Washington Square Park

Phase 1A Archaeological Assessment



Washington Square Park Phase IA Archaeological Assessment

Prepared for the New York City Department of Parks and Recreation Prepared through Thomas Balsley, Inc. Prepared by Joan H. Geismar, Ph.D., LLC August 2005

ABSTRACT

This report presents the findings of 1A documentary research conducted in anticipation of the reconstruction of Washington Square Park (Block 549) in Manhattan's Greenwich Village. Joan H. Geismar, Ph.D., LLC prepared the report for the New York City Department of Parks and Recreation (Parks) through Thomas Balsley, Inc. It is, in essence, an addendum to, or a continuation of, a report produced for the recently completed rehabilitation of the Washington Square Arch. The research goal was to develop an archaeological sensitivity model for currently planned park reconstruction and for future park projects. Research identified nine areas of potential archaeological concern. Most importantly, these included the City's second Potter's Field (1797-1825), a burial ground that covered approximately the eastern two-thirds of the park. It also included a late-18th century domestic complex in the park's northwest quadrant, the Potter's Field Keeper's house in the park's northeastern quadrant, and early infrastructure, such as an early-19th-century wooden drain or culvert meant to channel the Minetta Waters, the western boundary of the Potter's Field, and several late-19th-century park structures. However, limited soil boring data indicate disturbance, and fill is both documented and suggested. Based on all this information, recommendations include soil borings to determine subsurface conditions beyond the limits of the Potter's Field, and testing prior to construction where any deep excavations are planned. Once Parks, the Landmarks Commission, and the project archaeologist agree on a field procedure, the project archaeologist should develop a scope of work for Landmarks' approval.

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INTRODUCTION

This report presents the findings of 1A documentary research conducted in anticipation of the reconstruction of Washington Square Park (Block 549) in Manhattan's Greenwich Village (Figures 1 and 2). It was prepared by Joan H. Geismar, Ph.D., LLC for the New York City Department of Parks and Recreation (Parks) through Thomas Balsley, Inc., and is, in essence, an addendum to, or a continuation of, a report produced for the recently completed rehabilitation of the Washington Square Arch, a report presented here as Appendix 2. As such, it draws upon many of the documentary sources used to complete the earlier assessment, but is a greatly expanded research effort. It also incorporates in-ground information recovered through archaeological monitoring during the arch rehabilitation.

While the earlier archaeological assessment focused mainly on the immediate vicinity of the arch, this report addresses the development history of the entire park. In this expanded assessment, the issue of the Potter's Field phase of the park's history is again addressed. However, other issues, not major concerns during the earlier assessment, are considered here. These include details of prepark development that ultimately focused on the park's northwestern and northeastern quadrants. That is, those areas near Greenwich or Monument Lane, a major 18th century roadway, and Art Street, preserved in part as Astor Place, now both incorporated into a reconfigured Washington Square North.¹

The findings of the assessment of archaeological potential presented here are meant to serve as an archaeological sensitivity model for the entire park so that current and future park work will be informed about possible archaeological issues,

METHOD

Using documentary resources--historical maps, park construction maps and plans, published and unpublished histories and reports, written accounts including newspaper articles, available utility information, and park records and archives to name a few--the goals were (1) to develop an archaeological sensitivity model for the entire park,(2) to coordinate this model with proposed inground disturbance as currently planned, and, (3) to call-out areas of potential archaeological concern so they can be avoided, preserved under fill, or, if neither of these options is feasible, mitigated through archaeological field documentation in anticipation of the current plans and any future projects.

Research was conducted to determine the development history of the park site before and after it shifted from privately owned land to a city burial ground ostensibly for the indigent and the unknown, and, as it turns out, the site of at least one church cemetery. It also includes research into its subsequent use as a military parade ground and then a public park with the associated in-ground disturbances caused by these developments. The goal was to determine the significance of what was on the site, what still could remain, and what might be impacted by current or future renovation plans.

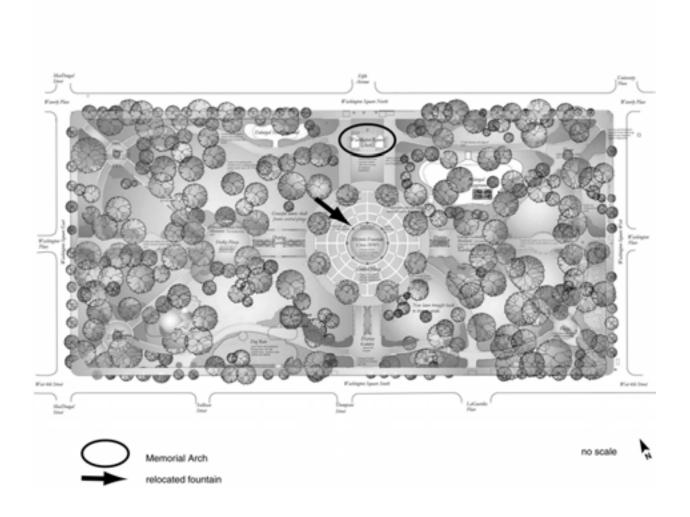
Since completion of the 2004 archaeological report for the arch rehabilitation, Jablonski Berkowitz Conservation, Inc., produced a well-documented landscape report for the current phase of the park's

¹ The 1811 Commissioners' map shows these two streets; see Figure 14 in Appendix 2 this report



WASHINGTON SQUARE PARK Proposed Park Plan (Final Schematic) (Courtesy of Parks)





reconstruction that offered a great deal of information.² However, research conducted for this 1A assessment refutes some points that are inconsequential in regard to the park's landscape history, but offer important insights into its archaeological potential. Mainly, this concerns development in those areas where there were no documented burials as well as the location of the on-site residence of the caretaker, or "keeper" of the Potter's Field, also referred to as its superintendent. The sources of this and other information included the Topographical Bureau of the Manhattan Borough President's Office (where Brian Cook was so very helpful), newspaper accounts, Parks archives (annual reports and maps), the Municipal Archives (19th-century tax assessment records, park images, Tract Reports), the Surrogate's Court (wills), the New York City Registrar's Office (deeds), the New York Public Library and New York Historical Society (maps, photos and city directories), the Minutes of the Common Council (MCC), and I. N. P. Stokes' The Iconography of Manhattan Island. In addition, George Vellonakis, the project designer, generously provided information. These, and other sources cited in the text, were also used to compile a table chronicling known episodes of construction and site disturbance that occurred from 1789 to 2004 (see Table 2). While undoubtedly lacking some details of the park's development history, the table presents information about the major construction/development episodes relevant to the archaeological sensitivity assessment.

The findings and recommendations of this research are to be reviewed and agreed upon by Parks, the Landmarks Preservation Commission (LPC), and the consulting archaeologist.

SOIL BORINGS

It was hoped that soil boring logs from past and current park projects would offer valuable information about subsurface conditions since these data proved very helpful in the memorial arch assessment. Unfortunately, only minimal information was available for the rest of the park. Eleven soil boring logs from 1966, most of them documenting conditions in the southern end of the park, revealed deep deposits of fine to medium fine brown sand mainly under shallow fill. One boring, in the southeast park quadrant, documented 2 feet of gray organic matter 19 feet below the surface (see B-7 in Appendix 1). The absence of this organic layer in the other borings suggests deep disturbance of original soil deposits.

EARLY HISTORY OF WASHINGTON SQUARE PARK IN AN ARCHAEOLOGICAL PERSPECTIVE⁴

The history of Washington Square Park has been detailed in many published books and articles⁵ as well as unpublished reports, among the latter, the aforementioned Jablonski Berkowitz landscape report⁶ and the earlier report produced by the writer.⁷ However, looking at the park's history in an archaeological perspective entails amassing specific documentation concerning its development and its disturbance over time. As noted previously, the goal was to determine what was there and what could remain that might constitute a significant, viable archaeological resource.

² Jablonski Berkowitz 2005

³ Test Borings 1966

⁴ This history incorporates research presented in the report prepared to create a context for monitoring related to the reconstruction of the Washington Square Arch (Geismar 2004), but it is a greatly expanded research effort.

⁵ e.g., Folpe 2002; Harris 2003

⁶ Jablonski Berkowitz 2005

⁷ Geismar 2004; as noted, presented as Appendix 2 this report

In its original configuration—upland traversed by the valley of a fresh water stream or brook with its associated lowland swamp—at least part of the project area of potential effects (APE) would undoubtedly have been attractive to prehistoric and early-historic-era (Contact) Native American populations. The setting would have provided fresh water for humans and the animals they hunted, the food resources of a swamp, and a viable campsite location on the higher elevations east and west of the stream. Thus, the possibility of prehistoric resources cannot be ruled out. Although Manhattan's terrain has been severely altered since colonial times through filling and grading, there are still documented pockets of land where prehistoric archaeological deposits have been found. Most are in the northern part of the island⁸ where development came late and where, as in the case of shell middens (heaps) in Inwood Park, none ever occurred. However, as will be seen, over the centuries the 9.75 acres that now comprise Washington Square Park have been subject to extensive alteration and disturbance that undoubtedly obliterated, or, at the very least, highly disturbed, any such resources. Therefore, the Native American issue is, at best, a minor one.

Documentary resources indicate that during the early historic era, and until the end of the 18th century, the park site comprised a swamp associated with the Minetta Waters, the brook or stream that ran through it on a diagonal, and upland or meadow to the east and west the Figure 4 in Appendix 2 this report). As noted in the earlier archaeological assessment, ownership of the land that became the Potter's Field can be traced to the first half of the 17th century, first as part of Wooter Van Twiller's 100-acre Bowery (or farm), and then, in part, as the 6-morgen and 425-rod farm of Anthony Portuguese and the 9-morgen and 586-rod farm of Manuel Trumpeter (Trompeter), both free blacks indentured to the Dutch West India Company (Figure 3). Since Portuguese's land lay south of the Washington Arch site and Trumpeter's to the east, their ownership was not an issue in the Park's earlier assessment. While potentially a greater concern in this expanded assessment, it is not known whether Portuguese and Trumpeter ever inhabited their land that extended south and east of the park's limits (see Figure 3). According to available documentary sources, the project site and the surrounding area, remained unimproved farm tracts until the late 18th century (e.g., Ratzer 1767 and the Herring Farm map 1784, Figures 4 and 5 respectively in Appendix 2 this report; also the Stokes Farm Map [1928:Plate 84b].

Research undertaken in relation to the reconstruction of the memorial arch revealed that approximately the eastern two-thirds of today's Washington Square Park was a burial ground. However, its western portion, that is, the part lying west of the Minetta Waters, was never used for burials, and, in fact, was acquired by the city only after the burial ground closed. As implied above, the swamp and upland east of the Minetta Waters remained undeveloped until it became the site of the Potter's Field in 1797. However, west of the watercourse, development of a different sort had occurred almost a decade before the city established the Potter's Field.

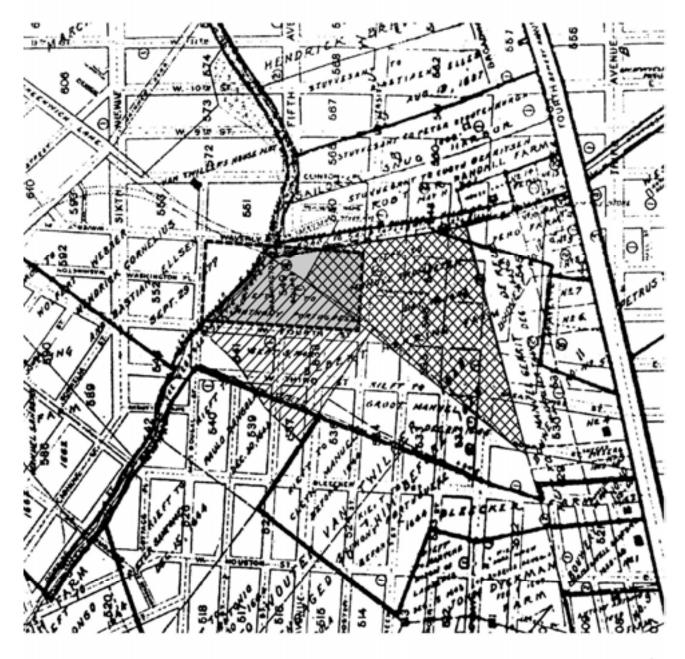
The Minetta Waters entered the four-block rectangle that forms the "square" (actually a rectangle unevenly divided by the site line of Fifth Avenue) just west of where the memorial arch was erected in the park at the foot of Fifth Avenue where it meets Washington Square North (formerly Sixth Street, then Waverly Place) and exited on Washington Square South (formerly Fourth Street) just east of Washington Square West (once part of MacDougal Street). A reconstruction of the original terrain in the vicinity of the park found in the 1864 Citizens' Committee Report (published in 1865) and presented in Geismar 2004 (Figure 13 in Appendix 2 this report) shows the location of the stream, the former swamp

⁸ e.g., Bolton 1924:1-54

⁹ This watercourse is also identified in the literature as Minetta Brook or Creek and Bestavaer's Killetje or Rivulet, among other variations (Stokes III 1918:966)

¹⁰e.g., Citizens Report 1865:Map of the 12th Sanitary District; Figure 13, Appendix 2 this report

no scale



Washington Square Park

Anthony Portuguese land (1645)

Manuel Trumpeter (Trompeter) land (1643)

burial ground (1797-1825) within park limits

and the upland meadow. Of particular interest is the meadowland in the northeast and northwest corners of the park, that is, on the relatively high ground above the "valley" of the Minetta Waters.

On April 7, 1797, the city purchased land east of the Minetta Waters from Jacob Sebor and William Ward Burroughs for a new pauper's or Potter's Field. 12 Until shortly before the city's acquisition, William Stephens Smith was the owner of this mortgaged property. Smith had served as George Washington's Aide-de-Camp during the Revolutionary War. After the war, he was appointed secretary of the American legation in London and served with John Adams who was then envoy to Great Britain. Smith married Adams' daughter, Abigail Smith Adams, in 1786, whereby she had the distinction of becoming Abigail Smith Adams Smith. William Smith then went on to become social secretary to Washington when he was president and, in 1801, was appointed the Superintendent or Surveyor of Customs and Ports in New York. A few years before his death in 1816, he was elected to Congress from Chenango County in upstate New York, where he resided sometime after 1810. But there was also a less successful side, and his in-laws found him "totally devoid of judgment." A manifestation was, in its simplest terms, his tendency to financially over extend himself. One result was loss of the land that would become the Potter's Field to Sebor and Burroughs, the mortgagees, on April 30, 1795, ¹⁴ only a year after he had bought it. 15 And, in 1806, he was indicted, tried, but, fortunately, acquitted of any wrong doing for his part in the Miranda Affair, an unsuccessful attempt by Smith's friend, Francisco Miranda, to liberate Venezuela, and then all of South America, from Spain. ¹⁶

West of the Minetta Waters, the land remained in private hands until after the Potter's Field officially closed on May 25, 1825. An 1817 manuscript map indicates that both the burial ground and this land were "improved," the former by a structure within the Potter's Field, the latter by three buildings (Figure 4). The Potter's Field structure undoubtedly was the superintendent or keeper's house, a building constructed in 1797 of materials from the old Almshouse then being replaced in what is now City Hall Park. An entry in the Minutes of the Common Council indicates that shortly after, or while the keeper's house was under construction, the city ordered a Mr. Harsen to sink a well at the "new public Ground." It seems likely this well was located near the keeper's house. The Minutes of the Common Council also provide a list of the keepers' names, at least one—Morris Ackerman--with an address that identifies the keeper's house as "n[ear] Art Street" (see Table 1). This is the location of the only structure indicated within the limits of the Potter's Field on the aforementioned 1817 map (see Figure 4). Again, based on an entry in the Minutes of the Common Council, where it was noted that David Marshall, the first keeper, was to pay rent of £10 per year for the cottage, apparently the keeper rented the cottage from the city. However, the addresses of several keepers found in city directories suggest this may then, or later, have been optional (see Table 1).

In 1817, three structures stood west of the Minetta Waters near Greenwich or Monument Lane on land later incorporated first into a military parade ground and then the park (see Figure 4). Thomas

¹² LD 67:74; Its predecessor, a small triangle of land now part of Madison Square Park, had opened in 1794 and was closed but preserved by the city in 1797 (Stokes V 1926:1311)

¹³ McCullough 2001:481

¹⁴ LD 274:218

¹⁵ LD 67:73

¹⁶ Most, if not all this information comes from Barclay N.D., a manuscript recommended for details of Smith's life

¹⁷ Stokes V 1926:1344; MCC XIV 1917:334; LD 198:454 Pell and Mercein to the City of New York, November 17, 1825

¹⁸ Anon. 1817

¹⁹e.g., MCC II 1917:374

²⁰ MCC II 1917:405

²¹ MCC II 1917:331

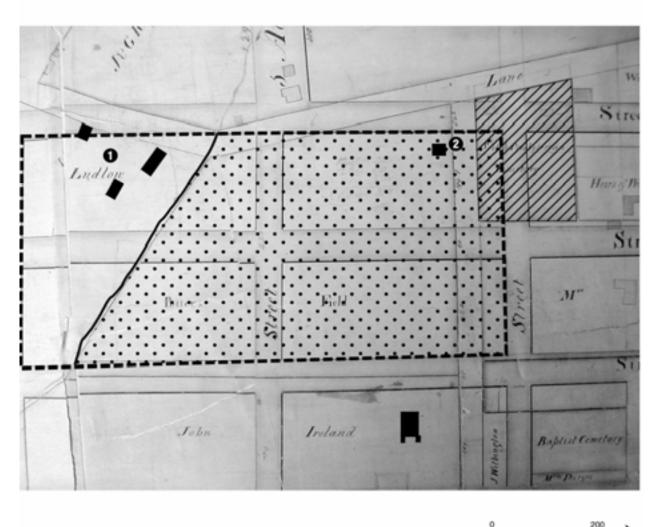




Table 1. WASHINGTON SQUARE PARK Keepers of the Potter's Field

Name	Years of Service	Directory Information		Comments	
Marshall, David	1797-1803	Year – Occupation 1797 – (not listed)	Address	Mar 20, 1797, "On consideration of Rent to be paid by David Marshall for the House at Pottersfield Buryal [sic] Ground it was determined to be £10 for the present year" (MCC II:331*) May 29, 1797, "On Motion the Land Committee were directed to take order for preparing the Ground lately purchased as a burying Ground & for the erection of a house for the Superintendent" (MCC II:351) Aug 7, 1797, "Ordered such of the Materials of the old Alms House as may be useful [be] taken [for] the purpose of putting the Ground lately purchased for a burying Ground in order & the erection of a small Building for the Superintendent" (MCC II:374) Nov 6, 1797, Street Committee on the Petition of David Marshall to be directed to take charge of the House erected on the new burying Ground (MCC II:403) Nov 9, 1797, "Ordered that Mr Harsen take order for the sinking of a Well at the new public burying Ground" (MCC II:405)	
		1799 – volume missing 1800-01 – (not listed) 1802 – "Keeper of potters-field" 1803 – "Keeper of Pottersfield" 1804 – Cartman	None given None given 23 Moore	(only David Marshal listed)	
McKenzie, John	1803-1809	1805- (not listed) 1803 - Cooper 1803 - Grocery 1804 - Grocer 1804 - Grocery 1805 - (not listed) 1806-08 - (occupation not given) 1809 - (occupation not given)	Gibbs Alley 29 Roosevelt Street 67 Harman 29 Roosevelt Street 80 Chamber Ferry c Gold	(only David Marshal listed) Fired by the city when found guilty of "conniving at the disinterment and taking away dead bodies" (MCC V:383, 390). Accused in December 1808 and found guilty a month later.	
Roome, William P.	1809-1813	1808 – Carpenter 1809-11 – (not listed) 1813 – (occupation not given)	Walker Bedford	Roome asked and denied permission to "cut down some of the poplar trees at the Potters Field in 1811 (MCC VI:473); instead asked to "top" trees around "the enclosure" (MCC VI:768)	
Ackerman, Morris	1813-1816	1812 – Grocer 1813-14 – (not listed) 1815 – "keeper, Pottersfield" 1816 – "keeper, Potter's field" 1817 – Cartman 1818– (not listed)	Spring c Washington c Art Henry c Arden Spring n the Mark't		

Table 1. WASHINGTON SQUARE PARK Keepers of the Potter's Field (continued)

	Years of			
Name	Service	Directory Information		Comments
		Year – Occupation	Address	
Magee,	1816-1824	1816 – Cartman	173 Orange	(the only Daniel Magee listed in 1816)
Daniel		Cartman	Staple c Harrison	
		1817 – (not listed)		
		1818-19 – (not listed)		
		1820 – occupation not given	Harrison n Spring	
		1822 –24 – (not listed)		
Schureman,	1824	1822 – Chairmaker	Grand & Elizabeth	
William		1823 – Chairmaker	Gerard n Bowery	
		Cartman	218 Broome n	
			Norfolk	
		1824 – "Keeper, Pottersfield"	None given	
		1825 – occupation not given	15 Augustus	
Meyers,	1825	1825 – Mason	174 Grand	
Cornelius		Wood inspector	110 Pearl	

Ludlow, a well-to-do New York City merchant, built this three-building complex that comprised a residence and probably a barn and another outbuilding. It is unclear just when Ludlow came into possession of his 20 acres, but there is no question it was several years before the city acquired the adjacent land for the Potter's Field.

