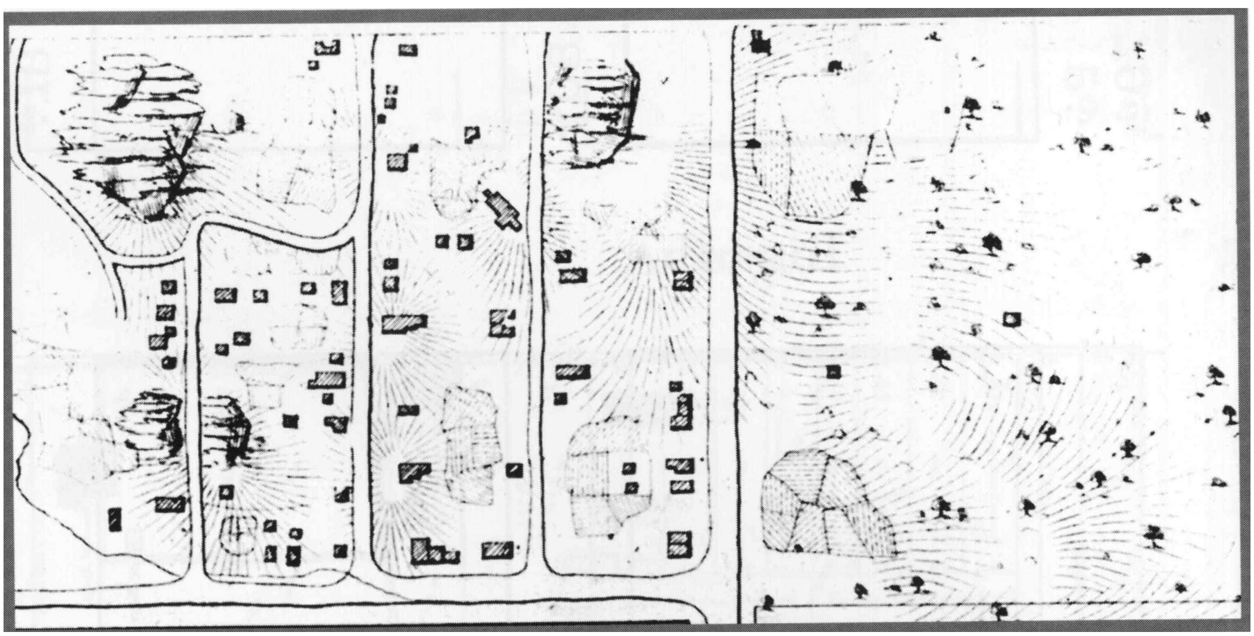
SENECA VILLAGE, A FORGOTTEN COMMUNITY: REPORT ON THE 2011 EXCAVATIONS



Diana diZerega Wall, Nan A. Rothschild, Meredith B. Linn, and Cynthia R. Copeland
Institute for the Exploration of Seneca Village History, Inc.
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SENECA VILLAGE, A FORGOTTEN COMMUNITY: REPORT ON THE 2011 EXCAVATIONS

A report submitted to
NYC Landmarks Preservation Commission,
the Central Park Conservancy,
and the NYC Department of Parks and Recreation

Prepared by
Diana diZerega Wall, Nan A. Rothschild
Meredith B. Linn, and Cynthia R. Copeland
Institute for the Exploration of Seneca Village History

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Cover illustration: Viele, Egbert L. 1856. Topographical Survey for the Grounds of Central Park, detail showing Seneca Village. The New-York Historical Society, NY.

Dedicated to the people of Seneca Village

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CHAPTER 1: INTRODUCTION: SENECA VILLAGE AND THE SENECA VILLAGE PROJECT

This report summarizes the findings of the 2011 archaeological investigation of Seneca Village, a nineteenth-century middle-class, primarily Black community at New York City's edge. Located in today's Central Park between approximately 82nd and 89th Streets, with 8th Avenue (now Central Park West) to its west and 7th Avenue to its east **(Fig. 1.1 - Appendix A)**, the village was established in the 1820s, when African-Americans began to buy land there and many of them built their homes there as well. At the same time, African Methodist Episcopal Zion Church purchased land there for its cemeteries, as there was no more space available for cemeteries downtown. For the first 15 to 20 years of its existence, the village was composed primarily of African Americans, making it rather unique for its time, but in the early 1840s it became a mixed community when some Irish immigrants settled there. By the 1850s, the village was a thriving, well-established community **(Fig. 1.2 - Appendix A)** with a population of more than 200 people, approximately two-thirds of whom were of African descent. The rest were Europeans, mostly Irish who had emigrated to escape the Irish Potato Famine (1845-1852) (Rosenzweig and Blackmar 1992). It was bolstered by several institutions, including three churches and a school. The archaeological study of the village has as its intellectual focus the African-American members of the community, because archaeological research to date has not yet uncovered remains associated with the Irish community members.

The History of the Village

The village was founded in the shadow of emancipation, which came to New York State in 1827. After the American Revolution, many African Americans expected their lives to be transformed by freedom and equality. But the prospect of inclusion and full citizenship became more and more elusive. Even after emancipation, discrimination and outright oppression continued. Many African-American New Yorkers, concerned about attaining full citizenship, explored a multitude of strategies to achieve equality, a search that was structured by class, with members of different classes undertaking variable behaviors to reach this goal. As we shall see, most Seneca Villagers can be classified as middle class.

We believe that those who lived in the Village made their homes there because they wished to escape the racist environment prevalent in the densely settled area of lower Manhattan. Additionally, those who bought land there were probably motivated to do so at least in part because a few years earlier, an amendment to the State constitution had imposed a discriminatory $250 property requirement (along with a three-year residency) for suffrage for African-American men (Rosenzweig and Blackmar 1992:72-73), while gradually removing all property requirements for men of European descent. The land African-American men owned in Seneca Village helped them to fulfill their property requirement for suffrage.

Throughout its existence, even though the city was relentlessly moving uptown, the village remained beyond its edge. In the 1820s, when it was first settled, it was about three miles north of the city (Randel 1819-1820; Colton 1836), while by the time of its destruction in the 1850s, it was about two miles to its north (Dripps 1851). But even though it was outside the city, the village was laid out on the New York City grid.

The land where the village was located was not prime real estate; it included many rock outcroppings and although it included high ground, part of it was also low and damp (Randel 2011 [1819-1820]; McNeur 2014:208). It was situated in the middle of the island, north of the area where urbanization had begun. Development was uneven in upper Manhattan. The east side was developed first, aided by the creation of the New York and Harlem Railroad, which opened in 1834 and ran up 4th Avenue, allowing Yorkville at 86th Street to become home to skilled workers. But the upper west side was slower to develop; the Hudson River Railroad was built only in the late 1840s (Rosenzweig and Blackmar 1992:62). Furthermore, ambience on the west side had already been marred by the Croton Aqueduct system, built between 1837 and 1842, with its aqueduct which provided an "impassable barrier" for much of the west side, as roads crossed it only "at rare intervals" (Peters 1907:82).

The Croton water system also impinged on Seneca Village itself. The reservoir must have exerted an overbearing presence in the village. Its rough-hammered masonry walls were an imposing 30 feet high in places (Koeppel 2000:215) and were 20 feet wide at the top. The reservoir itself extended over seven blocks, from 79th to 86th Streets, and from 6th to 7th Avenues (Tower 1843:114). Furthermore, pipes carrying the water from Croton to the reservoir ran through the village, down 85th Street between 7th and 8th Avenues (Dripps 1851; Viele 1865; but see Rosenzweig and Blackmar 1992:62).[1] In addition to the disruption experienced when the pipes were installed, the continued presence of both the reservoirs (the receiving and distributing components) and the pipes must have been intrusive, symbolizing the power of the government over life in the village (Palus 2010).

At first, the village grew relatively slowly: By 1829, there were only about nine houses there, according to city tax records. These same records indicate that 1840 saw a total of 25 buildings**.** It grew even more quickly in the 1840s and early 1850s, resulting in a total of over 60 buildings making up the village in 1856, when Sage (1856) surveyed the village in preparation for its destruction. The village's rapid growth was spurred both by the arrival of European immigrants, mostly Irish, and by the passage of the Fugitive Slave Act in 1850, which resulted in the kidnapping and conscription of free blacks into slavery. New York, because of its merchants' commercial ties to the south and their fears of secession, was supportive of the law, and suspected fugitive slaves had no rights in court and could not defend themselves against accusations. As a result, Blacks began to leave downtown New York City (with some of them presumably coming to Seneca Village) and for the first time since the American Revolution, the city's African American population plummeted (Harris 2003:272-275).[2] In 1855, Seneca Village had a population of well over 200 people, about two thirds of whom were African American (more than 30 households) and the rest European, mostly Irish (NYSC 1855 - **Appendix I**).[3]

We can use the listings in the 1850 Federal census to draw a profile of the African Americans who lived in Seneca Village in that year. Over half of them were born in New York State, though some came from the Chesapeake, some Southern states, and New England, and one from Haiti (USBC 1850).[4] Many were relatively affluent - well over half of the heads of households who lived in the village in 1850 owned real estate, equaling one fifth of the population of 71 African Americans who owned real estate in the entire city of New York (Rosenzweig and Blackmar 1992:70).

The African Americans of Seneca Village seem to conform to the criteria that historian Leslie Harris (2003) noted in defining the Black middle class in the 19th century. She has pointed out that class differentiation among African Americans was not based on the nature of work as it was among European Americans. For European American men, middle-class status depended in large part on their occupations, particularly working in non-manual jobs, while for European American women it was defined by devotion to the home or domestic life (the cult of domesticity) and not taking part in the cash economy at all. But because they were shut out of the non-manual workforce, factory work, and skilled jobs, Black men tended to work either in service jobs or as unskilled laborers, while their wives and sisters either worked as domestics or took washing into their homes. Many middle class African American men, however, frowned on domestic work for themselves because it was looked on as demeaning "women's work." Instead, they respected manual labor.

We see this in looking at the men of Seneca Village: almost two-thirds of them worked as laborers while only 13% of them worked in service jobs (Wall et al. 2008; USBC 1850).[5] Rather, status among Black men was defined by education and participation in moral reform activities (Harris 2003:120), values which we can see expressed by Seneca Villagers. Many were apparently firmly committed to a moral community centered on a church because, as mentioned above, there were three churches in the village, which had a population of more than 200 people in 1855 (NYSC 1855 **- Appendix I).**

And as the 1850 Census shows, they valued education, both for themselves and their children. Nearly two thirds of the men could read and write and as for the children, almost three quarters of them "had attended school within the year."[6] They presumably went to Colored School #3, which was housed in the basement of one of the churches. Furthermore, three quarters of the older children (between the ages of 12 and 16) had also "attended school within the year," underlining the value of education, as attending upper school must not have been easy – we know of no high school in the area (USBC 1850; after Wall et al. 2008).

In addition, the Sage (1856) Central Park Condemnation Map provides some information about the buildings that made up Seneca Village, and, in so doing underlines the middle-class nature of the community. Most of the denizens of Seneca Village lived in substantial houses. The vast majority of the residential buildings (i.e., not counting outbuildings, such as sheds) – 33 out of 51 – were frame houses, more than one story tall (Sage 1856) and not the "shanties" that were demeaningly ascribed to them by their White contemporaries (Rosenzweig and Blackmar 1992:69).[7]

In the 1850s, the City decided to construct Central Park in an area that included Seneca Village. It took the land through the right of eminent domain, evicted the residents – roughly 1600 people for the area of the park as a whole (Rosenzweig and Blackmar 1992:60) – and razed their homes. Although landowners were compensated for their loss, many felt the compensation was inadequate (as shown in the Affidavits of Petition [New York City 1856]) and of course renters were not compensated at all. After having existed for over a generation, the village was subsequently erased from the landscape and lost to popular memory.

Seneca Village is important because its history and its residents do not conform to the conventional historical narrative of Central Park, New York City, or even of the United States. Most Americans underestimate the presence and significance of Blacks in the North and particularly in New York City before the early 20th century. They are also unaware of the existence of middle-class African Americans in New York in the 19th century. This project helps to expand the American narrative so that it is both more accurate and more inclusive. It challenges current misperceptions by calling attention to the presence of a Black, middle-class community in the heart of today's New York City. The village's location in what is now Central Park, an iconic landmark, further draws attention to it. Millions of people visit the Park each year, and the presence of the real material traces of this community in the ground beneath their feet has the potential to be a powerful catalyst for contemplating the integral roles of African Americans in the City's history. Similarly, the continued presence today of two of the churches that were located in Seneca Village (All Angels' and African Methodist Episcopal Zion Church) link the present and the past closely together.

This study of Black Seneca Villagers is an addition to a growing number of archaeological studies of African Americans who were free rather than enslaved and did not live on plantations in the south but rather in urban areas and/or in the north. These studies have been conducted in (for example) Boston (Landon 2007), Annapolis (Leone 2005; Mullins 1999, 2001; Warner 1998), Indianapolis (Mullins 2008, 2006), Sacramento (Praetzellis and Praetzellis 1992), West Oakland (Praetzellis and Praetzellis 2004), Dallas (Davidson 2004), and New Philadelphia (Fennell, Martin, and Shackel 2010).

Research Questions

We began our archaeological study of Seneca Village with several research questions in mind. Our initial question was whether archaeological traces of the village, such as living floors and other sub-surface features, still survived in the ground. We answered this question positively: we recovered architectural, stratigraphic, and artifactual remains from the village. The knowledge of their presence has already helped the Central Park Conservancy and the New York City Department of Parks and Recreation to manage the Seneca Village site area in the park more carefully and meaningfully, and the Conservancy is encouraging archaeologists to consider what more they could learn about the lives of Seneca Villagers. Some other site-specific research questions we considered include the study of the original topography of the site area and exploring the landfill and determining its points of origin.

We were also interested in exploring other aspects of what it meant to be a member of a middle-class Black community in mid-19th century New York City. Archaeologists, including those mentioned above, have recently begun to focus on the ways in which African Americans have used material culture to express class, racial, and ethnic identities. Identity for middle-class African American New Yorkers in the 19th century, like all identities, was composed of many intersecting strands. Historian Leslie Alexander (2008) has suggested that groups such as those residing in Seneca Village were conflicted as to their identities as "Americans" and "Africans." Although some harbored the dream that they could achieve equality as Americans by assimilation through moral uplift, others did not think this was possible. Many of the latter looked to their African roots and some even considered emigration to Africa or Haiti. We believe that some Black New Yorkers established Seneca Village as an autonomous Black community because they felt equality and assimilation within American culture were not realistic goals in the racially charged antebellum climate. Alexander (2008:160) believes that for its Black residents, Seneca Village not only provided a respite from discrimination, but also "embodied a series of ideas [about] African pride and racial consciousness, the creation of lasting Black institutions, and the … attainment of political power." So we were trying to understand if and how African American residents created and expressed their identities through their preferences in material culture and practices that might leave material traces (such as foodways), and if those identities were primarily African, American, or African American.

