collections/early-films-of-new-york-1898-to-1906/articles-and-essays/new-york-city-at-the-turn-of-the-century/>

<https://jetsettimes.com/countries/usa-countries/new-york/nyc-culturati/the-fascinating-history-of-nyc-from-1900-1960/>

<https://ephemeralnewyork.wordpress.com/tag/new-york-city-in-1910/>

<http://www.tlarchive.org/htm/decades/1910.htm>

<http://www.tlarchive.org/htm/decades/1900.htm>

RIHS Calendar

FREE Roosevelt Island Historical Society Lecture Series presented in collaboration with the New York Public Library. Attend in person at the NYPL Branch, 504 Main St., or on Zoom.

Tuesday, May 17, 6:30 pm

Discovering the Wild Side of RI

Rossana Ceruzzi, founder of the island's Wildlife Freedom Foundation, describes our rich wildlife population and how the organization cares for these creatures, rescuing, healing and sheltering the injured and vulnerable. Register at: <https://www.nypl.org/events/programs/2022/05/17/rihs-lecture-discovering-wild-side-ri>

Tuesday, November 15, 6:30 pm

Benedict Arnold, Hero Betrayed

James Kirby Martin, History Professor Emeritus at the University of Houston and author of *Benedict Arnold, Revolutionary Hero: An American Warrior Reconsidered*, discusses the other side of Arnold's story—his brilliant and heroic service in Washington's Continental Army before mistreatment and disillusionment turned him into a traitor. [Registration information to come.](#)

SAVE THE DATES FOR OUR FALL SEASON

Tuesday, September 20, 6:30 pm

Tuesday, October 18, 6:30 pm

Tuesday, November 15, 6:30 pm

Tuesday, December 20, 6:30 pm

To be added to the Blackwell's Almanac mailing list, email request to:
rooseveltislandhistory@gmail.com
RIHS needs your support. Become a member—visit rihs.us/?page_id=4