

The 97 Orchard Street Block and Lot--An Archaeological  
Perspective--Joan H. Geismar February, 1991--DRAFT

INTRODUCTION

Archaeologists working in Manhattan have recovered enough broken crockery, bottles, and other cast-off household debris to delve into the lives and tastes of New York City's long-gone inhabitants. Through the efforts of participants in this "Biography of A Tenement," the occupants of the 97 Orchard Street tenement are very well documented. What remains to be explored, and what is presented here, is an assessment of the archaeological potential of the lot where this mid-19th-century tenement building stands.

To this end, the pre-tenement development history of the area in general, and the 97 Orchard Street lot in particular, were reconstructed using primary documentary sources as well as published and unpublished material. Maps were researched, as were municipal records--such as deeds, building and tax records, and utilities information. A major question concerned the possible presence of backyard sanitary features such as wells, cisterns, trash deposits, and the ubiquitous privy pits that are remarkable sources of archaeological material in an urban setting. Another consideration was whether remnants of earlier structures or features that predate the tenement's 1863 construction might still be found on the lot.

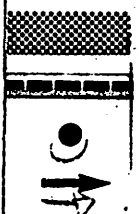
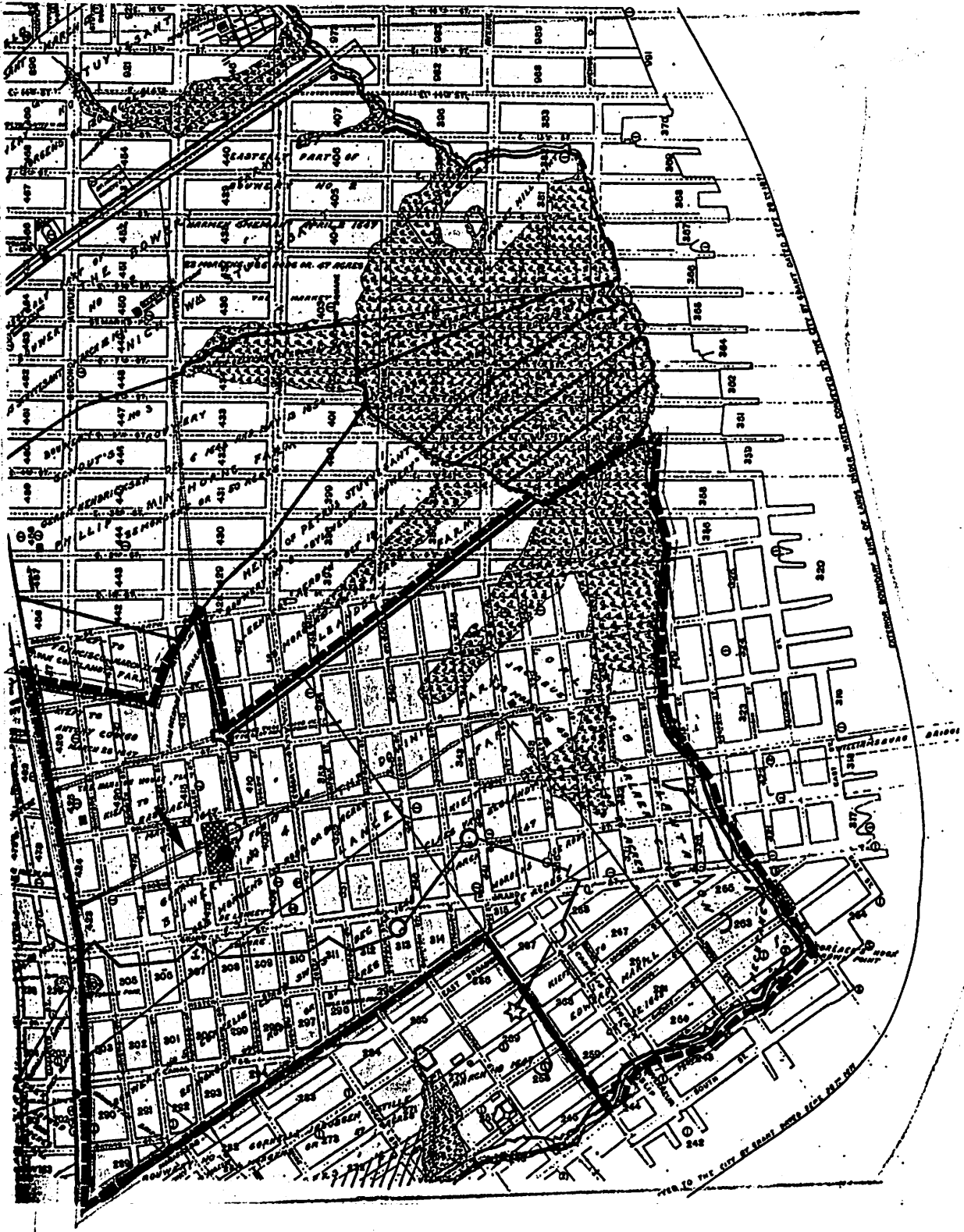
What made this reconstruction particularly intriguing were the lot's early owners. Beginning in the middle of the 18th century, and through the first quarter of 19th, its ownership succession reads like a Who's Who of New York City history. After that, it becomes one component in a middle- to working-class neighborhood that eventually

evolved into a heartland for late-19th and early-20th century immigrants.

#### OWNERSHIP SUCCESSION THROUGH 1863

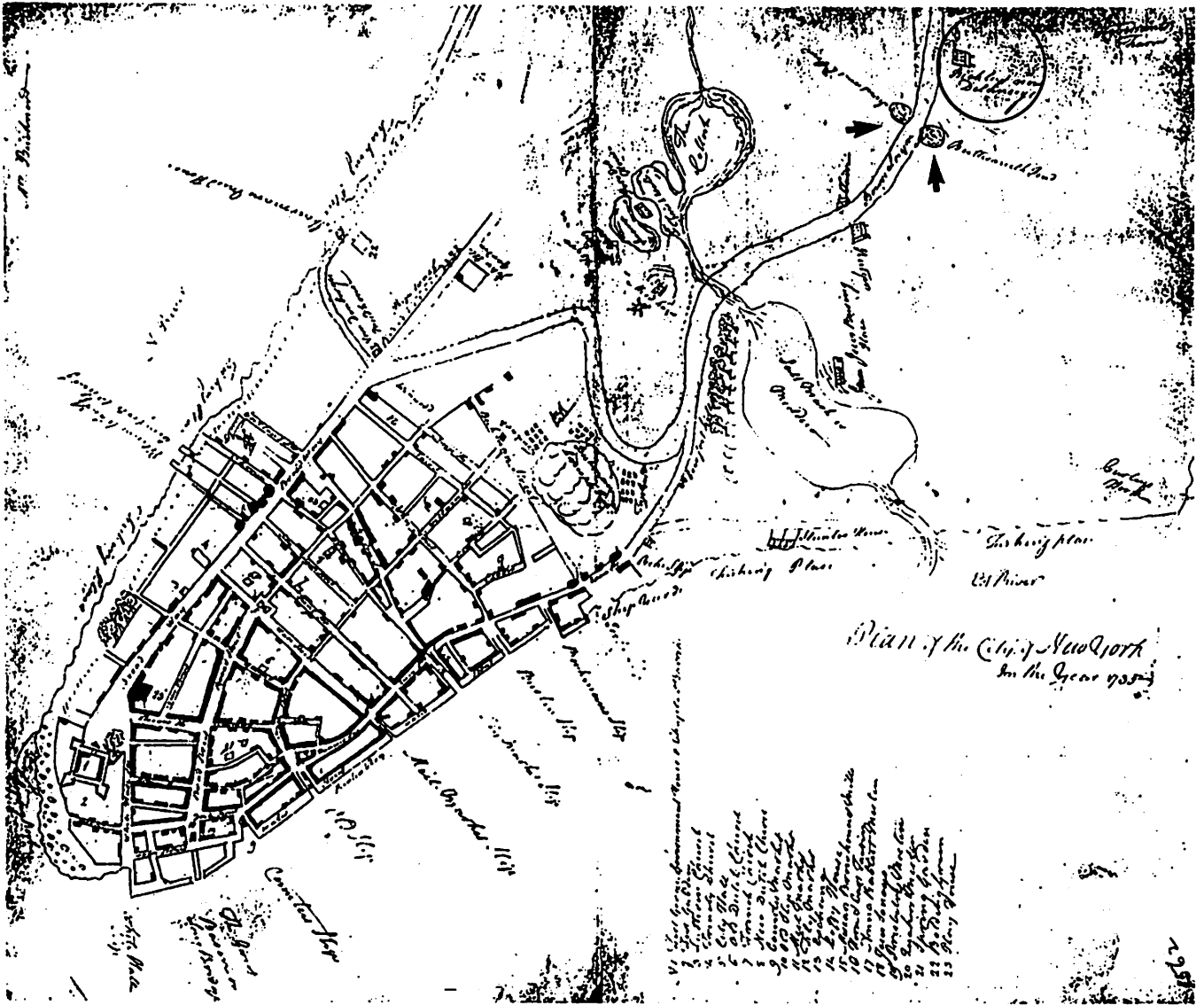
The early succession of the 97 Orchard Street property is reconstructed in I. N. P. Stokes' Iconography. The large farm owned by the DeLancey family in the 18th century comprised a major holding, "the Dominie's Farm," and a smaller one known as "The Mansion House Plot" that was the site of James DeLancey's double three-story brick country house.<sup>1</sup> Estimates of the farm's total acreage vary, ranging from 287 to 339 acres.<sup>2</sup> Known as the DeLancey's West and East Farms, this holding was ultimately bounded by the Bowery Road on the west, Division Street on the south, the East River on the south and east, and what is now Stanton Street on the north (see Figure 1); it encompassed about 120 city blocks.<sup>3</sup>

The largest tract, the Dominie's Farm, combined six separate parcels, all with ownership traceable to the Dutch period. One, the 30-acre Pennebacker's Bouwery (farm), may have been owned as early as 1630.<sup>4</sup> This property was presumably named after its first settler who was thought to be a tile-baker or brick-maker although his identity remains unknown. It seems likely that this unidentified owner or tenant made use of the clay that once lined an ancient lake and its tributary stream situated within the bounds of the property. Vestiges of this water source are found on a 1732-1735 map where two small ponds (named Buttermilk and Sweetmilk) are shown on either side of the Bowery Lane, south of Grand Street and therefore south of the 97 Orchard Street block (Figure 2).



97 Orchard St. block *block*  
 boundary of DeLancey Farm  
 location of 97 Orchard St. (approx)  
 pre-Revolutionary War era road

Note: circle in vicinity of Orchard St. indicates possible earthwork.