We were interested in using the material culture of Seneca Villagers to begin to explore this issue of "African" and "American" and middle-class identities along with other questions related to the construction of race, class, and gender among the African-American population in New York in the 19th century. This is the period that saw the beginnings of these systems as we know them today. Archaeologists have observed how material culture is mobilized, often in complex and inconsistent ways, to make statements about the affiliation of individuals and groups with the categories to which they have been assigned and/or with which they choose to identify. Objects do not simply reflect an identity; instead, people make choices about the things they use to express desires, belonging, and rejection. In other words, we might say that people use objects to construct class and other social categories. These objects, in turn, act back upon their users, by enabling them to carry out practices necessary to create and perform identities as well as by evoking more personal memories attached to particular objects by stimulating multiple senses. The relationship between people and things is complicated and recursive.

We wanted to explore how Seneca Village residents constructed their identities and expressed them materially. We wanted to see how Seneca Villagers made their houses their "home," and if and how they used domestic goods, such as dishes, or material alterations of their house or yard to create and communicate not only ethnic or racial identity, but also class identity.

In Chapter 3 of the present report, we begin this study by examining consumer patterns in, for example, the dishes villagers chose to serve their meals, as well as in their cuisine (as indicated by organic remains such as animal bones and seeds) and access to different kinds of health care (seen in medicine bottles and the remains of plants that may have been used in folk remedies) (Linn 2010; 2014; Wilkie 1996). We compare the dishes used by Seneca Villagers with those used by some contemporary members of the White middle class who lived in Greenwich Village. In the future, we hope to compare the assemblages from the Seneca Village site with those from other Black middle-class and working-class communities. These comparisons will allow us to consider similarities and differences between the material culture used by different groups in an attempt to understand what these patterns mean. Comparisons also require us to consider whether the presence of similar artifacts in several different communities implies imitation, emulation, or other processes, and whether the presence of different artifacts used in similar cultural arenas indicates resistance or simply different but politically neutral cultural meanings assigned to the objects.

Project Background

The story of the Seneca Village project begins in 1992, with the publication of Roy Rosenzweig and Elizabeth Blackmar's *The Park and the People: A History of Central Park*.[8] They devoted a chapter in the book to describing the area that was to become the park before it was created, and they featured Seneca Village in this chapter. It was they who brought the village back into modern memory and inspired the Seneca Village project.

In 1995, educator Cynthia Copeland, then of the New-York Historical Society, began to use Seneca Village in programming for middle- and high-school teachers to provide a case study for using primary historical sources in the classroom (Martin 1995). Copeland had worked at the African Burial Ground's Public Education and Information Center before coming to the Society and was well aware of the power of archaeological study in attracting under-represented minorities to the study of history. Soon thereafter, she and Grady Turner began to curate an exhibit (*Before Central Park: The Life and Death of Seneca Village*) about the village at the Society**.**

In 1996, Diana Wall and then-City-College student Herbert Seignoret attended a workshop on researching the village led by Copeland at the N-YHS. Wall had first heard about the village in 1993, when she read an interview with Blackmar where it was discussed. She was enthralled by the story of the village. She had just begun teaching at the City College of New York and thought the archaeological investigation of the village could be a wonderful project for incorporating undergraduates into archaeological research. She was also interested in exploring the archaeology of the African-American experience in New York City, her research area. She contacted the Central Park Conservancy in 1993, but at that time they were not interested in having an archeological study in Central Park, so Wall put the project on hold. Later on, some of Wall's students at City College worked with Copeland as interns on the exhibit. The exhibit, on display from 1997 to 1998, was critically acclaimed (Haberman 1997; Martin 1997; Ramirez 1998). Wall and Copeland began to explore the possibilities of an archaeological project at the village.

In 1997, archaeologist Nan Rothschild of Barnard College joined the study; she and Wall had worked together on various archaeological projects over the years**.** So Copeland, Rothschild, Seignoret, and Wall organized the Seneca Village Project (now the Institute for the Exploration of Seneca Village History, a 501(c) 3 organization) in 1997 to bring the village into the mainstream of American history. The project includes three integrated components: research, education, and commemoration. Project members were actively involved in working towards the erection of a sign commemorating Seneca Village on the site in Central Park; the sign was dedicated in 2001. Furthermore, all of the research components of the project have included educating students.

Also in 1997, the directors formed an Advisory Board to help supply direction as the research continued. Board members have included scholars who have studied aspects of New York's African-American and Irish history and community members who are concerned about the village as well as representatives from the Manhattan Borough President Scott Stringer's office, All Angels' Church, and Mother A.M.E. Zion Church. The Advisory Board proved especially helpful in assisting the project directors when it was time to get permission from the Conservancy and the Parks Department to conduct excavations in the park.

The Research Program

Over the years, the Institute conducted several phases of research on Seneca Village as we explored the possibilities of excavation. In 1997, Bruce Bevan, a leading figure in North American archaeological geophysics, conducted a one-day remote sensing survey on the site of the village and suggested that there was in fact the potential for archaeological resources to be present there. He also discussed which forms of remote sensing might be the most appropriate for research in the Park and specifically ruled out magnetometry because of the salts used to clear roadways in winter. Based on his assessment, the directors began to plan a long-term project with the goal, first, of determining whether or not there were in fact archaeological traces of the village intact at the site, and if so to excavate a sample of them.

Our first step was to use historical records to find out as much as we could about the site and the people who lived there. Olivia Ng (1999), then a Columbia University undergraduate, compiled a summary of what was known about the village and the people who lived there for her senior thesis. Then, during the summers of 2000 and 2001, we received support from the National Science Foundation's Research Experience for Undergraduates program to work with students in scouring the archives, looking at many different kinds of records, including maps, affidavits, census, church, tax, and death records. The students identified whether residents owned their homes or rented them; their ethnicity, race, and occupations; their family composition; the amounts they paid for taxes; and other information about the Seneca Villagers, including their compensation for eviction. They found data on life-cycle events from church records. They transcribed the data from these sources into a database.

This phase was carried out in conjunction with an exploratory survey of various remote sensing techniques, such as electrical resistivity and conductivity, and ground penetrating radar, to see which would be most appropriate for the park. This part of the effort was led by Roelof Versteeg, a geophysicist then at Lamont-Doherty, Columbia University. Based on this study, Versteeg determined that ground penetrating radar would be the most appropriate technique for the park area.[9]

After completing the database derived from historical documents, the next phase of study began in the fall of 2004, when we worked with students and geoarchaeologist Suanna Selby, then of New York University, and took corings to examine the soils at the site. The goal here was to determine whether or not there were naturally-formed, intact layers of soil from Seneca Village that survived the creation of the park in the 19th century and the subsequent use of the area. We placed the corings in locations where old maps (in particular the Sage map of 1856 and the

Egbert Viele map of the same year) showed us there had been houses and where a modern soil study (Warner and Hanna 1982) suggested little soil disturbance. Selby identified three kinds of buried soils: those that were native to the Park and two types that were probably fills, one from Long Island and one from New Jersey. She determined that there did in fact seem to be some natural layers, specifically along the south side of 84th Street between Seventh and Eighth Avenues and along Seventh Avenue, as these streets would have extended into the park (Selby 2005). Her research narrowed the scope of any potential excavation to a limited number of areas with in situ soils.[10]

Based on this information, we worked in the summer of 2005 with archaeological geophysicist Lawrence Conyers of the University of Denver who conducted ground penetrating radar (GPR) at the site (Conyers 2005). The rationale behind using this non-invasive technique at Seneca Village was to determine whether or not there were possible archaeological features (such as building floors or privy shafts) in the areas where Selby had found what appeared to be intact soil layers, and also to see if possible burials could be seen in the area of the church properties in the village. The project leaders felt it was very important to determine whether intact burials still existed within the Village, so they could be marked for protection; we had no intention of excavating them. Conyers identified eight areas within the six grids he tested that appeared to contain archaeological features that could be from Seneca Village, including several possible building floors, a privy shaft, and several middens (or garbage dumps), as well as several grave shafts in the area of African Union Church (Conyers 2005). This information from Conyers defined the places where we wanted to dig, but first we needed to get permission to do it from the New York City Department of Parks and Recreation and the Central Park Conservancy. As we mentioned, we had assembled an Advisory Board. Board members Celedonia Jones, Manhattan Borough Historian Emeritus, and Sharon Wilkins, Deputy Borough Historian, were extremely helpful in guiding us through the long process of getting permission to excavate, a negotiation that lasted from 2005 to 2011.

Preparing for the Excavations

Finally, in 2010, it became apparent that we would in fact be able to excavate, so we began to raise money to support the excavations and the analysis of the results. We were fortunate to receive another grant from the National Science Foundation through its Research Experience for Undergraduates program, and one from National Geographic. We received additional support from the Friends of Cornell Edwards, the Columbia Institute for Social and Economic Theory and Research, the Durst Foundation, the Richard Gilder Foundation, and the Professional Staff Congress of the City University of New York.

We also needed to recruit undergraduates to do the actual excavating. We advertised through local colleges and universities and were pleased to receive over 60 applications to fill the nine positions that we had. We had to make very difficult decisions in choosing the interns. The students we selected came from The City College of New York, Barnard College, Fordham University, and New York University. We also had one student from Holy Cross University who was funded by the Catholic Archdiocese of New York. In addition, we hired two experienced archaeologists as field supervisors, Meredith Linn (who had also been part of the soil coring and Conyers GPR teams) and Jenna Coplin.

We planned to use the results of the GPR as a guide in deciding where to dig. Several weeks before we began the excavations Conyers came back to the site and refined the GPR testing with new equipment (Conyers 2011); he identified a total of 6 promising areas. We decided to dig in each of the areas that Conyers thought looked promising. They were located in four grids: All Angels', Transect 3, Transect 4, and Pinetum South, the same areas that had been identified as promising by soil coring in 2004. (The names we used to designate each of these areas originated from Selby's (2005) map of the soil corings, and they were retained for both the 2005 and 2011 GPR surveys and the 2011 excavation.) Conyers also identified five graves in the area close to African Union Church; we recorded their locations and shared them with the Central Park Conservancy in order to protect them from disturbance.

The Excavations

The 2011 excavation project had three components: one week in the classroom, eight weeks in the field, and four weeks in the lab. We began in late May in the classroom. The students got to know each other and the supervisors, they attended classes led by historian Leslie Harris (of Emory University), and they also were introduced to the craft of fieldwork and record-keeping. Alison Wylie, a specialist in archaeological ethics, and archaeologist Cheryl LaRoche (of the University of Maryland, formerly of the African Burial Ground project) held seminars with the students later on in the project, when we were in the field.

We went into the field on Tuesday, June 7th, and remained there for 8 weeks. Our goals were two-fold: To ground-truth (or test) the ground penetrating radar and to retrieve a sample of the material culture of Seneca Village. Following the fieldwork, we spent 20 days in the lab where students washed and labeled artifacts and made preliminary identifications. They were able to complete all of this work in the allotted time. During the lab period, each student also wrote a paper and created a poster on some portion of the recovered material. The posters were presented at a public open house for the Seneca Village Project at the site on the 24th of August. It was a very successful event. More than 300 people attended; they interviewed the students, who were standing with their posters **(Fig. 1.3 - Appendix A)**, and viewed a few of the artifacts we had discovered. In addition, staff gave several tours of the site to interested visitors.

After the completion of the formal portion of the project, lab work continued part-time at City College for about three years. Some of the original students and other students, mostly from City College, as well as field supervisor Linn, continued working on the database and more detailed processing of artifacts. During that time, we mounted two exhibits on the project: *Unearthing Seneca Village* in the Tunnel Gallery at Barnard College (2012) and *Seneca Village: Unearthing a Forgotten Community* in Cohen Library at City College (2013). Most recently, we have been working on this site report.

All in all, the results of the project were very positive. We discovered the foundation wall and interior deposits associated with the home of William Godfrey Wilson and Charlotte Moore

Wilson and their family.[11] Wilson was the sexton of nearby All Angels' Church. We also found a buried A Horizon, the ground surface the villagers walked upon, which occurred, relatively undisturbed, throughout much of the site, particularly behind some of the homes on 84th Street.[12] Preservation at the site was remarkable for such a heavily used public space. We suspect that this preservation was due, at least in part, to the extensive rock (schist) formations that lay throughout the Seneca Village area, including Summit Rock, which would have made major land alterations difficult. The prior presence of the Reservoir would also have inhibited landscaping. The Central Park Annual Reports note that the creation of the Park in the area of the Village mainly involved laying out a few roads (the drive and the transverse) and pedestrian pathways (Marie Warsh, pers. comm. 2018).

What follows is a report on the excavations. It begins with an account of the field and lab work, stratigraphic interpretations, and area findings (Chapter 2). Chapter 3 then discusses features, landscape and artifacts that were discovered during the course of excavation. It is followed by a conclusion, containing an overview of our interpretations.

CHAPTER 2: THE EXCAVATIONS AND ARTIFACT PROCESSING

Once we were in the field, we used the results of the GPR and the soil corings as guides in deciding where to dig. The GPR had identified the presence of possible archaeological features in four different excavation areas: the All Angels' area, Transect 3, Transect 4, and Pinetum South.[13] The radar also identified the likely presence of burials in the African Union transect, which we did not have plans to excavate. We systematically conducted archaeological testing in each of the other four areas. In addition, we placed a test unit in the African Union area away from the burials and near the location of a Seneca Village home to see whether there were important deposits still extant there. The following includes a description of our field and laboratory methods**,** the results of our excavations in each of the excavation areas, and the stratigraphy within each of the excavation units.

Part 1: Field and Laboratory Methods

Field Methods

We excavated two different kinds of units: One consisted of test cuts, which were usually one-by-one-meter square. Some were made larger, to explore finds made in the excavations, while others were smaller "quad units," 50 cm by 50 cm, which allowed us to obtain a more extensive sample of features such as the buried A Horizon uncovered in Transect 3. The other units were shovel tests, round units which began at around a foot in diameter but were often enlarged. The latter were used to determine the presence or absence of features, such as a stone foundation wall or a ground surface, as well as within test cuts to determine the depth of bedrock and whether or not further excavation within the test cut was warranted **(Fig. 2.1 - Appendix A).**

Our excavation tools included both shovels and trowels, as well as brooms, dustpans, and root clippers. Unless otherwise noted, we screened all of the soil from the test cuts through one-quarter-inch wire mesh, but did not screen the soil from the shovel tests, except in ST 1, 3, 4, 5.

To record the excavations, we allocated an alpha designation to each test cut, beginning with A and continuing through W, and a numerical designation to each shovel test, beginning with 1 and continuing through 18. In addition, each context excavated was given a number: we started with 1 and continued through 255.[14] A context consisted of what excavators interpreted in the field to be a stratum or level within a stratum, which they determined primarily by a change in soil color or texture. Strata identified in the field were assigned Roman numerals and levels were assigned lower case letters (e.g., IIa or Vb). Additionally, strata not completely excavated at the end of the day were given new context numbers and a new level letter upon resuming excavation the next morning. The numbering of most of the 50 cm by 50 cm quad units and the shovel tests was somewhat different; they were given a single context number for each unit, with strata and levels designated with a decimal and an Arabic number (e.g., 222.1 is the first context excavated in TC S, its first field stratum and level [Ia])**.**

In the field we used Munsell color chips to describe the soil color(s) of each level. In the text below, we use Munsell descriptive terms that correspond with the numbers of the color chips, whereas in the profile and planview drawings, we include the specific Munsell color numbers. A provenience sheet was filled out for each context excavated. Profiles or section drawings were made for each of the test cuts and planviews were drawn in the course of the excavations, as required. We also took photographs of each level when appropriate, and of final profiles and planviews. And we made a map of the site, showing the elevations and the locations of each of the excavation units along with park features **(Fig. 2.1 - Appendix A)**. Matthew Sanger did the mapping for the project with a total station; he came to the site weekly to map the excavation units as they were dug.