A deed indicates Ludlow bought the land in 1793.²² However, a 1789 tax assessment reveals the 20 acres were in his possession by that year and a house, the only one documented on the property, was then under construction.²³ Given the structure's proximity to the Potter's Field (see Figure 4), it is not surprising that Ludlow's name is among the fifty-seven wealthy local landowners, including Alexander Hamilton, who unsuccessfully protested the city's choice of a site for its second burial ground in April 1797.²⁴

It seems likely that Ludlow intended his Greenwich Lane property as a summer retreat, but whether he ever occupied the house under construction in 1789 is unknown. Listings in the city directories indicate that he resided on Broad Street in 1789, the year he was building the house on Greenwich Lane, but moved to Broadway the next year, where he remained until 1811. By 1815, he had moved to the home of his daughter Maria and his son-in-law Guilian Ludlow on Whitehall Street, where he remained until his death in 1822. Eight years after the Potter's Field opened, he divided his 20-acre-tract and sold 10 unimproved acres to Guilian Ludlow but he retained the 10 acres with the house, and, presumably, the other structures, just west of the Potter's Field. By 1804, the aforementioned William Stephens Smith, the former owner of the land purchased by the city seven years earlier for the adjacent Potter's Field, rented Ludlow's house on Greenwich Lane. Tax assessments document that Smith rented the house from at least 1804, the earliest tax record available after 1789, until 1810. Just why he chose this location--next to the Potter's Field--for what was apparently a retreat is unknown (at the time, the city directory lists his residence as the Customs House, across from the State Prison on Greenwich Street). Perhaps it was nostalgia? Or, given his financial difficulties, might have been

²² LD 186:199: Tract Report 523

²³ West Ward Tax Assessment 1789:58

²⁴ Stokes V 1926:1340

²⁵ LW 57:169; Tract Report 523; NY Directories 1822

²⁶ Interestingly, the full 20 acres continued to be assessed to Thomas Ludlow through at least 1814

²⁷ 7th Ward Tax Assessment 1804

merely that the price was right? Whatever the case, like Ludlow, it is not known if Smith and his young family ever occupied the property.

By 1811, Ludlow's tenant was James Reeves (spelled "Reaves" in assessment records), and from 1812 to 1813, an additional tenant, Samuel Nichols, is documented on the property, neither of their occupations known. For a decade after 1814, a succession of gardeners—first James Miller, then William Wilson and John Wilson--rented the complex.²⁸

At Ludlow's death, his improved 10-acre tract passed to his son, Thomas W. Ludlow, a lawyer. The younger Ludlow and his brother-in-law, Guilian Ludlow, then sold a series of gores along the Minetta Waters to the city, and the rest of the land to Alfred S. Pell and Thomas R. Mercein who, in turn, sold part to the city (see Figure 5). With these purchases, and an earlier one (1801) of Lewis Pintard's eight lots not included in the city's original acquisition (see Figure 5), the former burial ground was expanded and graded to become a parade ground, the forerunner of today's park.

Research undertaken for the first phase of the project indicated that, despite statements in the literature to the contrary, ³¹ burials from the park's Potter's Field phase, which began in the fall of 1797 and officially ceased in the spring of 1825, might remain. However, rather than individual graves, there is evidence that many were multiple burials, perhaps from the onset but certainly by the time of closure. This is highlighted by a *New York Evening Post* article from May 20, 1824, ³² published almost a year to the day before the burial ground officially closed. Headlined "Resurrectionist," the article, which follows, tells a cautionary tale about Solomon Parmlee:

...indicted for a misdemeanor and recovering the covers of 10 coffins deposited in a pit and covered partly with earth...it was proved in the trial by Mr. Schureman, the present keeper of the Potter's Field, that about three o'clock in the morning in the later part of April, he suspected that some person had entered the field for the purpose of removing the dead, and, after sending for two watchmen [equivalent to policemen³³], and calling his faithful dog, he went to ascertain the fact. Upon arriving at the grave, he found his suspicions confirmed, and requested the person concealed in the pit come out and shew (sic) himself. No answer being given, Mr. Schureman sent his dog into the pit and, in a twinkling of an eye, a tall stout fellow, made his appearance and took to his heels across the field...the dog, who pursued him for some distance...at last came up with him and held him fast till the arrival of Mr. Schureman and the watchmen, who secured him...[Parmlee] threw from him a chisel which had been used...to force the coffins...[T]he counsel for the accused rested his defense on...the ground of the [intoxicated] prisoner return[ing] into the grave to sleep and be protected from the night air. The jury convicted him and the court sentenced him to six months imprisonment in the penitentiary.³⁴

²⁸ NY Directories 1814-1824

²⁹ LW 57:169

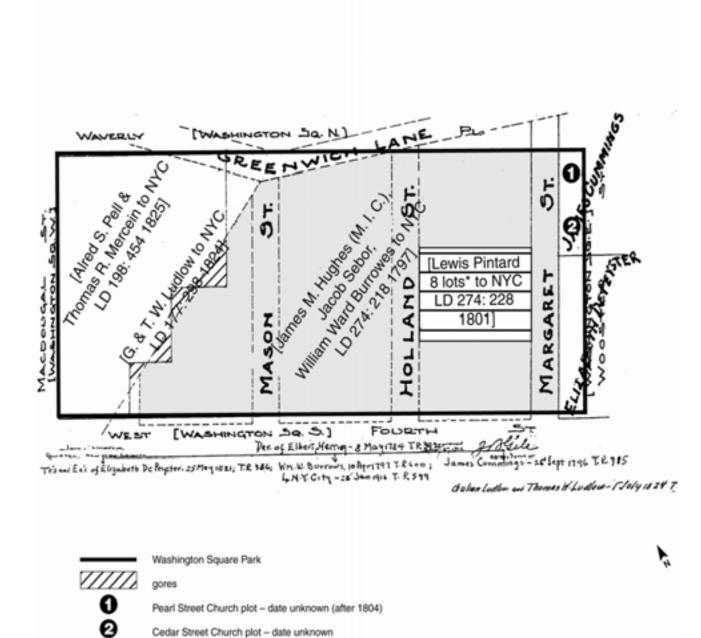
³⁰ Ludlow and Ludlow (1824):LD 177:288; Pell and Mercein (1825):LD 198:454

³¹ e.g., Schoenbaum 1988:16; Folpe 2002:64; Jablonski Berkowitz 2005:4 citing *A Historical Resume of Potter's Field:* 1869-1967"

³² NY Evening Post, May 20, 1824:2:2

³³ Blunt 1817:65

³⁴ NY Evening Post, May 20, 1824:2:2



* Figure 6 in Geismar 2004

The article, which was followed by an admonition to all medical students in New York to take heed of Parmlee's fate, documents multiple pit burials at the Potter's Field. It also suggests the burial ground's next-to-last keeper, Michael Schureman (see Table 1), and his dog resided at the Potter's Field in 1824, despite the fact that this information is lacking in city directories (see Table 1). And, finally, it suggests that, many, if not all, the Potter's Field burials were then interred in trenches or pits, perhaps in anticipation of its closure. 35 However, at the eastern limit of the Potter's Field and beyond, where church burials are documented, it was a somewhat different situation.

As noted in the earlier archaeological assessment, a 1965 newspaper article reported that Con Edison workers discovered burials in a vault under the street at Washington Square East, adjacent to the northeast corner of the park. This discovery, purportedly of twenty-five individuals, not only documents that burials still remain, but also that rather than individual burials, or burials in pits or trenches, the church plots may have comprised large vaults. As discussed in the 2004 report, these burials were originally thought to be in a plot belonging to the Pearl Street Church.³⁶ However, as discussed below, they may have predated the plot's identification with the Pearl Street Church (see Figure 6 this report for the New York Times article describing and locating the 1965 discovery).

Proof that burials remain within as well as east of the limits of the Potter's Field is found in another newspaper article. As discussed in the 2004 archaeology report, five months after construction began on Stanford White's Memorial Arch in the park, a New York Times article from May 13, 1890, reported that excavators encountered 8 feet of fill, then, at 10 feet below the ground surface, human bones, remnants of gravestones and coffins, and a burial in a relatively intact coffin (see Appendix A in Appendix 2 this report for the article in its entirety). White, of the firm of McKim, Mead and White, halted excavation until the burial, below the water table, could be sketched.³⁷ This discovery, particularly finding evidence of gravestones and coffins, highlights an important facet of the park's history: although intended for burials of the indigent or the unknown, the find suggests that not all those in the Potter's Field fit this description.³⁸

While there are no known depictions of the Potter's Field, available documents suggest what it might have been like. For example, it was enclosed in a "board" fence by 1799, 39 and a request by William P. Roome, the Potter's Field's third keeper (see Table 1), to cut down poplar trees that ringed the cemetery in 1811, indicates it was not barren. And filling episodes also documented in the Minutes of the Common Council, as well as references to alterations of the Minetta Waters that defined the cemetery's western boundary, suggest a watered, uneven terrain, but one that was leveled over time.

³⁵ As noted in Geismar (2004:12, Appendix 2 this report), Luther Harris believes the reinterments were in trenches created specifically for this purpose; see also Jablonski Berkowitz 2005:4-5 for a discussion of the issue ³⁶ Geismar 2004:9 and Figure 7 in Appendix 2 this report

³⁷ A search for the sketch in the McKim, Mead and White Archive at the New York Historical Society proved

³⁸ This find was made within the limits of the Potter's Field, not the documented church burial grounds to the east (see Geismar 2004:11, Appendix 2 this report). Janvier, in 1894, mentions what was then the relatively recent discovery of human remains and gravestones in 1890 (1894:124)

³⁹ MCC II 1917:512

SKELETONS FOUND IN WASHINGTON SQ.

25 Uncovered in a Sealed Room at Con Ed Project

By PAUL L. MONTGOMERY

Workmen at a Consolidated Edison excavation in Washington Square have uncovered what they described as a sealed underground room containing about 25 skeletons.

The men were sinking a 12foot shaft at the northeast corner of the historic square on Friday when they broke through the donied roof of the room. They peered in, saw the bones and immediately filled in the shaft

They are now awaiting advice from Con Ed and the city.

Abraham Marcus, president of the Marcus Substructure Corporation, a Con Ed subcontractor, said the room appeared to be "a tomb of some sort." He said it contained "quite a few skeletons."

A workman at the site said there were three half-burned coffins and about 25 skeletons in the enclosure.

From the 18th century until 1823, the area that is now Washington Square Park was a city cemetery. It was also the public hanging ground.

Neither fact, however, would necessarily account for the scaled room. One theory was that it was especially built for people carried off by a plague, of which history books mention neveral in the 18th century.

The project is at the corner of Washington Square East and Washington Square North, abutting on the park and across the street from New York University. It is to contain three underground bays for Con Ed

Continued on Page 26, Column 7

Continued From Page 1, Col. 1

transformers. The Marcus company, whose offices are at 165 West 46th Street, is building the foundation for the bays.

Last week, after the shaft for two of the bays had been dug and shored up, it was decided to add the third. Excavation began on Thursday.

Four or five feet down, the workmen came upon a curved surface of rock or hardened cement that they took to be a boulder. Later, however, they decided it was an abandoned tunnel and on Friday they broke through it.

That was when they saw the bones.

Graves Fairly Common

A Con Ed spokesman said it was fairly common for workmen to come upon single graves when digging in the area. However, he said, he never before heard of a roomful of bodies being uncovered.

Mr. Marcus said his corporation had done other work in the area but had never uncovered so much as a thighbone until Friday.

"But," he remarked with a wink, "I have seen some skeletons walking around that park with sandals on."

Yesterday was a sunny day in Washington Square Park. Since neither Consolidated Edison nor city authorities had yet been informed of the discovery, the hole filled with fresh dirt at the corner attracted no attention.

Across the street from the row of white-trimmed brick townhouses that are among the last survivors of past elegance, children chased each other in the playground and romped around trees that, according to legend, once were gallows.



SKELETONS FOUND: Site of discovery (cross). Following the closing of the Potter's Field in 1825, and the acquisition of the former Ludlow land to the west, in January 1826, the four-block "square" became a Military Parade Ground. ⁴⁰ Six months later, it was named the Washington Military Parade Ground. ⁴¹ Many sources indicate a configuration for the parade ground that is questionable, since research for this assessment uncovered an 1829 survey that documents a different layout, one that better suits its parade ground function (Figure 7). ⁴²

Rather than a rectangle crossed by several linear paths that created triangular patterns throughout the park, the 1829 survey indicates the original configuration was a much simpler affair: a single path defined the rectangular "square," and two central paths crossed and met at an oval at its off-center middle. Following the pattern created by these paths, there were eight points of entry and egress. Since this is a survey, not merely a plan, it appears to be an accurate representation of the parade ground's configuration, and is, essentially, the park's first design.

In 1849, the installation of an iron railing around the grounds was "...nearly completed, making it one of the pleasantest promenades in the city." The triangular-patterned configuration, shown on maps published by Matthew Dripps in the early 1850s, 44 apparently represents this second design (e.g., see Figure 8), one that included the introduction of a fountain (this configuration and an artist's rendering of the park are presented in Figures 9 and 10). According to an 1853 *New York Times* article, the designer of this first true park on the site was William Curr, identified as a gardener in classified advertisements placed to rent his house on East 31st Street in 1856. 45 It seems that Curr not only designed Washington Square, but also was responsible for the original layouts of Union, Tompkins, Madison, and Stuyvesant Squares.

After many delays, Washington Square's first fountain was installed by January 1852, and the true forerunner of today's Washington Square had been created. This has been followed by major redesigns in the early 1870s, the 1930s, the 1960s (completed in 1970), and the mid 1990s, where landscaping was carried out and structures, roadways, and individual features were introduced, repaired, and removed or replaced.

CONSTRUCTION/DEVELOPMENT RELEVANT TO ARCHAEOLOGICAL POTENTIAL

The many alterations to the park site that occurred over more than two centuries of use and development, and the several documented redesigns of the park, are presented in Table 2. These later events include the introduction of fencing and gates, sidewalks, roadways, benches, and landscaping that would not necessarily affect archaeological deposits. It also includes extensive grading, the deepening and then the culverting of the Minetta Waters, the introduction of a large storm and sanitary sewer and other infrastructure, the construction of park buildings and monuments --such as the Washington Arch, comfort stations, a small administration building, a bandstand or music pavilion--that would, or could, adversely affect these resources. It is the site's early development and these latter park events that are of particular interest in this assessment and are, therefore, discussed here.

⁴⁰ MCC XV 1917:234

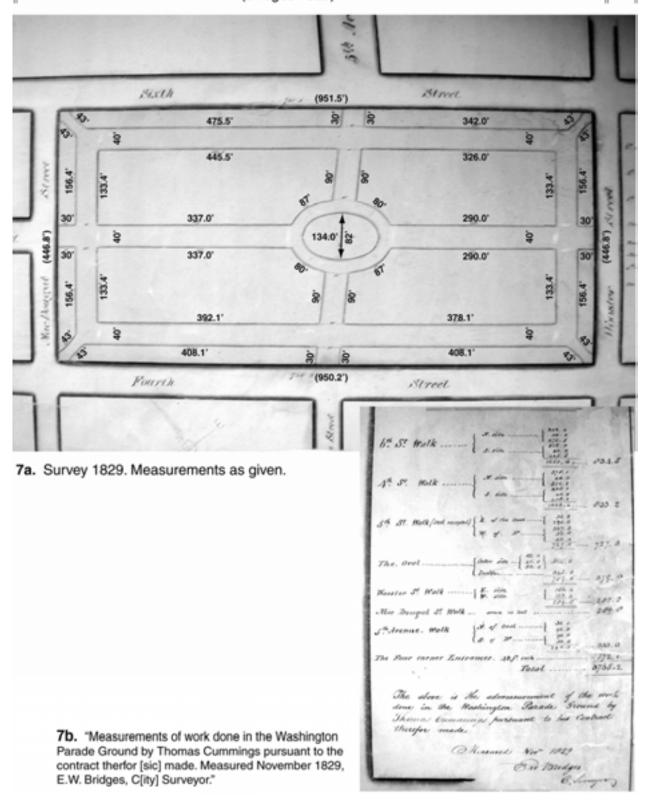
⁴¹ MCC XV 1917:484

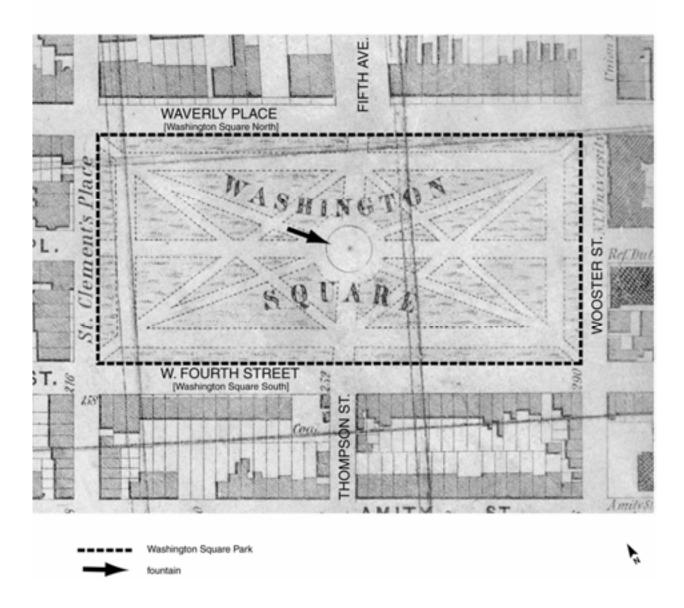
⁴² Bridges 1829

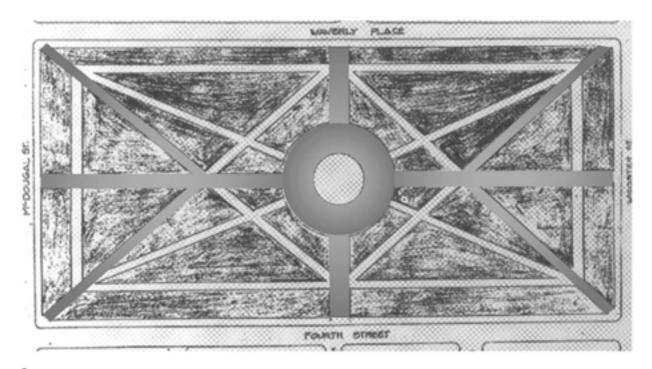
⁴³ Stokes V 1926:1818

⁴⁴ An 1850 Dripps map cited and shown in Schoenbaum (1988:27) is identical to 1851 and 1852 Dripps maps

⁴⁵ NY Times 1853, 1856







9 1850 plan of the park, incorrectly identified as 1827 plan in the literature (compare with Figure 8). (Courtesy of Parks)



10 Artist's rendering of 1850s park looking east from MacDougal Street, now Washington Square West, and 4th Street (foreground), now Washington Square South. (Courtesy of Parks)

