New Yorkers have always scrambled for space. They've crammed into cellars, rookeries, and wooden shacks; hung rows of hammocks in seven-cent lodging houses; and huddled under low attic roofs. Now, with micro-apartments rising on East 27th Street, it seems like people are as desperate as ever for a foothold. Like many apartments in the city, the new units may be derided as closet-sized. Starting at 250 square feet, the studios are indeed smaller than the zoning code usually allows. In the context of history, though, they aren't so bad. After all, this city was once the
most densely inhabited in the world. Just how little space have New Yorkers lived with? The size of an actual closet: **15 square feet a person.**

To put the new development in perspective, we investigated housing options in its vicinity, Kips Bay and Murray Hill, beginning in the 1800s. Though relatively large, the micro-apartments do have something in common with their predecessors. They represent the latest example of New Yorkers thinking creatively—or desperately—in order to live here.

For all of our current housing woes, we've experienced nothing like what the city went through in the 19th century. Between 1820 and 1860, the population grew by **over 600 percent**, from 123,706 to 813,699. By comparison, from 1970 to 2010, the population grew by 280,000, just three percent. So imagine the challenge of building that much housing quickly and with only basic machinery. Downtown, immigrants had little choice but to elbow into tenements. Uptown, in undeveloped areas like Kips Bay and Murray Hill, they built **squatters' shacks**. Considered illegal and temporary, the shacks weren't studied or legislated as the tenements were, so there's scant official documentation. But they appear regularly in newspapers of the time—mostly due to fires or crimes—and occupied a large portion of Manhattan. It's jarring to imagine them at familiar intersections, as mentioned in this 1858 classified ad: "For Sale: A **young goat, newly kidded**…Inquire in 44th Street, third shanty from Third Avenue on the hill."

Shanties were common in the East 20s in the 1830s and 40s, and then moved north as the city grew. According to the *New York Times* in 1864, "there is a population of 20,000 on this island that pay neither rent for the dwellings they occupy, nor municipal taxes as holders of real estate. They comprise that portion of the population known as 'squatters'." There were probably even more than that, especially if you counted those paying rent to land speculators who held their property until prices went up.
The shantytowns looked like poor rural villages, often located on little hills. Houses were surrounded by picket fences, with muddy footpaths between them, and cows, pigs, or chickens outside. They usually had just one room, about 12 feet square, which served all purposes for the family. An 1865 report by the Council of Hygiene offers a rare description:
The shanty is the cheapest and simplest domicile constructed in civilized communities. The typical shanty is built of rough boards, which form the floor, the sides, and the roof...It is from six to ten feet high...It contains no fireplace or chimney, but a stove, the pipe from which passes through a hole in the roof. It has from one to three or four windows...Shanties are usually built promiscuously over the ground, without the least regard to order.

The report counted over 1,000 squatter shacks on the east side above 40th Street and 865 on the west side above 50th Street. A decade earlier, Frederick Law Olmsted removed 300 shacks from Central Park, where squatters had settled after the city acquired the land. Still others went up in "Hogtown," Sixth Avenue between 50th and 59th Streets.

One of the most notorious shantytowns was Dutch Hill, around 42nd Street between Third Avenue and the East River. It's one of the few
to appear on any map, shown in yellow squares on the 1859 Perris insurance map. It was settled by recent arrivals from Ireland or Germany. The men worked in quarries while women and children collected rags and bones to sell to different industries. They were destitute, their lodgings worth a pittance. A shanty might sell for $5 or $10, less than a month's rent at a Lower East Side tenement.

Though most reformers focused on downtown squalor, a few trekked north to Dutch Hill and described a place they saw as devoid of civilization. In 1855, a visitor from the Children's Aid Society found "little board or mud shanties, scattered around like wigwams of an Indian village, with most perplexing paths winding among them...[The village, which] must contain thousands of people, is almost precisely like the poorest Irish villages, and poorer than most German peasant hamlets." The shanties sat on swampy ground without sewage, made all the more pungent by the presence of livestock and the trash thrown into the streets. Some observers found them almost picturesque compared to the Five Points rookeries. The shanties did have one thing going for them. With windows and circulation, they at least got fresh air. Tenements had none.
In the second half of the 19th century, tenements gradually replaced shanties around Kips Bay. Averaging 284 square feet—for upwards of four people—tenement apartments might be marginally larger than a shanty, but they were incredibly dark and stuffy. Developers weren’t exactly generous with open space and built on as much of the 25-by-100-foot lot as they could. At first they had free rein, since the city government only began to legislate housing in 1867.
Disease was endemic among the city's poor, with major cholera and yellow fever epidemics every few years. Early on, doctors recognized the link between illness and fresh air. According to Richard Plunz's exhaustive *A History of Housing in New York City*, a doctor researching the 1819 cholera outbreak compared those living in cellars and those above ground: "out of 48 blacks, living in 10 cellars, 33 were sick, of whom 14 died; while out of 120 whites living immediately over their heads in the apartments of the same house, not one even had the fever." It took many fires, riots, and deaths for the government to do something about this disparity.