Our site datum was a point on a large rock formation in the center of the project area (with GPS coordinates 40.78261-73.96863). There were several subsidiary data for areas that could not be mapped from the initial datum and these served for groups of test cuts in the different site areas (in some cases there were two area data). The site datum was also tied into several permanent features in or adjacent to the park, such as nearby streetlights and cornices of buildings on Central Park West. The elevation datum was taken at the site datum, which we arbitrarily designated as 100 meters above sea level for ease of calculation, and each test cut had its elevation taken in relation to the site datum or an area datum. An area datum was established when the site datum was not possible to use because of sight lines (Table 2.1 - Appendix B). Then, the test cut elevation was determined by either subtracting its height from the site datum (100 m) or the area datum, if it was lower than 100 m. If the test cut elevation was higher than the 100 m site datum or the area datum, then its height was added to that elevation. This measurement technique provided the elevation for each specific test cut. In the field, the elevations and closing depths for each test cut were measured from that test cut's datum. Here, in the report, initial elevations of each test cut are reported in reference to the site or area datum at the NW corner of the test cut, but we give the depths as "bgs", ("below ground surface") of the different strata within the test cut as measured from the ground surface for that test cut.

Each context excavated was assigned an artifact bag. Most of the artifacts excavated in each context were placed in that bag, which was clearly labelled with context information. Fragile iron objects were placed in labeled boxes and wrapped in tissue paper to protect them. Some categories of artifacts were discarded in the field. These included ubiquitous non-diagnostic artifacts such as brick, coal, unidentified flat pieces of iron, mortar, and ash, which were weighed with the weight recorded on the provenience sheet. Obviously modern artifacts that were found in the sod and humus layers, such as bottle caps, soda can tabs, etc., were also recorded and discarded, although the modern artifacts from a few contexts were retained as samples.

In order to protect both the site and the public, each weeknight we covered the open units with plastic sheeting capped with sheets of ½ inch plywood and surrounded them with snow fencing. We also had a security guard present on the site overnight during the week, to protect the open units. At the request of the Central Park Conservancy, we backfilled any open units on Fridays, so they would not be hazardous to the public over the high-traffic weekends, and dug them out again on Monday morning. Also at the Conservancy's request, we did not cut any roots that were larger than ½ inch in diameter.

Artifact Processing

On the few rainy or very hot days that we had during the field season and after the fieldwork was completed, the crew worked in the lab. There, they cleaned and processed the artifacts for analysis and storage. The crew performed much of the initial cleaning and tabulation of artifacts, but more in-depth analysis continued after the summer project ended. Cleaning procedures included washing the more stable artifacts (e.g., ceramics, glass, and shell) and gently dry-brushing the less stable artifacts (such as the metal and organic artifacts such as bone and leather).

Then some of the artifacts – ceramics, glass, pipes and small finds – were numbered, using a compound number consisting of the Site Number, *9531* (acquired from New York State), and the context number. Objects that were later determined to be significant (see below) were subsequently labeled with a unique artifact number, preceded by "CV" for "ceramic vessel," "GV" for "glass vessel," or "S" for "small finds." To avoid potential confusion, CV numbers were assigned numerically beginning with 1, and GV numbers were assigned numerically beginning with 500.[15]

These different kinds of numbers were inked onto the artifacts themselves, using black ink, or, if the artifacts were dark, white ink. If the artifact was porous, e.g., unglazed earthenware or bone, a coat of nail polish was applied underneath the ink to protect the object. The numbers were then covered with clear nail polish. Artifacts that were too fragile or too small to write upon were placed in plastic bags or rigid containers with paper labels bearing site, context, and, if applicable, artifact number.

Storage

For the most part, the artifacts were then sorted by material, placed in plastic bags with like materials and labeled with their provenience information, and stored in a larger plastic bag containing the other artifacts recovered from the same context. These bags were then organized in storage boxes by context number. There were several exceptions to this general rule, however.

- First, some of the more fragile artifacts were sent to conservators at the Conservation Center at the Institute of Fine Arts at New York University, while two additional objects, the shoe and the roasting pan from the Wilson house, were conserved by two independent conservators. See Appendix G for information on the conservation procedures. The conserved metal artifacts are stored in airtight plastic boxes containing bags of silica in order to control humidity. The boxes of the artifacts that were conserved at NYU are labeled NYU IFA Conservation Boxes 1-3. The boxes containing artifacts conserved by independent conservators are labeled Bins A-E.

- Second, fragile iron (possible) roofing, that displayed attributes we believed to be diagnostic and a sampling of nails are stored in plastic boxes labeled SV Boxes 1-3. Inside, these artifacts are wrapped in acid-free tissue labeled with context numbers.

- Third, artifacts assigned a unique ceramic vessel, glass vessel, or small finds number were placed in their own labeled plastic bag and boxed by object type and in numerical order of artifact number.

The "location" column in the artifact databases should note if an artifact is stored in any location other than in a context bag, but the general rule is that if an artifact had been assigned a unique artifact number, if it had been conserved, or if it is fragile, it is likely to be stored in a special location.

All of the artifacts from this excavation are permanently stored at the New York City Archaeological Repository: Nan A. Rothschild Research Center.

Tabulation

Analysts looked through each bag and box of artifacts and, using paper worksheets, tabulated them. The data from the worksheets were then entered into 10 Excel databases sorted by material and/or function: Architectural, ceramics, curved glass, discarded artifacts, faunal materials, floral materials, fuel, small finds, tobacco pipes, and unidentified artifacts. Each database has line entries for each type of artifact from each context, and supplies basic information such as object type, material, decoration, color, number of like items from the same context, etc., in columns.

Categories of information (columns) differ somewhat depending on the material (e.g., items in the architectural database were weighed, ceramics were not; the faunal database includes a column about species, others do not, etc.). Some of the heavier, less informative artifacts (such as brick, coal and mortar) had been recorded by weight and/or count in the field, and then discarded. The data about them were transferred from the provenience sheets to the database in the lab. The 10 separate databases were later combined into one master artifact-level database, the General Artifact Inventory Database **(Appendix H)**.

Additional Analysis of Ceramic Vessels, Glass Vessels, and Small Finds Objects

In addition to the artifact-level database mentioned above, which catalogs all of the artifacts found at the site, there is a second combined database that records further analysis of some artifacts on the vessel or object level. These include some of the ceramics, curved glass and "small find" artifacts from the Wilson house (SCs 6B-D) and the buried A Horizon (SC 6A) that were assigned the unique artifact numbers mentioned above.

Objects were assigned these numbers on the basis of the following protocol (illustrated here using ceramics, but the same process was applied to curved glass and small finds): The crew supervisors and PIs analyzed the stratigraphy to determine which context numbers corresponded with the Wilson House in AA and the buried A Horizon in TR 3. Analysts then pulled out all of the ceramic sherds from those contexts and mended them in order to determine the number and types of ceramic vessels in each excavation area. Analysts often found crossmends between sherds found in nearby contexts. Each of these mended vessels was examined to determine whether or not it could be part of another mended vessel. If it was determined to be unique, it was assigned an artifact number. The same process was applied to single unique sherds. If a sherd was determined to be diagnostic in some way (i.e., its decoration or ware type or vessel form could be determined) and if it could not possibly be part of another vessel, it too was assigned a CV number.

Each object that was assigned a unique artifact (CV) number underwent additional analysis to determine more information about its date of manufacture, place of origin, size, use, etc. These data were recorded on separate "Ceramic Vessel," "Glass Vessel," and "Small Find" worksheets and then entered into separate Excel files, where each vessel/object had its own line entry. Later these databases were combined into a single object/vessel-level database, the Object/ Vessel Database (**Appendix H**). Additionally, all of these artifacts were photographed; each photograph is numbered by the artifact number and the sequential number of the photograph, e.g., if there are three photographs of CV 1, they would be labeled CV 1.1, CV 1.2, and CV 1.3. This additional analysis allowed us to use vessels and unusual artifacts to more finely interpret Seneca Villagers' ways of life.

Using the information from the analysis of both the stratigraphy and the artifacts, we organized the contexts into "strata clusters," sets of contexts and strata which were related to the same event, such as "the occupation of the Wilson house," "fill," or "the 19th century A Horizon." We did this in order to relate the strata to each other and also to the history of that part of the site – to the events that had taken place there in the past and which contributed to the formation of the archaeological record. Thus, "analytical context" or "interpretive context" are synonyms for our use of the term "strata cluster."

The Results of the Excavations: The Strata Clusters[16]

The excavations and the subsequent analysis of the artifacts revealed the presence of several sets of features or strata clusters (SC) in the four main excavation areas that were tested. These are, in reverse chronological order of their deposition:

A. *Deposits reflecting current and recent past park use, found throughout the site. These include*:

- SC 1: the sod and its root mat, and
- SC 2: the underlying layer of humus

B. SC 3: *Late 19th and 20th century features, including*:

- SC 3A: the fill from the reconstruction of portions of the park, as well as
- SC 3B: several additional features, such as metal pipes and their trenches (TCs O and L), and
- SC 3C: a manhole cover and associated catch basin (TC H) ca. 1919.

C. SC 4: *Features associated with the creation of the park in the late 1850's and early 1860's, such as:*

- SC 4A: the fill deposited in the course of park construction (found in virtually all of the excavated units), and
- SC 4B: terracotta drainage pipes and their associated trenches (TCs F and W), installed around 1860.

D. SC 5: *Interface between fills associated with the creation of the park and the buried A Horizon* (a buried layer that included a former ground surface possibly associated with the occupation of the village**,** and objects that appear to have been lying on the buried A Horizon ground surface). Few separate contexts were excavated as SC 5 and most artifacts found associated with the buried A horizon were included either with it or with the lowest layer of fill above**.**

E. SC 6: *Features associated with Seneca Village. These include*:

- SC 6A: the possible buried A Horizons encountered in TR 3, TR 4, and All Angels', which may have been the ground surface during Seneca Village's occupation,
- SC 6B: Deposits associated with the demolition of Seneca Village, including demolition and domestic material found within the foundation wall of the Wilson family house as well as above and between layers of flat iron sheeting (interpreted as possible roofing material),
- SC 6C-6E: the deposits associated with the Wilson family's house in the All Angels' site area. The latter include:
- SC 6C: some demolition and more Wilson-family-related domestic material found below the metal sheeting; these objects were presumably left behind by the Wilsons inside their house,
- SC 6D: the house-use stratum just above the sub-soil and/or bedrock, which contained small objects presumed to have fallen through the floorboards in the Wilson house while the Wilsons lived there,
- SC 6E: the foundation wall and associated builders' trench of the house itself, ca. 1849-1852.

F. SC 7: *Naturally deposited post-Pleistocene soils*

G. SC 8: *Bedrock*

Table 2.2 (Appendix B) summarizes the correlation between field-assigned context numbers and our subsequent interpretive strata cluster designations.

We now briefly describe each of the test cuts excavated, aggregated by excavation area. As mentioned above, we defined four such areas for testing before beginning work, based on the GPR and soil boring data. The areas are: All Angels', Transect 3, Transect 4, and Pinetum South (**Fig. 2.1 - Appendix A)**. As noted above we did not conduct systematic archaeological research in the African Union transect, but placed one shovel test there. In addition the GPR noted the presence of burials.

Part 2: The All Angels' Transect

We began our excavations in the All Angels' transect **(Figs. 2.2a and b - Appendix A)**, named in reference to its close proximity to the village's Episcopal church of the same name (Sage 1856; Viele 1856).

The All Angels' transect was located in a roughly triangular area bordered by a foot path to the north, natural schist outcroppings and the West Drive to the east, and the 85th St Mariners' Gate entrance ramp to the West Drive to the west; the two last-mentioned roads merged together, forming a V, to the south. We did not initially plan to begin our work here; we had planned to begin in Transect 4 because we believed it would be a good place for inexperienced students to be trained in excavation techniques. However, the week we planned to begin, the Park was hosting a concert by the popular music group the Black Eyed Peas, and security was a primary concern. Conservancy personnel requested that we begin in the All Angels' area, the area farthest away from the Great Lawn, where the concert was to be held. It turned out this was a fortunate decision. The GPR in the All Angels' area indicated a cluster of sub-surface objects, possibly a midden, in an area in the hollow of the bedrock. It turned out that in fact the GPR had picked up the stone foundation walls of the house where William Godfrey Wilson, the sexton of All Angels' Church, lived with his wife, Charlotte, and their children **(Fig. 2.3a, 2.3b, and 3.2 - Appendix A**). It was a very important find, and because we began excavating in this area early in the field season, we had ample time to explore it.

<u>The Wilson House</u>

We began with Test Cuts A, B and C, in the area suggested by the GPR. These units were a meter apart, straddling a north-south line. TC A, furthest north, was aligned with TC C furthest south, TC B was between them and a meter to the east **(Figs. 2.2a and b - Appendix A)**. Each unit began as a one-by-one meter square, but as the crew began to uncover household-related rubble and foundation wall remnants very close to the surface, TC A was extended by a meter to the north and TC B by a half meter to the west. Ultimately 7 test cuts (A, B, C, M, N, R and S) were excavated in the All Angels' area, all but one (TC N) in conjunction with the house to explore its related deposits. Thirteen shovel tests (numbers 6-18), which were variable in size, were also opened there in order to determine the perimeter and extent of the house by locating the corners of the foundation walls.

Test Cuts A, B, C, M and R were all at least partially within the Wilson House and shared fairly consistent stratigraphy. When considered together, the stratigraphy of each of the test cuts in the All Angels' area suggests a narrative of the construction, occupation, and demolition of the Wilson house. We develop this narrative in Chapter 3. Test Cuts N and S were opened outside of the Wilson house in order to investigate the Wilsons' yard (TC S) and a neighboring house (TC N), and thus their stratigraphy differed from the others in the All Angels' transect. Both Test Cuts N and S yielded a possible buried A Horizon, but we could not confirm it in either case and neither contained many artifacts conclusively associated with Seneca Village.

TC A and A North Extension **(Planview 2.1 and Profiles 2.1a and b - Appendix D, C)**

The one-by-one m unit TC A and its northern extension had a more complex stratigraphy than the other test cuts in the All Angels' transect, because TC A included deposits from the inside of the Wilson house, from its northern foundation wall, from its builders' trench outside the wall, and from the outside yard area. The initial unit was subsequently extended northward another meter (TC A North Extension) over the wall to the exterior of the house. This combined one-by-two m test cut thus contained two different sequences. TC A contained house interior and foundation wall-related layers, while TC A North Extension contained the builders' trench and house exterior-related layers **(Planview 2.1 – Appendix D).**

The opening elevation of the northwest corner of TC A was 1.416 m above the site datum. The sod and humus layers were similar throughout the combined test cut and consistent with the rest of the test cuts in the All Angels' area. SC 1 (cx. 3,19) was the sod and its root mat that the crew removed using a shovel and trowels. The sod extended to a depth of 2 to 4 cm below ground surface (bgs). This layer was composed of very dark grayish brown sandy silt. It contained only recent artifacts presumably left behind by Central Park visitors. The crew kept a representative sample of these modern artifacts.