Table 2. WASHINGTON SQUARE PARK Documented Construction/Disturbance 1789-2004

Year	Disturbance	Modern Location	Comments	Source
1789*	Ludlow House and Outbuildings	W of Arch, NW quadrant of park	Thomas Ludlow constructs house and two outbuildings (see Figure 3)	7th Ward Tax Assessments 1789l; 1817 map
1797	Potter's Field established	E of diagonal line on W side of Arch	City purchases land from Burrows and Sebor who had acquired it from Col. William S. Smith via mortgage default; excepting 8 lots	LD 67:73 LD 274:218, 228 MCC II:336, 348 (4/10/1797)
1797*	Superintendent's (Keeper's) house	NE quadrant of Park	"materials from the Old Alms House as may [be] useful for putting Groundin order & the erection of a small building for the Superintendant [sic]"; (see Figure 3)	MCCII:374 (87/1797); (Anon 1817); Stokes V 1926: 1342,1344- 1345 (5/29, 8/7/1797)
1797*	Well	E part of park, poss. in NE quadrant	"Orderedsinking of a Well at the new public burying Ground." [likely at the Keeper's house]	MCC II:405 (11/9/1797)
1798	Burials	E 2/3 of park	Purportedly almost 700 burials by the summer of 1798	Folpe 2002:59
1799	Fence	Periphery of E 2/3 of park and a NE-SW diagonal W of arch	"Board fence round burial ground as may be necessary the rest with good Posts & Rails and the planting of trees in & about the Ground"	MCC II:512 (2/18/1799)
1800	Fence	Periphery of E 2/3 of park and a NE-SW diagonal W of arch	"Orderedputting fence at public burying Ground in good Repair"	MCC II:656 (10/22/1800)
1801	Fence	Periphery of E 2/3 of park on a NE-SW diagonal W of arch	"Enclose Ground with a tight Board Fence" and paint the fence	MCC II:725 (4/7/1801)
1804	More land	A 200 by 200-foot swath in the center of the E part of park	8 building lots excluded from the original land purchase for the burial ground	LD 274:228 (1/2/1801) Lewis Pintard to NYC
1808*	FillingValley of the Minetta Waters	E 2/3 of park	"Orderedthe high ground in Pottersfield to be drawn into the valley and levelled in such manner as to render the same more suitable for the purposes of a Cemetery"	MCC V:255 (9/5/1808)
1812	Manuring	E 2/3 of park; specific location unid.	"Walter Furman 109 Loads manure at Park at Potters field Dec 1810 74.94"; raises question of "park" at Potter's Field	MCCVII:213 (7/20/1812)
By 1817	Scotch Presbyterian Church Burial Ground	NE corner of park	One of two church cemeteries on E side of park [location ident- ified on 1817 survey] (see Figure 3)	Anon. 1817; Geismar 2004: 9
1819	Gallows (?)	Possibly in vicinity of fountain	Rose Butler hanged for arson; accounts of gallows location varies from "in" to "near" the Potter's Field, possibly in the vicinity of the current fountain	see Geismar 2004 Appendix 2 this report for discussion; Harris PC 2004;

Table 2. WASHINGTON SOUARE PARK Documented Construction/Disturbance 1789-2004 (continued)

Year	Disturbance	Modern Location	ruction/Disturbance 1789-200 Comments	Source
1820*	"Minetto" [sic] Sewer	Diagonal W of Arch	Accounts Audited "J ^{as.} Wallace, Acc ^t building Minetto [sic] Sew- er, Amo ^t Assessed to Corporation on Potters Field \$1,340.00" [ex- tension of earlier sewer that stopped south of park?]	MCCXI:289 (8/21/1820)
1823	Repair to Grounds	E 2/3 of park	"Resolved that the Surplus earth in Amity Streetbe applied to the filling up & regulating the Grounds of Potters field"	MCCXII (5/26/1823)
1823*	Water Course Deepened	Diagonal W of Arch	Accounts Audited "Thomas Cumming† [paid for] deep ^g Water Course thro' Pottersfield"	MCCXIII:418 (10/22/1823)
By 1824*	Trenching and Pits for Mass or Multiple Reinterments	E 2/3 of park	Pits documented; trenches implied	e.g., <i>NYEvening Post</i> 5/20/1824:; Harris 2003 in Geismar 2004:9
1824*	Minetta Waters Culverted	A NE-SW diagonal line, running W of the arch from Washington Square N to Washing- ton Square S	Common Council appoints Committee to 'cause a trunk of Timber and plank of sufficient dimensions to convey the waters of the Minetto (sic) Brook' from the present tunnel at 4th St. to Fifth Ave. at 6th St.	Stokes 1926 V:1843 (12/10/1824)
1824	Repairs to Fence and Keeper's House	NE quadrant of Park and its periphery	"Repair the Fences belonging to Potters field together with the dwelling house belonging thereto"	MCC XIII:693 (4/26/1824)
1825	Burials to be Terminated;	E 2/3 of park	May 25, 1825 all burials to cease; possibly as many as 20,000 over 28 years	MCC XIV :307, XVI:49; Harris 2004:PC; Geismar 2004:12; Stokes V:1645.NY Times 1965 8/2/1965:1:1
1825	Gate Opening	Washington Square North	Petition of Henry Fay that the gate of "Pottersfield," that opens on his lots between 4th & Art Streets, that it "may be opened into Art or 4 th Street"; referred to the Committee on Lands & "places"	MCCXIV:421 (4/11/1825)
1825-1826*	Filling	E 2/3 of park	Accounts Audited and ordered to be paid "John Williams Act [†] filling at Potter's field"; \$2,000-\$2664.87 for each of 4 filling episodes	MCCXIV:766 (1/12/1825) MCC XV443 (5/22/1826) MCC XV:569 (9/11/1826) MCC XV:686 (11/6/1826)
1827	Fence	Park periphery	Common Council directs "street com'r to enclose the Washington Parade in 'a neat pale fence'"	Stokes V 1926:1670 (11/19/1827)

Table 2. WASHINGTON SQUARE PARK Documented Construction/Disturbance 1789-2004 (continued)

Year	Disturbance	Modern Location	Comments	Source
1828*	"Sewer" [culvert]	On diagonal W of Arch	By autumn 1828, Minetta Water carried to the Hudson R in a wooden sewer	Harris 2003:15
1828*	Leveled; Gravel Walks	Throughout park	"The old Potters Field is now levelled, and is formed into a beautiful public square, called Washington Square, which is also used as a military parade ground"; 1829 survey shows configuration (see Figure 7)†	Stokes V 1926:1637
1837	Sidewalks	Around park	Mayor signs resolution that the sidewalks around Washington Square be flagged	Stokes V 1926:1745 (2/27/1837)
1848	Iron Railing	Park periphery	Common council orders "iron railing now being constructed around Washington square, be placed on the line where the wooden fence now stands, except that the angles be rounded and three small gates be placed in each circle of the square."	Stokes V 1926 :1813 (11/2/1848)
1849*	Gas Lighting	Throughout park	Pipes run	Stokes V 1926:1817 (3/9/1849)
	Wrought Iron Fence	Park periphery	"The iron railing around these grounds of now nearly completeThe old wooden fence is gone and with it the shabby appearance and the dirty looks of the square"	Stokes V 1926 1818 (4/2/1849))
1852*	Fountain	In vicinity of current fountain	"The fountain in Washington Parade Ground make[s] a great improvement The borders are of blue stone The diameter of the basin is one hundred feet" Park designed by William Curr (1840s?)	Stokes V 1926: 1839 (1/31/1852) NY Times 1853
1870	Improvements	Throughout Park	"The work of improving Washington Square in accordance with plans by M.A. Kellogg and I.A.Pilat, is begun"	Stokes V 1926:1941 (10/6/1870)
1870-1871*	Music Pavilions	W half of park	"prepare designs for temporary music pavilions The planapproved and work ordered to proceed"	BC/DPP1870:71 (5/31/1870); JBC2005:14; BC/DPP1870:148 (7/21/1870)
	Temporary Road	S of Arch, exiting on W side of park at what is now Washing- ton Square South	"on the line of the proposed connection of Fifth Avenue with Laurens Street [W Broadway] to be of a temporary character"	BC/DPP 1870:138 (9/13/1870)
1871	Fountain Excavation		"foundations for the fountain are being dug out," plans not yet complete, basin 80 f t in diameter	NYTimes 6/24/1871 in JBC2005:15

Table 2 WASHINGTON SQUARE PARK Documented Construction/Disturbance 1789-2004 (continued)

Year	Disturbance	Modern Location	Comments	Source
1871-1872*	Extensive Excavation	Throughout park	"9,000 cubic yards of earth excavated"	BC/DPP 1872;241
			[this extensive ground disturbance reported in Annual Report for 1871-1872, but newspaper articles, letters to the editor, and documented fraudulent practices of Tweed	
			and his cohorts makes it questionable]	
			148,636 square feet of walks paved with vulcanite, 49,740 square feet of walks graded	
1872*	"Women's Cottage" and Police Shelter ("Swiss Cottages"); tool shed	"Woman's Cottage" and tool shed SW quadrant (see undated survey, Figure 13b)	Women's Cottage and tool shed - \$6,161.30 (Financial State- ment: Expenditures for 1872); ["Women's Cottage" possibly included, a water- cleansed privy or earth- closet]	BC/DPP 1872:32 Parks 1934 Parks N.D.
	Music Stand	NW quadrant, W of "Police Station"	Music stand W of Women's Cottage	Parks N.D. Folpe 2002:155
	Roadways Through Park	5th Ave to Thompson St with access to W Broad- way and Sullivan St	Provided N-S access	
	Fountain	Current location, but larger	"fountainat Fifty-ninth street and Fifth avenueremoved and re-erected in Washington square remains in an unfinished state."	BC/DPP (3rd Annual Report) 5/1/1872- 12/31/1873:56
1872-73*	Horse Trough and Drinking Fountains	Throughout park	"Resolved that horse trough and drinking fountains be placed in and aroundWashington Square"	BC/DPP 1871:70
1880-1892	Storm and Sanitary Sewer	Through park from Washington Square Place E to Washing- ton Square Place W	Post-1880 but before January 1893; identified as a 4 ft 6 in round brick sewer on park maps	Archives Maps 1880, 1893 Parks 1939 Parks 1965
1888*	Monument	E of fountain, on E-W path	Statue of Giuseppe Garibaldi; deep foundation (6 ft. deep)	Gayle and Cohen 1988:76 in JBC 2005:20
1890*	Monument	W of fountain, on E-W path	Alexander Lyman Holley, father of modern steel manufacture; poss deep foundation	JBC2005:21
1890-1895*	Washington Memorial Arch	Fifth Avenue entrance	Construction with deep excavation	e.g., Geismar 2004, Appendix 2 this report

Table 2. WASHINGTON SQUARE PARK Documented Construction/Disturbance 1789-2004 (continued)

Year	Disturbance	Modern Location	Comments	Source
1908	Women's Cottage Repairs	SW Quadrant	Repaired	Annual Report DP Cof NY for Year 1908:137
	Trees Planted	Throughout park?	81 young trees planted, 5 to 6 cubic yards of fertile mould deposited in each hole	Annual Report DP C of NY for Year 1908::168
1909	Fence	Around lawns on west side of park	"Old wire fences were removed and new three-rail pipe fences erected around all the lawns on the west side of the park"	Annual Report DP C of NY for Year 1909:34
1911	Trees Planted	Throughout Park	50 trees plantedold privet shrubs at NE corner of park removed to front of women's toilet buildingnearly 100,000 sq ft of sod laid	Annual Report DP for Year 1911:48 in JBC (2005:29)
1912*	Women's Comfort Station. Forman's office building, Music Stand	SW Quadrant	Repaired and painted; apparently an updated "Women's Cottage"	Annual Report 1912:103-104
1913	Trees, Manure	Throughout park	43 Trees planted; 60 loads of manure delivered, the most except for Central Park	Annual Report DP for Year 1913:44, 63
1920*	Memorial Flag Pole	Originally in center of view through arch, now SE of original location	Dedicated to the local heroes of WWI; Base designed by McKim Mead and White	JBC2005:29
1934-1936*	Fountain; Women's and /Men's Comfort Station (1934) Altered; Trees, grass Planted	Fountain and throughout park	Fountain renovated to become a wading pool,	JBC2005:34 Parks 1934- 1939; Historic Plan
1964*	Park Redesigned and Closed to Traffic	Throughout park	Game tables, playgrounds, and sandpits introduced	Parks 1968
1968-1970*	Extensive Renovations (1968 Plan with Revisions), including new Women's/ Men's Comfort Station; Removal of Former Roadways (completed 12/6/1970)	Throughout Park:	Demolition of comfort station, becomes part of a complex with small building for administration/children's activities/locker room; small plazas; sandpits in all playgrounds; restructured fountain also a wading pool and a sunken plaza; grading (up) throughout (especially in NE quad) to aid drainage; shallow utility lines throughout	JBC2005:38 Parks 1968
1995*	Renovations Including "Babies" playgrounds	Playgrounds in each quadrant (one in the NE quad by 1965)	Sand pits in all playgrounds	JBC2005:39
2004*	Restoration of Arch	Just S of entrance at Washington Square North	Arch restored; lighting instal- led at base (and elsewhere); drywells and connecting trenches excavated	Geismar 2004, Appendix 2 this report
20th C	Drainage and Other Infrastructure Introduced (pre-1939)	Throughout park	Infrastructure minimal in identified areas of archaeological concern (see text)	e.g., Parks 1939

BC/DPP = Board of Commissioners, Department of Public Parks; DP = Department of Parks; JBC = Jablonski Berkowits Conservation, Inc.; LD = Liber of Deeds; MCC = Minutes of the Common Council (1784 - 1831, published 1917)

[†]E. W. Bridges' 1829 survey of the Parade Ground documents work done by Thomas Cummings (see Figure 5)

William Ludlow's House and Associated Buildings (1789)

The 1789 Tax Assessment for the West Ward (later Ward 8 and then, by 1817, Ward 9) indicates that William Ludlow was taxed for 20 acres and an "H," the convention for a house in the assessment records, then "unfin^d." This is undoubtedly the house listed in 1804, the next available tax assessment record. While the only structure noted in the tax records is Ludlow's house, the 1817 survey made for the continuation of streets in the project area, some of them never run, documents two additional structures (see Figure 4). All three are located on Monument Lane, the forerunner of the reconfigured Waverly Place, now Washington Square North. The survey also makes it possible to locates these buildings, albeit somewhat generally, in the modern park, in this case within the park's northwest quadrant (see Figures 4 and 11a).

Potter's Field (1797-1825)

The City established the Potter's, or Pauper's Field, in November 1797 to replace its small, triangular burial ground at Bloomingdale Road later incorporated into Madison Square. This new burial ground, which operated for twenty-eight years, covered approximately the eastern two-thirds of Washington Square Park (e.g., see Figure 4). It is has been said that burials, which have proved to include those associated with church plots, possibly numbered as many as 20,000 and it appears these burials remain under varying depths of fill introduced once the burial ground became inactive in 1825.⁴⁶ It also appears that, contrary to the original intent, not all burials were those of the indigent or unknown.

Superintendent's (Keeper's House) and a Well (1797)

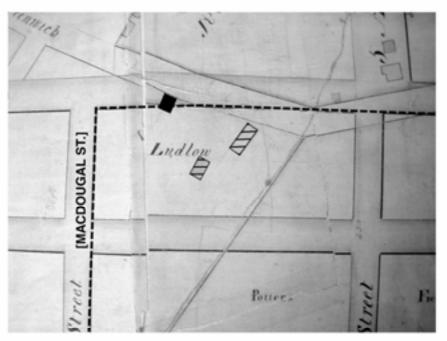
The major 18th-century construction event within the Potter's Field was the Superintendent's House (see Figures 4). As noted previously, it was built of materials from the old Almshouse and probably had an associated well nearby. Also as noted previously, it was located near the part of Washington Square North called Art Street in 1817 (see Figure 4). The location of the house, and by association, the approximate location of the well, is shown on the aforementioned 1817 manuscript map (see Figure 4 and a detail presented in Figure 11b). On March 31, 1826, ten months after burials were to cease and a month after the Common Council had appropriated the Potter's Field for a Parade Ground, 47 Samuel Lyon petitioned the Common Council for permission to occupy the house at the Potter's Field, 48 indicating it was then still standing. But the Minutes of the Common Council reveal the house had been sought after before this: in 1816, a Phebe Blanchard unsuccessfully petitioned the Common Council for permission to occupy it while the Potter's Field was still active. According to city directory information, at the time she and her husband Francis, a mason, then lived nearby at Art Street and "Pottersfield." Later, in 1823, Phebe, by then a widow, again petitioned the Common Council, this time on behalf of her and her son, "praying [to be] appointed keeper of Potters Field,"50 but, like her earlier petition, apparently this was not accepted.

 ⁴⁶ MCC XVI 1917:48-50; also, Folpe 2002:64; Jablonski Berkowitz 2005:4
 ⁴⁷ MCC XV 1917:234

⁴⁸ MCC XV 1917:253

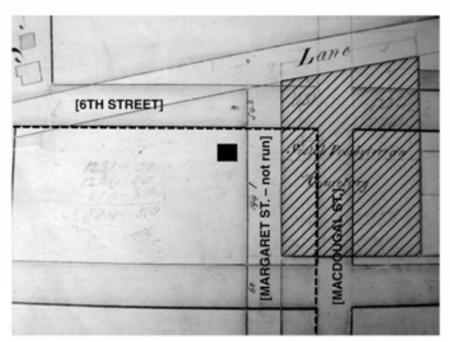
⁴⁹ MCC VIII 1917:523; NY City Directories 1816

⁵⁰ MCC XII 1917:26



11a Ludlow structures, detail

Northwest Quadrant, park boundary
 Ludlow structure, dwelling (?) 1789-1825
 Ludlow structure out building



11b Keeper's house, detail, and Scotch Presbyterian Cemetery



Valley of the Minetta Waters Filled (1808)

An 1808 entry in the Minutes of the Common Council ordered the high ground at the Potter's Field to "be drawn into the valley and levelled in such manner as to render the same more suitable for the purposes of a Cemetery." This was eleven years after the city established the burial ground, and suggests the need for additional space for burials. This was more than likely the result of several yellow fever epidemics that plagued the city in the late 18th and early 19th centuries. Since the land on the west side of the Minetta Waters did not then belong to the city and, in addition, was the site of Ludlow's tenanted house and outbuildings, the "high ground" must have come from the eastern part of the field, an area apparently dense with burials (the likely exception being in the immediate vicinity of the keeper's house; see Figure 11b). This directive is the first major land alteration documented at the Potter's Field. Its extent and efficacy are unknown, as is the nature of the fill soil. Since the soil was to come from the heavily populated cemetery, it conceivably included human remains.

Church Cemetery/Cemeteries (by 1817)

As discussed in the 2004 archaeology report, by 1826, two small church cemeteries were documented in the northeast corner of what is now the park: the Pearl Street Church and the Cedar Street Church (e.g., see Figure 7 in Appendix 2 this report). Both were associated with the Scotch Presbyterian Church that, according to Jonathan Greenleaf in his 1846 book, *A History of the Churches, of All Denominations, in the City of New York, from the First Settlement to the Year 1846*, was established in 1756. The Pearl Street Church congregation, functioning by 1797, the year the Potter's Field opened, was an offshoot of the Cedar Street Church. However, earlier cartographic data located for this assessment indicate these two plots were created from a larger plot identified in 1817 as belonging to the Scotch Presbyterian Church (see Figure 4). According to the Minutes of the Common Council, the original plot was reduced in size with the running of Wooster Street in 1827, ⁵² now Washington Square East.

This relatively large plot, which bordered Margaret Street, a planned roadway that was never run, extended from the northeast corner of the park, across what is now Washington Square East and Washington Square North, and into the adjoining blocks (see Figures 4 and 11a). As noted previously, in 1965, Con Edison workers uncovered twenty-five burials in a vault under Washington Square East that belonged to one or more of the three church cemeteries (see Figure 6), all of them associated with the Scotch Presbyterian Church.