○ "Bickley now DeLancey"  
 ↑ ponds

no scale given

While the earliest ownership of the Pennebacker's Bouwery remains somewhat speculative, this tract and the other components of the DeLancey farm were all patented between 1645 and 1647. Included were Bouweries 4 and 5 of the Dutch West India Company, Corlear's Hook and meadow, Thomas Hall's small bouwery,<sup>5</sup> and two grants belonging to a Claes van Elslandt and an Edward Marill (see Figure 1). The future 97 Orchard Street lot was located within Bouwerie Number 4, the 91-acre tract owned by the Dutch West India Company (see Figure 1). All these properties had been acquired by Cornelis Steenwyck before 1686, but in that year his widow married the Reverend Henricus Selyns, and the Steenwyck property became known as "The Dominie's Farm;" James DeLancey owned this land by 1741.<sup>6</sup>

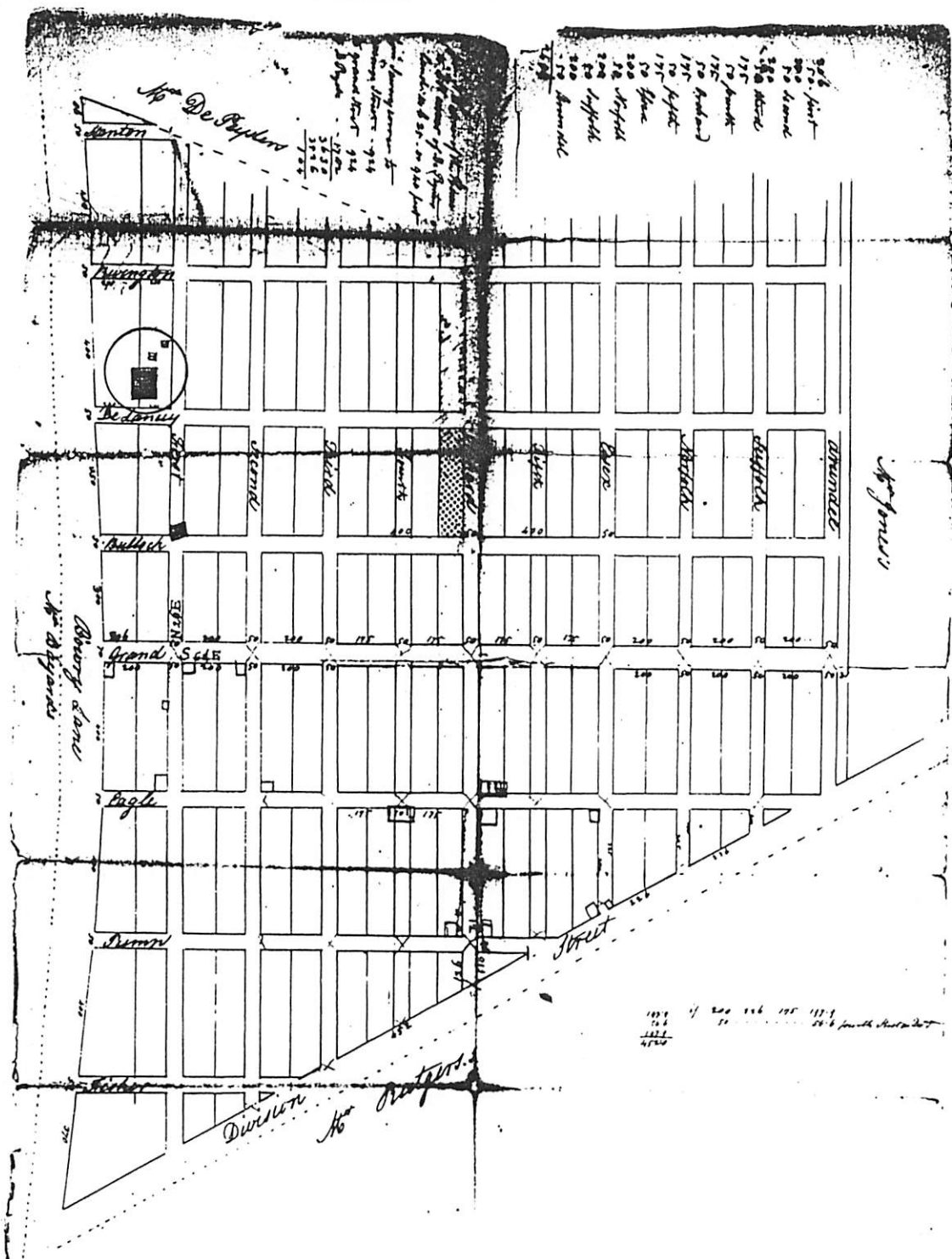
The relatively small 18-acre tract where DeLancey's country house stood was north of the Dominie's Farm. It had been part of a 40-acre grant originally made to three free blacks in 1647, but these patents apparently lapsed and the land was granted to others. By 1718, it had passed to Henry Brevoort who died in that year. His executors and heirs sold this land and a dwelling "on the east side of the Highway called the Bowry [sic] Lane" to "May Bickley, of the City of New York, Gentleman." It is thought that Bickley built the house that later became DeLancey's mansion,<sup>7</sup> but the structure may have been Brevoort's dwelling in some altered form. Whatever the case, Stokes speculates that DeLancey later expanded or rebuilt Bickley's house after purchasing the property from his brother and heir, Brune Bickley, a doctor who lived in England. Since the 1732-1735 map mentioned above identifies the house as DeLancey's a

decade before he owned it, he may have rented it prior to making his purchase. The house was set back from the Bowery Lane (or Road) between what are now Delancey and Rivington Streets, one block north and four blocks west of the tenement house block (see Figures 2 and 3); it was demolished in 1795.

The DeLancey name is immortalized in the street that now defines the northern boundary of the 97 Orchard Street block. The block, and of course the 97 Orchard Street lot, are situated in what remained an undeveloped part of the DeLancey family's West Farm, apparently just south of where their orchard was located (Figure 4).<sup>8</sup> While still in DeLancey ownership, streets were laid out south and, to a degree, north of Grand Street, and a park called DeLancey Square was created just south of what is now Tax Block 414, the 97 Orchard Street block.<sup>9</sup>

The elder James DeLancey was a second generation British colonial who was commissioned Lieutenant-Governor of the Province of New York in 1748, a few years after acquiring his large farm on the Bowery Road. He died there in July, 1760, and his eldest son, James, inherited this part of his estate. According to information found in the Index of Libers for Block 414, the younger DeLancey added to this holding prior to the Revolutionary War.

During the course of the War, earthworks were run between the East and Hudson Rivers by both the Americans and the British. In the vicinity of the future tenement block, these fortifications were located to the south, along Grand Street (Figure 5;<sup>10</sup> a small earthwork indicated quite close to 97 Orchard Street on the Map of



97 Orchard St. block

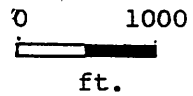


DeLancey Mansion and buildings





○ general vicinity of 97 Orchard St. block







Original Grants and Farms compiled for Stokes [see Figure 1] may be an error).<sup>11</sup> This construction along Grand Street apparently destroyed DeLancey Square which is shown on maps dating from as late as 1775; however, Mrs. Martha Lamb, the 19th century historian, thought the park was obliterated later, after the War, when the farm was subdivided.<sup>12</sup>

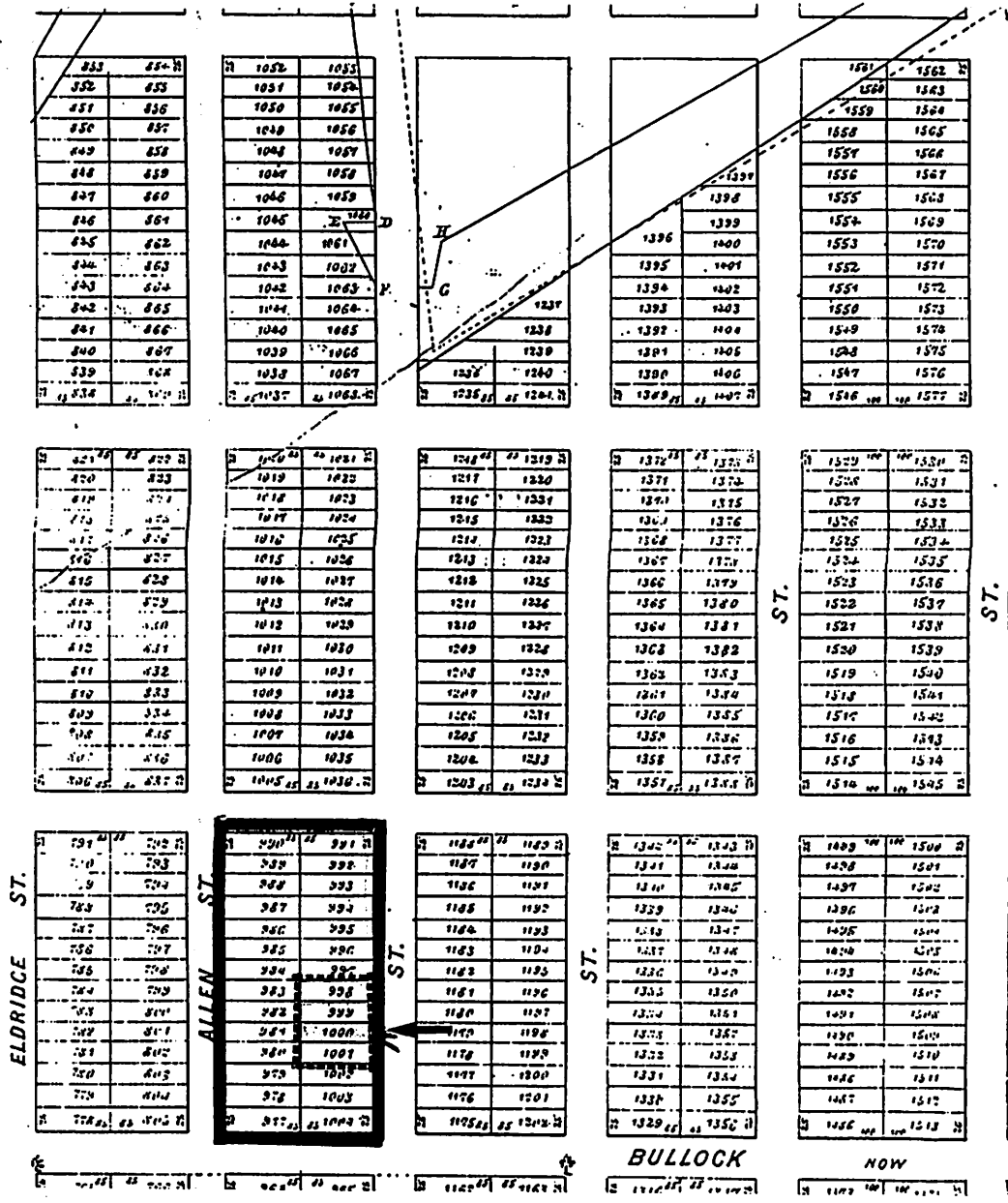
The younger DeLancey's Loyalist sympathy cost him both his home and his adopted land. It seems that he left on an annual trip to England in 1775, realized what was happening, and sent for his family. Although DeLancey never returned, he did make an unsuccessful attempt to sell his West Farm prior to its confiscation by the Commissioners of Forfeiture in 1779.<sup>13</sup> Seven years later, the farm was subdivided into blocks and lots, and parcels were sold off by Isaac Stoutenburgh and Philip Van Courtlandt, the Commissioners of Forfeiture. The tenement house lot then passed through several owners, the first among them Abijah Hammond, who also owned a great deal of land in lower Manhattan and Greenwich Village. In 1797, Hammond and his wife sold the part of this property that included the future 97 Orchard Street block to Morgan Lewis and Edward Livingston; Lewis became the third governor of New York State in 1804,<sup>14</sup> and, in 1801, Livingston was appointed the third mayor of New York City in the post-Revolutionary War era.<sup>15</sup>

The property was forfeited for non-payment of a mortgage in 1807 (by this time Livingston had run into financial trouble, and this foreclosure may have been a ramification of his problems). The next year it was sold to William Cutting,<sup>16</sup> an esteemed lawyer and for a time the Sheriff of New York County whose wife, Gertrude, was

related to Edward Livingston and to Robert Fulton. Cutting was instrumental in bringing steamships to the Brooklyn (Fulton) ferry, and was, in fact, Fulton's partner in this venture.<sup>17</sup>

Cutting and his wife sold four of their lots on Orchard Street to Nicholas Romaine in 1810.<sup>18</sup> This sale included the future 97 Orchard Street lot. Romaine (or Romaine/Romeyne) was a physician who, again, was, an eminent New Yorker.<sup>19</sup> Cutting and Romaine apparently owned various Orchard Street properties separately and in partnership, with the dynamics shifting over time, and tax assessments link them even when deeds do not. Four years later, the lots were part of a parcel bought by John Jacob Astor who held the mortgage (this was only one of several parcels purchased by Astor at this time).<sup>20</sup> These lots, designated Lots 998, 999, 1000, and 1001 on a map created for the Commissioners of Forfeiture in 1783 (Figure 6), correspond with Lots 54, 55, 56 (97 Orchard Street), and 57 on the modern tax map.