The humus layer (SC 2; cx. 6, 21), a dark brown silty clay, was about 4 cm thick and contained an array of modern and 19th century artifacts also presumably left behind by park visitors, including a piece of solarized glass (c.1865-1920) (Lockhart 2006:54).

Between 5 to 10 cm bgs, the crew encountered a new layer, which we later determined was park construction fill (SC 4A). In the southern half of TC A (cx. 8, 12, 17), this soil was a lighter and more orange-colored silty sand and was about 20 cm thick. In the northern extension (cx. 22, 25, 29), the layer was composed of brown silty clay and was about 25 cm thick. Most of the artifacts contained within these layers dated to the 19th century, although a couple, probably intrusive, dated to the 20th.

The reason for the difference in soil color and texture between these layers of fill soon became apparent when excavators discovered a portion of the Wilson house's northern foundation wall (SC 6E) at a depth between 10 and 15 cm below the present-day ground surface, running east-west through TC A (cx. 12) and cutting into TC A North extension's southwest corner. The foundation was composed mostly of local schist, with some river stones and broken bricks, all held together with mortar **(Fig. 2.3a and 3.2 - Appendix A)**. It thus made sense that the fill looked different on the interior versus the exterior of the Wilson house.

On the exterior side of the foundation wall, and beneath the fill associated with the park's construction (SC 4A), loose (i.e., no longer mortared together) stones and brick fragments began to appear at about 30 cm bgs (cx. 29, 30). After encountering these loosened stones and bricks in the other test cuts inside the Wilson house (TCs B, C, M, and R) and finding the foundation to be intact in a number of shovel tests, we determined the stones were displaced remains of the Wilson house's stone stem wall, and thus part of the demolition strata cluster (6B).[17] Displaced bricks and stones can be seen in the walls of the test cut **(Fig. 2.3a -Appendix A)**. The park construction crew appears to have knocked down the Wilson house's stem wall during their demolition of the house, sending some of the stones to the outside of the foundation and others to the interior of the house. They seem to have left the below-ground portion of the foundation wall found in TCA undisturbed.

At about 35 cm bgs, there was a soil change from strong brown to dark yellowish brown sandy silt that characterized the rest of this layer. This appeared to be a demolition layer containing debris from the Wilson house (and possibly its yard; SC 6B; cx. 32, 33, 38, 40). Artifacts found in this layer included fragments of mortar, glass, iron nails and tacks, iron sheets, smoking pipes, and redware. This stratum (SC 6B) was between 20 and 25 cm thick on the exterior side of the wall.

On the interior side of the wall, the demolition layer was encountered at about 30 cm bgs (SC 6B; cx. 17, 35, 39).[18] The soil was brown sandy silt with a greater density of stones than the fill layer (SC 4A) above it, and it contained fragments of iron sheeting approximately 18 cm by 18 cm by a few mm thick in size. We later found much larger pieces of these flat iron sheets in TCs B and M and hypothesized it was roofing material, possibly tinplate (Gayle and Look 1992:12), from the Wilson house. Excavation on the interior of the foundation wall was stopped at 48 cm bgs, because this area became very difficult to excavate (it was small and had a high density of stones), and because the stratigraphy inside the wall was beginning to look like that in nearby TC B. Before closing, excavators found several pieces of green bottle glass, likely from a single wine bottle that could date to the mid-19th century, and thus might have been left behind by the Wilson family. If excavation had continued in this area of the test cut, the crew presumably would have encountered the deeper Wilson occupation deposits (SC 6C, and possibly SC 6D) uncovered in TCs B, C, M, and R.

Excavation in TC A and TC A North Extension on the exterior of the wall continued, however, allowing the crew to recognize a builder's trench composed of loose dark yellowish brown silty clay filled with brick and stone rubble on the northern side of the wall (SC 6E, cx. 40, 45). This trench extended northward about 20 cm from the northern edge of the foundation wall and down to sterile subsoil and loose schist (SC 7) at a depth of about 84 cm bgs.

To the north of the trench, the crew did not discover a buried A Horizon that would indicate the SV ground surface. Instead, they encountered soil that was redder than in previous layers, very sandy and sterile (cx. 44, 45), beginning at about 60 cm bgs, which was thought to be subsoil. This same soil was also found underneath the builder's trench, and was excavated to a depth of about 88 cm bgs, where the crew found that the foundation wall itself rested on top of crumbling schisty bedrock (SC 8).

TC B and TC B West Extension **(Profiles 2.2a and b -Appendix C)**

TC B was a one-by-one m unit located one meter to the southeast of TC A. The opening elevation of the northwest corner of the test cut was 1.456 m above the site datum. TC B was contained entirely within the Wilson house. It was one of the more challenging to excavate as it contained numerous tree roots in upper levels as well as stones from the house's stem wall and layers of thin iron sheets (possibly roofing) that preserved a number of large, fragile iron artifacts (including a roasting pan) that do not normally survive in archaeological deposits in the northeast. TC B was extended 50 cm to the west in order to remove the roasting pan and other artifacts lodged within the western wall of the test cut.

The upper layers of TC B were similar to TC A and to the other test cuts in the All Angels' transect. The sod layer (SC 1; cx. 2, 34) was about 4 cm thick. The humus layer (SC 2; cx. 5, 9, 34, 36) ranged from 5 to 10 cm thick and was composed of dark brown sandy silt. Within both of these levels, modern artifacts were uncovered, including a quarter dated 2001. Like TCs C, M and R, which were also contained entirely within the Wilson house, TC B contained thin lenses (about 2 cm thick) of very dark gray fine silt in SCs 1 and 2, possibly a result of decaying organic matter like tree roots. It was in SC 2 that large tree roots were the most numerous; the crew respected the guidelines set forth by the Central Park Conservancy and did not cut any roots thicker than a half inch, as noted above.

Below the humus layer and beginning at 15 to 20 cm bgs in TC B and 10 cm bgs in TC B West Extension, was a layer of fill from the construction of the park (SV 4A; cx. 9, 11, 36). This layer ranged from 15 to 25 cm in thickness in different parts of the test cut. Like the SC 4A layers in TCs A, C, M, and R, it was composed of yellowish brown sandy silt. Temporally diagnostic artifacts contained within this fill dated to the 19th century and were similar to those in the next stratum below**.**

Next encountered was the layer formed by the demolition of the Wilson house which presumably contained a mix of material from the Wilson house, the surrounding yard, and some fill (SC 6B; cx. 13, 15, 18, 37, 42, 126). It extended from between 35 and 40 cm bgs in some parts of the test cut and to a depth of about 45 cm bgs in others. Here, this stratum consisted of a layer of dark yellowish brown sandy silt, containing inclusions of small clumps of white clay, numerous larger ceramic pieces (like large pieces of stoneware crocks and a redware handle of a small pitcher), along with a piece of slate, nails, fragments of bone, seashell, glass (including one blue bead), coal, mortar, brick, and stones lying immediately on top of, next to and under large, thin layers of iron. This iron undulated in the level and covered almost the whole western quarter of TC B. There was also a strap-shaped piece of thicker iron more than 20 cm long that might have been a barrel hoop (cx. 37). The temporally diagnostic artifacts here in SC 6B all date to the middle of the 19th century and are likely mostly objects once used by the Wilson family.

Shielded underneath the largest and deepest layer of metal sheets and beginning at a depth of about 45 cm bgs was another layer of demolition materials (SC 6C; cx. 23, 28, 31, 126,[19] 129, 152), a 15 to 30 cm thick layer of strong brown sandy silt, filled with mid- 19th century artifacts that were almost certainly used by the Wilsons when they occupied the house. These artifacts included large fragments of Chinese export porcelain, yellowware, stoneware (including a beer bottle), and blue on white transfer-printed refined earthenware, glass (including a small colorless whole medicine or perfume bottle), and metal objects (including part of a curry comb and what appeared to be a handle of a small pail). Air pockets created by the sheets of metal lying on top of stones and bricks without fill soil in between were present in this layer (in cx. 23, 129, and 152). Underneath layers of metal sheets in the western wall of the unit, at about 50 cm bgs, the crew was surprised to discover (in cx. 28) a large, two-handled rectangular iron roasting pan with an iron tea kettle, large fragments of a green glass bottle, and a white-glazed redware vessel, possibly a French ointment pot, inside it **(Fig. 2.4 - Appendix A).**

It was in order to excavate the roasting pan that TC B was extended 50 cm to the west, revealing stratigraphic layers and artifacts above the level of the roasting pan that were similar to those in TC B**,** as previously noted in the descriptions above. A major concern was how to conserve the roasting pan and its associated artifacts, so just before reaching the depth of the roasting pan, we backfilled the entire combined unit while we awaited a consultation from conservators from the Metropolitan Museum of Art. We thought this was necessary because, despite our best attempts to protect the iron from the change in environment, a couple of days of exposure to sun had already visibly weakened it. We covered the exposed portion of the roasting pan with several centimeters of soil. Then we placed overturned buckets into the rest of the test cut and overlay them with a web of lathe from snow fences. On top of that we placed plastic sheeting and then backfilled the test cut.

About 3 weeks later, we re-excavated the test cut and found the roasting pan to be well preserved in the same condition in which we had re-buried it. Under the supervision of Jennifer Dennis and Emilia Cortes, conservators from the Metropolitan Museum of Art, the crew carefully removed the roasting pan and kettle by excavating underneath them (cx. 126). This was possible because the pan sat on top of several rocks with spaces between them. The crew then wrapped cellophane and casting tape (both the traditional cloth and plaster variety and some of the quicker-drying fiberglass type) around the artifacts to support them. Once the bandages hardened, crew members lifted the pan and its contents into a specially-prepared plastic box that was taken to the museum for conservation (see **Appendix G** for a description of the conservation measures).

While excavating the pan and leveling the test cut after its removal (cx. 126, 129, 152), crew members found more artifacts related to the Wilson household, including flat pieces of lead, scallop and oyster shells, shoe leather, a cut-glass candlestick fragment, ceramics (including a large piece of stoneware), fragments of coal, brick, mortar, and another part of the curry comb. In this level (cx. 129) we also found the only piece of seemingly worked wood recovered at the site. It was about 25.4 cm in length and badly preserved.

At the bottom of SC 6C, and at about 72 cm bgs, the strong brown soil became grittier, composed of sandy silt mixed with weathered schist**,** and smaller fragments of ceramics, glass, mortar, coal, and brick were recovered. The small size of the artifacts and their location atop and within the first few centimeters of subsoil suggest they were objects that fell through the floorboards and made up a sub-floor deposit (SC 6D; cx. 142). This layer, 6D, was more clearly present in TCs M and R than in the other test cuts inside the Wilson house foundation.

Below this layer was the sterile subsoil layer (SC 7; cx. 149), a combination of dark reddish brown and strong brown schisty sand beginning at about 75 cm below the ground surface. This subsoil layer was about 10 cm thick, as determined by probes, and below that was bedrock (SC 8), beginning at about 85 cm bgs.

TC C **(Planview 2.3 and Profiles 2.3a and b - Appendix D, C)**

TC C was a one-by-one m unit and the third and southernmost test cut opened on the first day of fieldwork. The opening elevation of this test cut's northwest corner was 1.316 m above the site datum**.** TC C turned out to be located within the walls of the Wilson house, but its stratigraphy was somewhat different than that of the other test cuts there (TCs B, M, and R). The explanation for these differences apparently had to do with both tree root behavior and site formation processes. TC C contained a greater number of thick tree roots than the other units, and also a thicker Seneca Village demolition layer (SC 6B), along with a thinner layer related to the Wilson household (SC 6C). It did not contain the metal sheets that capped the Wilson-related layers (SC 6C) in other test cuts. It also yielded fewer artifacts overall. The southeast portion of the TC was not fully excavated because of the density of stones and bricks, later interpreted as wall fall. Therefore, only the northwestern half of the TC was excavated to the depth of SC 6C and below. Otherwise, the upper levels of TC C resembled those of TC B.

The uppermost layer (SC 1; cx. 1) was a thin stratum of sod and moist black soil that contained recent park-related debris discarded in the field. The humus layer (SC2; cx. 4, 7) began just a few centimeters below the ground surface and ranged from about 3 to 8 cm deep. It consisted of moist strong brown and reddish brown silty sand and silty clay. It also contained 20th century material like a metal can tab and a piece of plastic as well as small fragments of potentially 19th-century artifacts such as iron, coal, a shell, colorless and green glass, redware, and a button.

The park construction fill layer (SC 4A; cx. 10) began at depths ranging from 10 to 15 cm bgs and was made up of dark yellowish brown silty clay. This layer ranged from about 15 to 25 cm thick and contained a greater number of 19th-century artifacts than the previous layer.

The underlying layer containing material from the demolition of the Wilson house (SC 6B; cx. 14, 16, 20, 24) began between 25 cm and 35 cm below the ground surface when the soil became less compact and less sandy than in SC 4A and changed in color to include yellowish brown and dark yellowish brown mottles in a field of dark yellowish brown clayey silt. This layer again contained architectural refuse presumably from the house, like stones, nails and brick and mortar fragments, and one piece of possible window glass. The southeastern half of the test cut contained many stones, most of which the crew left in place, suspecting that they might be part of a wall, although later it was determined that they were part of the wall fall. Also present in this layer were pieces of coal, whiteware, and fragments of two large blue-on-white Chinese porcelain vessels that presumably were used by the Wilsons.

The layer associated with the Wilson household (and capped by iron sheets in TCs B, M and R) (SC 6C; cx. 26, 27) was encountered at a greater depth in this test cut than in the others, beginning at approximately 60 cm bgs. The soil in this layer was yellowish brown and dark yellowish brown. Artifacts in the upper portion were sparse and included a few nails, fragments of brick, coal, mortar, glass, and flat iron. Still within this layer, beginning at a depth of about 65 cm bgs (cx. 27), the density of mid-19th century artifacts increased.

At about 74 cm bgs, the soil changed to a dark yellowish brown grainy silty sand characteristic of the subsoil (SC 7; cx. 27). It is possible that a thin lens of the house occupation stratum with the small objects that presumably fell through the floorboards (SC 6D) existed in this test cut because there were many small fragments of artifacts found just above the subsoil (e.g., tacks, ceramics and coal). Excavators dug until they discovered bedrock (SC 8) at a depth of 80 cm bgs in the northwestern portion of the test cut (cx. 27).

TC M and M North Extension **(Profiles 2.4a and b - Appendix C)**

The one-by-one m TC M was the first test cut opened after a few weeks' hiatus in the All Angels' area during which the team was excavating in other transects while we awaited assistance from conservators to remove the "roasting pan" and its associated artifacts from TC B.