The discovery of the 1817 survey takes the creation of a church plot within the Potter's Field back at least another decade. It also confirms that the Presbyterian Church plots were the only ones located within the limits of what is now Washington Square Park (see discussion regarding the location of the Zion African Methodist Episcopal Church burial ground within the Potter's Field but east of Washington Square Park in Appendix 2:9). It also refutes an earlier suggestion that introduction of church burial grounds within the Potter's Field may have coincided with a mid-1820s attempt to halt church burials in the developed city. To accomplish this, the city was to provide replacement burial plots in the City Cemetery to all religious denominations with private burial vaults built prior to 1823. This may have been true of the Pearl Street and Cedar Street Church burial plots, but not the Scotch Presbyterian Church plot established well before this became a documented issue.

52 MCC XVI 1917:48-49

⁵¹ MCC V 1917:255

⁵³ MCC XI 1917:570 in Geismar 2004, Appendix 2 this report

Gallows (1819)

The question of a gallows in the Potter's Field is an interesting one. This was where Rose Butler, a young black woman, was purportedly hanged on July 9, 1819.⁵⁴ However, as discussed in the earlier report, newspaper accounts of the hanging do not say where in the Potter's Field the gallows were situated, or even if they were actually in the burial ground or only "nearby."⁵⁵ As noted in the earlier report, Luther Harris, the author of *Around Washington Square*, believes the gallows were located where the fountain stands at this writing. This belief is based on the recollection of Peter Cooper as reported by his grandson-in-law in a written memorial in 1891 honoring the centennial of Cooper's birth. In it, he tells of a walk through Washington Square where Cooper, then in his 91st year, made the point that the spirit of society had changed, and, apparently as an example, pointed to the fountain with his stick, saying "...that very near, if not exactly on the exact place where that fountain stood he remembered seeing a man hung for theft."⁵⁶

It has been said that only one hanging occurred in the Potter's Field,⁵⁷ and all accounts identify the victim as the aforementioned Rose Butler, who, in 1819, was found guilty of arson, one of the three crimes then punishable by execution (the others being treason and murder, but this was being expanded to include intent to commit murder).⁵⁸ However, the execution Cooper remembered was of a young man hanged for theft.⁵⁹ As noted in the earlier archaeological report, newspaper accounts of the time agree upon who was hanged, why, and when; mainly, they also suggest or name the Potter's Field as the location. An official account of Rose Butler's case and her death, researched for this assessment, indicates that she was buried in the Potter's Field after being hanged for her crime, and that the burial was only a few yards from where she was executed.⁶⁰ All this suggests it was, indeed, the Potter's Field where the execution took place. That said, how Peter Cooper could be so sure of the site of the gallows and yet be so wrong about the crime and the sex of the person executed, casts doubt on his powers of recollection regarding the details of an event that occurred over 60 years earlier. This was driven home when a review of documented executions in New York State did not indicate that any for burglary ever occurred in the vicinity of the Potter's Field.⁵¹ It should also be noted that the gallows for the only documented execution to occur there, that of Rose Butler, was erected for the event rather than being a permanent fixture in the Potter's Field.⁵⁸

Minetta "Sewer" (1820)_

An 1820 reference in the Minutes of the Common Council indicates the City paid a Mr. James Wallace for building a Minetto (sic) sewer. ⁶² This may have been a continuation of a sewer—or, more accurately, a drain—installed the previous year to channel the stream south of the Potter's Field. ⁶³

⁵⁴ See Geismar 2004:11-12, Appendix 2 this report

⁵⁵ See Geismar 2004:12, Appendix 2 this report

⁵⁶ Harris 2005:personal communication, citing Lloyd Bryce's article, "The Example of a Great Life" in the *North American Review* (1891:420). Bryce, the editor of the review from 1889 to 1896, was married to Cooper's granddaughter ⁵⁷ Patten 1974; Rose Butler's execution was the only one that newspapers of the day locate in or near the Potter's Field; the only execution mentioned in the MCC was carried out in 1811 at gallows located at "Richmond Hill" (MCC 1917 VI:473; Stokes 1926 V:1529 citing the *New York Evening Post*, January 25, 1811); the hill was being leveled at the time of the execution and is now the location of Varick and Charlton Streets

⁵⁸ New-York Commercial Advertiser 1819

⁵⁹ Bryce 1891:420

⁶⁰ Stanford 1819

⁶¹ Hearn 1997:28-40; of nine executions documented in New York City from 1797 to 1824, the years the Potter's Field was active, seven could be located and were found to take place at various locations throughout the city ⁶² MCC XI 1917:289

⁶³ MCC X 1917:377

Minetta Waters Deepened (1823)

The Minutes of the Common Council document that "Thomas Cumming was paid for "deep^g Water Course thro' Potter'sfield" (sic) in 1823.⁶⁴ One can only imagine the extent of the ground disturbance caused by digging out and around the Minetta Waters. This Thomas Cumming was undoubtedly the Thomas Cummings who later physically carried out the creation of the Parade Ground documented in E. W. Bridges' 1829 survey (see Figure 6 and discussion below).

Minetta Waters Culverted (1824)

In December 1824, five months before the Potter's Field officially closed, the Common Council appointed a committee to see that a timber⁶⁵ and plank culvert was constructed to convey the Minetta Waters from 4th Street (now Washington Square South) to Fifth Avenue at 6th Street (now Washington Square North). It was in this year that Fifth Avenue was officially opened.⁶⁶ If the committee successfully carried out this plan, construction of the culvert would have necessitated extensive excavation along the western boundary of the Potter's Field, that is, running south on a diagonal from the west side of the Arch to Washington Square South and just east of Washington Square West.

Reinterment of Burials in Pits and Trenches (1824-1825?)

The aforementioned article about Solomon Parmalee documents multiple burials in pits at the Potter's Field. As noted in the earlier archaeological assessment, it has been said that trenches, possibly located on the periphery of the burial ground, were excavated to receive reinterments before the field became a military parade ground.⁶⁷ However, nothing has been found to substantiate this claim, and, indeed, the Minutes of the Common Council specifically state that no burials were to be disturbed in the conversion.⁶⁷

Filling (1825-1826)

Filling episodes are documented in the Minutes of the Common Council, and, as noted before, workers encountered 8 feet of fill, possibly the deepest fill of all, during excavation for the Memorial Arch in 1890 (see below). It seems likely that most of this fill was introduced to level the Potter's Field and transform it into a Parade Ground. Minutes of the Common Council indicate this was done episodically between 1825 and 1826, since John Williams was paid \$2,000-\$2,664.87 for each of four filling episodes, one in January 1825 and three others in May, September, and November 1826.

Military Parade Ground (1826-1828)

In 1825, the Common Council called for the closure of the Potter's Field, stating in January that it would close on the first day of May of that year. ⁶⁹ Rather than development, perhaps because it was a recently closed cemetery where burials remained, the City decided it should become the site of a military parade ground. ⁷⁰

⁶⁴ MCC XIII 1917:418

⁶⁵ Apparently a hollowed out log affair much like the log water mains used by the Manhattan Company to distribute water to the lower city in the first quarter of the 19th century (e.g., Geismar 2005)

⁶⁶ Street Opening Book, N.D.

⁶⁷ Harris 2004:personal communication in Geismar 2004:12; see Appendix 2 this report; MCC 1917 XVI:48-49

⁶⁸MCCXIV 1917:766, XV 1917:443, XV 1917:569, XV 1917:686

⁶⁹ MCC XIV 1917:306-307

⁷⁰ Geismar 2004:12, Appendix 2 this report

Minetta Waters Culverted and Burial Ground Leveled (1828-1829)

"The old Potters Field is now levelled, and is formed into a beautiful public square, called Washington Square, which is also used as a military parade ground." Stokes cites this statement from A. T. Goodrich's 1828 guidebook, *Picture of N. Y.* An 1829 survey shows the configuration of the square and parade ground, named the Washington Military Parade Ground three years earlier (see Figure 7). This survey is apparently the first to cartographically document the parade ground and the new square.

First Park Design and Fountain (1843?-1852)

As noted previously, a *New York Times* article, perhaps actually a letter to the editor, identifies the designer of the park that replaced the parade ground as William Curr, a gardener. The design, as documented on a sketch map erroneously dated to 1827 and the 1852 Dripps map⁷³ of New York, introduced paths that created an intricate, triangular pattern throughout the park (see Figures 8 and 9).

Gas Lighting (1849)

On March 9, 1849, the Common Council ordered Washington Square Park to be lighted with gas.⁷⁴ This would have entailed the introduction of shallow iron piping throughout the park, probably mostly along its recently created paths.

Park Redesign (1870-1872)

The removal of Olmsted and Vaux as park architects and the leadership of William Marcy (Boss) Tweed, albeit a short one (1870-1873), is well documented and is presented in the park's Historic Landscape report. ⁷⁵ Under Tweed, the park was redesigned by M. A. Kellogg, the park department's Engineer-in-Chief, and I. A. Pilat, its Chief Landscape Gardener. The new design included three "temporary" roadways, a music pavilion (or stand), and the features discussed below.

According to the 1872 Annual Report produced by Tweed's Public Parks Department, 9,000 cubic yards of earth were excavated in that year alone, a vast amount that may be associated with the park's new fountain. On the other hand, there is an 1871 editorial in the *New York Times* that complains about the lackadaisical activities of the many park workers in all the parks below 59th Street. This would include Washington Square. It cites the shifting of dirt from one part of a park to another and back again, a practice that suggests actual excavation in Washington Square may have been less than reported. (This same anonymous writer refers to the Department of Public Parks and other city departments as "departments of public plunder.") All this tends to suggest that the purported 9,000 cubic yards of dirt excavated in 1872 in Washington Square Park—the modern equivalent of approximately 900 dump truck loads—is somewhat questionable.

⁷² Bridges 1829; Stokes V 1926:1659

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⁷¹ Stokes V 1926:1673

⁷³ As noted previously, the Dripps Maps of 1850, 1851, and 1852 are all similar

⁷⁴ Stokes V 1926:1817

⁷⁵ e.g., Jablonski Berkowitz 2005:13

⁷⁶ NY Times 1871a

Women's Cottage, Park Fountain, Drinking Fountains (1871-1873)

The first annual report of the newly formed Department of Public Parks indicates drinking fountains were introduced into the park in 1871;⁷⁷ the second one indicates that the Women's Cottage was erected in 1872. This structure apparently was, in essence, the park's first comfort station. Given the year of its construction, it may have utilized an outdoor, water-cleansed, brick privy vault below individual compartments to accommodate multiple users. This was a technology then replacing the ubiquitous stone privy pit and was later referred to as a "school-sink" (e.g., see Figure 12a). ⁷⁹ If so, it required a reliable water supply and a cesspool or sewer to receive manually "flushed-out" human waste. Or it may have offered an earth-closet since, in 1873, it was noted that 100 such features were "now in use" in Central Park. 80 A New York Times article reported the introduction of the earthcloset to Central Park two years earlier, a landscape feature decried by some.⁸¹ The earth-closet, which required neither water, sewers, nor cesspools, was a simple affair. Originally designed by the Reverend Henry Moule in 1860, the apparatuses used sand or fine earth to cover human waste in a bucket receptacle (see Figure 12b for the basic mechanism). According to a testimonial provided by the manufacturer, this was the sanitary facility favored by Olmsted and Vaux—the designers of Central Park in New York and several Brooklyn parks, among them Prospect Park and Fort Greene Park--who are quoted as saying: "From ten to twenty earth-closets have been in constant use upon the Brooklyn parks during the last year [1872]." 82

Since it was constructed in 1872, the Women's Cottage is not found on the 1870 park plan (Figure 13), but, as reported in a yet another *New York Times* article, it appears to be one of two new "Swiss Cottages" being painted in 1872 to give them a rustic appearance. The article also describes this painting as part of the final phase of the park's reconstruction (another part was installation of the fountain). An undated map that apparently predates 1904 (Figure 14), Places the structure in the southwest quadrant. A 1921 Land Map indicates it persisted until at least that year.

The site of the Women's or Ladies Cottage is also the general location of two subsequent comfort stations, one erected in 1934 (see Figure 17 for a plan and profile of this facility), the other, which still stands, in 1968-1970. A smaller, one-story structure, labeled "Police Shelter," is shown in the northwest quadrant on the undated map, and is, presumably, the other "Swiss Cottage." This is the Victorian structure documented in an undated 20th-century photograph provided by Parks (Figure 15), a building that stood until at least 1939 and possibly later (see Figure 19).

⁷⁷ Department of Public Parks 1871:70

⁷⁸ Annual Report 1872:32

⁷⁹ e.g., Geismar 1999/2003:2

⁸⁰ Leavitt 1874:62

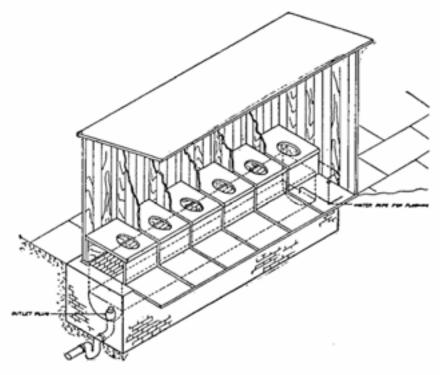
⁸¹ NY Times 1871b

⁸² Leavitt 1874:62

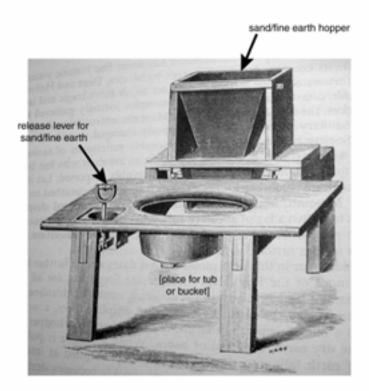
⁸³ NY Times 1872

⁸⁴ Park N.D. An 1895-1904 time frame is suggested since West Broadway is shown. This was originally Laurens Street and then South Fifth Avenue and renamed West Broadway in 1895 (Cook 2005:personal communication); as noted, a Sanborn Insurance map identifies it as merely a toilet, rather than the Women's Cottage, in 1904.

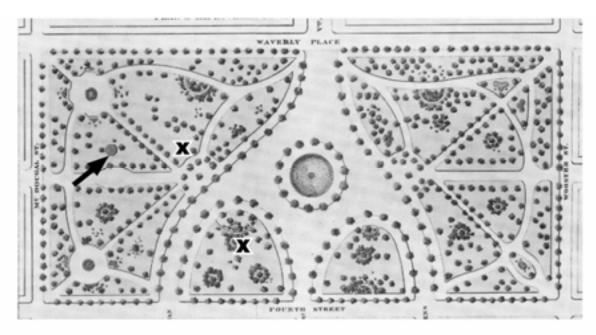
⁸⁵ Bromley 1921



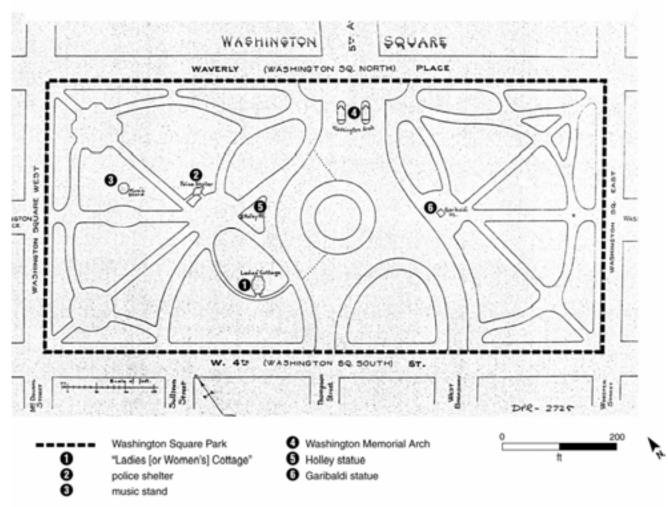
12a Diagram of 6-compartmented, brick, water-cleansed privy vault (DeForest and Weiller 1903 in Geismar 1999/2003: 4).



12b Basic mechanism of Moule's earth-closet, 1860 (Wright 1960: 209). The apparatus comprised a hopper to distribute sand or fine earth and a bucket, the latter enclosed in a wooden box (not shown).



1870 plan of improvements to Washington Square Park. Note the "Women's Cottage" (lower x) and the police shelter (upper x) are not on this plan, but a music stand (arrow) is shown. (Courtesy of Parks)



14 Park Plan, Existing Conditions, Possibly Post 1894-Pre 1904 (Parks Archive N.D.)



15 View of one-story police shelter (arrow), one of two Victorian structures erected in 1872 and called "Swiss Cottages." Undated photograph. (Photo courtesy of Parks)

After many delays, the park's second fountain, its other finishing touch, was installed in 1872. This fountain was relocated from the southern end of Central Park in a money-saving measure. 86 In an altered form, it remains at this writing. Both the decorative fountain and drinking fountains, also installed in this year, required that water be brought in and carried out through subsurface infrastructure.

Storm and Sanitary Sewer (Post 1880)

Manhattan Tapping, the division of the New York City DEP that keeps sewer records, has no date in their files for the installation of a 4-foot 6-inch diameter brick sewer that still traverses the park from Washington Square West to Washington Square East (e.g., see Figure 18). Its construction and configuration suggest a 19th-century feature. Since it is not found in a Croton Aqueduct Department record that lists all sewers installed prior to 1857, it belongs to the second half of that century. While its construction might logically date to the Tweed-era park, that is, between 1870 and 1873, street names on a map found at the Municipal Archives and other information suggest it was constructed between 1880 and 1893, 87 about a decade after Tweed's control ended.

The Washington Arch (1890-1895)

As described in the earlier archaeological report and as mentioned previously, construction of the arch began in 1890. Fashioned after the Arc de Triomphe in Paris, its very deep foundations account for the discovery of burials 10 feet below the ground surface during its construction. It also accounts for the ground disturbance documented through archaeological monitoring carried out during the structure's recent reconstruction. 88 Monitoring confirmed that archaeological issues were not a concern at the depths reached during the reconstruction that only extended 6 feet below the ground surface.

Memorial Flagpole (1920)

Dedicated to the local heroes of WWI and installed in 1920, the flagpole was centered on the arch on a base designed by McKim Mead and White. In the 1930s, it was moved slightly southeast of its original location 89 where it remains.

Park Redesign (1934-1938)

The park's second comprehensive redesign occurred between 1934 and 1939. Major changes are illustrated in Figures 16 and 17, the latter an aerial photo taken during construction. Changes included closing the Sullivan Street extension through the park and creating a path in its stead. It also included a new men's and women's comfort station (e.g., Figure 18), and sand pits in each of the park's quadrants. Notable is the 1872 "Swiss Cottage" police shelter building that survived this park overhaul as shown on the detailed survey of the park from 1934 updated to 1939 (Figure 19).