Housing reform only kicked into high gear after the 1863 draft riots, which were partly caused by pent-up frustration among the poor. In 1865, private citizens conducted the Council of Hygiene survey, unearthing sensational statistics and urging change. It found that of the city's 700,000 residents, over 480,000 lived in tenements with substandard conditions. It also compared the square footage in rich and poor dwellings in Greenwich Village. In a private home with an eight-person family, each resident had **100 square feet and 4,000 cubic feet of air**. Those renting rooms in an eight-family house—about 30 to 40 people—had some **15 square feet apiece and 400 cubic feet**. That's about the floor space of a hall closet and the air space of a bathroom. In tenements on the east side above Houston Street, the survey found residents to have around 50 square feet apiece. The report recommended that each person have **at least 800 cubic feet of air**, which would be a 10-by-10-foot space with eight-foot ceilings. When the city finally factored overcrowding into housing law decades later, it required half that much.
The buildings many of us live in, with narrow apartments and dank airshafts, are the result of early housing laws. Though it's hard to believe, they were meant to *improve* airflow. Tenements built between 1879 and 1901 (known as "old law" buildings) had to have a window in each room, which developers responded to by building airshafts. Twenty families might look out onto one. They threw garbage in there, too.
These dumbbell tenements, so called because they looked squeezed in the middle, were a total failure. They exasperated conditions, leading to densities of up to 2,000 people per acre. According to a housing expert in 1905, the Lower East Side was the most densely populated area in the world, far surpassing the worst parts of London (365 people per acre), Paris (434), or Bombay (759). Visiting a building on Elizabeth Street at the turn of the century, journalist Jacob A. Riis found 43 families where there should have been 16:

Upon each floor were four flats, and in each flat three rooms that measured respectively 14 x 11, 7 x 11, and 7 x 8.5 feet. In only one flat did we find a single family. In three there were two to each. In the other twelve each room had its own family living and sleeping there. They cooked, I suppose, at the one stove in the kitchen, which was the largest room. In one big bed we counted six persons, the parents and four children.

That's 290 square feet shared by at least four people. By contrast, apartments in the first luxury apartment buildings, rising on Central Park around this time, could have 7,800 square feet.
Reformers like Riis appealed to the morals of the wealthy and brought national attention to New York's housing problem. At last the 1901 Tenement House Act (the "new law") was passed, setting a national standard that is still the basis of New York's low-rise regulations today. It stipulated that windows bring both air and light into apartments. It also detailed minimum room sizes. Each apartment had to have at least one room of 120 square feet, with other rooms at least 70 square feet, and nine-foot ceilings. To prevent overcrowding, it called for 400 cubic feet of air per adult and
200 per child. But real change would come slowly. In 1910, the city had over 37,000 old-law tenements and just 4,200 new-law tenements.

Beginning in the 1870s, philanthropists tried to make up for government inaction by building model tenements. Alfred Tredway White erected the city's first in Cobble Hill, and in the following decades they cropped up around the city. In 1906, industrialist Henry Phipps built his own iteration in Kips Bay, at 325-335 East 31st Street. Designed by Grosvenor Atterbury, the first Phipps Houses (a nonprofit still active today) brought light and ventilation into its 142 apartments with four-story arches leading to large interior courtyards. Like the new micro-units, the Phipps tenements made up for small room sizes with attractive common areas, such as leafy rooftop gardens. Rents were higher than for typical tenements, so residents were predominately native-born professionals.

The rest of the neighborhood, though, was far from ideal. The East River was lined with gas tanks, factories, hospitals, and shelters. At the turn of the century, the area from 14th Street to 27th Street was known as the Gashouse District, "not a pleasant place in the daytime, much less at night," wrote Outlook magazine in 1907. "But then you don't go there at night ordinarily." The Gashouse Gang terrorized the district, filling newspapers with reports of street fights and burglaries. People mostly lived in old-law tenements, crowded with waves of immigrants from Ireland, Italy, Germany, and Eastern Europe. By the mid-20th century, the city considered it a slum.
Today, none of this history is visible along First Avenue between 23rd and 30th streets. Instead you see Kips Bay Court, a 1970s development with tall apartment blocks and leafy brick plazas. It's the result of the Bellevue South Urban Renewal Project, which Robert Moses announced in 1959 as chairman of the city's slum clearance committee.

By designating the area a slum, Moses was able to destroy the old tenements. It was unwelcome news to those living there, who fought the plan and argued that the tenements should instead be rehabilitated. After a drawn-out battle, the eight mixed-income buildings, then called Phipps Plaza, opened in the late 1970s.
Though they may not be an aesthetic improvement, they're at least roomier than the old tenements. Studios are a whole 375 square feet.

The micro-units are under construction amid these Corbusian towers. The location seems apt. This 21st century housing experiment is built on a 20th century one, which itself bulldozed failed efforts of the previous century. Maybe this solution will stick.

- Micro-week 2015 coverage [Curbed]
- Curbed Features archive [Curbed]