TC M was located to the southwest of TC B and to the northwest of TC C, just adjacent to it **(Figs. 2.2a and b)**. The opening elevation of TC M's northwest corner was 1.351 m above the site datum. After reaching bedrock in TC M, a one m by 0.5 m north extension was added to this unit. The stratigraphic profiles of TC M and TC M North Extension were similar to one another and to that of TC B, in that there were extensive "sheets" of iron separating the fill and demolition layers (SC 4A and 6B) from the layers most securely connected with the Wilsons' occupation of the house (SC 6C and 6D). These metal sheets were present throughout much of TC M and M North Extension, except for the southern fifth of TC M, such that the stratigraphic profile of the southern wall of TC M resembled the nearby profile of TC C. SC 6D, the "under the floorboards" layer, was thickest in TC M relative to all of the test cuts in the All Angels' area and contained the most artifacts. More of the unusual, large air pockets were found in this unit, under the metal sheets (SC 6C; they were also found in TC B; see above). Leather shoe soles were found as well as one nearly complete small fabric and leather shoe were found within these air pockets **(Fig. 2.5 - Appendix A)**.

The sod layer (SC 1; cx. 139, 185) was about 5 cm thick and was composed of very dark grayish brown sandy silt. It contained recent artifacts. The layer of humus began at about 5 cm bgs and ranged from 4 to 10 cm in thickness (SC 2; cx. 144, 188). It was composed of dark grayish brown sandy silt with artifacts dating to the 19th and 20th centuries.

The fill layers associated with the park's construction (SC 4A; cx. 146, 150; 189, 191) began about 15 cm bgs, and comprised a thicker layer than most (ranging from 15 to 20 cms). They were composed of a few centimeters of dark yellowish brown sandy silt lying atop olive yellow very fine sandy silt. This stratum cluster was encountered several centimeters closer to the surface in the northeast corner of the unit. It contained 19th century artifacts, including fragments of annular/ dipt ware (blue, white, and black striped) and salt-glazed stoneware.

The layer interpreted as having been formed when the Wilson house was demolished, just above and within multiple layers of metal sheets (SC 6B; cx. 164, 168, 192), began with a soil change and greater concentration of metal fragments and sheets at a depth ranging from 30 to 40 cm bgs. In this area, SC 6B was composed of dark yellowish brown sandy silt. In the center of the unit was also a metal artifact that initially appeared to be a bucket and which was excavated as a large piece with surrounding soil to be further analyzed in the lab**.** It turned out that this "bucket" was simply a curved metal strap (possibly a barrel hoop) lying atop fragmented layers of metal sheets. Other artifacts contained in this level were a mixture of architectural remains (including metal nails and tacks and bricks), likely from the house's demolition, and domestic artifacts (such as a leather shoe sole, and fragments of ceramics, glass, coal, and oyster shells).

SC 6C, the layer underneath the lowest level of metal sheets (cx. 164, 170, 174, 194, 198, 204, 207, 214), began about 45 cm bgs and ranged from about 5 to 10 cm in thickness. This layer has been interpreted as a level containing artifacts that remained in the Wilson house after they vacated the property, which was capped with the metal sheets that might have been the remains of tinplate (Gayle and Look 1992:12) roofing. The air pockets found in this layer and noted above appear to have been created when the metal sheets were thrown on top of the bricks and stones from the partially demolished foundation wall and chimney of the house. These pockets suggest that the crew building the park did not put much fill soil into the house before putting down the metal sheets. These voids might have been enlarged by rodents tunneling into the wreckage after the demolition of the house, as soil samples contained traces of rodent feces and a raspberry and a pokeberry seed that each appear to have been chewed by a rodent (cx. 198 in TC M Extension) (Jacobucci and Trigg 2012:24).

The soil in this layer (SC 6C, resulting from the Wilson occupation) was similar to that in the stratum above (SC 6B, resulting from the demolition of the house): a dark yellowish brown sandy silt. The soil was more compacted but also contained air pockets. Artifacts in this layer, apart from the metal sheets, included larger than typical fragments of ceramics (including a piece of a light blue-on-white transfer-printed teacup, likely manufactured between 1818 and 1867 [MAC Lab 2015a], part of a lid from a blue on white hand-painted Chinese export porcelain dating between 1785 and 1835 [Mudge 1962:208], and fragments of stoneware). Fragments of Ceramic Vessel 12, an ironstone/ white granite gothic molded bowl, also discovered in this layer, crossmend with other fragments found in the same stratum cluster (SC 6C) in TC B. Another unusual artifact found in this layer was the nearly complete fabric and leather shoe (Small Find 4), mentioned above, which might have belonged to a child. There was also what appeared to be a rectangular iron box or pan (Small Find 46) measuring approximately 8 by 10.5 by 2.5 inches. This was removed in several pieces (as it was very fragile and was fused to metal and stone underneath it) **(Fig. 2.6 - Appendix A)**. An animal bone was found underneath the pan and is visible in the field photograph.

The "under the floorboards" layer (SC 6D; cx. 174, 179, 181, 204, 207) was distinguished from its overlying layer both on the basis of a soil change and the types of artifacts uncovered. This layer began approximately 55 cm bgs and was about 10 to 15 cm thick. The soil in this layer was darker and considerably more mixed (yellow brown mottled with very dark grayish brown). It contained much more coal, charcoal, cinder, brick, and mortar (more than 9.1 kg) than other layers and had a coarser texture because of these inclusions and some mixing with the schisty subsoil below. Artifacts from this level were all small. They include a three-cent coin stamped with the year 1852 (cx. 174; Small Find 74), many nails (including square-cut nails), buttons, a copper alloy eye (from a clothing hook and eye), cut bone, a ball clay pipe bowl, a piece of hard rubber, and glass fragments (including flat red glass and green embossed bottle glass determined in the lab to have composed a bottle of “Old Dr. Townsend’s Sarsaparilla” [TPQ of 1849; Glass Vessel 522], which was locally produced in New York City [Fike 1987:220]). The deepest parts of SC 6D were composed of charcoal and coal mixed with subsoil.

A layer of sterile subsoil (SC 7; cx. 181, 207), a dark reddish brown and strong brown schisty sand, began at about 70 cm bgs and was excavated to about 75 cm bgs. Chaining pins were used to determine the depth of the subsoil and the location of the underlying bedrock (SC 8) in the area; the latter was located at various depths between 7 and 20 cm below the base of the excavations.

TC R and R North Extension **(Profiles 2.5a and b - Appendix C)**

The one-by-one m TC R was opened shortly after TC M in order to further explore the interior of the Wilson house. TC R was located about a half a meter to the west of TC M, and was the westernmost test cut in the All Angels’ area **(Figs. 2.2a and b - Appendix A)**. The opening elevation of the northwest corner of both TC R and R North Extension was 1.376 m above the site datum. TC R was similar in its stratigraphic layers to TCs B, C, and M, but did not contain as much metal as TC M, nor any air pockets, nor as many stem wall stones as TC B. It was also difficult in TC R to distinguish between SC 4A (park construction fill) and SC 6B (Wilson house demolition), because there was no observed soil change between these levels. In addition, there was no convenient layer of iron sheeting (only a few smaller fragments) distinguishing SC 6B from SC 6C, the underlying layers of demolition strata within the foundation wall and below the metal sheeting. Another unique aspect of TC R and R North Extension is that they contained more than 70 bricks, which we surmised to be the remains of the house’s chimney **(Fig. 2.7 - Appendix A)**.

In the northern portion of TC R, demolition rubble, (SC 6B) consisting of brick and mortar, was discovered beginning just underneath the park construction fill (SC 4A). This rubble was initially left in situ and the southern part of the test cut excavated first to understand the stratigraphy. Then, a 50-by-100 cm northward extension was opened to follow the rubble. Once the north extension was excavated to the layer of the rubble (SC 6B), the extension and the original TC R were excavated in unison.

The sod layer (SC 1; cx. 210, 235) in TC R and R North Extension was like the others in the All Angels’ area: It was just a few centimeters thick, composed of dark gray brown sandy silt, and contained artifacts from the recent past.

The humus layer (SC 2; cx. 212, 216, 235) began a few centimeters below the ground surface and ranged from 5 to 10 cm in thickness. It was composed of grayish brown sandy silt and contained a mixture of 19th and 20th century artifacts.

The park construction fill strata (SC 4A; cx. 217, 219, 237, 238, 239) began at a depth of about 10 to 15 cm bgs and were deeper in TC R than in the north extension. They ranged from about 15 to 25 cm thick and contained soils of several slightly different colors, depending on their location within the units, from dark grayish brown to brownish yellow to very pale brown sandy silt. This stratum cluster (SC 4A) contained 19th-century ceramics, including stoneware and blue and white transfer-printed wares, and no obviously 20th-century materials.

While it was not possible to distinguish a soil change between the park construction layers (SC 4A) and the layer containing demolition material from the Wilson house (SC 6B; cx. 225, 227, 230, 234, 240, 242, 245), the latter was indicated by the artifacts: architectural rubble (presumably from the house itself) composed of a mixture of chimney bricks, mortar, and a few foundation stones discovered in the northern part of TC R and in the entirety of the northern extension. This rubble began to appear in large concentrations at about 35 cm bgs (cx. 225, 240). These bricks and mortar fragments were tightly packed with little to no soil in between them in some parts of the unit. By the depth of about 50 cm bgs, the rubble continued, and what little soil there was in the layer changed to include many more fragments of mortar, such that it looked like a grayish brown mortary sand. Interspersed with the rubble were small architecture-related artifacts like nails and flat glass, along with cinder, coal, a glass button, a bone button, a metal belt buckle, and a large stoneware fragment with blue decoration (resembling a fragment found in TC M), all likely left by the Wilsons.

When the rubble layer was initially uncovered, the crew excavated the southern part of TC R first, where the bricks were initially fewer (cx. 227). There, and in the northern half of TC R (cx. 230), they found some iron sheets, but these sheets did not span a large portion of the excavation unit to neatly separate SC 6B and 6C as in TCs B and M. Underneath the metal sheets, the brick and mortar rubble that was part of the Wilson house demolition layer (SC 6B) became even more dense, such that in one 10 to 12 cm thick context (cx. 245) beginning at a depth of about 55 cm bgs, the crew removed 70 whole or partial bricks and an additional 46 fragments, weighing a total of about 217 pounds (or more than 98 kilos).

Underneath the bricks, and about 63 cm bgs, a few larger artifacts were discovered that were likely objects the Wilsons left behind inside their house (SC 6C; cx. 245) which were then capped, in most of the other Wilson house test cuts, by the metal sheets during park construction. Artifacts in this layer in TC R included a bone handle (likely part of a toothbrush), two glass buttons, a piece of hard rubber, and a buff-bodied stoneware jar lid.

Within a couple of centimeters of the top of this demolition layer (SC 6C), the crew noticed a soil change to a strong brown and dark reddish brown schisty sand mixture and smaller artifacts, resembling what had been identified in other test cuts as the "under the floorboards" layer (SC 6D; cx. 248, 249, 251). In TC R, this stratum (SC 6D) began at depths ranging from about 65 cm bgs in the southern part of the unit to about 71 cm bgs in the northern part, and ranged from 2 to 4 cm thick. It contained nails and tacks, buttons made of metal and bone, and other small artifacts.

The subsoil layer, SC 7, was not excavated, but its appearance underneath SC 6D at a beginning depth ranging from 69 to 74 cm bgs was noted in cx. 249 and 251. The subsoil was identical in this unit to the others inside the Wilson house. It contained schisty sand that ranged in color from strong brown to dark reddish brown and was devoid of artifacts. This test cut was not excavated to bedrock, but we surmised, based on the pattern in other test cuts, that bedrock was only a few centimeters away.

Shovel Tests 6-18 – Locating the Walls of the Wilson House

All of the shovel tests were irregular in shape. Their placement and shape were determined by the expectation that they would recover information about the placement of one or more of the Wilson house walls. Initially soil from these tests was screened but then it was simply troweled out without screening, and stratigraphy was recorded. See **Figs. 2.2a and b (Appendix A)** for locations. Only unusual artifacts are mentioned as most Shovel Tests had modern artifacts close to the surface and 19^{th}-century materials below them.

ST 6 was located inside the northeast corner of the house, about 0.5 m south of the north wall. It was aligned along a northeast-southwest axis and was 46 cm northwest-southeast and 67 cm northeast-southwest. It had a humus layer, followed by a yellow-brown sandy silt. It was excavated to 36 cm in the northern portion and between 18 and 22 cm bgs to the south. An extension to the northeast was 40 (E-W) by 130 cm (N-S), and was excavated to 34.5 cm bgs. It contained some stones that were thought to be part of the Wilson house wall.

ST 7 was located along the east wall of the house protruding into the house, and was about 3 m south of the northeast corner of the house. It was 78 cm northwest-southeast by 38 cm northeast-southwest and was excavated to 151-158 cm bgs. The second stratum was a compact yellow-brown clayey silt. Soil was not screened. ST 7 was extended to the east to try to locate the east wall. The final dimensions, including the extension, were 90 by 38 cm, and some large rocks and mortar were located at the southeast end of the shovel test, which was interpreted as part of a wall, perhaps the eastern wall of the house. It was deeper (60 cm) than the other wall remains.

ST 8, about 50 by 50 cm**,** was located along the north wall of the house, less than 1 m to the west of ST 6. The second stratum was a yellow-brown sandy silt, about 36 cm deep. It was extended to the northeast and a wall with mortar and bricks was found at about 40-43 cm bgs. This was likely part of the north wall of the house.

ST 9 was opened very close to, and east-southeast of, ST 6, along the Wilson House east wall, and along a northwest-southeast axis. It was about 50 by 75 cm. The soil in this ST was not screened. It was dug to 55 cm bgs and only some loose rocks were found, although it was in the area where the northeast corner of the house could be expected to be.

ST 10 was opened one m south of ST 7 extension to try to find the continuation of the east wall. It was aligned from northwest to southeast, 110 cm long and 35 cm in width. No soil was screened and wall remnants were found at about 36/40 cm bgs.

ST 11 was placed between the east wall of TC C and ST 10. It was 55 by 60 cm, aligned east-west. Its soil was not screened, and it was dug to 52/61 cm with no wall remains confirmed.

ST 12 was located parallel to ST 10, and more than a meter south of it. It was 115 by 50 cm, aligned northeast to southwest and located the east wall of the house which was 55 cm wide and 28 cm bgs. Soil was not screened. The rocks in the wall were held together with mortar.

ST 13 (not on map) was located between ST 9 and ST 7 extension, to their east. It was meant to determine if the wall corner could be found there but the results were inconclusive. It was about 30 by 50 cm, aligned east-west. It was excavated to a depth of 52-55 cm on the west and 28 cm bgs in its northeast corner. Some mortar was recovered, and it was noted that the soil was hard to trowel. No soil was screened.

ST 14 was a 70 (northeast-southwest) by 95 (northwest-southeast) cm test placed to the west of TC A which uncovered the northwest corner of the house. Soil was not screened. There were stones with mortar, and in the northwest corner it seemed as though the wall rested on bedrock (at 58 cm bgs). Other corners were excavated to 34-44 cm.