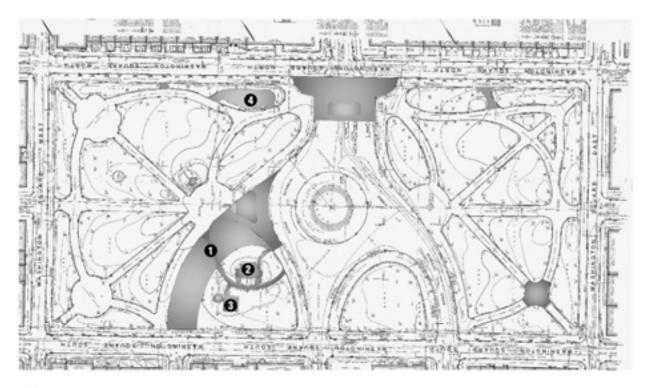
Park Redesign (1965-1970)

The Parks Department created a map in 1962 that documents existing conditions and indicates proposed changes (Figure 20), many of them unrealized until 1970. According to this map, all the sand

⁸⁶ e.g., Jablonski Berkowitz 2005:18

⁸⁷ Archives Maps 1880, 1893 ⁸⁸ Geismar 2004; Appendix 2 this report

⁸⁹ Jablonski Berkowitz 2005:29

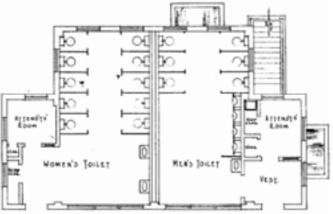


Park plan 1934. Greyed areas indicate changes, such as the closing of the Sullivan Street extension (1), construction of the new comfort station (2) and tool shed (3), a new playground (4). (Courtesy of Parks)

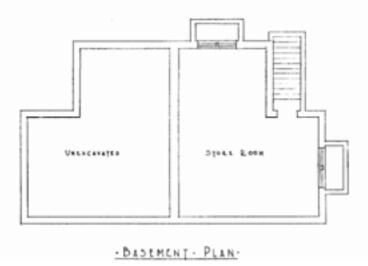


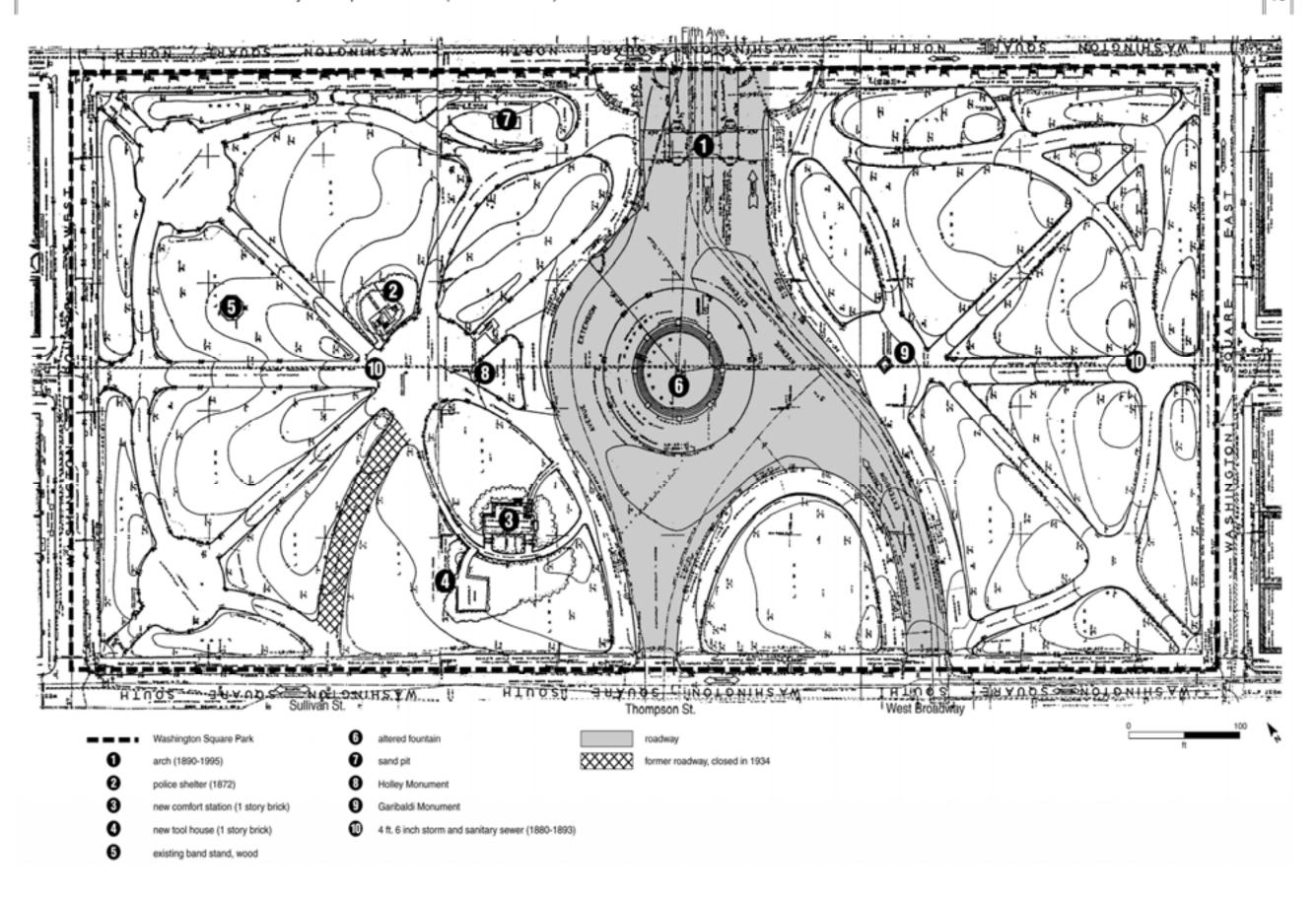
17 Aerial view 1934, looking north while the park was under construction. The Sullivan Street extension has been closed (left arrow) and the comfort station (right arrow) is either constructed or under construction. (Courtesy of Parks)

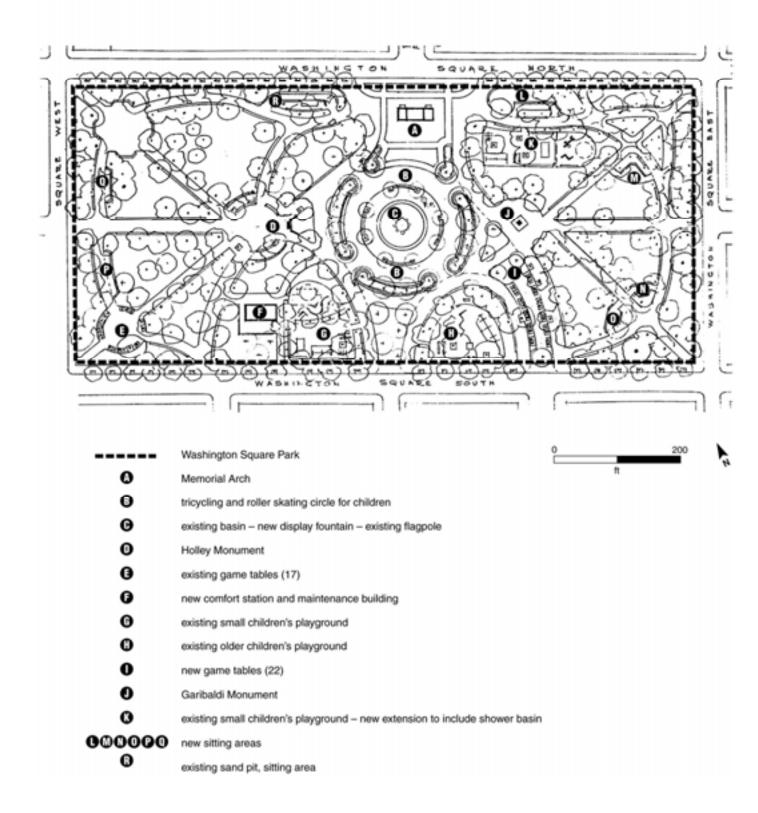




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pits introduced in the 1930s had been expanded into playgrounds except the one in the northwest quadrant. The new plan included the creation of a playground in this part of the park as well as the revamping of the existing playgrounds. The 1965-1970 renovations are illustrated in a plan that superimposes the 1970 features on the 1934 park plan (Figure 21). Major among the changes was the elimination of the two remaining "temporary" roadways through the park, at Thompson Street and LaGuardia Place, 90 which had endured for almost a century. By this time, the Victorian police shelter building, the surviving "Swiss Cottage," had been demolished, but its foundation still remained (see Figure 21). Park plans called for revamping the 1872 fountain as well as construction of a new comfort station, virtually where the original Women's Cottage had been, an administration building and other existing park features.

Park Alterations (1990s)

During the 1990s, the "Babies" playground in the northwest quadrant and the "Tot" playground in the northeast quadrant were extensively renovated. The playground in the southeast quadrant became an "Adventure" playground while the playground in the southwest quadrant was abandoned. Major renovation of the Washington Square Arch was considered in the late 1990s.

Restoration of The Washington Arch (2001-2004)

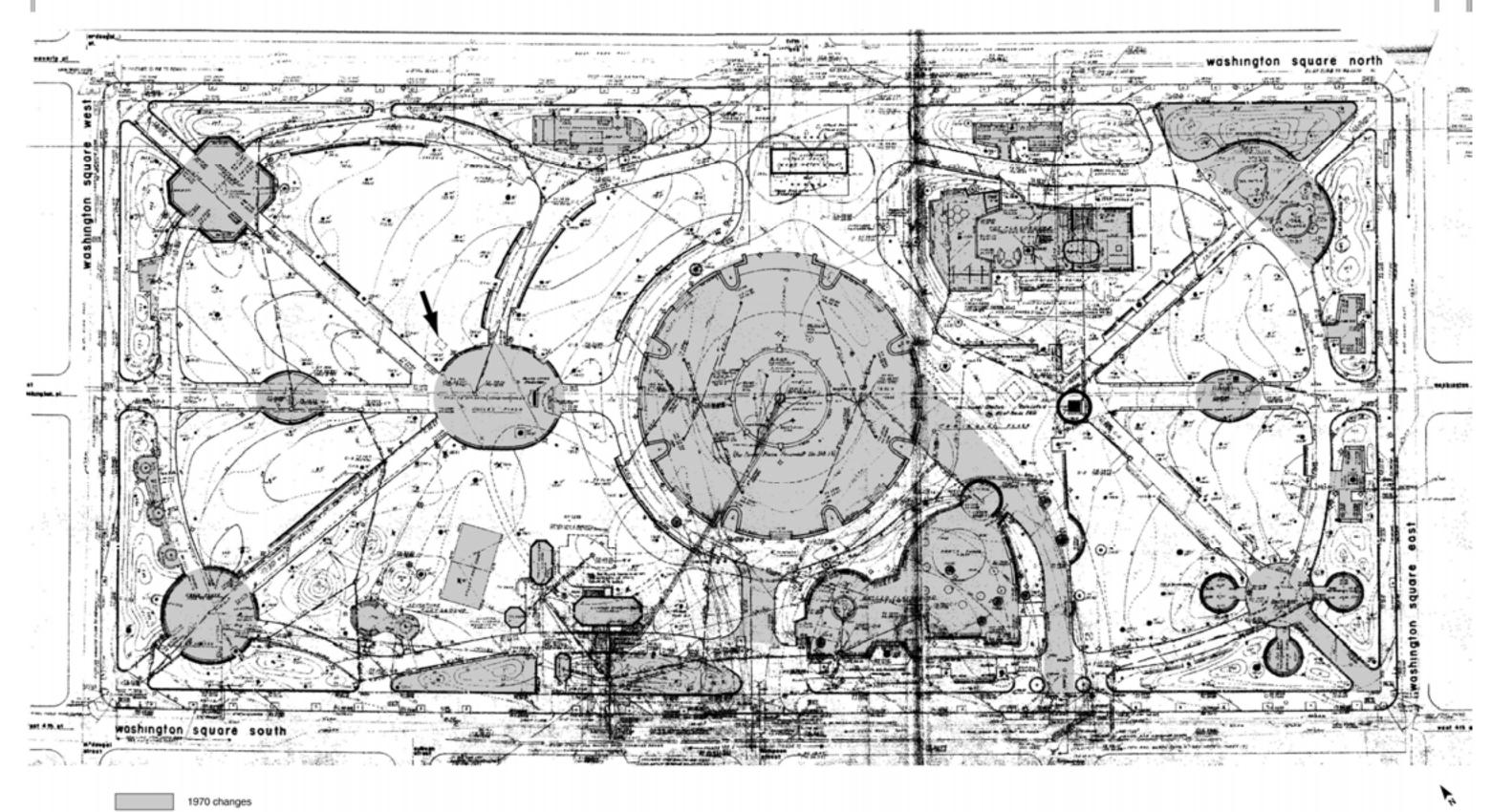
Rehabilitation and restoration of the arch, implemented gradually in the late 1990s, was well underway in 2001 and completed in 2004 (Figure 22 is a recent photo of the restored arch). As mentioned previously, as part of the extensive restoration, excavations for dry-wells and electrical work were monitored archaeologically to depths of 6 feet in the spring of 2004. The excavations documented the fill said, in 1890, to be 8-feet deep but, not surprisingly given the 6-foot depth of excavations, did not locate any significant archeological resources.

IDENTIFIED AREAS OF POTENTIAL ARCHAEOLOGICAL CONCERN

The reconstructed development history of Washington Square Park made it possible to identify archaeologically significant resources that might be impacted during currently planned and future park construction activities. Research determined that these resources include late 18th-century domestic structures and features (Thomas Ludlow's three-building domestic complex and the Potter's Field Keeper's house), the late-18th to early-19th-century Potter's Field (purportedly the site of as many as 20,000 burials), early 19th-century infrastructure (for example, a log and plank drain constructed in 1824 to channel the Minetta Waters) and mid- to late-19th-century parkrelated structures, features, and infrastructure. Research also determined the site has been subjected to extensive alterations that transformed it from a swamp and high ground into a Potter's Field, then a military parade ground, and finally a park, the latter transformation accomplished in at least four major iterations to date (the 1840s and early 1850s, the early 1870s, the 1930s, and the 1960s through the early 1970s). By relating the site's history to its documented disturbance, it is possible to identify several areas of archaeological concern. These identified archaeological issues are addressed by quadrant and illustrated in Figure 23. It should be noted that the scales and measurements found on many of the maps used in this assessment are somewhat variable and, in some instances, the condition of the maps is poor. This has made it difficult, if not impossible, to determine the exact locations of all potential resources. Therefore, in some instances, only general areas of potential archaeological sensitivity are identified.

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⁹⁰ In 1967, West Broadway was renamed LaGuardia Place north of Houston Street (Cook 2005:personal communication)

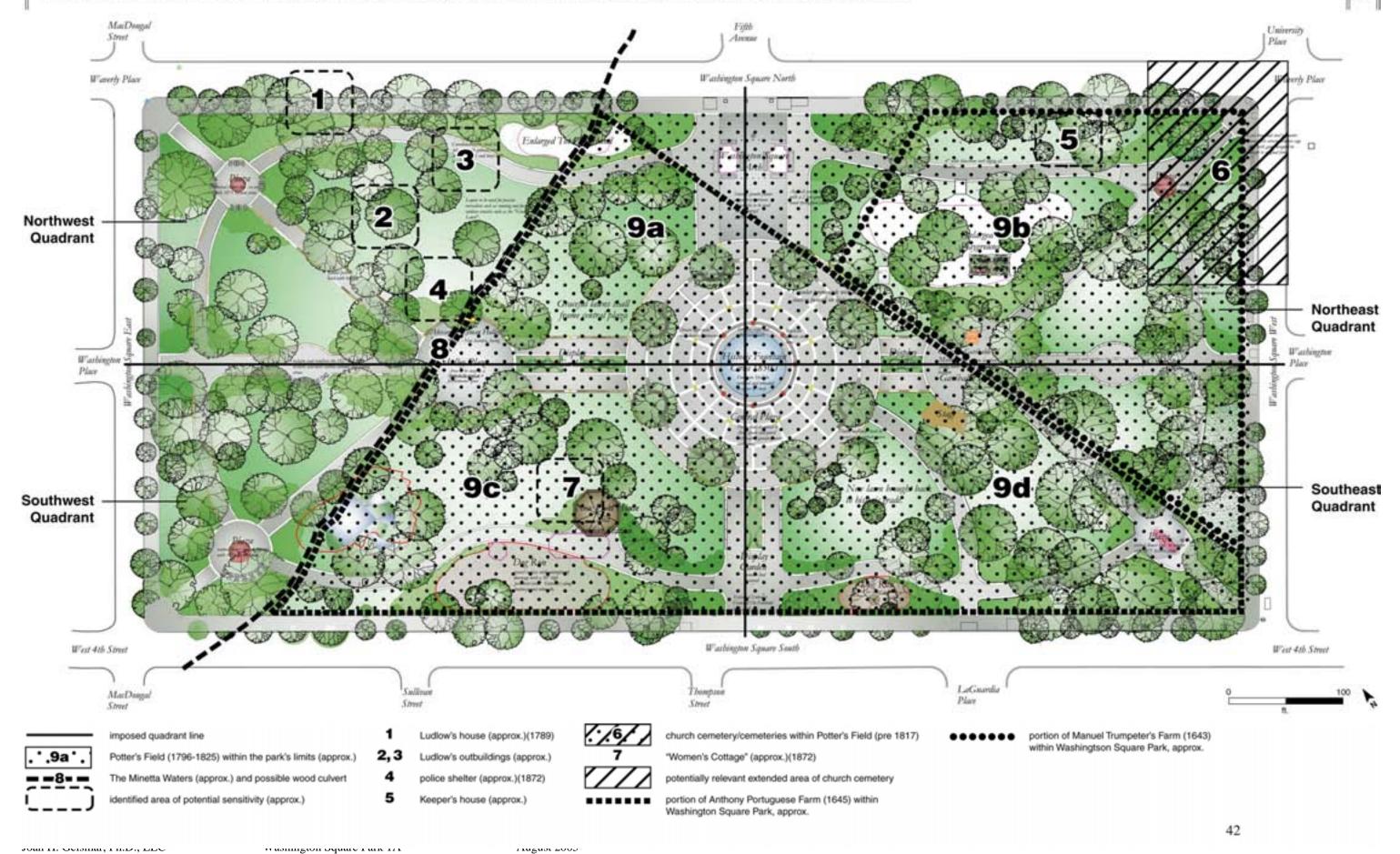


foundation (police shelter 1872)

relocated Garibaldi statue



22 View of the restored arch looking northeast from the southwest side of the fountain at dusk on a recent warm summer evening. (Geismar 7/14/05)



Northwest Quadrant

This quadrant is the site of the Tot's Playground, one of the park's more recently constructed playgrounds. The quadrant is divided from its neighboring quadrant to the south by the park's long, east-west path that runs above a late 19th-century, 4-foot 6-inch diameter brick storm and sanitary sewer. Located on this path, and therefore between the northwest and southwest quadrants and above the storm and sanitary sewer, is the statue of Alexander Lyman Holley, a steel industrialist. Figure 24 offers a recent composite photo of this quadrant. Identified areas of archaeological concern include the following:

- Thomas Ludlow's house (1789) and two structures assumed to be outbuildings, perhaps one a barn. This domestic complex could include "backyard" features such as water cisterns, a well, and possibly a dry-laid stone privy pit, although the rural setting might have made this last feature unnecessary (see Nos. 1, 2, and 3 on Figure 23; see also Figure 25 for a composite photo of the general area of concern).
- Potter's Field (1797-1825) in the eastern half of quadrant (see No. 9a on Figure 23). The proximity of this part of the quadrant to the valley of the Minetta Waters suggests that fill in this area would be relatively deep. Consequently, any extant burials could be preserved under fill. However, the depth of fill, and therefore the potentially sensitive level, is unknown at this writing.
- Log and plank culvert (1824) constructed in the eastern part of the quadrant, to channel the Minetta Waters along the western boundary of the Potter's Field (see No. 8 on Figure 23).
- Foundation of one-story, frame police shelter building (1872) demolished sometime after 1939 and possible associated "backyard" features (privy vault, well, water cistern). (see No. 4 on Figure 23).
- Anthony Portuguese's land (1645) included in the quadrant's eastern third (approximate; see Figure 23).

Northeast Quadrant

The park's northeast quadrant (see Figure 26 for a composite photo), which lies entirely within the limits of the former Potter's Field, is unique for the fill that rises well above street level (see Figures 27 and 28). At this writing, it includes a seating plaza and a playground. The relocated Memorial Flagpole is situated north of the Garibaldi statue, also relocated, that now faces the Alexander Holley statue on the path above the 19th-century brick storm and sanitary sewer that traverses the park. Identified areas of archaeological concern include the following.

- Foundation of the Potter's Field Keeper's house (1797) and possible associated "backyard" features (a well and possibly a stone-lined privy pit and water cistern) (No. 5 on Figure 23).
- Presbyterian Church Cemeteries (pre-1817); possibly underground vaults (No. 6 on Figure 23).
- Potter's Field (1797-1825) throughout quadrant (No. 9b on Figure 23). The original topography in this part of the park, a relatively high ground, particularly in the quadrant's eastern part, suggests that any burials remaining might be covered by less fill here than to the west. Fill introduced during park development has raised the elevation of the northeastern part of the quadrant (see Figures 26 and 27). The actual depth of the fill below grade is unknown, as are subsurface conditions.