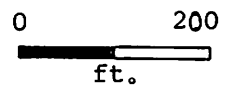
Astor was one of New York City's great 19th-century merchants, and the last of his ilk to own the tenement house property (the interactions of the merchant elite are pervasive; for example, not only did Astor give Romaine a mortgage on the Orchard Street lots, Edward Livingston may have been his tenant when Livingston was mayor).<sup>21</sup> It has been said that the German-born Astor became the largest owner of real estate in New York City and the richest man in America.<sup>22</sup> Acquisition of these lots was yet another money-making venture. At the time, Astor himself lived at 223 Broadway, his address for many years. When he sold the lots, however, he had



**█** 97 Orchard St. block

**-----** John Jacob Astor's 4 lots with numbers on Forfeiture map

**←** 97 Orchard St. lot



temporarily become a resident of Hoboken, New Jersey.<sup>23</sup>

Astor sold his three vacant Orchard Street lots to the Ministers, Elders, and Deacons of the Reformed Protestant Dutch Church in Orchard Street in 1827<sup>24</sup> (in the following year, he sold the fourth lot and its house [see below], to Jacob Ferris, a chairmaker). Ninety-seven Orchard Street--then number 87 Orchard Street--was the middle lot of this group. The church was erected after 1827, but before 1831, when the mortgaged lots were again sold at a forfeiture sale.<sup>25</sup> Known as the Orchard Street Church, this building apparently covered most, if not all, of the three lots (see Figure 13).

The Directories indicate that a Universalist congregation occupied the building in 1832; yet it was not until 1835 that the church was deeded to the Second Universalist Society of the City of New York.<sup>26</sup> Greenleaf notes in his history of New York's churches that "a very commodious house of worship" on Orchard Street between Broome and Delancey Streets was sold in 1832 to the Universalist society.<sup>27</sup> In 1860, it was again sold, this time to the Second Reformed Presbyterian Church of the City of New York.<sup>28</sup> After only three years, in 1863, the Presbyterian Church sold the property to Lucas Glockner, Adam Strumm, and Jacob Walter,<sup>29</sup> the builders of the tenements at 95, 97, and 99 Orchard Street.

#### LOCAL DEVELOPMENT PRE-REVOLUTIONARY WAR TO 1827

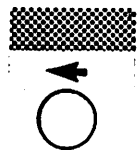
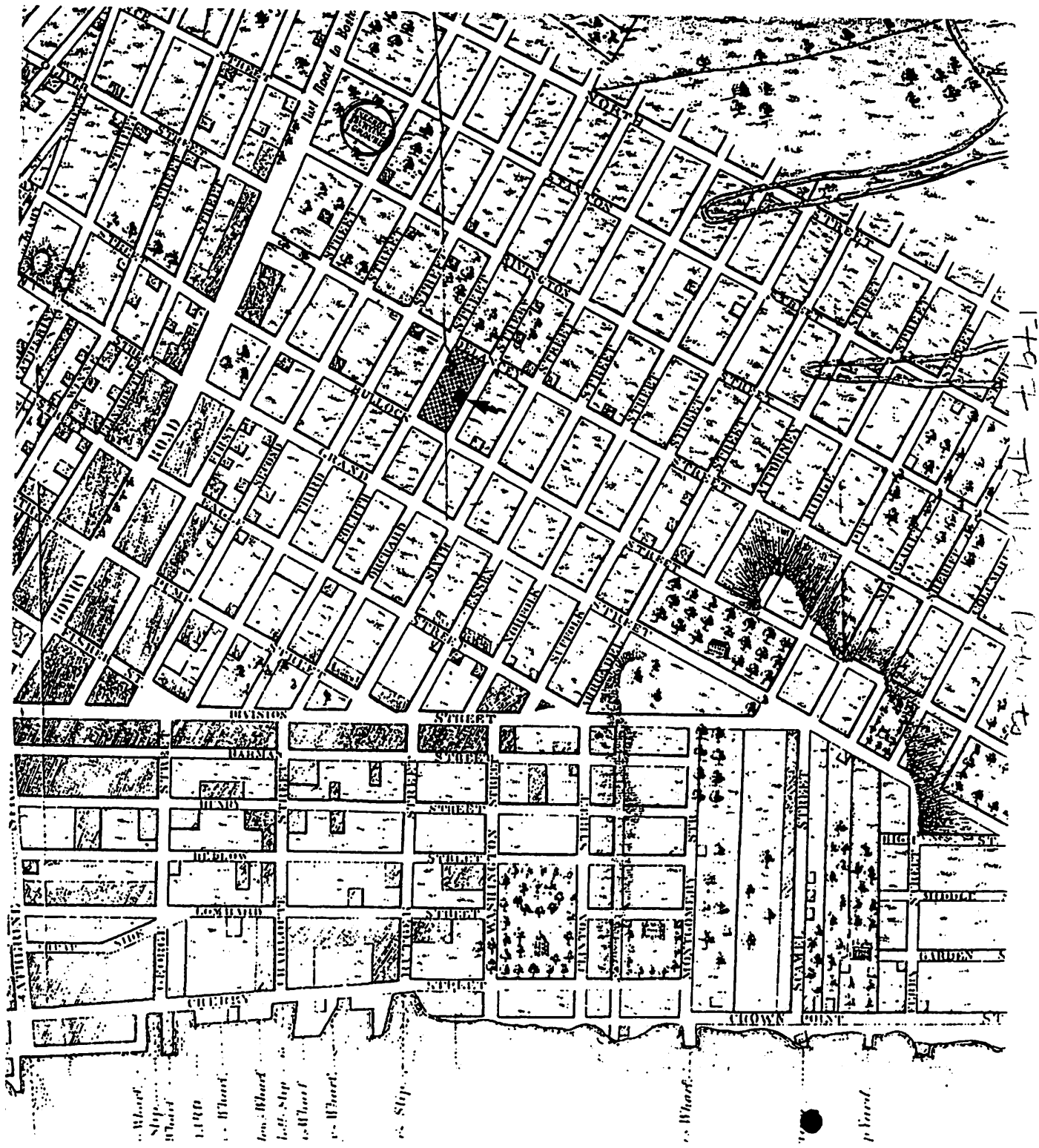
Information about the early development of the neighborhood in general and the 97 Orchard Street lot in particular comes from several sources, mainly the 1866 Valentine's Manual, maps, New York Directories, and tax assessments.

The Ratzer Map shows streets laid out to Bullock Street (now Broome) as early as 1767; it also documents the location of the James DeLancey Estate and DeLancey Square as well as areas of unspecified development south and west of the square and as far north as Bullock Street. A now-forgotten road that ran from the Bowery Road to the East River is also shown just north of the 97 Orchard Street lot (the DeLancey orchards were apparently located north of this road). It does not, however, document any development on Orchard Street in the vicinity of the 97 Orchard Street lot or block (see Figure 4).

According to Valentine, streets were laid out south of Grand Street prior to the Revolutionary War (Ratzer, on the other hand, shows development extending further north). Improvements on these streets included one house on First (now Chrystie) Street, eight on Second (now Forsyth), three on Third (now Eldridge), seven on Eagle (now Hester), and thirteen on Pump (now Canal), but Valentine does not say when they were built. He also notes that "lots were quite compactly built upon" on the Bowery Road between Division and Grand Streets,<sup>30</sup> but, again, the 1767 Ratzer map shows that development on this thoroughfare extended somewhat further north. The 1782-1785 Hills map agrees with Valentine's description of development, but by this time there were houses on Orchard Street below Eagle (Hester) Street. This map does not document any structures or proposed streets north of what would become Grand Street; it does show that fortifications built in this vicinity during the Revolutionary War still remained (see Figure 5).

The 97 Orchard Street lot was originally located in the Seventh Ward (later the Tenth Ward after the Seventh was divided in 1808). The earliest available tax assessment for the Seventh Ward dates from 1792, a year after it was created, and thirty-five years before there was any development on the 97 Orchard Street lot. Although it is difficult to locate the properties listed in this record, it documents the kind of development that had occurred in the vicinity of Corlear's Hook, and therefore in the general area of concern although not on, or even near, the tenement block. Among the documented commercial establishments are two slaughter houses, two foundries, and three shops. An interesting entry concerns a "Jacob Asdoors" who owned a house and lot on the Bowery. It seems likely that this was John Jacob Astor who had come to New York City from London in 1784 or 1785<sup>31</sup> (later Directory entries variously list Astor as "Asador," "Jacob John Asador," or "Jacob John Astor").

In 1795, lots were appropriated for a "Negroes' Burying Ground" on Chrystie Street between Stanton and Rivington Streets. This is shown on the 1797 Taylor-Roberts map, the first to document individual structures on Orchard Street north of Grand. The development shown on Orchard Street south of Grand on this map is markedly different from what is found on the earlier Hills map. Three buildings are depicted, one of them on the west side of Orchard Street between Bullock (Broome) and Delancey, apparently just north of the 97 Orchard Street lot. The only other structure then on the block was situated on Fourth (Allen) Street (Figure 7; compare with Figure 5).



97 Orchard St. block  
 103 Orchard St. ?  
 "Negro Burying Ground"

no scale given



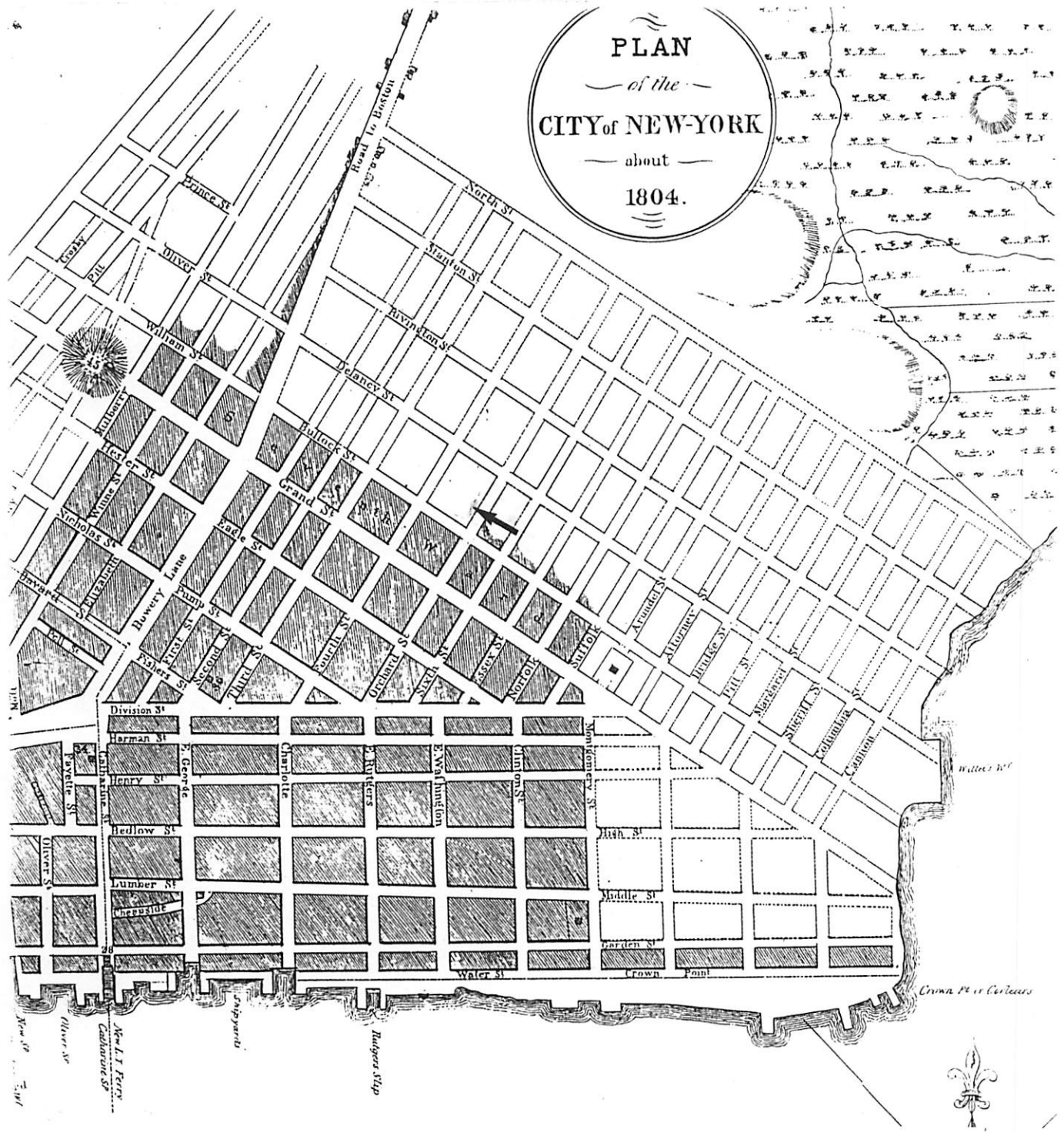


The next available assessment is from 1802; by this time street names are given, and fifty owners and tenants are listed under scattered Orchard Street entries. The tax roll is incomplete, and, to make matters worse, many properties listed on Orchard Street are actually on other streets according to the Directory for this year. If subsequent tax rolls are any indication, the listings also include property above North (Houston) Street where streets east of the Bowery Road were yet to be defined.

