

The Lower East Side Tenement Museum: Archaeology at 97 Orchard Street

By Joan H. Geismar, Ph.D

Archaeologists are fascinated by old toilets. Beyond any scatological interest, this fascination extends to what these sanitary facilities reveal about daily life. Because they can divulge so much, archaeological inquiry at 97 Orchard Street focused on finding evidence of the toilets once located in the tenement's backyard before the installation of indoor plumbing.

According to city records, the toilet facility at 97 Orchard Street in 1902 was the backyard "school-sink," but this multi-compartmented, water-cleansed apparatus was not a recognized option in 1863 when the tenement was built by Lucas Glockner. Consequently, the archaeological investigation of the Tenement Museum's backyard sought not only a school sink, but also what preceded it. We assumed this to be the ubiquitous, round, deep, dry-laid, stone privy pit documented in other 19th century yards. These self-contained out-house receptacles required the services of night soilers to periodically empty and clean them. What we found proved that even with intensive preparation, archaeological exploration invariably offers surprises.

Between November 1991 and August 1993, I led a team of archaeologists in testing and then excavating the backyard. We hoped to uncover the evidence of toilet facilities used from 1863 when the tenement was built and occupied, until 1905 when indoor plumbing was installed. We expected to discover at least one privy pit, and a more technically advanced school sink which required a reliable water source. School sinks also required a cesspool or more ideally municipal sewers to receive the human waste flushed from the vault. In addition to documenting the toilet facilities, we anticipated that household trash, often cast into privy pits while they were in use, would offer details about the building's earliest residents.

A 1902 "I-Card," a New York City building record, noted a six-compartment school sink in

the southwestern corner of the yard. According to a sketch on the card, two rows of three back-to-back toilets ran parallel to the lot at 95 Orchard Street in the courtyard's southwest corner. Based on this information, initial testing in November 1991 focused on this area. We hoped that the northwest corner might reveal an even earlier privy pit.

Hand excavation uncovered tumbled paving stones in the yard's southwestern quadrant. In the northwestern quadrant, it exposed a row of bricks just beneath the surface that once defined a garden. It also revealed part of a dry-laid brick and stone drain about two feet further down. A buried layer of paving stones apparently represented the a former yard surface, one that was level with the top of the drain. Since this corner was the most likely location of a privy pit, the drain feature was a puzzle.

No work was undertaken for months until August 1992 when hand excavation resumed. Although we spent two days digging in the yard, we found neither a brick vault for a school sink nor a stone privy pit. We did find a brick wall in the vicinity of the brick and stone drain we discovered the year before. At the time it seemed the wall might be a remnant of the church built around 1828 that covered the 97 Orchard Street lot and those on either side.

In January 1993, with the help of a backhoe, we conducted a more intensive excavation. We discovered nothing where the "I-Card" documented the school sinks. This exploration revealed that the brick wall found earlier was not the remains of a church, but the wall of a narrow, rectangular, mortared brick foundation approximately 12 by 4.5 feet. We located the school sink vault, albeit in a different place and a different configuration from what we predicted. The "I-Card" shows the toilet compartments configured back-to-back in the yard's southwestern corner. We actually found them placed side-to-side, along the northern property wall.

In July 1993, we continued to excavate the school sink feature and empty the fragmentary

trash-laced fill. Unfortunately, the plumbing that would have confirmed its school sink function no longer remained. ??Installing the school sink probably meant adding an intrusive, poorly-made, brick wall that created a small chamber at the eastern end of the feature. At the time of excavation, this chamber housed a large metal pipe, perhaps a former sewer vent. The slope of the feature's floor suggested the southeastern corner, the deepest part, was once the location of a drain, although no trace of it remained. The school sink's northern edge served as a common wall between the courtyards of 97 and 99 Orchard Street. Two wood-lined built into the wall suggest that 99 Orchard Street may have had a school sink that mirrored the one in the Tenement Museum's yard.

We then attempted to see if we could find an earlier privy feature beneath the school sink foundation. Stone privy pits usually range from six to eight feet in diameter and school sink vault was about 4.5 feet wide. Hand excavation revealed no privy pit or any other feature. The well-packed fill material in the school sink contained very few primary artifacts. Instead, it contained small fragments of bottle glass, ceramics, and assorted building debris.

FINDINGS

Excavation is the active part of an archaeological investigation; artifact processing and analysis is the passive part. As usual in archaeology, what we did not find was a telling as we did discover. One of our major "no finds" was the stone privy pit thought to predate the documented school sink. But the mystery of the missing privy pit at last seems to be solved not only through archaeological evidence, but also by ongoing research prompted by what was and was not found.

The unearthed artifacts, backyard features, and subsequent research offer a glimpse into the past at 97 Orchard Street. A diverse assortment of 319 artifacts were found in the courtyard. These included copper pennies, those that could be dated were minted between 1879 and 1883, a

fragmented, ceramic chamber pot, and an almost-whole, glass mug with a handle. The mug caused some consternation since it seemed modern, but it was later identified as being made in Germany late in the 19th century. Most of the material seemed to be trash from an unknown place brought in to fill the abandoned school sink. The school sink was probably filled in after the landlord installed indoor toilets in 1905.

Of all the artifacts, the school sink vault itself proved to be the most compelling. Its discovery is unique in the archaeological investigation of New York City. Circumstantial evidence suggests that water, probably in the form of a backyard hydrant or spigot, was always available to tenants of 97 Orchard Street. By the 1860s, the Croton aqueduct supplied water to much of the city and sewer installation was again expanding after an all time low in 1857. Sewer lines were available when Lucas Glockner built 97 Orchard Street. In 1863, John Duffy received a contract to lay 380 feet of sewer under Orchard Street between Delancey and Broome.

The absence of a dry-laid privy pit substantiates the conclusion that both the privy and the school-sink were once the same structure. The brick vault presumably needed two sources of water to cleanse the feature's housing. The backyard hydrant or spigot likely supplied the primary source. The brick-and-stone drain noted during testing in 1991 served as the secondary source. This drain possibly conducted rain water from the building's room leader into the vault. A building plan for a tenement at 12 Stanton Street documents a similar arrangement in 1878. We had found our school sink and the privy that preceded it. Yet, rather than two separate features, they were one and the same vault, altered by plumbing modifications.

Instead of using the typical dry-laid stone privy pit, residents of the Museum's tenement used a water-cleansed brick vault. Although building records describe numerous plans for water-cleansed privies in the 1870s, the archaeological evidence provided the first clue that perhaps such toilets

existed as early as the 1860s. In theory, if not always in practice, the water-cleansed vault marked a significant improvement over the privy pit. If "flushed-out" on a regular basis, tenants could keep these brick vaults in sanitary condition.

Written evidence suggests that much of the neighborhood surrounding 97 Orchard Street maintained water-cleansed privies or school sinks. In 1864, John T. Kennedy, M.D. participated in an unprecedented inspection of the city's sanitary conditions. He lauded the Tenth Ward where 97 Orchard Street was located. He found it to be "one of the few sections of the city blessed with such a high degree of health." He went on to note that sewerage in the district "was very complete," and that three-fifths of the forty-eight blocks in the Ward were "in good sanitary condition," two-fifths were in "mixed sanitary condition," and "none were bad."

The tenement's backyard privy/school sink vault, the available street sewer, and the healthful description of the district - plus the fact that Lucas Glockner lived there - dispel the notion of dreadful living conditions at 97 Orchard Street in the 19th century. They suggest an residential existence more pleasant than the general stereotype of tenement life, a stereotype based on conditions that unfortunately existed elsewhere in the city.