24 Composite view of northwest quadrant looking north (right) and west (left). Washington Square North is to the right. (Geismar 7/26/05)



25 Composite view of potentially sensitive areas in the northwest quadrant. The late-18th-century Ludlow domestic building complex was located beyond the Tot Playground (right arrow); and the former police shelter building (1872) was situated further south, in the vicinity of the left arrow. (Geismar 7/26/05)



26 Composite view of northeast quadrant looking north and east from south side of the Washington Arch. The relocated Memorial Flagpole is to the right (arrow). (Geismar 7/26/05)



27 View is toward general location of the Potter's Field Keeper's house. Washington Square North is to the left beyond the photo, and Washington Square East is beyond the trees. (Geismar 6/8/05)



28 Northeast corner of park from Washington Square North looking south. Note elevation created by earlier filling in this area (arrow). This was the general location of the Potter's Field Keeper's house, built in 1797. (Geismar 6/8/05)

• Anthony Portuguese's land (1645) within the quadrant's southwest corner, and land granted to Manuel Trumpeter (1643) that comprised the eastern two-thirds of the remainder of the quadrant (both approximate; see Figure 23).

Note: the Second Presbyterian Church, with offices at 3 West 95th Street, New York, NY 10025, is the descendent church associated with all church burials within the park. Contact should be made prior to field investigations to ensure that any human remains that might be encountered from this antecedent congregation will be addressed appropriately.

Southwest Quadrant

A comfort station and small park buildings that date from the 1968-1979 park design cluster in the southern part of this quadrant, (Figure 29). A dog run is located north of the building cluster (see Figure 29), and there is a chess plaza in the southwest corner of the quadrant. Identified areas of archaeological concern include the following:

- Potter's Field (1797-1825) in eastern half of quadrant (No. 9c on Figure 23). The original terrain in this part of the park, like that in the northwest quadrant, sloped up to the west from the valley of the Minetta Waters. This suggests that fill introduced to level the eastern part of the quadrant may protect any remaining burials. Subsurface conditions are unknown.
- Log and plank culvert (1824) constructed in the eastern part of the quadrant, along the western boundary of the Potter's Field, to channel the Minetta Waters (see No. 8 on Figure 23).
- Women's Cottage (1872). Since two subsequent comfort stations have been erected in the vicinity of the Women's Cottage, it is unlikely that evidence of the building's foundation remains. However, remnants of associated "backyard" features, such as water cisterns, a privy vault (although earth-closet facilities were more likely the sanitary amenity chosen by the park), or a well, might have survived.(see No. 7 on Figure 23).
- The land of Anthony Portuguese included in eastern two-thirds of the quadrant (approximate; see Figure 23)

Southeast Quadrant

The southeast quadrant (Figure 30) is the location of bocce courts (Figures 31 and 32). The entire quadrant lies within the bounds of the former Potter's Field. The identified area of archaeological concern is limited to the following:

- Potter's Field (1797-1825) throughout quadrant (No. 9d on Figure 23). It should be noted that the original topography in this area, a relatively high ground, suggests that any remaining burials could be covered by less fill here than to the west. However, the depth of the fill is unknown.
- Manuel Trumpeter's land (1643) within the quadrant's northeast corner, and Anthony Portuguese's land (1645) that comprised the remainder of the quadrant (both approximate; see Figure 23).



29 Composite view of southwest quadrant showing comfort stations (left) and park administration building (right) built during the 1968-1970 park redesign. View is south and west. A dog run (arrow) is located behind the benches. (Geismar 6/8/05)



30 Composite view of the southeastern part of the southeast quadrant from near the LaGuardia Place park entrance looking north and east (along Washington Square South). (Geismar 7/14/05)



31 Bocce court in the park's southeast quadrant looking northwest from near Thompson Street. (Geismar 7/14/05)



32 Western end of bocce court in southeast quadrant with comfort station in southwest quadrant (arrow) visible through the trees. The Thompson Street park entrance separates the two quadrants. (Geismar 7/14/05)

RECOMMENDATIONS

Research identified ten areas of potential archaeological concern (see section on Identified Areas of Archaeological Concern and Figure 23). One, the former Potter's Field (1797-1825), located in the eastern two-thirds of the park, is extensive. This is also true of those portions of the farm tracts of Anthony Portuguese (1645) and Manuel Trumpeter (1643) included within the park's limits. Therefore, without comprehensive information about subsurface conditions, it is virtually impossible to assess the likelihood of adversely affecting archaeological resources during planned and future park projects. This is particularly so where extensive potential archaeological sensitivity has been identified. Given the research findings, monitoring alone offers the prospect of costly construction delays at Washington Square Park.

The minimal soils information available is from soil borings from 1966 located mainly in the southern part of the park (two of the eleven borings were in the vicinity of the arch). With the exception of one boring, where a deeply buried level of organic material is documented, the data suggest ground disturbance, but there is not enough information to make a blanket statement. This raises the issue of field investigations where excavations for catch basins or other deep infrastructure will occur. Another method to be considered is soil borings to determine subsurface conditions, but this is not appropriate where burials are a potential issue. Since the former Potter's Field extended over approximately the eastern two-thirds of the park, soil borings are not considered viable in most of the park. However, they are viable in the vicinity of Thomas Ludlow's late-18th-century domestic complex in the park's northwest quadrant (see Figure 23). As an example of the efficacy of this method, soil boring logs from subsurface investigations conducted in 1890 and 1966 in the vicinity of the Washington Arch helped determine there was little likelihood of encountering burials during the reconstruction (see Geismar 2004, Appendix 2 this report).

Within the limits of the former Potter's Field, where soil borings are not an acceptable option, careful in-ground testing may be the recommended method where deep excavations, such as those for catch basins, will be required. Testing would, of course, terminate should there be evidence of burials. Any such testing may be relatively shallow since it seems the park grade will be raised during the planned reconstruction, but, just how much is, at present, unknown. A monitoring program, where appropriate, will undoubtedly be among the field protocols. In addition, protocols should be in place in the event of unanticipated discoveries. Any contractor working in the park should be made aware of the issues and the protocols established to address them and, most importantly, be required to abide by these protocols.

Once all involved parties, that is, Parks, the Landmarks Commission, and the project archaeologist, agree on a testing program and/or field procedures, the project archaeologist should develop a scope of work for Landmarks' approval.

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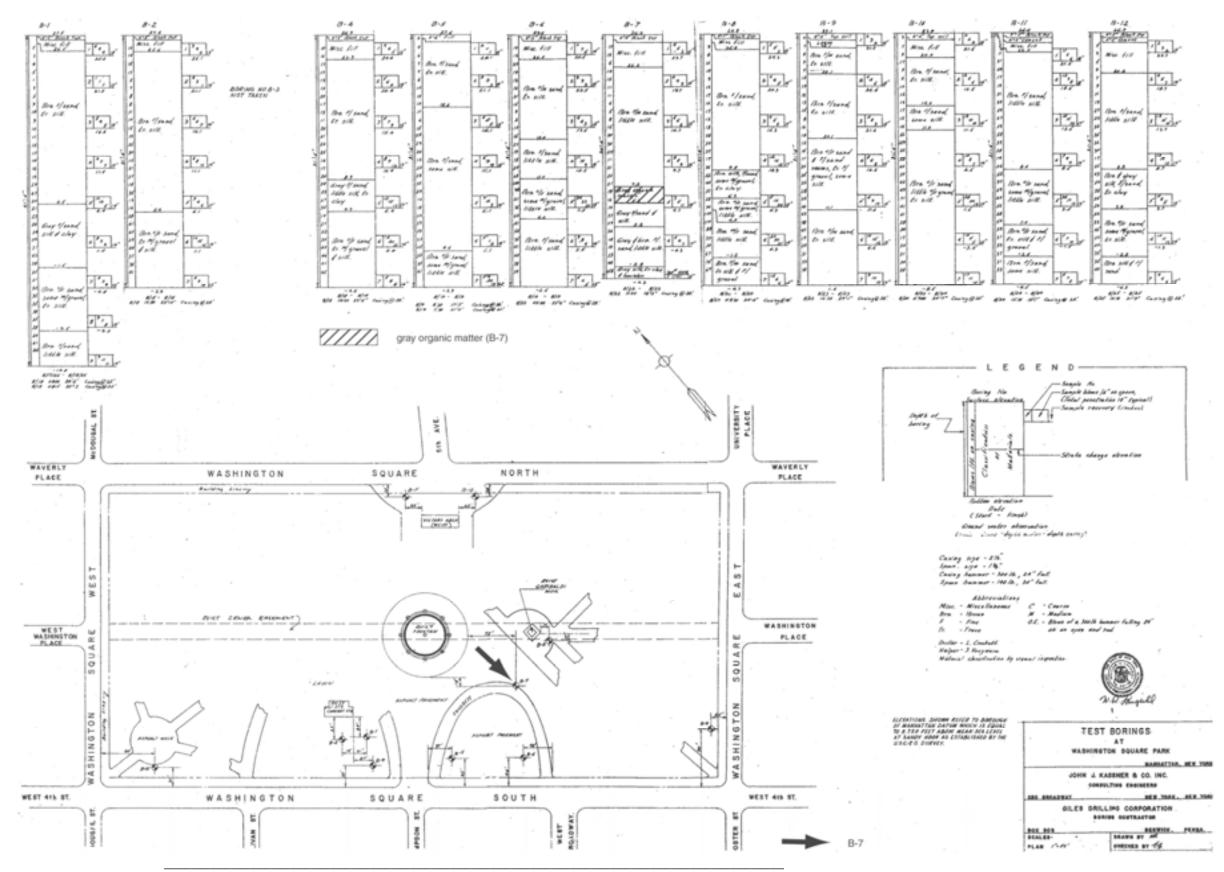
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WASHINGTON SQUARE PARK APPENDIX 1 Soil Boring Logs and Location Plan 1966					



WASHINGTON SQUARE PARK APPENDIX 2

The Reconstruction of the Washington Square Arch and Adjacent Site Work Washington Square, Borough of Manhattan Archaeological Dry Well Monitoring (Geismar 2004)

The Reconstruction of the Washington Square Arch and Adjacent Site Work

Washington Square Park, Borough of Manhattan

Archaeological Dry Well Monitoring



New York Parks Photo Archive 1935

The Reconstruction of the Washington Square Arch and Adjacent Site Work Washington Square Park, Borough of Manhattan Archaeological Dry Well Monitoring				
Prepared for the New York City Department of Park and Recreation Prepared by Joan H. Geismar, Ph.D., LLC April 2004				

ABSTRACT

This report presents the findings of archaeological monitoring at Washington Square Park (Block 549), Fifth Avenue and Washington Square North, Borough of Manhattan. It also presents the findings of historical research conducted to provide context after fieldwork was completed. The monitoring and research were carried out for the New York City Department of Parks and Recreation (Parks) in consultation with the New York City Landmarks Preservation Commission (LPC). At issue was whether excavation of two 6-foot deep dry wells associated with the renovation and restoration of the park's Washington Arch would disturb archaeological resources. Construction of the arch in 1890 uncovered evidence of human burials. Found about 10 feet below the ground surface, the burials, undoubtedly from a Potter's Field once located on the site, were associated with a stratum of blue clay documented in pre-construction soil borings. Apparently as a result of the construction, the blue clay stratum is not found in 1966 soil borings from the same area. The recent dry well excavations, which were entirely in fill, did not encounter any significant cultural resources, nor did they reach the potential level of concern.

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Project Archaeologist/Author: Joan H. Geismar, Ph.D., LLC Assistant archaeologist: Shelly Spritzer Graphics: Amy Geller

INTRODUCTION

This report presents the findings of archaeological monitoring at Washington Square Park (Block 549), Fifth Avenue and Washington Square North, Borough of Manhattan (Figure 1). It also presents the findings of historical research conducted to provide context for this undertaking. The work, which was carried out for the New York City Department of Parks and Recreation (Parks) in consultation with the New York City Landmarks Preservation Commission (LPC), related to the Washington Square Arch designed by Stanford White, erected in 1890, and dedicated in 1895. At issue was whether excavation of two dry wells associated with the monument's extensive renovation and restoration (Figure 2) would disturb archaeological resources.

The two dry wells are intended to receive water run-off from the approximately 6-story arch structure located within the park at the foot of Fifth Avenue. The dry wells are situated between the arch and the sidewalk on the south side of Washington Square North, a street that runs perpendicular to Fifth Avenue. The dry wells, or pits, were designed to be 6 feet deep, 8 feet wide, and 14 feet long, and were to be connected to shallow trenches on either side of each pier, designated the East Pier and the West Pier (Plan of Dry Wells 2004; Figure 3).

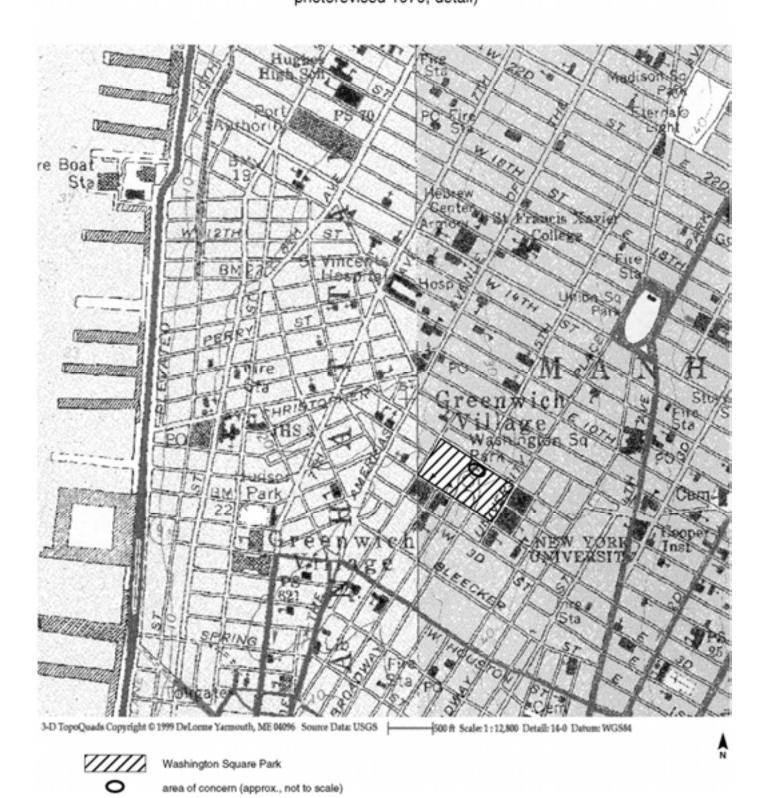
Construction plans and soil boring logs supplied by Parks helped determine the likelihood of encountering culture-bearing levels during the excavation. Soil profiles, which date from 1890 and 1966 (see below), indicate that the soil currently found in the area of concern is entirely a fill, and that this fill extends well below the area of potential effects (APE) of this undertaking, that is, below the level of dry well excavation. Based on this information, it appeared unlikely that the planned dry well excavations would disturb significant archaeological resources. However, given the history of Washington Square Park, it was deemed wise by both Parks and the LPC to monitor the dry well excavations as a precautionary measure. The disturbance caused by construction of the arch eliminated prehistoric resources as a concern in this undertaking.

A BRIEF HISTORY OF WASHINGTON SQUARE PARK

The history presented here is intended to provide a context for the dry well excavations undertaken in March 2004, and to identify potential archaeological issues. It was developed after the excavations ended but with full knowledge that approximately two thirds of Washington Square at one time was the city's Potter's Field and burials were a potential issue during monitoring.

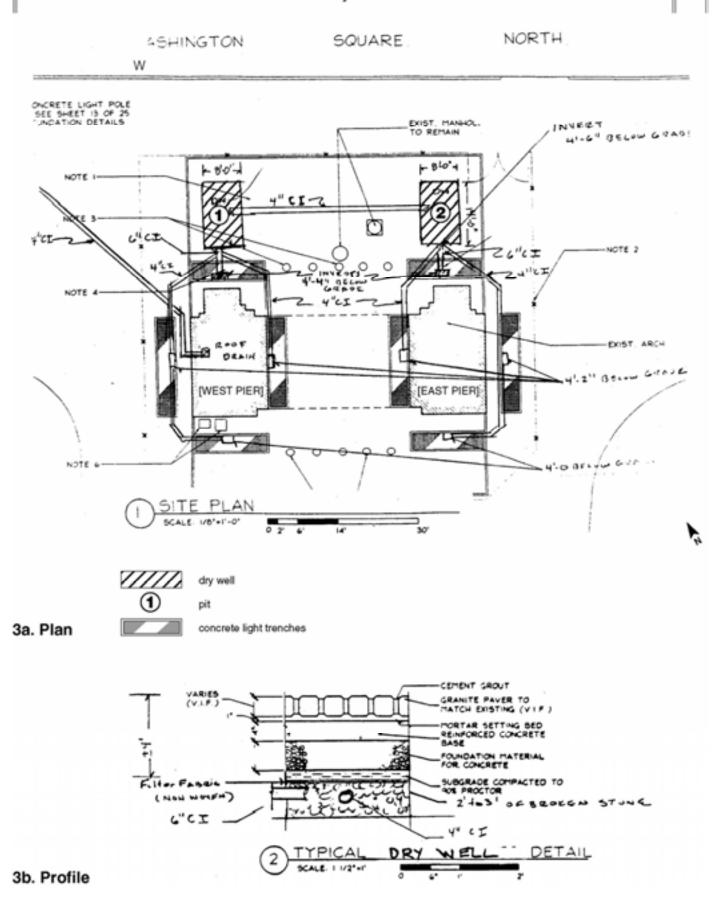
According to a *New York Times* article from May 13, 1890, written soon after construction of the arch began, excavators encountered human bones, gravestones, coffins, and an intact burial purportedly more than 10 feet below the ground surface (see Appendix A). The architect of the arch, Stanford White of the firm of McKim, Mead and White, halted the excavation until the burial could be sketched. This discovery highlights the park's development history. As shown on the 1767 Ratzer map reproduced in *Around Washington Square* (Harris 2003; Figure 4 this report), it was originally partially swamp associated with a small creek that ran through the future park site on a diagonal. This creek, known as Minetta Waters, Creek, or Stream, is also identified in the literature as Bestavaer's Killetje or Rivulet, among other variations (Stokes III 1918:966). This watercourse entered the approximately four-block rectangle that forms the "square"

¹ While it is possible the sketch is in the McKim, Mead and White Archive at the New York Historical Society, ongoing renovation of the society's building made it impossible to research this issue.





2 The Washington Arch under scaffolding during recent restoration activities undertaken by the New York City Department of Parks and Recreation. View is southwest. (Krawchuk March 2004)





Joan H. Geismar, Ph.D., LLC

area of concern (approx., not to scale)

Minetta Waters

just west of the arch and exited at West 4th Street east of MacDougal Street (see Figure 4), a road laid out prior to 1799 (Stokes III 1918: 1005). Attempts to culvert and fill the creek, which rose in the West 20s and emptied into the Hudson at West Houston Street, date to the 19th century, but it persists underground, occasionally making its presence known (e.g., Janvier 1894:86).

When the City acquired land for a potter's field at auction on April 30, 1797 (Liber of Deeds [LD] 1797 274:218), it was owned by William Ward Burrowes and others, but for generations before that, it was part of the Herring Farm (Figure 5). This was a large, irregular tract with its northern limit defined on the west by the aforementioned Minetta Waters; to the east, it extended beyond Broadway. Even earlier, it had been included in the 100 acres known as Wooter Van Twiller's² Bouwery (Farm) that comprised two tracts of land separated by the creek. In the 1640s, a cluster of small farms was located here, well beyond the settled area. The owners were slaves manumitted but indentured by the Dutch West India Company, and the area was known as "the Negroes' Lots" (Stokes VI 1928:104-6; Harris 2004:personal communication). According to deed recitations, the future Washington Square was included in a 6-morgen 425-rod lot patented in 1645 to Anthony Portuguese, a freed slave. Its next owner was Susannah Anthony Roberts, possibly Portuguese's daughter. The name of the progenitor of the Herring (or Haring) family in America, Jan Pieterson Haring, became associated with the farm long after his death in 1683 (Stokes VI 1928:106). His grandson, Elbert Herring, apparently inherited the farm and owned it until his death in 1773 (Stokes VI 1928:106; TR 600 n.d.).