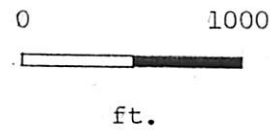
The assessment lists nineteen houses somewhere on the eight Orchard Street blocks laid out between Division and North Streets as early as 1767, but not opened until 1806.<sup>32</sup> Most were multifamily and almost all were tenanted. One "unfinished" house and one shop are also found on the tax assessment. An anonymous map entitled A Plan of New York from 1804 indicates that development on Orchard Street stopped just above Bullock (Broome) Street (Figure 8). At this time, the two blocks bounded by Delancey, Orchard, Broome, and Eldridge (then Third) Streets, which included the 97 Orchard Street lot, were owned by Edward Livingston and Lewis Morgan, but neither was assessed on Orchard Street. Given the evidence for at least one house on the west side of Orchard between Delancey and Broome, this is somewhat surprising.

The 1808 assessment is the next one available; by now, as noted above, the Seventh Ward had been divided and the Tenth Ward created. This tax roll is the first to document nearby "Rope-walks," extremely long, narrow buildings where the rope required by sailing ships was manufactured. Rope-making had been one of the

PLAN  
*of the*  
 CITY of NEW-YORK  
 about  
 1804.



← future site of 97 Orchard St. (approx.)

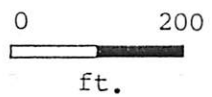
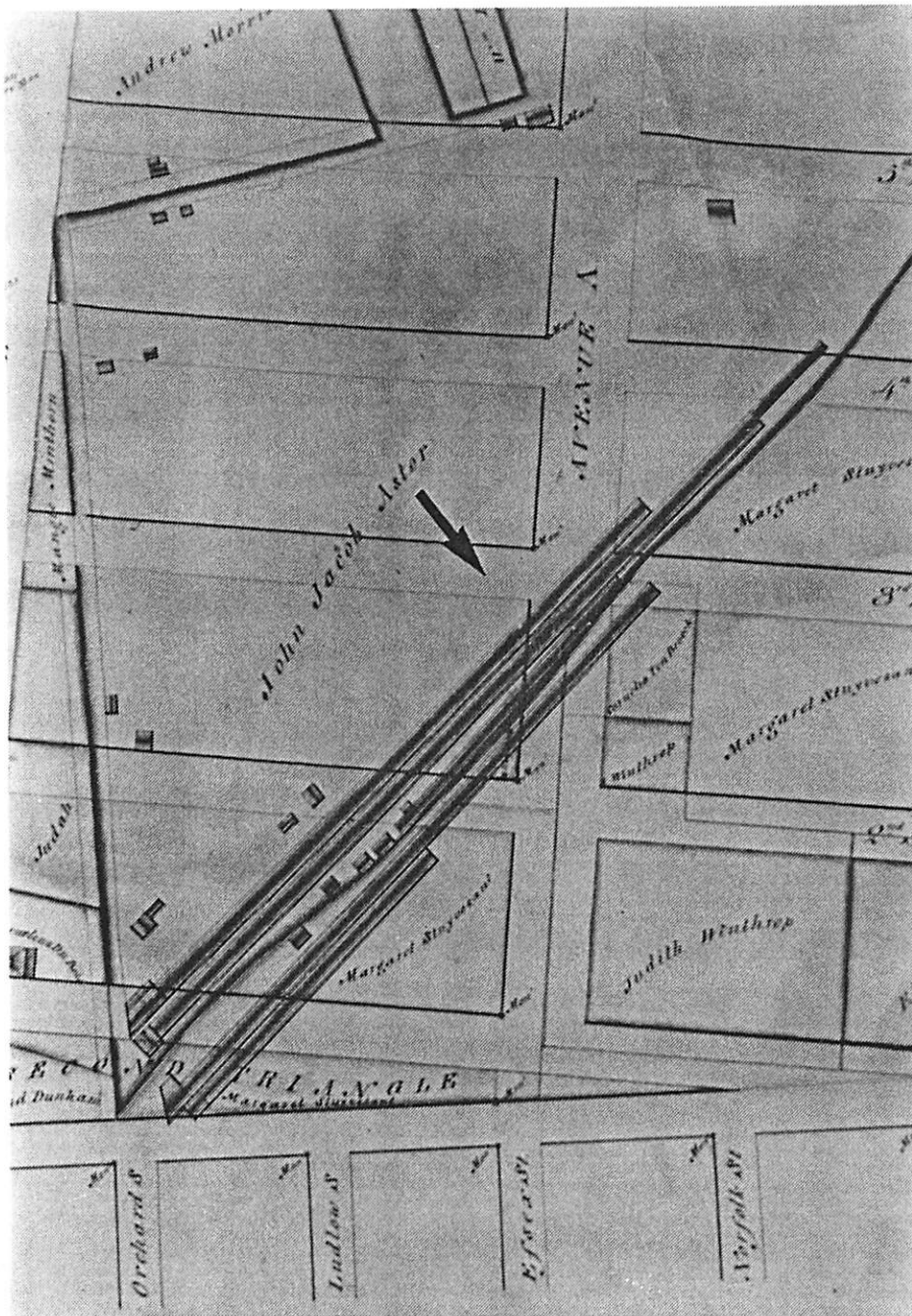


earliest, and one of the few, industries allowed in the colonies during the English period.<sup>33</sup> Three rope-walks are listed on Orchard Street in the 1808 tax rolls. However, later assessments and Randel's 1811 Commissioners' Map of the City, as well as his 1819 Farm Map,<sup>34</sup> locate them above North Street (Figures 9 and 10), beyond the northern limit of Orchard Street.

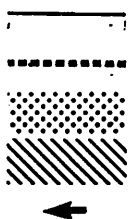
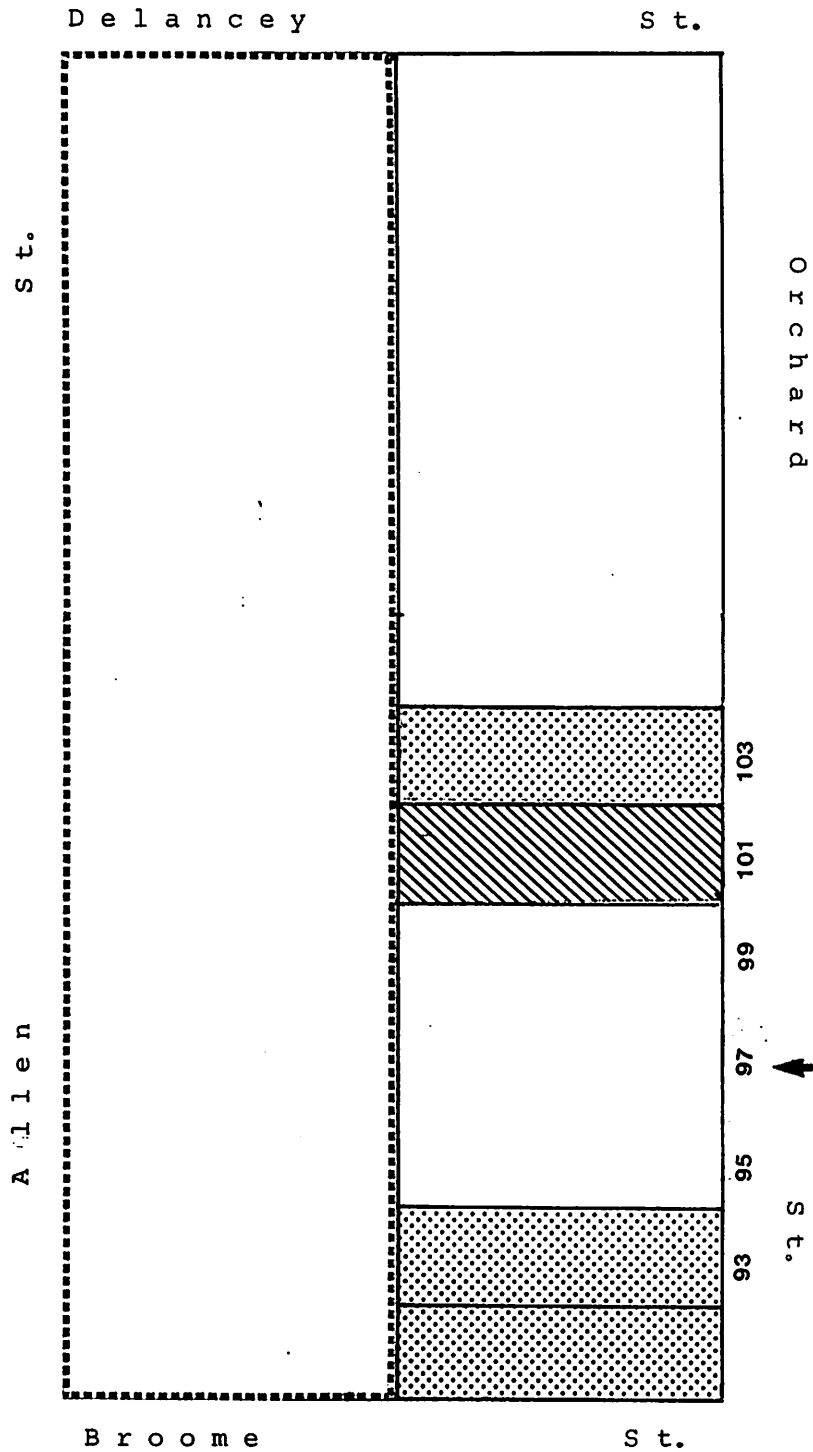
The 1808 assessment documents five or six houses on Orchard Street between what appears to be Broome and North (Houston) Streets (this assessment does not define blocks), three of them on the 97 Orchard Street block. By this time, houses had been built on the two lots just north of Broome Street; the next four were vacant, including the future 97 Orchard Street lot, and the third house stood on the next lot toward Delancey Street, what would later be 103 Orchard Street. This appears to be the structure shown on the Taylor-Roberts map and the oldest one on the block.

Two years later when William Cutting and his wife sold four of their lots, including what would become 97 Orchard Street, to Nicholas Romaine, they were all unimproved. This 1810 transaction and the subsequent construction of a house on the most northerly of Romaine's newly-acquired lots are fairly well documented in the tax assessments (Figure 11). The improved lot and the three that were still vacant are all assessed to Romaine and Cutting. According to the 1811 Directory, Romaine's (and Cutting's) new house was rented to Henry Voorhies, a lamplighter living at Orchard near Broome. Next to Mr. Voorhies, in the older house also owned by Romaine and Cutting, was John Iteaman, a smith; he, too, was listed at Orchard near Broome.