ST 15 was placed where we thought that the southeast corner of the house might have been. The soil was quite sandy and no wall or rubble was found. Its location was determined by measuring 21.11 feet, the north-south dimension of the house according to Sage (1856) from the possible northeast corner. It was excavated to 35 cm bgs. Soil was not screened.

ST 16 was placed about one m north of ST 15 along the east wall, looking for further evidence of the wall. The soil looked similar to that found in TC S, outside the east wall (see below). It was not screened, no evidence of the wall was found, and excavation stopped at a depth of 32-36 cm bgs.

ST 17 was placed just north of ST 16. It was 90 cm (northwest-southeast) by 137 cm (northeast-southwest, with the extension), and it included part of the southern wall and the southeastern corner of the structure. The wall consisted of stones held together with mortar, and it was approximately 48 cm in width. Soil was not screened. The second stratum was the typical yellow-brown sandy silt and was dug to 33-43 cm bgs. A small portion of the shovel test (on the northern edge) was determined to be in the house interior. The eastern edge of the wall was not found but it was probably nearby.

ST 18 was placed along the western edge of TC R, at its northwest corner. It was hoped that it would reveal the western edge of the western wall, and it was successful. It was also designed to learn more about the concentration of brick and mortar in the western part of TC R. Soil was not screened, and it was excavated to a depth of 20-28.5 bgs on its western edge and 3 cm bgs in the northeast corner

We were able to locate the probable southwest corner of the wall, abutting a tree, so it was not possible to dig there.

All in all, the shovel test program implemented to determine the location of the foundation wall of the Wilson House was successful. The wall was encountered in 9 of the 13 shovel tests. They showed that the footprint of the house was similar to that depicted on Sage (1856), 21.11 feet north-south by 19.8 feet east-west.

In addition to the test cuts and shovel tests used to explore the Wilson home, we placed two additional test cuts in the All Angels' area.

TC S

The 50 x 50 cm unit TC S was opened in order to explore the eastern area outside the foundation wall of the Wilson house. It was to the east of TC C and was the easternmost test cut in the All Angels' area **(Figs. 2.2a and b -Appendix A)**. TC S, similar to many of the quad units in Transect 3, was smaller than the typical test cut, as noted. It was hoped that this test cut might reveal a buried A Horizon that was part of the Wilsons' yard**.** We believe we did recover this feature, although the results were not completely conclusive.

Like the 50-by-50 cm units in Transect 3, TC S was recorded differently in that all the layers in the test cut were given the same main context number (cx. 222), followed by a decimal point and another Arabic number to indicate the unique archaeological context (in terms of field stratum and level) excavated (e.g., 222.4). Also, a new datum was established for this test cut because the datum for the other test cuts was too far away to obtain reliable measurements. The opening elevation of the unit's northwest corner was 1.3668 m above the site datum.

The sod layer (SC 1; cx. 222.1) was typical for the All Angels' area. It was approximately 2 cm thick, composed of dark grayish brown sandy silt, and contained one iron nail. The humus layer below (SC 2; cx. 222.2) was composed of light olive brown sandy silt and contained only a few artifacts, likely dating to the 20th century: 2 pieces of iron, 1 metal jack, and 2 small pieces of coal. This layer began about 2 cm bgs and was approximately 9 cm thick.

The underlying park construction fill layer (SC 4A; cx. 222.3) was similar to that in other units in the area in that it was composed of soft, crumbly yellowish brown sandy silt. It contained fewer artifacts compared to the others, however, with only a few small glass and ceramic sherds (brown glazed and white), 1 metal tack, and 1 tiny bone fragment. This layer began at about 10 cm bgs and ranged from 10 to 12 cm thick.

A slight change in soil color and a more distinctive change in texture occurred about 21 cm bgs (cx. 222.4) that might indicate the presence of SC 6A, the Seneca Village-era buried A Horizon. This layer of sandy silt was slightly yellower in color than the layer above it. It was also more compact and contained more schisty gravel, but only a few artifacts: 3 small pieces of unidentifiable iron and 1 small flat glass sherd.[20] Both its compactness and its relative lack of artifacts suggest that this possible buried A Horizon might have been subjected to yard sweeping. We discuss this possibility in Chapter 3. This layer was about 10 cm thick and sat atop sterile schisty soil characteristic of the subsoil in the area (SC 7), which appeared at a depth of 33 cm bgs.

Probing TC S with chaining pins determined that the subsoil layer continued for about 21 more centimeters and that bedrock (SC 8) was approximately 54 cm bgs in the eastern half of the test cut.

TC N **(Profiles 2.6a and b - Appendix C)**

We excavated one additional test cut in the All Angels' area which did not contain deposits related to the Wilson house. The one-by-one m unit TC N was opened in order to determine if any remains of the house next door to the Wilson's, indicated on the Sage map (1856), were still present. TC N was located approximately 6 meters to the south of TC C and west of TC R, and down a small slope from the area where the Wilson house had been, based on modern park topography. It was the southernmost test cut in the All Angels' area **(Figs. 2.2 a and b - Appendix A)**. It was similar to TC S, the other test cut outside of the Wilson house, in that the upper layers (SC 1, 2, and 4A) were like those other test cuts in the All Angels' area (TCs A, B, C, M, and R) in soil color and type, except that these layers in TC N contained fewer artifacts than the others.

The opening elevation of the northwest corner of TC N was 1.316 m above the site datum. The sod layer (SC 1; cx. 155) was 1 to 3 cm thick and composed of a very dark grayish brown sandy silt. It was devoid of artifacts, except for one modern penny. The underlying humus layer (SC 2; cx. 156), also composed of very dark grayish brown sandy silt but containing a greater density of pebbles, began at about 2 cm bgs. It ranged from 7 to 8 cm in thickness and contained 20th century artifacts, all of which were discarded in the field.

The park construction fill layers below (SC 4A; cx. 158) were distinguished by a soil change to yellowish brown sandy silt at about 9 cm bgs, that changed to a slightly darker yellowish brown sandy silt at about 16 cm bgs. Both layers contained relatively few artifacts, including fragments of ironstone/ white granite, blue-on-white transfer-printed whiteware, and several fragments of unglazed redware that formed Ceramic Vessel 37, a flowerpot.

The demolition layer (SC 6B; cx. 159) was present beginning at approximately 23 cm bgs and was composed of a several centimeter-thick layer of yellowish brown sandy silt, slightly lighter in color than SC 4A. This layer (SC 6B) was different in TC N than in the other test cuts in All Angels' in that it contained far fewer artifacts, only a handful of fragments of glass, metal, brick, coal, and ceramic. At the bottom of this level, the crew noted an increasing number of pebbles.

A thin layer of the Seneca Village buried A Horizon (SC 6A; cx. 163) might have been present in this test cut. Beginning at an approximate depth of 30 cm bgs, excavators noticed that the soil changed in color to strong brown sandy silt. This change was not noted during profile drawing, however. Like the possible buried A Horizon layer (SC 6A) in TC S, this layer in TC N contained very few artifacts, only 3 small nails and 3 pieces of slag.

By about 33 cm bgs, the characteristic gold and reddish schisty subsoil (SC 7; cx. 167) of the area began to appear. The crew excavated this sterile soil for several cm, to about 40 cm bgs. A chaining pin was then used to determine the location of the underlying bedrock (SC 8). It was found to begin at a range of 47 to 56 cm bgs.

The All Angels' area was one of the two most productive parts of the site that we excavated in terms of revealing traces of Seneca Village. The assemblages associated with the Wilson family provide insights into both the ways of life of a middle-class African-American family in the mid-19th century and the methods of construction of the Wilson house. We discuss these findings more fully in Chapter 3. The other particularly productive area was Transect 3.

Part 3: Transect 3

The soil borings and the GPR indicated that a large area called Transect 3 contained several sets of possibly-intact archaeological resources. The area was bounded by West Drive on the west, the Bridle Path on the east (these two thoroughfares abut each other to the north of the transect), and a rock outcropping to the east and south **(Figs. 2.1 and 2.8 - Appendix A)**. In one part of this area, on the south side of 84th Street (as it might extend into the park), the soil corings (Selby 2005) uncovered historic artifacts in association with a buried organic soil layer which was identified as a possible buried A Horizon, and the GPR done just prior to excavation picked up a buried flat feature, interpreted as a possible basement floor of a house. Other features identified in the preliminary testing in the area included what appeared to be a possible privy and several artifact concentrations (Conyers 2005, 2011).

<u>The Northern-most Units in Transect 3: The Buried A Horizon</u>

TCs D, D East Extension, and K **(Profiles 2.7a and b - Appendix C)**

We began to explore this area by opening TC D, a one-by-one m square. The modern ground surface at its NW corner was 0.352 m below the site datum**.** At a depth of around 40 cm bgs the excavators encountered the top of a large rock which, when ultimately exposed, was revealed to be 45 cm long; we expanded the test cut twice to the east (first as TC D East Extension, which was one-half-by-one meter, and then TC K, another one-by-one m square, in order to uncover it. It is probable that this large rock was what the GPR had identified as a possible basement floor. The stratigraphy of these three units is discussed here together. These test cuts revealed a possible buried A Horizon.

The uppermost layers (SCs 1 and 2) consisted of the modern sod and brown sandy silty humic layer (TC D cx. 46, 49; TC D East Ext. cx. 78, 81; TC K cx. 102) which was approximately 10 to 30 cm thick and extended to a depth of 10 to 30 cm bgs. As expected, in addition to artifacts that could well date to the 19th century, these layers also contained relatively modern objects such as a light bulb, which was uncovered in TC K (cx. 102). The humus was underlain by two to three layers of dark yellowish brown sandy silt fill (SC 4A) in different parts of the combined unit (TC D cx. 50, 53; TC D East Ext. cx. 83, 85,86, 91; TC K cx. 111). Although all were described as consisting of dark yellowish brown sandy silt, these layers were slightly differentiated on the basis of color or texture. They extended to a depth of approximately 30 to 35 cm below grade and together were about 20 cm thick. These layers yielded a TPQ of the

1840s, based on the presence of sherds of flow blue (cx. 53, 111) and yellowware (cx. 86), pottery types that were introduced in that decade. Discovered in the lowermost layer of fill (SC 5) was our most dramatic artifact, a light blue transfer-printed teapot in fragments that when mended produced a nearly complete vessel (**Fig. 2.9 - Appendix A**; cx. 53, 57; designated Ceramic Vessel 80). This artifact rested atop the buried A Horizon.

Below the fill, and at a depth of around 35 cm bgs, a layer of grayish brown very grainy sandy silt, underlain by a layer of dark brown sandy silt, was uncovered throughout most of TC D and D East Extension and some of TC K (TC D cx. 57, 70, 65; D East Ext cx. 92; K cx. 117, 118, 121). We have interpreted these as a buried A Horizon (SC 6A) which ranged in thickness from 2 to over 10 cm, being uniformly thicker on the southern side of the units **(Fig. 2.10 - Appendix A)**. This stratum was very rich in artifacts, particularly domestic ones. Resting on this layer in TC D was a lens of ash (SC 5; excavated with cx. 57) visible in the south wall, which was also artifact rich with both domestic items and architectural materials, and included a hard rubber comb, a kind of comb first made in 1851 (cx. 57; designated S 70 in the Small Finds database; Ace 2017). Some of the artifacts consisted of large fragments, suggesting that they had not been exposed in the A Horizon for long. Many of these artifacts are presumably from objects left behind after the removal of the Seneca Villagers when they were evicted and their homes razed in the late 1850s.

Peeling back the buried surface, excavators encountered a looser, softer dark yellowish-brown sandy silt which passed through screens readily and which was underlain by other similar layers. Artifact density was light as compared to the overlying buried surface and decreased notably with depth. These layers began at a depth of around 30 cm bgs and continued to a depth of at least 70 cm bgs, where the excavations were terminated. They have been interpreted as the natural subsoil in the area (SC 7; TC D cx. 66, 73, 76; TC D East Ext cx. 93; TC K cx. 128, 131, 134). Sterile soil was confirmed by a shovel test placed in TC D that extended down to approximately 230 cm bgs (cx. 137).

Based on the discovery of the buried A Horizon, we decided to do additional testing in this area to determine the extent of this feature and to acquire a larger sample of it. We opened a number of test cuts to explore it further: TCs G and O, and quad units P, Q, T, U, V, and W (**Fig. 2.8 - Appendix A)**. We also excavated a number of shovel tests (STs 1, 2, 3 and 5) in order to locate an artifact-rich stratum which Selby had discovered with the soil corings (2005:32-33). It appeared to be either an ashy E Horizon (a leached soil horizon that generally occurs between A and B Horizons), or an anthropogenic feature such as a basement or part of a builder's trench (Selby 2005: 34-35). We thought that this deposit might have been associated with the buried A Horizon. Alternatively of course it could have been part of the fill from the park's construction.

One of our concerns was how to recognize a buried A Horizon. Several criteria seemed relevant, but most important was the presence of a darker organic layer on top of a buried B Horizon which tended to be lighter in color (Selby 2005:22). Furthermore, it might exhibit the presence of artifacts oriented so that their axes were parallel to the surface of the buried A Horizon. The size of artifacts was not, however, a deciding factor in a case like Seneca Village. There, the pieces of glass or ceramic vessels at the top of the horizon might be quite small, from having been trodden on over a period of years, or they might be in large fragments, from things that were discarded at the time of the villagers' removal that were then covered relatively quickly with layers of fill as part of subsequent park construction. Additionally, there might be a great number of artifacts, if the houses or activities of villagers were located nearby, or there might be relatively few, if villagers had not lived nearby or if those who did live nearby practiced the custom of sweeping their yards (see Chapter 3 for a discussion of this practice).

TC G **(Profiles 2.8a and b - Appendix C)**

TC G was a one-by-one m square unit that was opened a meter west and a half a meter north of TC D; its northwest corner was at an elevation of 0.272 m below site datum. It was placed as part of the effort to determine the extent of the buried A Horizon exposed in TCs D, D East Extension, and K. The unit's stratigraphy was similar to that exposed in those test cuts.
Sod and a modern very dark brown humic layer were removed (SC 1 and 2; cx. 68 and 69) as well as an underlying, similar-appearing layer of late 19th to 20th century fill (SC 3A, cx. 72), which contained a toy lead soldier. It was hollow, indicating that it had been made by Britains' hollowcasting technique, introduced in 1893 (Collectors Weekly 2015). Together these three layers extended to a depth of 5-15 cm. Beneath that layer was a thick layer of dark reddish brown sandy silt fill, presumably related to the construction of the park (SC 4A, cx. 75). Towards the top of this layer, the artifacts were small in size, while those found deeper in the unit were of mixed sizes, suggesting those on top had been subjected to heavy traffic after the fill was in situ. The fill extended from 5 to 37 cm bgs.