The Potter's Field on the former Herring land replaced an earlier one associated with the Alms House located in what is now City Hall Park.³ Deeds and maps indicate the land for this new burying ground was acquired in increments, that it extended well east of the current park limits, and that its western boundary was Minetta Waters, the western limit of the Herring Farm in this area (see Figure 5). The first deed, dated April 30, 1797, was from James M. Hughes (Master-in-Chancery), Jacob Sebor, and William Ward Burrowes; it encompassed a parcel bounded by the Minetta Waters on the west and, with the exception of eight lots belonging to Lewis Pintard, extended east to Margaret Street (LD 274:218; see Figure 6).⁴ The second, from Lewis Pintard on January 2, 1801, added the eight lots between Holland and Margaret Streets. Acquisition of an approximately 50-foot strip east of Margaret Street brought the city's holding to Wooster Street (LD 274:228; see Figure 6). While historical evidence indicates land was acquired over time to extend the burial ground even further east, well beyond the square's limits (see below), it has not been researched for this report.

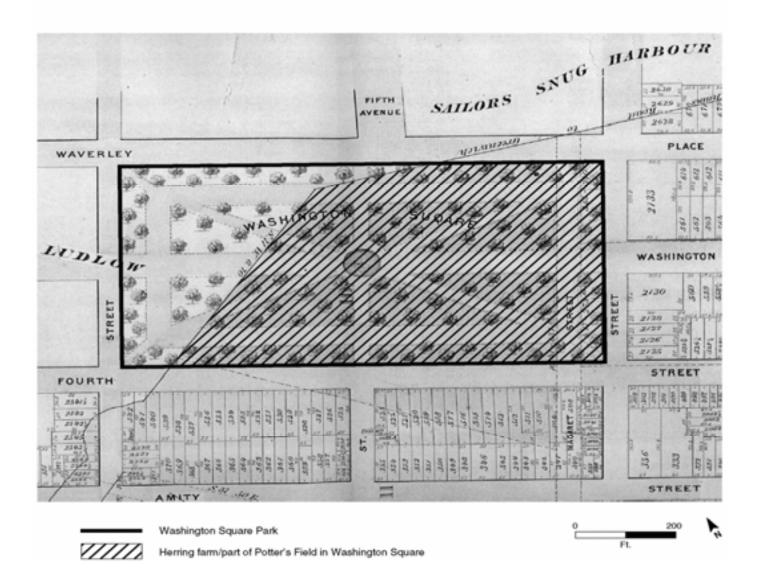
It was not until the Potter's Field was about to be closed in the 1820s that the city acquired additional land on either side of Minetta Waters and to the west (Harris 2003:11)⁵ to create a military parade ground. The earlier of the two acquisitions, from Guilian and Thomas W. Ludlow in June 1824 (LD 177:298), was a land trade that gave the city gores of land abutting the creek; the later one, from Alfred S. Pell and Thomas R. Mercein in November 1825 (LD 198:454), provided symmetry to the proposed parade ground site by extending it west to MacDougal Street

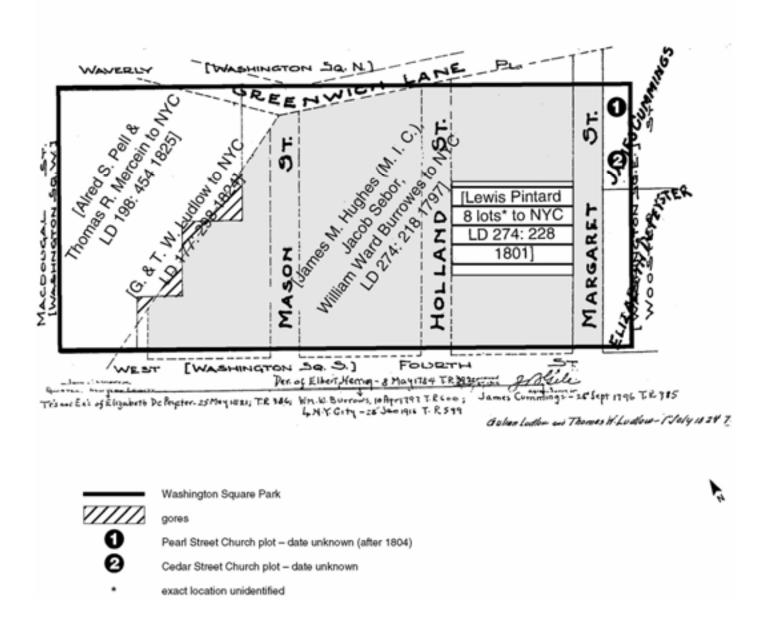
² Van Twiller was the second Dutch Governor.

³ Because a second potter's field was briefly established on a portion of what is now Union Square (Janvier 1894: 120), it was actually the city's third Potter's Field.

⁴ Margaret Street, and Holland Street to the west, were laid out through the Herring Farm before the cemetery was established but never adopted by the city as highways (e.g., TR 600:Sheet 2).

⁵ Burials officially ceased on January 31, 1825 (Stokes V 1926:1645).





See Figure 6 for a Summary Plan of City Land Acquisitions 1797-1825).

From the beginning, both the Potter's Field and the new Washington Parade Ground were fenced, the former in 1799 with boards, posts, and rails (Minutes of the Common Council [MCC] II:512), the latter in 1827 with "a neat pale [wood] fence" (Stokes V 1926:1670). In addition, in 1797, a small building for the superintendent was erected with materials taken from the old Alms House (MCC II: 374), but its location at or near the Potter's Field is unknown.

Mass burials are postulated in the Potter's Field during successive late-18th and early-19th century yellow fever epidemics (e.g., Harris 2003:5), and it remained a city burial ground until 1825. In that year a new, larger site, was chosen as a replacement. This was the expanded block that now houses the New York Public Library and Bryant Park (Harris 2003:6).

While the "Potter's Field" phase of the park's development is well documented, few know that within its limits were several small, church-related burial grounds. Among them was a 50-foot square plot the city gave to the Zion African Methodist Episcopal Church. Prohibited from continuing to use its overcrowded and noxious subterranean church vault for burials (MCC IV: 525), this black congregation successfully petitioned the Common Council for a burial plot within the Potter's Field in 1807 (Stokes V 1926:1466). A subsequent Common Council entry documents the church's request to be excused from an assessment for running a street that bordered its Potter's Field plot (MCC V:59). The request confirms that the Potter's Field extended beyond Washington Square since available information identifies the street in question as modern Mercer Street located two blocks to the east (Post 1882:59; Stokes III 1918:1005). It also indicates that the burial plot of the black congregation was situated beyond the park's limits.

An 1826 survey documents two small church burial plots on the west side of Wooster Street (Smith 1826; Figure 7). The larger of the two, which was approximately 128 feet long by 50 feet wide, is identified as belonging to the Cedar Street Church. Next to it, at the corner of what is now Washington Square North and Washington Square East (then Sixth and Wooster Streets), is the burial ground of the Pearl Street Church. This plot was only about 51 by 57 feet (Smith 1826; see Figure 7). The Cedar Street Church was another name for the Scotch Presbyterian or Secession Church dating to 1756; the Pearl Street Church, established in 1797, was for a time associated with the Cedar Street Church, but separated in 1804 (Greenleaf 1846:206). Just when the two churches acquired their plots in the Potter's Field is unknown. It is possible their acquisition was related to a mid-1820s movement to provide replacement burial plots in the City Cemetery to all religious denominations with private burial vaults built prior to 1823 (MCC XI:570); if so, they were active for a very short time before this Potter's Field was closed.

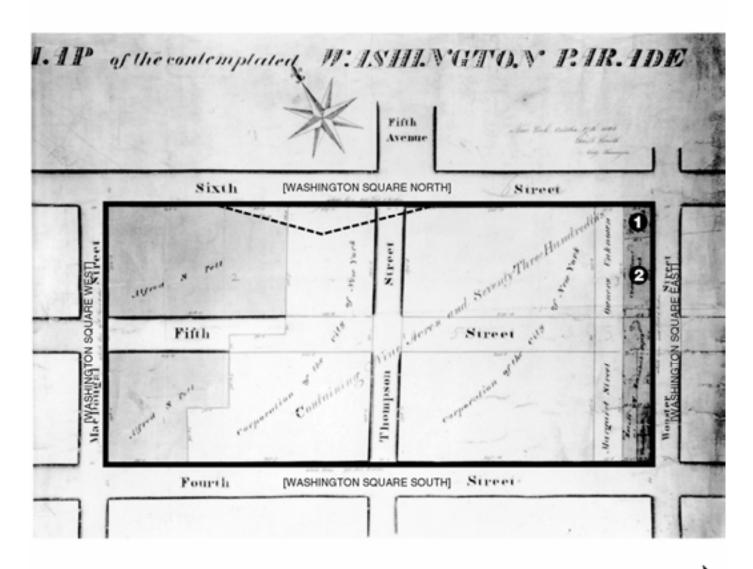
Seven years before the Zion African Methodist Episcopal Church made its request to the Common Council in 1807, a representative from Shearith Israel, a Jewish congregation, also petitioned for a burial plot within the Potter's Field intended for those who died of "pestilence." Unlike the petition by the Zion African Methodist Episcopal Church, this one was unsuccessfu

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⁶ The Zion African Methodist Episcopal Church, founded in New York City in 1796, had erected a new edifice at Church and Leonard Streets in 1800 with a burial vault under the structure (Stokes V 1926:1379).

⁷ According to a subsequent MCC entry, this assessment was actually levied against another "African Society" with a nearby plot in the Potter's field (MCC V:74), but this remains a question.

⁸ Luther S. Harris generously made a copy of this survey available.



proposed parade ground, now Washington Square Park

part of old road pattern (road to Greenwich, Sand Hills, Art Street, etc.)

Pearl Street Church burial plot

Cedar Street Church burial plot

(Pool 1952:120). The Common Council entry for the petition, dated June 30, 1800, as presented in Stokes, reads as follows:

Joshua Isaacs, president of the board of trustees of the Congregation of Shearith Israel, writes to the common council requesting that, inasmuch as a recent city ordinance deprives this congregation of the privilege of burying in their own cemetery the bodies of such of their dead as die of "pestilential disorders," and as the religious customs of the Jews "forbid them to bury their dead in the same cemeteries with those of other denominations," they ask that part of the potters-field "may be separated from the rest and granted to them, so that they may fence in and partition the Same as a burying ground for the exclusive use of their own Congregation."—From the original MS. in metal file No. 20, city clerk's record-room. In the common council the petition is "read & post-poned."—M. C. C. (1784–1821). II: 641. (Stokes V 1923:1378)

Based on the 1890 finding of gravestones, it seems not all the public burials within the Potter's Field were paupers or unknowns. The aforementioned *New York Times* article raises the possibility of a German burial ground just north of the park as an explanation for the graves and human remains uncovered during excavation for the arch, but this has not been verified through research. The finding of gravestones suggests the Washington Square Arch is located where private burials occurred rather than where the burials of the indigent, or the mass burials of those felled by epidemics might be found, but this is speculation. What is not speculation is that at least one other cemetery—the plot given to the Zion African Methodist Episcopal Church-was located within the Potter's Field as early as 1807, although the church plot was beyond the limits of modern Washington Square. As discussed above, two other church cemeteries were located within the limits of the square, but they may have been established much later than the Zion African Methodist Episcopal Church cemetery. No mention of these Presbyterian cemeteries was found in either the Minutes of the Common Council or in Stokes's *Iconography*.

The yellow fever epidemics that periodically struck the city in the late 18th and early 19th centuries caused growing concern among health officials in regard to burial grounds in populated areas (MCC XIV:576-634; Duffy 1968:219). There was much debate and many protests by the city's churches. In 1822, after several proposals to limit these burials were ignored, the Common Council finally prohibited burials south of Canal Street on the west side and south of Grand Street on the east side (*New-York Evening Post* 1923; Duffy 1968:221). While the Potter's Field was located north of the affected area, health issues undoubtedly played a part in its abandonment; this was in addition to its crowded condition and the economic inducements to development that accompanied the city's northward expansion.

A gallows is said to have been located in the cemetery where a black woman, Rose Butler, a murderer, was hanged in 1822 (Janvier 1894:130). A somewhat dubious source for this information is an account by "an old gentleman" who, from his front stoop on Leroy Street, had observed the hanging from a considerable distance seventy years earlier (Janvier 1896:130).

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⁹ Luther Harris, author of *Around Washington Square*, believes many people of substance were buried in the Potter's Field rather than in church cemeteries (Harris 2004:personal communication).

More information comes from *Reminiscences of an Octogenarian*, where its author Charles H. Haswell notes that "Rose Butler, a Negro" was indeed hanged in the Potter's Field, but for arson not murder (1896:102). While Janvier locates the gallows site near the arch, Luther Harris locates it in the vicinity of the modern fountain (Harris 2003:5; 2004:personal communication). Once again, neither the published Minutes of the Common Council nor Stokes's *Iconography of Manhattan Island* document a gallows on the site, nor do they document the execution. ¹⁰

Newspapers of the time were consulted to determine if a gallows actually existed on the site. Doing so highlighted several aspects of historical research: "facts" are often garbled by time and/or misinformation; these mistakes then are engrained in the literature. But even primary sources may not provide sought-after answers. Rose Butler's execution is a case in point.

Three newspapers consulted on the issue—the *New-York Evening Post* (1819), the *New-York Gazette and Daily Advertiser* (1819), and the *New-York Commercial Advertiser* (1819a)--agree on several counts: Rose Butler was an arsonist, not a murderer. She was young. She had no accomplices, or, if she did, she did not identify them. And the hanging took place on July 9, 1819. The shortest of the articles, six lines in the *New-York Evening Post*, says the hanging occurred near the Potter's Field [emphasis added]; the longest, a touching, thirty-eight line story in the *New-York Gazette and Daily Advertiser* (1819), places the hanging "at Potter's Field." The article in the *New-York Commercial Advertiser*, published the day of the execution but before it occurred, does not mention the location. So, while primary sources verify the execution and identify the crime, they do not definitively locate the gallows.

On January 8, 1826, the city paid for "filling in and paving in front of" the former burial ground (MCC XV:141). During this process, the burials—or many of the remains that were said to number 20,000 (MCC XVI:50)—apparently were reinterred in ditches to clear the site (Harris 2004:personal communication). Therefore, they were not removed, but merely rearranged. This was verified a half century later when human remains, gravestones, and a coffin were encountered during construction of the arch. It was confirmed again when Con Edison personnel working at University Place near the northeast corner of the square in 1964 discovered human remains (Patten 1974).

The historical record itself suggests burials were never removed from the site. For example, a petition to the Common Council on January 16, 1826 to use the former Potter's Field as a military parade ground, notes "from the Circumstances of this plot...having been so lately used as a public burying ground on an extensive Scale, it is presumed ...it is not intended for private purposes...for some years to come" (MCC XV:234). Since burials were still present, it was not suitable for private development.

As a military parade ground, the former Potter's Field was known officially as Washington Parade Ground (e.g., MCC XV:748); by 1878, it was a public park (Stokes III 1918:972). With the creation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of Manhattan's designation of the Greenwich Village Historic District in 1969, the first of the Greenwich Village Historic District in 1969, the first of the Greenwich Village Historic District in 1969, the first of the Greenwich Village Historic District In 1969, the first of the Village Historic District In 1969, the first of the Village Historic District In 1969, the Village Historic District

Joan H. Geismar, Ph.D., LLC

¹⁰ It is believed by some that an ancient elm tree located in the northwest corner of the park was a hanging tree, but this has been proven untrue (Harris 2003:x, 16; Patten 1974).

¹¹ The three crimes punishable by death in 1819 were murder, treason, and arson (*New-York Commercial Advertiser* 1819b).

¹² The author is grateful to Luther S. Harris, the author of *Around Washington Square*, for generously sharing his wealth of information.

nated historic districts, the park was hailed as "an important focal point, both of Greenwich Village and of the City." The arch, which, as noted earlier, was not built until 1890, is described in detail in the designation report (LP 0489 1969:105).

A year before the stone arch was constructed, a temporary one of wood and papier mache, also designed by Stanford White, was erected just north of the park on Fifth Avenue. Promoted by socialite William Rhinelander Stewart, and financed by private subscription, it was intended to commemorate the centennial of Washington's inauguration as the first president of the United States (Kouwenhoven 1953:410; Figure 8). Its popularity fostered the idea of a permanent arch and, in 1890, construction began on the structure in the park (Figures 9). Working on an accelerated schedule, and despite the discovery of human remains, including one entire burial, the foundation was completed within a month's time (Anonymous 1896:18). In 1895, the dedication of the arch was a historic moment.

Until the late 1950s, Fifth Avenue traffic ran under the arch and through the park (Figure 10), but in the 1960s, it was closed to all but buses; it then became a parking lot rather than a thoroughfare (Figure 11). Parking was prohibited when the park was renovated in 1966 (see Figure 12 for the arch and its setting at this writing). At the time, Belgian block was introduced as a decorative element above the street asphalt around the arch. The asphalt-Belgian block sequence was documented during the recent monitoring activities (see Annotated Field Notes below).

ORIGINAL TOPOGRAPHY AND SOIL BORING DATA

Topography

A mid-19th century report on the city's sanitary conditions recreates the pre-development topography in the vicinity of Washington Square. By the time the report was written, the Potter's Field was long gone and the modern street configuration was established, and this area, like most of Manhattan, was by then devoid of original topographical features. However, the report describes the swamp that once spread across part of the future square, with elevations in the area ranging from a high of 45 feet 11 inches above sea level at Elizabeth and Houston Streets to only 14 feet 5 inches above sea level at West Washington Place and Sixth Avenue (Citizens' Association 1865:127; Figure 13). Swamp is depicted on either side of "Minetta Creek," but, further east and west of the creek, it was dry. A sand hill spread east from Fifth Avenue and Waverly Place and crossed the southeastern corner of the square (see Figure 13).

Undoubtedly to create the parade ground, and possibly even when it was a burial ground, filling was required. Based on soil borings (see below) this was the situation in the vicinity of the arch. It should also be noted that the configuration of the earliest street adjacent to the arch, the Road to Greenwich or to the Sand Hills, later Art Street, dipped to a "v" in the vicinity of the arch (e.g., Commissioners' Map 1811; Figure 14¹³). This configuration was lost when Art Street was closed in 1825¹⁴ (Stokes III 1918:992); 6th Street, now Waverly Place, a straight, typical, urban thoroughfare, was opened in its place in 1827 (Street Opening Map n.d.) and renamed Washington Square

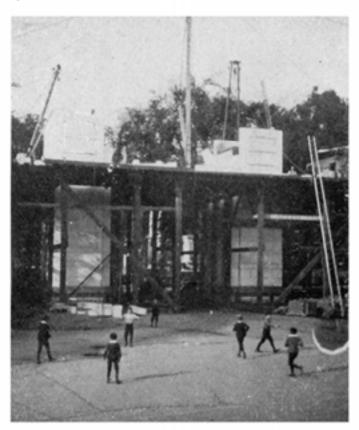
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¹³ The location of the "v" varies even on maps considered quite accurate; e.g., compare Figures 14 and 7.

¹⁴ Astor Place to the east is the surviving remnant of Art Street and the earlier road.