Randel's Farm Map begins at North (Houston) Street which is unmarked on this detail. The street crosses Orchard, Ludlow, Essex, and Suffolk Streets. The arrow points to Rope Walks assessed on Orchard Street in the Tenth Ward tax rolls even though they are actually north of the street's northern limit. Note that John Jacob Astor owns a large part of the land shown on this detail. (Map courtesy of the Topographic Bureau of the Manhattan Borough President's Office. Copied by Geismar)



west side of Orchard St. between Broome and Delancey  
 Allen St. side of block, structures not shown  
 Orchard St. buildings standing by 1808  
 Orchard St. building erected between 1810 and 1811  
 future site of 97 Orchard St.

It appears likely that the house rented by Itean is the structure depicted on the 1797 Taylor-Roberts map (see Figure 7).

When John Jacob Astor bought Romaine's four Orchard Street lots in December, 1814, the house on the most northerly lot is not mentioned in the deed. The tax rolls reveal that Astor also owned a house and 20 acres in the vicinity of the rope-walks, north of what is now Houston Street (see Figure 10).

The future 97 Orchard Street lot and those on either side of it remained undeveloped throughout Astor's ownership.<sup>35</sup> Initial development followed sale of the lots to the Reformed Protestant Dutch Church in Orchard Street in 1827;<sup>36</sup> Jonathan Greenleaf, in his history of New York City Churches, suggests the church edifice was built by 1828 (see below).<sup>37</sup> Once the church was erected, the west side of Orchard Street between Delancey and Broome was entirely developed. (This was not so of the eastern side,<sup>38</sup> and a complaint was referred to the street inspector in May, 1828, to have vacant lots fenced in between Broome and Delancey Streets.)<sup>39</sup>

#### DEVELOPMENT 1828 to 1863

By 1828, there were structures on all thirteen lots on the western side of Orchard Street between Broome and Delancey. Except for the church and the building on the corner of Broome Street that probably was a multifamily residence with a store on the ground floor, all were mainly residential. The trades or professions of several of the owner-occupants and tenants have been found in the Directories.



A grocer was a tenant in the building at the corner of Broome and Orchard Streets in 1828; since there was always one tenant who was a grocer, it is assumed there was a grocery store on the ground floor of this building by 1828 if not before. There was at least one other tenant in the building in 1828, but he remains unidentified. The occupant of the rental property next door was a man named Elliot Green whose occupation is unknown. Next came the church, and then Jacob Ferris in the house built by Dr. Romaine (and probably William Cutting). According to the 1827 tax roll, Ferris paid taxes on the property and lived in the house prior to buying it from John Jacob Astor. By 1831, he had built a back house on the lot (the 1831 assessment lists two houses on the lot, but this is the only entry to do so until 1858 when house and lot dimensions are first given). Ferris owned and occupied his property for thirty-five years.

Besides the grocer who rented, and the chairmaker who owned his property, two cartmen, a mason, and a weigh-master owned and occupied the next four houses on the west side of Orchard Street. It is possible they were multifamily dwellings as was found to be the case in the 1850 census (see below), but it is also possible they were single family homes at this time. The remaining three buildings were apparently rental properties, but the tenants are not identified (the four most northerly Orchard Street lots were later razed when Delancey Street was widened in 1903, shortening the block by just over 100 ft.<sup>40</sup> [see Dolkart this volume]).

Between 1833 and 1834, the orientation of the corner building on Broome and Orchard Streets appears to change. There were



originally thirteen lots on the west side of Orchard Street, including the three where the church stood; in 1834, and throughout the rest of the 19th century, there are only twelve. It seems that the corner house, which belonged to John Johnson for many years and in 1833 was still listed on the Orchard Street tax assessment, was no longer listed on Orchard Street in 1834. At this time its owner was Edward B. Summers, a grocer, who had been a former tenant in the building. <sup>41</sup>

There are three other back houses documented in 1858 besides the one on Jacob Ferris's lot (the 1852 Ferris Atlas shows that almost every house had some kind of backyard structure, some with stores; see Figure 13). The tax assessment for 1858 indicates that six were two-story houses, four were three-story, and one was only one story. The tallest was a five-story backhouse that must have been built by John Cornell, the cartman, who sold the property in this year<sup>42</sup> (two years later, in 1860, the census lists at least ten households at what appears to be this address). Cornell's small frame structure fronting on Orchard Street <sup>43</sup> may have been the one shown on the Taylor-Roberts map; his backhouse was the first five-story tenant house on the block. At this time, all but one of the thirteen houses around the corner on Allen street were two stories high. The exception was a four-story building on the corner of Delancey and Allen with a grocery store on the ground floor.

Unfortunately, tax assessments do not offer any information about the dimensions of the church structure. According to Jonathan Greenleaf, the Orchard Street Church was organized in 1826 by the

Reverend James H. Teller, a young minister in the Dutch Reformed Church. Its thirty-four original members arranged for construction of "a very substantial edifice" on Orchard Street between Broome and Delancey Streets.<sup>44</sup> The congregation survived for only a few years:

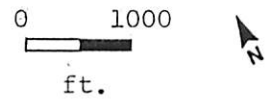
...in the summer of 1829, the health of Mr. Teller failed<sup>45</sup>, and...the Rev. James B. Hardenbergh was obtained as pastor...The church at this time had increased to 150 members, and had their house of worship been free of debt, a flourishing church and congregation might have been collected...for a time they struggled onward...but the congregation could not sustain themselves. The house of worship was sold under foreclosure of mortgage, and the church, then consisting of one hundred and sixty members, scattered into other churches.<sup>46</sup>

The forfeiture sale in 1831 notes that a church and church buildings had been erected on the three lots.<sup>47</sup> The archives of the Dutch Reformed Church has no record of when these structures were built,<sup>48</sup> but deed information places it between 1827 and 1831; as noted earlier, Greenleaf's history suggests it was built by 1828.

Although discrepancies in dates of ownership have been noted, and even its denomination may have been misrepresented (for a time in the 1830s, tax records list it as Presbyterian), it appears that the former Dutch Reformed Church was used, if not always owned, by the Universalist Society from 1832 until 1859 (Figure 12 shows its location on the block and general neighborhood development). The minister throughout these twenty-seven years was T. J. Sawyer.<sup>49</sup> No rendering or photo of the church has been found, but the 1852 Perris Insurance Atlas indicates it nearly covered the three lots



- 97 Orchard St. block
- ← Universalist Church on Orchard St.



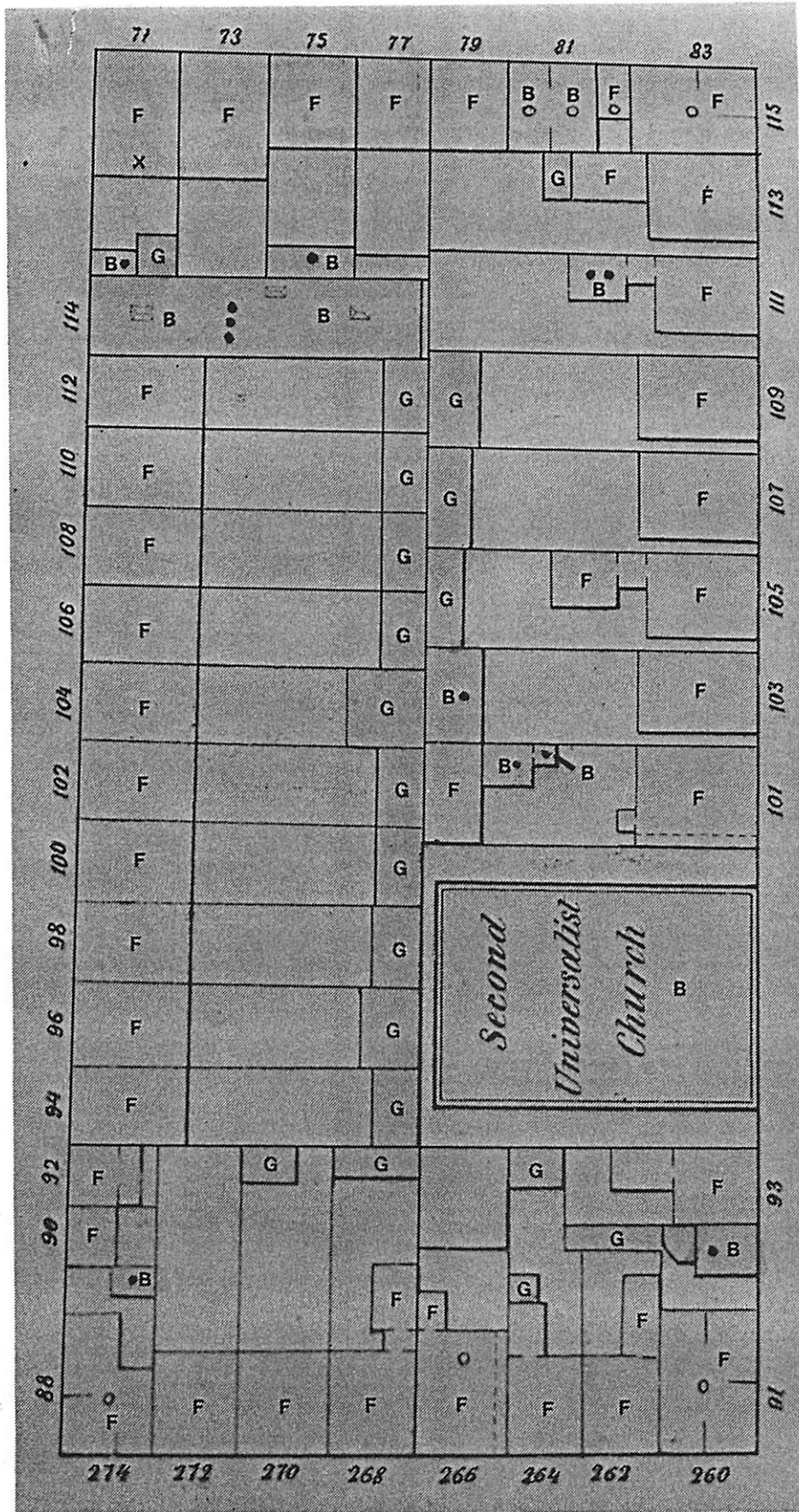
(Figure 13). This map also documents new house numbers later found in the 1854 tax assessments; the church was now at 95 to 99 Orchard Street, and the middle lot, where the tenement would later stand, was number 97.

In 1860, the Second Universalist Society sold the church to the Second Reformed Presbyterian Church.<sup>50</sup> When the property was bought by Lucas Gokner (sic), Adam Stum (sic), and Jacob Walter three years later, the deed was for the lots and the "...church edifice thereon." The new owners apparently quickly demolished this structure, for the 1864 Orchard Street tax rolls list three new five-story tenements on the lots, one belonging to each of the buyers.

#### 19TH CENTURY POPULATIONS OF THE 97 ORCHARD STREET BLOCK

Until shortly before construction of the tenements that now characterize the area, the 97 Orchard Street neighborhood was typical of many others in the city. Here, as elsewhere in Manhattan, occupancies were often transitory, but a number of owner-occupants remained for long stretches. Jacob Ferris, who bought his house and lot from John Jacob Astor in 1828, is a good example of a steadfast occupant.

Ferris was about thirty-five when he bought the house, and he occupied it for next thirty-six years. On the 1850 census and in other documents and directories, he is listed as a chairmaker. In his household on this census was Catherine Ferris, who at sixty-three was six years older than Jacob. She may have been his wife (on this census, a disproportionate number of woman are older than their presumed spouses), or perhaps his unmarried sister, or a sister-in-



- B brick
- F frame
- G unidentified material
- o store on ground floor
- "Hazardous Industries"

0 50



ft.



law; eighteen-year-old Charles Ferris, a silversmith, was the only other member of the household. Jacob appears again on the 1860 census but, now sixty-six years old, he was apparently retired from chairmaking since he lists himself as a gentleman.

As noted earlier, the 1831 tax assessment lists two houses on Ferris's lot. Although his immediate household was small in 1850, a total of twenty-seven individuals lived in five households at this address; this was the densest occupation found on the west side of Orchard Street between Broome and Delancey in 1850. Ferris and his tenants were undoubtedly occupying two houses--presumably one fronting on Orchard, the other a backhouse.