Beneath the fill at the depth of 25 to 33 cm bgs was an artifact rich, more organic layer which we interpreted as the buried A Horizon. It was similar to that layer as it was uncovered in TC D and its associated units, described here as a dark brown sandy silt (SC 6A; cx. 77, 82). This layer extended from 45 to 70 cm in depth and was around 5 to 10 cm thick. Here this layer also contained fragile artifacts in large fragments, including the mouth of a glass bottle that remained intact (cx. 77) as well as pieces of ceramic dishes and cups. Their survival suggests that these artifacts were exposed only relatively briefly, during the period when the houses of Seneca Village were being demolished and before the fill was added. There was also a great deal of architectural material in this stratum, evoking the razing of the homes of the Seneca Villagers after their removal. This layer rested on top of a layer of darker brown silty sand identified as the transition to sterile subsoil (SC 7; cx. 84), which began at a depth of around 40 cm bgs. Also of interest, the unit lacked the soft, looser soil noted in the combined TC D units. Beneath this layer was a layer of dark yellowish-brown silty sand subsoil which was almost completely sterile (SC 7, cx. 89). It extended beyond 75 cm bgs, where the excavations were terminated.

TC O and TC O Extension **(Profiles 2.9a-c - Appendix C)**

Test Cut O was placed further to the north and on higher ground than the other test cuts in Transect 3. It was originally situated to see if the buried A Horizon extended up into this area. However, when the overlay of the modern park over Sage's maps of the village in the 1850s (1856) became available, it showed that these units were likely placed inside the footprint of the home of George Webster and his family **(Fig 2.11 - Appendix A**). The house was one of the more substantial ones in Seneca Village. It was two stories tall with a basement and had an ell extension at the rear. Once we became aware of the unit's location, we wanted to confirm that we were digging inside the Webster house, presumably in their cellar hole. And if we were, we wanted to see whether or not there were deposits there as rich as those we had found inside the Wilson house in the All Angels' area, described above.

TC O began as a one-by-one m square located 4 meters north of the southern base line shared by TC D and TC K. Its southeastern corner was 3.5 m west of TC G's southeastern corner. The elevation of its northwest corner was .0536 m below site datum.

TC O as a whole was excavated to a depth of around 50 cm bgs; below that, the excavations were confined to the northeast quadrant of the unit; this quadrant was taken down an additional 30 cm, and at the bottom of the quadrant we excavated a shovel test down an additional 21 cm. A chaining pin stuck into the ground at the bottom of the shovel test encountered something hard at a depth of 9 cm; this was probably bedrock. The unit was extended by another one-by-one m unit to the northeast, with the northeast quadrant of TC O superimposed over the southwest quadrant of TC O Northeast Extension (**see Fig. 2.8 - Appendix A)** in order to get a better grasp of the stratigraphy and to explore several large stones uncovered at the base of the unit – some of the crew thought they had been worked and were artifacts, whereas others thought they were naturally shaped and naturally deposited.

Below the sod and humic layers (SC 1; cx. 161, 195; SC 2; cx. 162, 196) (which were about 10 cm thick) were two layers of 19th century fill (SC 4A), probably deposited at the time of the creation of the park – all of the artifacts included in these layers could well date to the mid-19th century. The first was a yellowish brown sandy silt (cx. 165, 199), which was about 10 to 12 cm thick, which overlay a stratum of light yellowish brown sandy silt (cx. 169 and 206), which reached a depth of 30 to 40 cm bgs.

Below these layers of fill was a layer of brownish yellow fine silt (cx. 175, 180, 182, 208, 211, 215, 218). This layer was located in the same stratigraphic position and was of a similar soil description to the buried A Horizons in some of the other units, but it differed from them in that it was very irregular in thickness – it ranged from around 2 to 20 cm, suggesting it had been disturbed. There is more evidence of disturbance described below.

This layer contained quite a few artifacts – in TC O alone it contained 112 ceramic sherds, similar to the 91 sherds in the buried A Horizon in nearby TC G, but the layer in TC G contained many more nails – 248 – than the one in TC O – only 32. Almost all of the datable artifacts in this layer in TC O could have been made in the early to mid 19th century. There was one, however, which dated to the 20th century. This was a portion of a bottle which was embossed on its body just above the base with the letters: "registere…/contents 6.5…" Bottles with specific capacity or volume information are likely to date to 1913 or later (Lindsey 2017), but certainly no earlier than the turn of the 20th century. The bottle came from cx. 208 in TC O Northeast Extension, and in this same layer a modern metal pipe was found laid in the southeast corner. It is likely that this artifact was introduced when the pipe was laid, presumably in the

20th century. Unfortunately, the pipe's trench was not evident in the layers above. However, despite the presence of this artifact, which was intrusive, it is likely that this layer is in fact the buried A Horizon, albeit in a somewhat disturbed state.

Below this layer, at the depth of around 65 cm bgs, the natural subsoil was encountered (SC 7; cx. 184, 186, 221, 224). Here, the subsoil was similar to that found throughout the area and was described as different shades of olive yellow and yellow brown sandy silt which became finer with depth. It was decidedly lighter than the overlying layer, adding support to the interpretation that the latter was a buried A Horizon. Most of the unit was excavated to a depth of around 50 cm, while the quadrant located in both the northeast corner of TC O and the southwest quadrant of TC O Extension was excavated to a depth of 95 cm bgs.

All in all, the data from this test cut do not support the interpretation that the test cut was excavated in the cellar hole of the Webster house. Rather, the lack of extensive demolition debris from the house and the fact that a dark, possibly organic layer overlay layers of lighter soil similar to subsoil in other parts of the site suggest that the unit contained a buried A Horizon that lay over natural subsoil. This interpretation is open to several possible explanations. The Webster house may not have had a full basement or it even may have had no basement at all, indicating that the Sage map is in error. Alternatively, there may be a fairly large degree of error in our superposition of the Sage maps over our site map and modern maps of the park and the units may have actually been placed in the yards *behind or beside* the Webster house or behind the house next door.

<u>The Quadrants: TCs P SW Quad, TC Q SW Quad, TC T SW Quad, TC U SW Quad, TC V SW Quad, and TC W SW Quad</u>

After the excavation of TCs D, K, G, and O, a series of excavation units was placed to discover the extent of the buried A Horizon **(Fig. 2.8 - Appendix A)**. Designated as TCs P, Q, T, U, V, and W, these units were one-quarter the size of the regular meter squares, measuring only 50 cm on each side. They were placed at the southwest quadrant of full meter squares with the same letter designation; only the southwest quadrants of these units were excavated. Here, all quarter units are referred to by the test cut letter for brevity. With one exception, each quarter unit was given a single context number for the whole unit, as noted above for TC S in the All Angels' area, with strata within the context noted by a number after a decimal point. The exception is TC P, which was allotted a total of 2 context numbers.

TC P SW Quad **(Profiles 2.10a and b - Appendix C)**

TC P, whose elevation at the northwest corner was .392 m below site datum, had the same stratigraphic sequence as TCs D, G, and K. Its western border was aligned with the western border of TC G, and its southwest corner was 2 meters south of the southwest corner of TC G. The sod (SC 1; cx 177) and underlying humus layer (SC 2; cx. 178.1), together approximately 7-10 cm thick, overlay two layers of 19th century fill (SC 4A; cx. 178.2, .3), which were described as a dark yellowish brown sandy silt, with the overlying layer being darker. These were probably deposited when the park was created because the artifacts included in the layers dated to the mid-19th century or earlier. Together, these layers were about 25 cm thick.

Below them was the possible buried A Horizon of brown sandy silt, in this case with a dense deposit of coal, about 9-12 cm thick (SC 6A; cx. 178.4), which in turn was underlain by virtually sterile subsoil of yellowish brown clayey silt which became lighter and finer with depth (SC 7; cx. 178.5, 6). The excavation of the subsoil was terminated at a depth of about 75 cm bgs. Boundaries between deposits were so clear in TC P that pollen samples were taken from the unit for analysis. Artifacts were oriented horizontally at the interface between the 19th century fill and the buried A Horizon, suggesting the burial of these objects during park construction, and included large gothic ironstone/ white granite plate fragments that mended together **(Fig. 2.12 - Appendix A)**; plates such as this one became popular in the 1840s (Wetherbee 1996:9).

TC Q SW Quad **(Profiles 2.11a and b - Appendix C)**

Using our superposition of the Sage map over the site map, it turned out that this test cut was probably located in the area of the ell extension behind the Webster house **(Fig. 2.11 - Appendix A)**. The southwest corner of TC Q was 2 m west of the southwest corner of TC G, sharing the latter's southern line and extending north. Its northwest corner was .342 m below the site datum. Below the sod and humic layers (SC 1; cx. 203.1, and SC 2; cx. 203.2), which together were about 10-12 cm thick, were three layers of fill, consisting of a layer of yellowish brown silty sand underlain by a layer of brownish yellow sandy silt, which in turn was underlain by a layer of light olive brown sandy silt (SC 4A; cx. 203.3, 4, 5), which extended down to depths of 35 to 55 cm bgs. This fill was apparently deposited at the time of the park's creation, as the artifacts in it were of types that were introduced no later than the mid-19th century.

The possible buried A Horizon here was identified just below the fill (SC 6A; cx. 203. 6, 7) and was described here as a dark yellowish brown clayey silt. It varied in thickness from 10 to 20 cm and extended down to about 55 to 60 cm below grade. It was noted as less dark than the same layer in TC P and only a few artifacts were described as lying flat at the interface.
The datable artifacts in this stratum too were of types that had been introduced during or before the mid-19th century. Both the fill and the underlying buried A Horizon contained quite a bit of coal in comparison with most of the other test cuts. An underlying subsoil consisting of a stratum of brownish yellow clayey silt was excavated to a depth of approximately 65 cm bgs (SC 7; cx. 203.8, 9, 10). This soil became lighter and finer with depth, as in other test cuts in the area.

Although, as mentioned above, this unit was apparently placed in the ell extension of the Webster house, like TC O, it showed no evidence of this structure. This could be due to any of several possible reasons, one of which we mentioned above in discussing TC O: there might be a fairly large degree of error in our superposition of the Sage maps over our site map and modern maps of the park and the units may have actually been placed in the yards *behind or beside* the Webster house or behind the house next door. Alternatively, it is possible that the construction of the ell extension required little ground disturbance and did not impact on the A Horizon in this area. Support for this explanation lies in the fact that there is a somewhat lower density of artifacts in the buried A Horizon layer in this unit than in any of the others that were close to the Webster house (TCs D, K, G, P, T), suggesting that the area might have been covered by the extension (see Table 3.1 - Appendix B). The soil layers encountered were very similar to others in the area.

TC T SW Quad **(Profiles 2.12a and b - Appendix C)**

The southwest corner of TC T was 2 m to the north of the southwest corner of TC G and its western border was aligned with the western border of TC G. TC T revealed a sequence of deposits similar to those described in the test cuts above. Its northwest elevation at ground surface was .1836 m below the site datum. The sod and very dark grayish brown silty humic layers (SCs 1 and 2; cx. 229.1) extended to a depth of 5 to 9 cm below grade. They overlay two layers of fill: a brown silt (SC 4A; cx. 229.2) underlain by some yellowish brown clayey silt (SC 4A; cx. 229.3, 4). Together these fill layers extended from around 5 to 30 cm in depth and had apparently been deposited at the time of the park's construction as the datable artifacts found in them were of types introduced no later than the mid-19th century.

Below them was the possible buried A Horizon, which here was a layer of yellow brown clayey silt (SC 6A; cx. 229.5, 6). It extended from around 30 to 40 cm bgs. However, unlike in the other units described above, this layer was not darker in color and therefore was less organic than those below it. Below that layer were two layers of clay-like naturally deposited yellowish brown subsoil which became sterile with depth (SC 7; cx. 229.7, .8). The unit was excavated to a depth of 55-60 cm bgs. The dates of the artifacts encountered in these layers support these stratigraphic interpretations.

TC U SW Quad **(Profiles 2.13a and b - Appendix C)**

In TC U, the elevation of the northwest corner at ground surface was .542 m below the site datum. Its southwest corner was 2 m south of the southwest corner of TC P and its western border was aligned with the western border of TC P. The stratigraphy included a sod and a humic layer (SCs 1 and 2; cx. 228.1) which together were about 7 cm thick. They in turn were underlain by a layer of brown silty sand fill (SC 4A; cx. 228.2, 3) which was 15 to 20 cm thick. Below that layer was another stratum of fill which was also 15 to 20 cm thick and consisted of a yellowish brown sandy silt (SC 4A; cx. 228.4, 5). Both of these layers contained coal and architectural material, and since the datable artifacts had dates of introduction in the mid-19th century or earlier, we inferred that they were probably deposited at the time of the park's creation.

Beneath that layer of fill was a clearly-preserved buried A Horizon of dark yellowish brown clayey silt (SC 6A, cx. 228.6, .7) which began at a depth of 40 to 45 cm bgs and was 3 to 5 cm thick. Artifacts lay flat at the interface between the buried A Horizon and overlying fill. The buried A Horizon was recorded as almost 10 cm deeper here than in other areas, with the exception of TC O. It contained many artifacts, mostly domestic ones, including over a dozen sherds. They were of types whose introductory dates fell during or before the mid-19th century. Two layers of subsoil were revealed under the buried surface in TC U, one of yellowish brown clayey silt, which was 17 to 20 cm thick, and the other, a layer of yellow clayey silt (SC 7; cx. 228.7, 8), which was excavated to a depth of about 70 cm bgs. The layers of subsoil were in fact lighter in color than the inferred buried A Horizon. As in TC T, the subsoil was more compact with less artifactual material than the overlying strata.

Test Cut V SW Quad **(Profiles 2.14a and b - Appendix C)**

TC V was approximately 3 m directly south of TC D, southwest corner to southwest corner, and extended 50 cm east of the line of TC D's west border. Its northwest corner was .642 m below site datum. TC V's sod and humic layers were about 10 cm thick (SCs 1 and 2; cx. 246.1); the latter consisted of a very dark grayish brown silty sand typical of that stratum in the area and peeled off the underlying fill layers. Under this were three layers of yellowish brown silty sand and sandy silt which together were c. 40 cm thick and extended to a depth of 70 cm bgs (SC 4A; cx. 246.2 - .6). Based on the dates of the artifacts they contained and their similarity to layers of fill encountered in other units, these layers were interpreted as part of the fill that was deposited in this part of the site when the park was created. The first was a layer of very dark yellow brown sandy silt (SC 4A; cx. 246.2), about 10 cm thick, which was underlain by a layer of dark yellowish brown silty sand (SC 4A; cx. 246. 3, 4, 5), 10-20 cm thick, which in turn was underlain by a layer of yellowish brown silty sand, around 10-15 cm thick (SC 4A; cx. 246.6).

Beneath this was a layer of brown clayey silt (SC 6A; cx. 246.7), which may have been the buried A Horizon, which here was about 10 cm thick. However, it remains unclear whether this layer was in fact an A Horizon. On the positive side, at the upper surface of this deposit, several small ceramic sherds lay flat, parallel to the surface. But the layer of soil under the putative buried A Horizon was darker than this layer and in fact was darker and coarser than any of the subsoil strata encountered in this area and may not have been subsoil at all. This underlying layer was made up of a dark yellow brown clayey sand which was culturally sterile (SC 7; cx. 246.8). The excavations were terminated at the depth of approximately 82 cm bgs. The dating of the artifacts from the fill and the possible buried A Horizon all point to the mid-19th century and consistently support the interpretation that these layers are associated with Seneca Village, its destruction, and the construction of the park.