Temporary Memorial arch located on Fifth Avenue just north of Washington Square in 1889. (Kouwenhoven 1953:410)



Washington Arch under construction in 1890. (Alajos L. Schuszler, New York Parks Photo Archive)



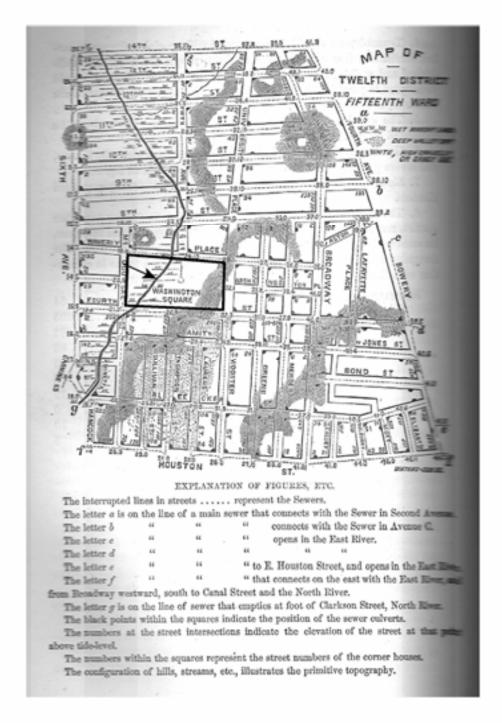
10 Washington Arch in 1935 looking north up Fifth Avenue. (New York Parks Photo Archive)



11 Birds-eye view of Washington Arch in 1966 with parked cars around and behind the monument. (New York Parks Photo Archive)



12 Birds-eye view of Washington Arch on March 22, 2004, after dry wells were installed and the scaffolding erected for renovation of the arch was removed. (Geismar March 22, 2004)

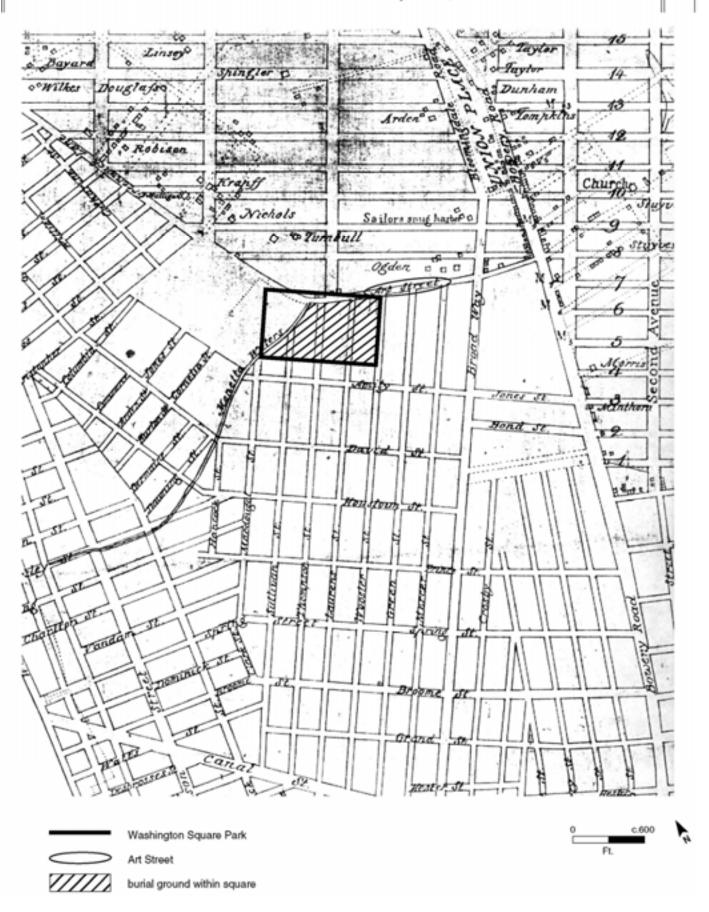




Washington Square Park

Minetta Waters (western limit of Potter's Field)





North in 1858¹⁵ (Stokes III 1918:1009). It is noteworthy that the 1864/1865 elevation of Washington Square North in the vicinity of the arch (24.10 feet above sea level; see Figure 13) was only slightly lower than in 1966 (25.0 to 25.2 feet above sea level; see Figure 16).

Soil Boring Logs

Logs from borings drilled in the vicinity of the arch offer a record of subsurface conditions prior to its construction in 1890 that can be compared with conditions documented in 1966. The earlier of the two soil boring episodes occurred in March 1890, about a month before arch construction began; the more recent one was related to a 1966 restoration effort. While both document the presence of a deep layer of sand, a blue clay stratum below the sand in three borings within the APE that suggest marsh conditions is missing from the more recent logs (see Figure 15, Nos. 6, 7, and 8).

In 1890, a uniform, 1-foot thick stratum of this blue clay was documented 10 to 11 feet below the surface on what would become the north side of the arch (Boring Nos. 6, 7, and 8; Figure 15). According to the 1890 newspaper article, the human remains, gravestones, and a coffin were found at this depth, as was water indicating that burials were once located immediately above the clay; the 1966 soil boring logs indicate conditions had changed. While both soil boring episodes document sand, the absence of the blue clay stratum in the more recent samples (Borings B-11, B-12; Figure 16) indicates that the sand documented in the 1966 borings is a replacement. In other words, great and deep disturbance has occurred in the vicinity of the arch, a disturbance undoubtedly related to construction of the monument.

ANNOTATED FIELD NOTES

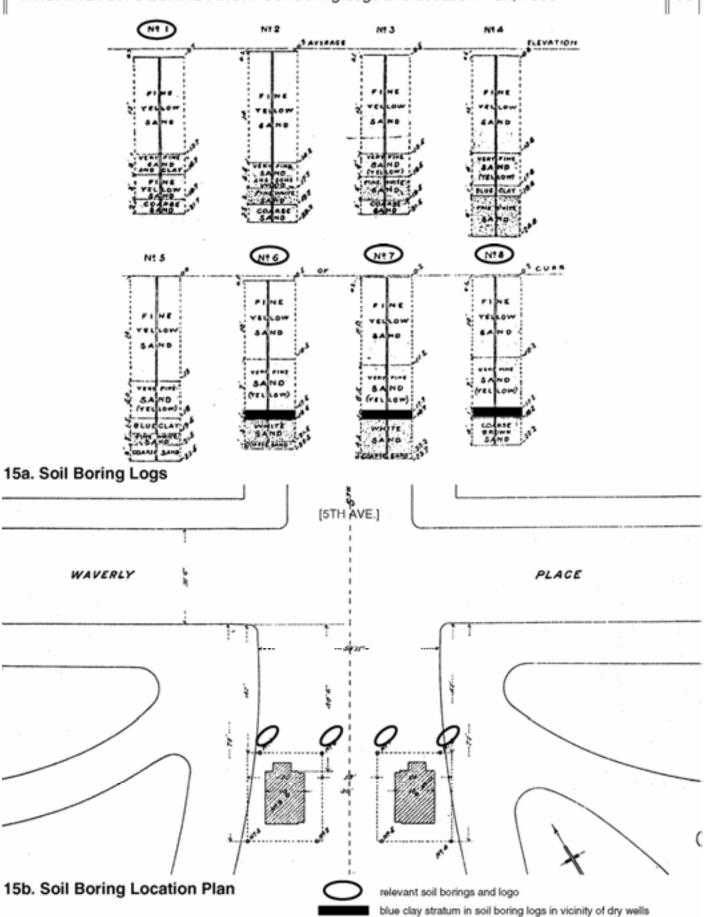
At issue were identical pits for two dry wells excavated on the north side of the East and West Piers of the arch (see Figure 3). Dimensions of each pit were 14 feet north-south, 8 feet eastwest, by 6 feet deep. A John Deere 240 backhoe with an 18-inch bucket was employed for most of the excavation. Shelly Spritzer was on site to monitor.

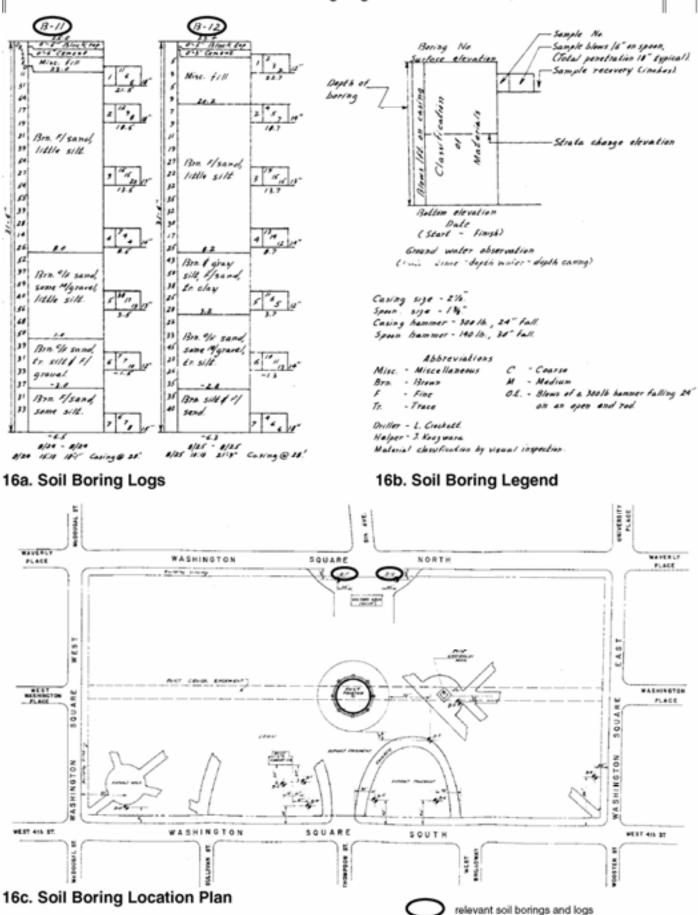
Pit 1

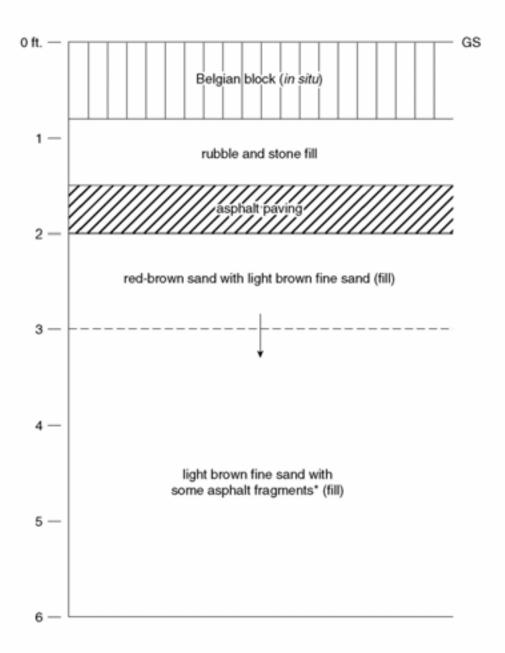
<u>Tuesday 3/9/04</u>: First day of excavation. Cloudy, raw, cold, windy day. Pit about 3 feet north of the base of the West Pier, adjacent to a 4-foot deep by approximately 3-foot wide by 8-foot long trench previously excavated to create a concrete light trench to house utilities (more specifically, lamps and electrical components to light the arch). A portion of the pier's buried base was exposed in this trench (see Figure 3 for the location of this and other light trenches).

The monitored backhoe excavation began about 12:45 P.M. While the backhoe was employed for most of the excavation, the sides and bottom of the pit were finished by hand. Just under the surface, partially covered by thin paving, was a layer of Belgian block; a 6-inch thick layer of asphalt was exposed in the pit 18 inches below the current ground surface (BGS; see Figure 17). Between the Belgian block and the asphalt was a layer of rubble and stone fill, and below the asphalt a red brown sand mixed with light brown fine sand. This graded into a mostly light brown fine sand that extended to the bottom of the pit. Chunks of asphalt were noted in the pit's

¹⁵The street is still called Waverly Place on the 1890 soil boring location plan.







^{*} Pit 2 fill contained 2 ceramic fragments and an animal bone fragment (horse mandible fragment with canine tooth) in addition to fragments of red sandstone.

walls to at least 5 feet BGS. Some small, waterworn cobbles were also noted, but no artifactual material was encountered during the excavation. Shoring was not required.

Pit 2

Wednesday 3/10/04: Second day of excavation. Sunny, cold, windy day. Pit located north of the East Pier, about 3 feet north of the arch base. A 3-foot wide wooden form had been placed between the pier base and the pit in a trench similar to the one noted on the north side of the West Pier. Again, this was intended to create a concrete light trench to hold lamps and electrical elements.

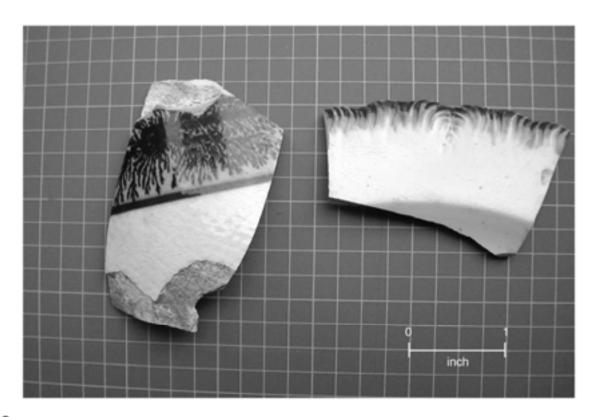
Hand excavation of shallow, 1-foot wide trenches was in progress on the east and west side of the East Pier during the monitoring; at the time, the length of these shallow trenches had not been defined. Drainage pipes later ran from the trenches to the dry well (see Figure 3).

Although the layer of Belgian block had been removed from this location, it was noted in the pit walls; the rubble layer, the buried asphalt, and the soil in Pit 2 were similar to that found in Pit 1. The only difference was several large fragments of red sandstone boulders (approximately 1 foot square) noted in the Pit 2 fill. Half of an unmarked brick was noted just under the asphalt layer on the east side of the pit. Two ceramic fragments were found in situ in the pit's east wall 40 inches BGS and 4 feet from the southern end of the pit. One was a blue shell-edge pearlware (tableware) rim fragment, the other a mocha ware body fragment, possibly from a jar, pitcher, or bowl (Figure 18). While both could be of early-19th century manufacture, they were fragmentary and appear to be redeposited material characteristic of fill, albeit a basically clean fill. Soil from near the center of the pit, at a depth of approximately 4 feet BGS, collapsed during backhoe trenching; this exposed a bone fragment with a single, large tooth with wear (Figure 19); this proved to be a fragment of a horse mandible (Equus caballus), or lower jaw, with a canine tooth later identified by Sophia Perdikaris, the project's faunal expert. More specifically, its identification as an equid canine indicates it was from a male horse (Perdikaris 2004:personal communication). The pit was about one-third open when a hydraulic line on the backhoe broke and work was halted.

<u>Thursday 3/11/04</u>: Third day of excavation. Sunny, windy, cold day. (<u>Pit 2 continued</u>). Work began at 7:50 AM. Workmen had left a modern drinking glass found the day before during shallow trench excavations on the east side of the pier. In the glass was a fragment of paper with an illustration of a hand-operated coffee mill printed on both sides that said "COFFEE DISTRIBUTING..." under the illustration.

While Pits 1 and 2 both contained cobbles and asphalt fragments, in addition to the three above-mentioned artifacts, sandstone boulder fragments were noted in Pit 2. Despite the presence of some isolated artifactual material, the Pit 2 fill was basically clean. Pit excavation ended at about 9:15 AM. Gravel, which had been introduced into Pit 1 on Tuesday after the excavation was completed, was then also introduced into Pit 2.

Neither pit extended below fill. See Figure 20 for a photo of Pit 1 just prior to introduction of the gravel.



18 Mocha ware (left) and blue shell-edge pearlware (right) fragments from Pit 2. Both are early 19th century ceramics. (Geismar March 2004)



19 Horse (Equus caballus) mandible fragment with canine tooth (arrow) from Pit 2. (Geismar March 2004)



Pit 1 (north of West Pier) at end of excavation looking northwest. Note Belgian block removed from pit and rubble above a buried asphalt layer (left arrow). Also, chunks of asphalt (right arrow) in fill. (Spritzer March 9, 2004)

CONCLUSIONS

Monitored excavation of two dry wells located on the north side of the Washington Square Arch in Washington Square Park documented a virtually clean sand fill and no evidence of burials potentially located in the project APE. Historical research, which followed excavation, confirmed that Washington Square was the site of the Potter's Field from 1797 to 1825, and that burials were a potential issue in the vicinity of the arch. However, the configuration of a road that once crossed this part of the site—the Road to Greenwich or the Road to Sand Hills, later Art Streetmay have precluded burials in the immediate vicinity of at least one of the dry wells. In addition, construction of the arch in 1890, when human remains, gravestones, and a coffin were discovered at an unspecified location, caused great disturbance to this potential archaeological resource.

Research also indicated the Potter's Field was fenced with boards and rails, and excavation prior to disturbance in 1890 might have provided evidence of this fence beneath initial episodes of sand fill. Since the dry well excavations were entirely within the limits of both original and subsequent fill episodes, the chance of finding such evidence was undoubtedly lost. A "pale" fence from the parade ground era, located on fill, might have been a more viable resource, but again, only prior to construction of the arch.

A gallows may have been located at the Potter's Field, or, it may have been located nearby, perhaps on land west of the Minetta Waters that was not incorporated into the square until the Potter's Field became inactive in 1825. If so, it would have been beyond the APE. However, some researchers and historians think this gallows was near, but not at, the arch; unfortunately, historical records do not provide an exact location.

Deeds and other city records document Minetta Waters as the western boundary of the Potter's Field. Therefore, the burial ground did not extend into the western part of Washington Square. These same resources indicate the Potter's Field also extended east at least to Mercer Street, well beyond park limits, and that some of this area was used for church interments rather than for public burials. This was also true within the square where two relatively small church burial plots are documented at the park's eastern limit but beyond the project APE.

The major research finding is that any burials that might have been located on the north side of the arch (within the project APE) would have been eliminated during the 1890 foundation excavations. While this excavation encountered evidence of burials, the discovery was made about 10 feet below grade, and it is not known exactly where it was found in relation to the arch.

Excavation for the dry wells documented a virtually clean sand fill in both pits (the exceptions being two ceramic sherds and a fragment of a horse mandible in Pit 2 associated with the East Pier) that contained some stones and asphalt debris indicative of fill. The extensive disturbance caused by construction of the arch is highlighted by the absence of a 1-foot thick blue clay stratum in 1966 documented in soil borings prior to construction of the arch in 1890 at a depth of about 10 feet BGS. It was at or near this blue clay level that human bones, a burial, a coffin, and gravestones were discovered in 1890. However, not only was this cultural level undoubtedly destroyed in the APE during construction of the arch, but also the recent 6-foot deep dry well excavations did not reach the potential level of concern.

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APPENDIX A: New York Times Article, May 13, 1890 (Page 9)

SKELETONS IN THE WAY.

New Tork Times: (1857-Current file): May 13, 1890; ProQuest Historical Newspapers The New York Times. 9.

BONES AND COFFINS UNRARTHED IN WASHINGTON, SQUARE.

The laborers at work digging for a foundation for the Washington Memorial Arch in Washington Squara, opposite the lower terminus of Fifth Avenue, found themselves in an old graveyard yesterday, and had an uncanny time of it spading out parts of ekcletons and decayed coffins. This ghastly discovery began Saturday at about ten feet below the surface, when some headstones were discovered and a few bones, of which the only evidence that they were human was that they happened to be near the headstones.

Yesterday, when the digging got several feet deeper, the spades brought up bones at nearly every turn. For the first time, also, remnants of coffins were unearthed. Water was found at about this level. The workmen came across one coffin submerged at the upper end of the excavation. As they dug at it the lid came off, showing a skeleton within. Water and dirt had done their work so thoroughly, however, that searcely more than the outline of the skeleton could be made out.

The workmen put the loose bones they found in a barrel and piled the pieces of coffin beside them. They did not remove the submerged find of yesterday, Architect White desiring to have it left as it is until a sketch can be made of the scene. It is probable that the bones now in the barrel will be buried again in a new grave at the same anot.

barrel will be buried again.

As soon as it was known yesterday that the workmen were digging out human bones the inclosure where the excavation is going on was besieged by crowds of carious people. All sorts of old memories were brushed up to account for the discovery. It was recalled that part of Washington Equare was once the Potter's Field, and this explanation would have been enough if only bones had been found. It did not explain the headstones to the satisfaction of the crowd, however. Then it was recalled that the spot was used during the cholera epidemic of 1832 for the burial of cholera patients. Two of the stones, bearing date 1803, disposed in large part of this explanation.

An owner of one of the houses in Washington Square, north, who was among the day's visitors, said that in making some improvements a few years ago in his yard he came across headstones and bones, and upon making inquiries he had learned that a Gorman cemetery occupied the spot early in the century, Potter's Field never having been just there, but in another part of Washington Square. In the present excavation earth lines are distinctly marked showing that the ground in the neighborhood had at some time been filled up to the present grade, a height of about eight feet above the old level. The spot was evidently used as a burial ground before the grade was raised.