The 1850 census ~~which is~~ the first to offer detailed information about individuals <sup>λ</sup> provides data for the blockfront that are comparable to what are found for the tenement in 1870.<sup>51</sup> In 1850, there were twelve lots; on them were twenty-four households made up of 118 individuals, only forty-nine more than were living in the single tenement in 1870. Forty-three of these residents were adult males and forty-one adult females; there were also seventeen males and seventeen females under fifteen years. As opposed to the occupants of 97 Orchard Street in 1870, who were predominantly European born and mainly German (40, or 56%), those living on Orchard Street in 1850 were mainly born in America (86 or 73%), or, more specifically, New York (71, or 60%). Moreover, those who were born in Europe were mostly English (14, or 12%); only eight (7%) were German born.

Except for one house occupied by a single family, all were multiple occupancy, with two to five households documented at each

address. The more densely occupied lots were those directly south and north of the church, later 93 and 101 Orchard Street. According to the census, there were five families residing on each lot (101 Orchard Street was Jacob Ferris's property). Ninety-three Orchard Street may have been connected to a structure that also fronted on Broome Street. One of the families in this house, headed by William Douglass, a laborer, was Black; Douglas and his wife and three children, who were all born in New York, did not live here long since there is no Directory listing for him at this address, but there are others that indicate he and his family moved just about every year.<sup>52</sup> The 1851 Street Directory, the only one of its kind, lists a grocer, a tailor, a pencil case maker, and a jeweler at this address.<sup>53</sup>

The building next to Ferris at 103 Orchard Street was the small, frame, house now owned and occupied by John Cornell, the cartman, who was sixty-five years old. The census lists two families in the house, but it is possible this structure, probably the oldest on the block, may have been built as a single-family home. Cornell's tenants were a woman and her two grown daughters. There was a boarding house keeper next door at 105 Orchard Street; he lived with his wife and child and ten boarders. In the next house, number 107, four households are documented.

The house at 109 Orchard Street was the single family dwelling noted above. It was occupied by David Miller, a moulder, and his extended family and a young woman born in Ireland who was probably a servant.<sup>54</sup> The last two houses, 111 and 113 Orchard

Street, were both two family. A silversmith and shipsmith were at 111, and both appear to have had Irish servants. The last of the houses, 113, was occupied by a watchmaker and his family and two women in a separate household. It appears the more upper-scale households lived nearer Delancey Street.

The occupations of thirty-six men found on the blockfront in 1850 have been identified through census and directory information. Half were skilled or semi-skilled workers or artisans, in this case cabinetmakers, carpenters, chairmakers (there was one other besides Ferris, possibly his assistant), moulders, a mason, a tinsmith, a shipsmith, a plumber, a sailmaker, a jeweler, a watchmaker, a sash-maker, a trunk maker, and a silversmith. A cartman (John Cornell) and three merchants are identified as are two manufacturers, one of pencil cases, the other of cigars. And, finally, there was the one laborer mentioned previously, and a painter and a fisherman.

In the middle of the 19th century, the tenement block was part of a predominantly residential neighborhood; besides dwellings, some with stores on the ground floor, non-residential buildings were mainly churches (in addition to the Universalist Church on the block, there was a Methodist Episcopal Church on the block just to the north, a Presbyterian Church on the block to the east, and an Episcopal Church on the block to the south).<sup>55</sup> Most of the buildings on the 97 Orchard Street block were frame (exceptions were the Universalist Church, a small structure at 93 Orchard Street, another with stores on the ground floor at 81 Delancey Street, and some backyard



structures which were possibly brick; see Figure 13). There were ground-floor stores in buildings on the corners of Allen and Orchard Streets at Broome and in the middle of the Broome Street blockfront; there were four more on Delancey Street near Orchard (see Figure 13). It also appears that Jacob Ferris and perhaps some of the other skilled workers and artisans on the street worked in shops in their yards (according to the Ferris Atlas of 1852, a small brick structure where "Hazardous Industries" were carried on was attached to Ferris's frame backhouse; see Figure 13). The church was still a house of worship for the Second Universalist Church, and while there were many foreign-born residents, there was no strong sense of the drastic changes that would come to the neighborhood after 1860.

By the 1860 census, the number of residents on the block had grown to 166 even though two of the houses (93 and perhaps part of 91 Orchard Street) were unoccupied. As had been the case a decade before, numbers of adult males (52) and females (54) were virtually equal, but males under fifteen (35) outnumbered females (25).

Occupations are given for both men and women on this census, and thirty-two have been identified for males, five for females. Only about one-third of the men are now skilled workers (carpenters, a shipcarpenter, cabinetmakers, guilders, machinists, engravers, printers), but there are also a cartman, a doctor, a teacher, a hairdresser, and an engineer. Five tailors, a furrier, a policeman, a tobacconist, a grocer, an apprentice confectioner, an apprentice cage maker, a seaman, a butcher, a provisions dealer, a brewer, several clerks, two brokers, two agents, and, somewhat surprisingly,

a miller are also documented. Manufacturers include an iron railing manufacturer and an umbrella maker.

Occupations are identified for thirteen women (24% of the adult females). With the exception of three servants, all were involved in some way clothing production: four were tailoresses or apprentice tailoresses; four were dressmakers or apprentice dressmakers; one was a milliner; and one an embroideress.

While the number of skilled workers or artisans had declined from the previous census, the number of foreign born, particularly those from Germany, had increased. Now foreign-born numbered eighty-nine (48.8%), and twenty-nine of the 166 residents (17.5%) were from Germany. This was balanced by eighty-five American born (51.2%). Of the block's 166 residents, however, the majority of those on the census (79, or 47%) were still from New York, albeit less overwhelmingly than ten years before. The blockfront's shifting ethnic mix and the occupations found in this census were a portent of what would be recorded at 97 Orchard Street ten years later when the 1870 census was taken.

#### SANITATION

As noted in the introduction, a major question regarding the archaeological potential of a 19th-century structure in an urban setting, particularly a dwelling, concerns the associated yard features such as wells, water cisterns, trash deposits, and, perhaps most importantly, the privy pit. Once running water was available and street sewers were installed that could accommodate human waste as well as street runoff, there were alternatives to the privy. But

privies remained in use until a building's owner either chose to hook into the sewer or was forced to do so. Once abandoned, these filled and sealed privy pits usually contain deposits of household trash that offer domestic, economic, and social information about a building's occupants.<sup>56</sup>

Construction of the 97 Orchard Street tenement probably began in 1863, after the church on the site was demolished. Information about the sewers associated with this building is somewhat contradictory; for example, the New York City Department of Sewers has information to suggest a sewer was installed on Orchard Street sometime between 1857 and 1863.<sup>57</sup> However, a sewer assessment record for Block 414 indicates that assessments, and therefore sewer service, did not begin on the block until 1899.<sup>58</sup> If, as seems likely, this is the case, when the 97 Orchard Street tenement was built in 1863, it would have used backyard privies to accommodate the tenants. It also appears these privies were used until 1899; this is not unusual in a relatively low income neighborhood where municipal services often came late and buildings belonged to absentee owners who were prone to postpone the added costs of providing amenities to their tenants.<sup>59</sup>

Legislation meant to safeguard the health of New York's growing population is significant in determining the kind of sanitary facilities that might be found on the lot. The sanitary requirements governing privy construction at 97 Orchard Street were those in effect from 1801 until 1866.<sup>60</sup> Some of the regulations that would have governed construction and management of the privies include the

following: any privy, sink, or cesspool was to be constructed of brick or stone and was to be at least 10 ft. deep; noncompliance would result in a \$50 fine. A \$100 fine would be imposed if it was built within 30 ft. of any public well or pump, and \$25 if less than 2 ft. of earth, masonry, or cement separated it from a neighboring lot. A privy's contents were to be kept 2 ft. below the surface (\$25 fine), and the privies could not be cleaned between the last day of May and the last day of September (\$20 fine). No vegetable substance or garbage, offal of fish, poultry, or any dead animal were to be thrown into the privy (\$25 fine). There were other restrictions, but they would not affect what would, or should, be found in a privy excavated in an archaeological context.

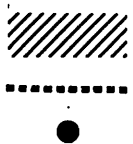
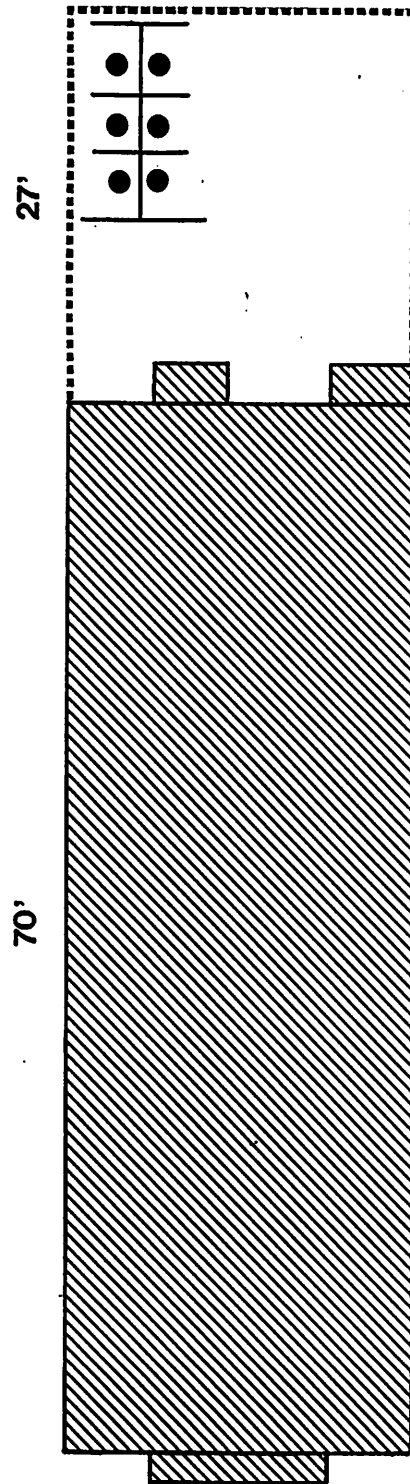
A tenement house law was passed in 1882 that mandated "good and sufficient water closets or privies of a construction approved by the board of health." There was to be a minimum of one facility for every twenty building occupants, and, if there was a street sewer, it was to be used. <sup>61</sup> Since any privies at 97 Orchard Street were constructed before this regulation was in effect, the number of facilities to be expected is unknown. Census data tell us there were eighty occupants in 1880 (as opposed to seventy-one ten years before), or an average of four occupants in each of the twenty apartments originally designed for the building. If the 1882 requirement of one privy for every twenty occupants was retroactive, it is possible that four privies from this period would remain buried in the yard. Since 97 Orchard was the middle building of three tenements erected at the same time by associated owners, it is also possible the buildings shared their yard facilities in some unknown way.

In 1887, new state laws were instituted that affected sanitary practices in the City,<sup>62</sup> but they concerned buildings with sewers and probably did not apply to the yard facilities of 97 Orchard Street or its neighbors. At least not until 1899, when as mentioned before, a sewer assessment is first recorded. Once a sewer was available, it appears likely that the six water-cleansed school sinks--a version of the water closet (see below)--documented on a 1902 Housing Department record were constructed.<sup>63</sup> If the 1899 sewer assessment represents the first sewer hookup, these school sinks would have been in use for about six years before hall toilets were installed at 97 Orchard Street.

It is assumed, then, that backyard privies were used by the building's occupants for thirty-five years, from 1864 until about 1899. We know from Housing and Building Department records<sup>64</sup> that a cluster of six backyard school sinks were in use between 1902 and 1905, and it is feasible that they were installed as early as 1899. The Housing Department record locates these facilities in the southwest corner of the yard, alongside the yard of the 95 Orchard Street tenement and abutting the property line of 96 Allen Street (Figure 14).

#### School Sinks and Privies

As mandated in the sanitation laws of 1802-1866, any privy pits at 97 Orchard Street would have been at least 10 ft. deep. If they are similar to other mid-19th century privies that have been excavated in Manhattan, they were constructed of dry-laid stones and had unsealed bottoms.<sup>65</sup> Till now, no tenement house privies have



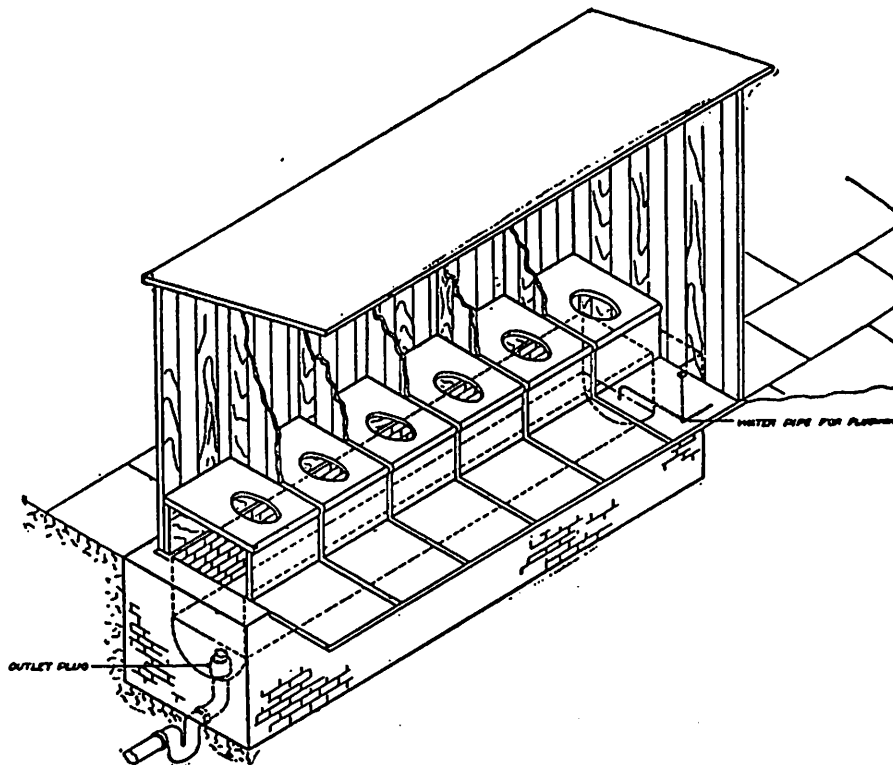
97 Orchard St. tenement (structure)  
yard  
school sink

been excavated in Manhattan, so it is difficult to predict what the exact dimensions of such pits, or their configuration, might be. Since they were supposed to be made of brick or stone, their materials are more predictable, but even this is a question. School sinks, on the other hand, are quite well documented.

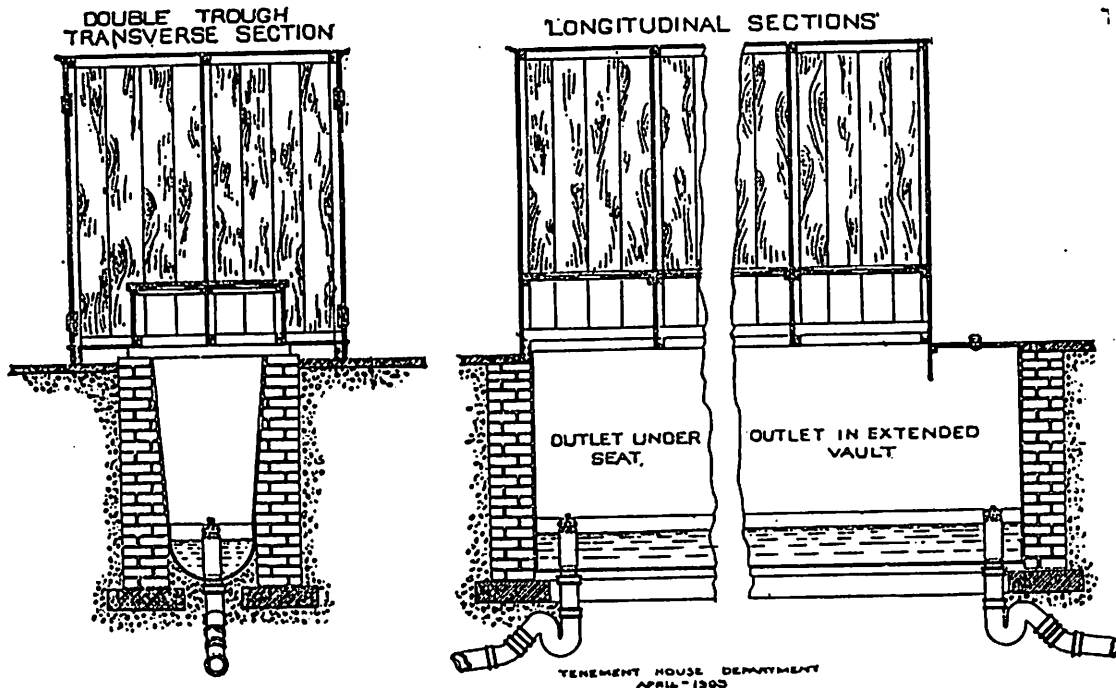
In his chapter on tenement house sanitation prepared for the 1901 DeForest and Veiller analysis of the tenement house problem, Albert Webster is very explicit about these features.<sup>66</sup> He describes them as generally being "brick masonry vaults from 10 feet to 14 feet long, 2 feet wide, and from 2 to 3 feet deep, built below the level of the yard, and extended with wood to the level of the seats, a height of about 18 inches."<sup>67</sup> The vault was crossed by an underground pipe that provided water to manually flush the facility, and, according to Webster's illustrations, it had a sealed bottom and was in effect a closed system (Figures 15 and 16).

In terms of the superstructure, the school sink looked very much like its privy forerunner, but in the tenement-house situation they were communal affair (Figures 17, 18, and 19). Whether this construction, like the privy which required manual cleaning, invited the illicit disposal of household debris remains a question. Since garbage disposal in the tenement was an ongoing problem (see Dolkart this volume), school sinks may have served as receptacles for household trash much as privy pits did although their smaller size and flushing system may have been a deterrent.

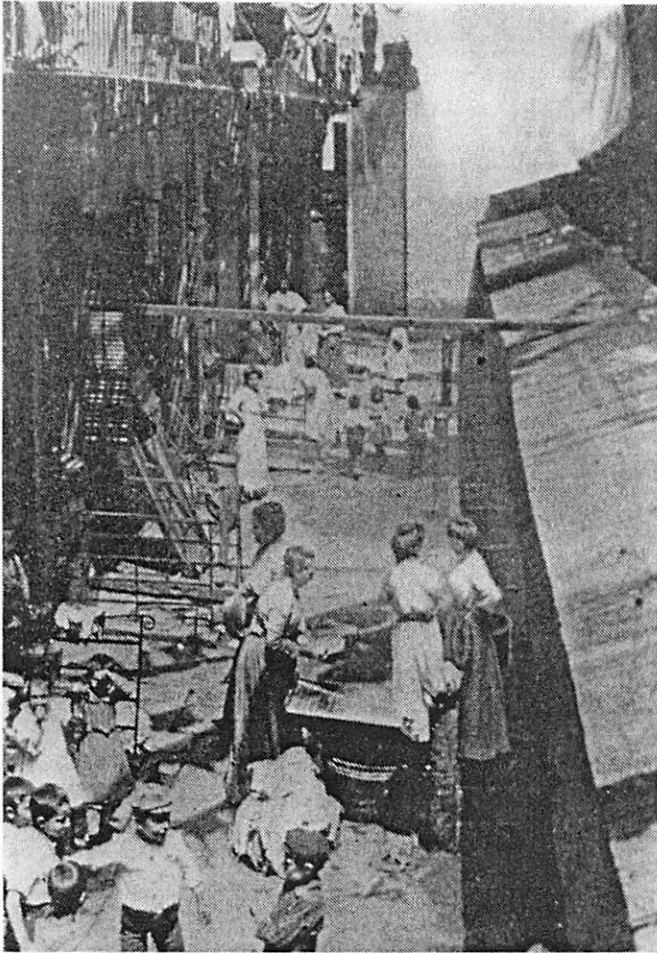
Another question concerns the location of the school sink in relation to the earlier privy pit or pits. It is not known whether



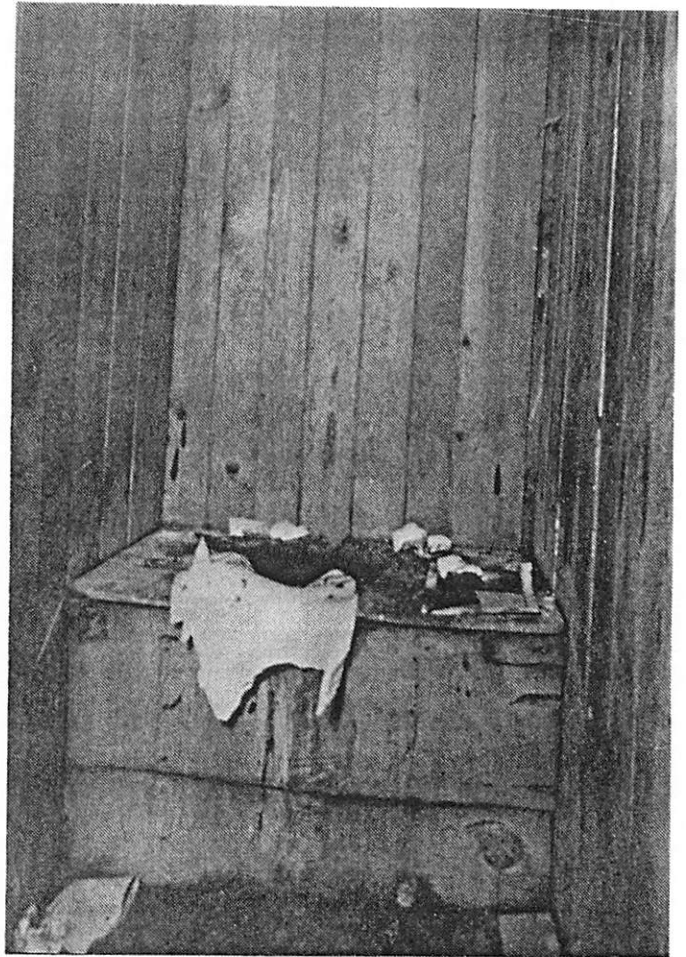
Structural View of a Double School Sink Construction (Webster in DeForest and Veiller 1903:311)



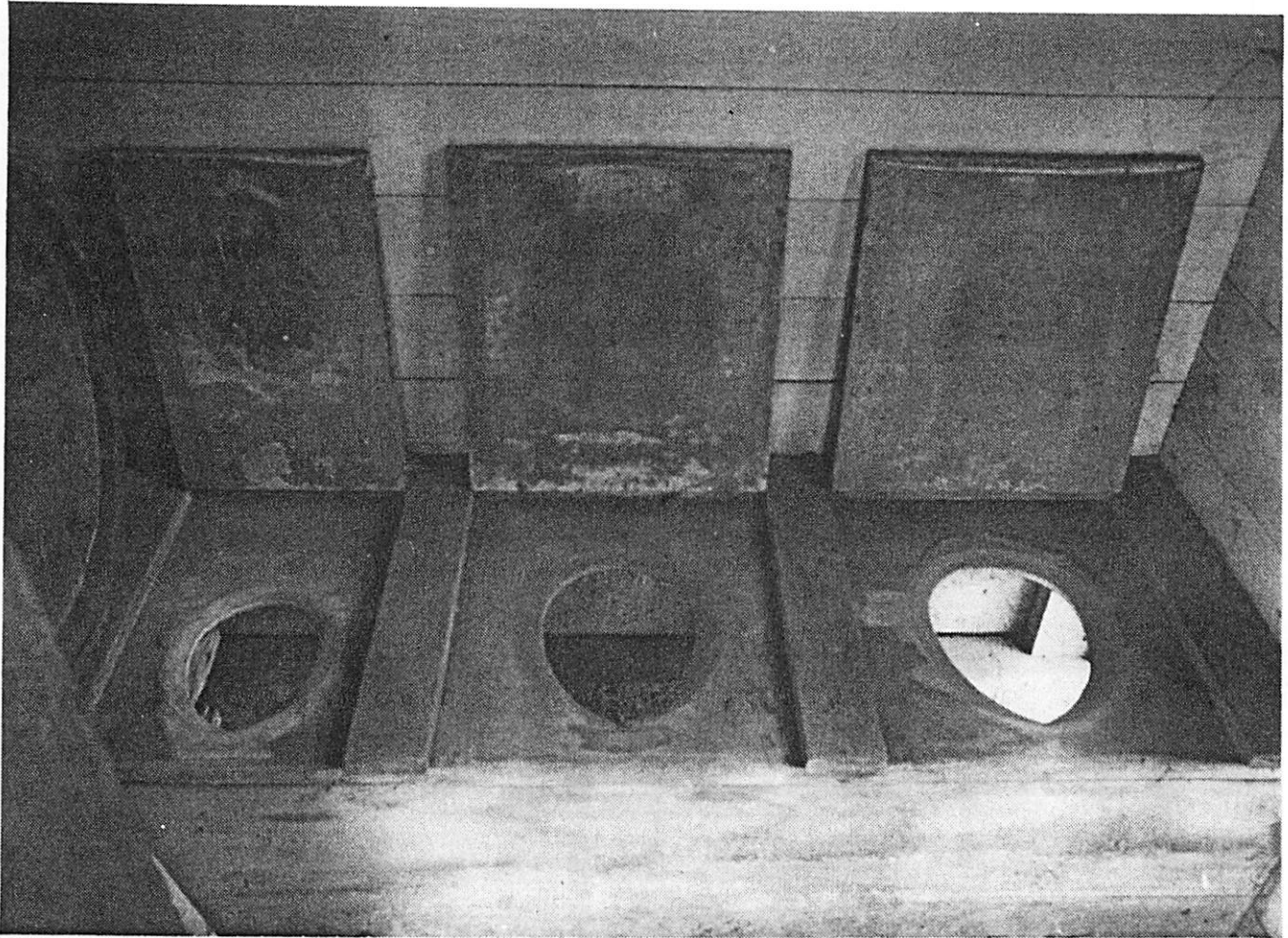




A tenement yard with a line of school-sink enclosures in a line to the right of the photo. These outdoor facilities seem to be an accepted feature in the tenement scene. (Photo from DeForest and Veiller 1903)



The original caption reads "A School-Sink-- A Condition Often Found." Compare the structural elements of this cabinet with those found in a rural mid- to late-19th century privy shown in Figure 19. (Photo from De Forrest and Veiller 1903)



A mid- to late-19th century privy cabinet still in place in what was rural Saten Island. This three-holer must have been meant to accommodate a family with small children. It has been cleaned and was never situated over a large privy pit; it was instead a trough-privy that must have had a tray to collect the waste so it could then be used as fertilizer on the farm (the light seen on the right is from the opening used to empty the trough). Note the construction of the cabinet interior which is very much like the School-Sink shown in Figure 18. (Photo Geismar 1989)

it is more efficacious to construct a school sink on the site of an existing privy, or to build it in an entirely new location. Consequently, knowing where the school sink was located does not necessarily identify the location of an earlier privy pit.

Whatever the case, the location of the school sinks at 97 Orchard Street are known. What is not known is whether the underground components remain and, if it they do, what they will reveal. The location of former privy pits is also an unknown. If they survive--which is likely--they potentially offer a treasure trove of unselfconscious, non-bureaucratic information about the building's 19th and very early-20th century occupants.

#### CONCLUSIONS

Ownership of the 97 Orchard Street lot can be traced for over 350 years, and many of those who owned it in the 18th and early 19th centuries are closely associated with New York City's history. Among them are the DeLanceys, father and son, and John Jacob Astor. The DeLanceys were American-born English Colonists loyal to the crown while John Jacob Astor was an immigrant, albeit a remarkably successful one.

Despite its illustrious early-ownership history, the 97 Orchard Street lot was often sold at forfeiture sales; moreover, it remained undeveloped until about 1828, when it became the site of the Orchard Street Church. Had there been any earlier development, traces of it would undoubtedly not have survived construction of this relatively large edifice. For over three decades, this structure was a functioning house of worship until it was demolished in 1863 to

make way for the 97 Orchard Street tenement and those now on either side of it. It is somewhat remarkable that in this city of constant change, 97 Orchard Street is only the second building located on this lot.

It seems that the lot's in-ground archaeological potential relates to the tenement's yard features, such as abandoned privies or school sinks, where debris cast off by the building's pre-1905 occupants might be found. The deposits preserved in these features may provide valuable social and economic data that go beyond the written record to reveal what these people ate, what they ate from, what medicines they took, how they embellished their lives, and how this increasingly immigrant population adapted to their new environment and figured in the life-fabric of New York City. Investigation of the yard should provide unprecedented information about those who lived in a section of the city that has, till now, never been explored through archaeology.

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<sup>1</sup>Stokes, I. N. P. The Iconography of Manhattan Island, 1498-1909, Arno Press Reprint 1967. Vol. V 1928:88-94, 1193.

<sup>2</sup>Stokes VI 1928:86 says 300 to 339 acres. On page 94, it is 287 to 339.

<sup>3</sup>Valentine, David, 1866. Manual of the Common Council of New York. Edmund Jones & Co., New York. P. 585.

<sup>4</sup>Stokes VI 1928:90-92

<sup>5</sup>Stokes II 1918:259; VI 1928:172. Hall, one of the first English settlers on Manhattan, received his first land grant in 1694.

<sup>6</sup>Stokes VI 1928:88.

<sup>7</sup>Stokes VI 1928:87.

<sup>8</sup>Stokes V 1926:1193.

<sup>9</sup>Valentine 1866:584-585.

<sup>10</sup>Valentine 1866:585.

<sup>11</sup>The location of this isolated fortification is based on the 1775 Montresor Map which is not always reliable. The more accurate British Headquarters Map (Stevens 1900) does not show any such fortification, nor does the Hills map of 1782 (published 1785); see Figure 5.

<sup>12</sup>Lamb, Martha J., 1880. History of the City of New York. Vol. II. A. S. Barnes and Company, New York. P. 616.

<sup>13</sup>Stokes VI 1928:94.

<sup>14</sup>Van Pelt, \_\_\_\_\_, 1898. Leslie's History of the Greater New York. Vol. III Encyclopedia of New York Biography and Genealogy. Arkell Publishing Co., New York. P. 36.

<sup>15</sup>Valentine 1861:547; Stokes VI 1928:487.

<sup>16</sup>Liber of Deeds 81 1808:52.

<sup>17</sup>Stokes V 1926:1555.

<sup>18</sup>Liber of Deeds 87:392.

<sup>19</sup>Liber of Deeds 87 1810:392.

<sup>20</sup>Liber of Deeds 108 1814:169.

<sup>21</sup>Stokes I 1915:451; Valentine 1865:551. Although these two

sources say Livingston was living in Astor's house in 1802, the New York Directory lists him next door at 221 Broadway, the corner of Broadway and Vesey Street. However, this may be a typographic error since Aaron Burr lived at 221 Broadway, a property owned by the State of New York (Stokes I 1915:451).

<sup>22</sup>Van Pelt III 1898:67.

<sup>23</sup>Liber of Deeds 1827 235:524; New York Directories 1827-1832; Van Pelt 1898:66. Between 1832 and 1836, Astor's home was variously as Hoboken, New York City, and Hellgate; by 1836, he was again living in New York City where he remained until his death.

<sup>24</sup>Liber of Deeds 235 1827:524.

<sup>25</sup>Liber of Deeds 277 1831:651.

<sup>26</sup>Liber of Deeds 355 1835:214.

<sup>27</sup>Greenleaf, Jonathan, 1846. A History of the Churches of All Denominations in the City of New York City, From the First Settlement to the Year 1846. E. French, New York. P. 348.

<sup>28</sup>Liber of Deeds 826 1860:325.

<sup>29</sup>LD 874 1863:184.

<sup>30</sup>Valentine 1866:585.

<sup>31</sup>Van Pelt III 1897:66.

<sup>32</sup>Stokes V 1926:1444.

<sup>33</sup>Still 1956:20.

<sup>34</sup>The Commissioners' Map records all of Manhattan while the Farm Map only documents areas above North (Houston) Street.

<sup>35</sup>Tenth Ward Tax Assessment Rolls 1814

<sup>36</sup>Liber of Deeds 235 1827:524; Tenth Ward Tax Assessments 1827-1828.

<sup>37</sup>Greenleaf 1846:44.

<sup>38</sup>Tenth Ward Tax Rolls indicate four lots on the east side of the street were still vacant in 1828; all were improved by 1835.

<sup>39</sup>Minutes of the Common Council XVII 1917:279 re entry of July 14, 1828.

<sup>40</sup>Rule Map for the Opening of the Widening of Delancey Street 1903.

<sup>41</sup>Misc. Tenth Ward Tax Rolls.

<sup>42</sup>Tenth Ward Tax Rolls 1858.

<sup>43</sup>Perris 1857.

<sup>44</sup>Greenleaf 1846:44.

<sup>45</sup>He died in 1830 (VandenBerge 1978:173).

<sup>46</sup>Greenleaf 1846:44-45.

<sup>47</sup>Liber of Deeds 277 1831:651.

<sup>48</sup>Gasero 1991:personal communication.

<sup>49</sup>New York Directories 1832-1860. Although Greenleaf says Sawyer retired in 1846, the Directories list him as minister throughout the time the church was on Orchard Street and even after 1860, when the congregation had moved to East 11th Street.

<sup>50</sup>Liber of Deeds 826 1860:325.

<sup>51</sup>1870 Census information used here was from research done by Marcia Dennis that was analysed by James Shenton.

<sup>52</sup>In 1848, his residence was 25 Willett; in 1849, 687 Washington; one 1850 Directory lists him at 57 Thompson, while another does not list him at all. He does not appear in the 1851 Directory nor is he found on the 97 Orchard Street block in the 1851 Street Directory. In 1852, his address is given as 63 Norfolk.

<sup>53</sup>Doggett's New York Street Directory 1851. John Dogett, New York.

<sup>54</sup>No female occupations appear to be listed on this census.

<sup>55</sup>perris 1852 Plate 22.

<sup>56</sup>e.g., Geismar, Joan H. 1989. History and Archaeology of the Greenwich Mews Site, Greenwich Village, New York. Prepared for Greenwich Mews Associates. May, 1989.

<sup>57</sup>According to a master map of sewer installations, sewers were installed on adjacent streets in 1857 and 1863; however, the entry for Orchard Street is illegible (Serico 1991:personal communication).

<sup>58</sup>Special Assessments. Sewer Assessment Book 6. Block 414.

<sup>59</sup>Geismar, Joan H., 1989. The History and Archaeology of the Greenwich Mews Site, Greenwich Village, New York. Prepared for the Greenwich Mews Associates.

<sup>60</sup>Ordinances of the Mayor, Aldermen, and Commonalty of the City of New York (Revised 1850) 1866.

<sup>61</sup>An Act to Consolidate into One Act and to Declare the Special and Local Laws Affecting Public Interests in the City of New York Being Chapter 410 of the Laws of 1882 with Supplementary Act, Chapter 276, Laws of 1883 (1883).

<sup>62</sup>Laws of the State of New York Passed at the One Hundred and Tenth Session of the Legislature, 1887.

<sup>63</sup>Housing Department Record (I Card) 1902.

<sup>64</sup>97 Orchard Street "I" card. July 10, 1902. Code Violations Division of the New York City Department of Housing Preservation and Development. See Dolkart this volume for details of alterations to the 97 Orchard Street tenement.

<sup>65</sup>e.g., Geismar 1989.

<sup>66</sup>Webster in DeForest and Veiller I 1901:307-312.

<sup>67</sup>Webster, Albert L., 1901. "Tenement House Sanitation," in DeForest and Veiller, Vol. I 1901 p. 307.

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