TC W SW QUAD **(Profiles 2.15a and b and Planview 2.15 - Appendix C, D)**

TC W was placed 2 m to the west of TC U, southwest corner to southwest corner, in order to determine the extent of the ground surface area. The elevation of its northwest corner was .522 m below the site datum. The excavations revealed that the stratigraphy was unique in this area because it had been disturbed by the installation of a terracotta drainage pipe, which was encountered in situ at approximately 80 cm below grade (DSC_1151). It was similar in style and material to the pipe found in TC F and its depth is consistent with that of the drainage pipes put in while the park was being created (Rosenzweig and Blackmar 1992:164-165), around 1860.

The uppermost layers consisted of the sod and a very dark grayish brown humus (SCs 1 and 2; cx. 247.1, 2) about 10 cm thick. They were underlain by a layer of dark yellow brown sandy silt, also about 10 cm thick (SC 4B; cx. 247.3), which may have been part of the soil used to fill the trench or a layer added as part of the creation of the park but after the drain system had been installed. Although there were relatively few artifacts in this context, all of them could have been made during or before the mid-19th century. This layer in turn was underlain by a very thick layer of slightly lighter yellowish brown sandy silt fill, approximately 55 cm thick (SC 4B; cx. 247.4-.7). Unfortunately, the artifacts in this trench were few, but they too were consistent with a mid-19th century date of deposition. We interpret this layer as representing the fill placed in the trench after the terracotta pipe had been laid, since the pipe was discovered towards the bottom of this layer. The deposits above the pipe were distinct from those in the rest of this part of Transect 3, indicating that TC W was excavated right through the trench that was dug for laying the pipe, and that (as was also true in laying the pipe in TC F) this part of the drainage system was installed after at least some of the fill used in the park's design was already in place. The pipe rested on the yellowish brown sandy clay subsoil (cx. 247.8) that was encountered towards the bottom of the unit, at a depth of 75 cm bgs. This unit, then, contained no deposits that were related to Seneca Village. The unit was excavated to a total depth of around 80 cm bgs.

The Remaining Units in Transect 3: TCs E, F and L

TC E **(Profiles 2.16a and b - Appendix C)**

There was one additional test cut in Transect 3 in which we found traces of the buried A Horizon. This was Test Cut E. Its southwest corner was located 6 m south and 14 m east of the SW corner of Test Cut D. Initially, we placed TC E, a one-by-one m square, in order to look for a possible privy shaft that had been identified by Conyers's GPR analysis. Unfortunately, it turned out that there was an error in locating this GPR anomaly, so that the unit was placed in the wrong location. Conyers later told us that, after additional experience with bedrock, he thought the anomaly he initially identified as a privy shaft was probably in fact simply an irregularity in the bedrock, and excavation revealed that the bedrock was indeed located at a relatively great depth. The unit was interesting for two reasons: it provided another sample of the buried A Horizon and it was one of few units in Transect 3 that went all the way down to bedrock and allowed us to examine the early post-Pleistocene deposits there.

The northwest corner of the unit was at .9571 m below the site datum. The first layers encountered were sod with underlying dark yellowish brown sandy silt humus (SCs 1 and 2; cx. 47, 48); together these layers were 5 to 7 cm thick. The date for these layers was provided by two pieces of plastic, one of which was a button or bead from the underlying cx. 48, showing that the layers were relatively recent, and were formed well after the destruction of Seneca Village. Below them were layers of fill interpreted to have been deposited at the time of the park's creation (SC 4A), which totaled approximately 30 cm in thickness. The uppermost layer was a yellowish brown sandy silt (cx. 51), which in turn was underlain by a stratum of dark yellow brown clayey silt (cx. 52, 54). The artifacts included in these fill layers consistently dated to no later than the mid-19th century. Interestingly, the artifacts included a high proportion of architectural materials, especially iron nails, suggesting that the fill may have been obtained nearby, from areas where there had been wood-framed houses in the village. The 1856 Sage map shows a shed belonging to Sally Wilson in this area **(Fig. 2.11 - Appendix A).**

Beneath this lay a stratum of dark yellowish brown sandy silt which may represent the earlier buried A Horizon at the time of the Seneca Village occupation (SC 6A; cx. 54).[21] In addition to being similar in color to some of the other buried A Horizons in other units, this stratum meets the most important criterion mentioned above for identifying buried A Horizons: it is darker and more organic looking than its underlying layer, which is interpreted as subsoil, (and than its overlying layer, too, for that matter). The artifacts support the interpretation that this was a 19th century A Horizon in that they reflect the land use in this area of the site in the mid-19th century. They include relatively high densities of fasteners such as nails, presumably from the dismantling of the nearby shed, but relatively light densities of the ceramics and tobacco pipe fragments that we would expect from an area used as a yard near a house, such as in the TCs D and K vicinity.

Below this layer was a lighter stratum of olive yellow clayey silt (cx. 55), the first of several layers of sterile subsoil (SC 7). The subsoil in this unit was unique at this site in that it exhibited unusual shades of grays, pinks, greens, and yellows and was much more clayey than that in other areas. We continued to excavate the entire unit to the depth of approximately 75 cm bgs (cx. 55, 59, 61), and then placed a shovel test in the southwest corner of the unit (cx. 63), which we excavated down to bedrock (SC 8), which we reached at 137 cm bgs.

These excavations in Transect 3 and in other parts of the site as well demonstrate the high state of preservation at the Seneca Village site. Traces of the buried A Horizon were found in all of the units except for those that were obviously disturbed or where we did not excavate deeply enough. We discuss the buried A Horizon more in Chapter 4.

Other excavation units (Test Cuts F and L and Shovel Tests 1-3 and 5) were placed in TR 3 to the south and east of the units described above in order to explore the rich components that Selby had discovered in her auger tests in 2004 and also, in the case of TC F, based on evidence supplied by the GPR.

TC F **(Profiles 2.17 a and b and Planview 2.17 - Appendix C, D)**

Test Cut F was a one-by-one m excavation unit in Transect 3. It was 15 m south of the grid northern baseline and 18 m east of the grid western baseline (**Fig 2.8 - Appendix A**). Its center was 17 m south of the north Transect 3 grid line and 20 m east of the grid's west boundary. The ground surface in the northwest corner was 1.2069 m below the site datum. TC F was excavated because the GPR suggested that there was a below-ground feature of interest, possibly a midden, located there. Initially the unit was typical of many units we excavated; modern surface strata were followed by 19th century deposits related to the construction of the park. As we went deeper, however, we encountered a trench which was associated with the placement of one of the original terracotta drainage pipes, similar to the one found in TC W.

The upper stratigraphy of the unit was similar to other units in this area. The sod layer of dark silt, approximately 3-6 cm thick (SC1; cx. 58), included some red, green and clear plastic, and glass. It was succeeded by a very dark greyish brown silty sand humus (SC 2; cx. 60), approximately 5 to15 cm thick, which contained many pieces of glass and sherds, bricks, a pocket comb and a button. The presence of a recent artifact (the plastic comb) indicates recent deposition. The next stratum was a layer which we initially identified as a 19th century fill layer with material associated with the construction of the park. Composed of dark yellow-brown silty sand (SC 4A; cx. 62, 64, 71), it contained a great deal of ceramic material (more than 100 sherds in cx. 62 and 64, combined), many pieces of metal, including 40 nails and unidentified iron fragments, as well as coal, pipe stems, bone, glass and a button. Together, cxs. 62 and 64 were about 20 cm thick. The southwest corner of the unit in cx. 64 appeared to be a different soil; it was sandier and a bit more orange so that it was assigned a different context, 67, while the rest of the unit continued to be excavated as cx. 71 within SC 4A. The latter continued to have high artifact frequencies (as did cx. 62 and 64), including ceramics, metal (including 21 nails), and some brick, glass and a pipestem. It also contained many pebbles. The artifacts in this stratum cluster included whiteware, with some transfer-printed in the willow pattern, and pearlware, and were similar throughout and supported the interpretation that this layer was fill that was deposited for the construction of the park. The presence of so many nails suggests the possibility that houses with wooden components had been nearby and had been torn down during park construction. The Sage map (1856) shows two structures that could have been the source of these materials, one a shed belonging to Sally Wilson and the other, the house of Philip Dunn (**Figs. 2.11; 2.13**).

The trench fill in the southwest corner of the unit (SC 4B; cx. 67) was different from the rest of the unit in that it was softer than the overlying and adjacent soil. It contained an unusual amount of mortar which changed the texture but the color continued as dark yellow-brown sandy silt with pale brown mottles. It also contained ceramics and metal, and some glass and brick. And there were some atypical, highly weathered rocks, almost burnt looking. The southwest corner of the unit was excavated 14 cm down, and then another context was opened (cx. 74) and expanded to cover the entire unit, at about 81-95 cm below ground surface; it was taken down another approximately 10 cm. The soil was again a dark yellowish brown clayey sand. At the bottom of this stratum, in the southwest quadrant, a red terracotta clay drainage pipe appeared, running from northwest to southeast **(Fig. 2.14 - Appendix A)**. The pipe and its trench were presumably part of the drainage system installed when the park was created**,** between 1858 and 1862 (Rosenzweig and Blackmar 1992:164-165) (SC 4B; cx. 74). Apart from the pebbles and mortar, there were few artifacts found in the trench fill. The stratigraphy shows that, as in TC W, the trench for the pipe was dug through part of the fill, and that the drainage pipe was installed after, perhaps shortly after, at least some of the fill had been put in place.
As the trench (SC 4B) continued (cx. 79, 80, 83), the pipe was fully exposed and it was decided to excavate only the southern half of the square as it was clear that the deposits above the pipe were all fill. The level was difficult to excavate because of the many pebbles scattered throughout. They were similar to the stones noted above, having a charcoal-colored core with a rust colored edge, and friable. Cx. 79 was excavated about 10 cm across the southern half of the unit until the pipe was clearly exposed. The soil was a light brown clay with mottles of darker yellow- and olive-brown. Cx. 80 also extended across the southern half of the unit and was

excavated about 20 cm down to fully expose the pipe; the soil was soft and mottled, with few artifacts, but different where the pipe trench (in the southwest corner) lay. The soil there was a yellow-red clayey silt whereas the rest was a hard sandy clay with pebbles. After another 10 cm, (cx. 83) it was clear that this was subsoil and excavation ended.

Douglas Blonsky, President of the Central Park Conservancy, identified the pipe as an original terra cotta Olmsted-era drainage pipe c. 1860. It was about 5.5 cm in diameter**,** with approximately 5 cm-wide terracotta bands at 30 cm intervals. Approximately 55 cm of pipe length was exposed. The Conservancy staff was very excited to see the pipe as many of them had not seen drainage pipes in situ. These pipes were laid in trenches 3-4 ft deep at 40-foot intervals (Rosenzweig and Blackmar 1992:164). As mentioned above, another similar terracotta drainage pipe was uncovered in TC W.

TC L and L Extension **(Profiles 2.18a and b - Appendix C)**

TC L, a one-by-one m square which ultimately had a 1 m x 75 cm extension added to it (see below), was placed in Transect 3 along the line of Selby's GPS coordinates from the 2004 soil corings. It was located 12 to 13 m east of Conyers' western Transect 3 baseline and 8 to 9 m south from the northern baseline for Transect 3. The ground surface at its northwest corner was 1.0401 m below the site datum. After the excavations had reached a depth of around 20 cm, the excavators uncovered a metal pipe which extended across the western part of the unit. The unit was then extended a half meter to the east to avoid any disturbance associated with the pipe. The function of the pipe was never determined. These excavations are discussed together below.

After the removal of the sod there were two humic layers, one a layer of dark gray sandy silt (SCs 1 and 2; cx. 122, 135) and an underlying one of light grayish brown sandy silt (cx. 127 and 138) which was noted as drier than the overlying layer. Together, these totaled around 10.5 cm in thickness. Below them were several layers of what appeared to be park-related construction fill (SC 4A). The uppermost one in the western part of the unit was a yellowish brown sandy silt with very dark grayish brown mottles (SC 3; cx. 132). It was in this layer that the excavators discovered the metal pipe extending across the unit from the south to north walls. Although there was no indication of a trench, we feared that this part of the unit might have been disturbed, so we opened a .75-by-one m extension to the east of TC L (TC L Eastern Extension) which was eventually combined with the eastern 25 cm of the original TC L to make a new one-meter square.

After the removal of the humus, which was 11 to 13 cm thick in the TC L East Extension unit, the soils were similar to those in TC L and consisted of a layer of yellow brown sandy silt (cx. 140, 143) 15 to 20 cm thick which was underlain by a stratum of dark yellowish brown sandy silt (cx. 147, 148, 151, 153), which was 20 to 22 cm thick. The TPQ for the artifacts from these layers is derived from sherds of Rockingham-like ware (cx. 140) and flow blue (cx. 143), both introduced in the 1840s (MAC Lab 2015 a and b), and both consistent with the period when the fill was put in at the time of the park's construction. We therefore interpreted these layers and all the contexts from 140 to 153 as being part of the fill that was deposited there as a part of the construction of the park (SC 4A). These layers were underlain by yellow mottled sandy silt with clay-like intrusions (SC 7; cx. 154), which appeared to be natural subsoil and which contained no temporally diagnostic artifacts. The latter became culturally sterile with depth. It was excavated to a depth of 55 to 60 cm bgs. Then a shovel test was placed in the northwest corner of the unit; it was excavated an additional 50 cm (cx. 157). The soil continued unchanged until that depth.

<u>The Shovel Tests in Transect 3: STs 1-3, and 5</u>

A series of shovel tests (STs) was placed in Transect 3 (**Fig. 2.8 - Appendix A)**, on a line close to a transect of soil borings placed by Suanna Selby in 2004 which had yielded a number of 19th century materials including "iron nails, brick fragments, [a] pipe stem, pieces of bone, large fragments of transfer printed ceramics, glass, and abundant charcoal flecking" (Selby 2005:33). These were mostly in an ashy matrix that Selby identified as a possible E Horizon, a leached soil horizon that generally occurs between A and B Horizons (Selby 2005:34-35). Alternatively, Selby noted that the layer might be an anthropogenic deposit such as a builder's trench or fill added as part of the park's construction (Selby 2005:35). Two of the shovel tests placed in this area did have an ashy layer in them but there were no artifacts found associated with them. It seems more likely that that layer was simply part of the fill from the park's construction, and less likely an anthropogenic deposit associated with Seneca Village.

Each shovel test was excavated and recorded as one catalog number. The soils were differentiated by color and texture by the excavators, and their depths were recorded as soils changed.

ST 1 was 6.3 m east of the grid west baseline and 4.2 m south of the grid north baseline; it was excavated as cx. 166. No opening elevations were recorded.

Stratum I was humus, from 0 to18 cm bgs.

Stratum II, from 18 to 27 cm bgs, was a grey brown sandy silt, perhaps, in parallel with nearby test cuts, park construction fill.

Stratum III, a light yellow-orange sandy silt, was excavated from 27 to 53 cm bgs, again in parallel with other test cuts, perhaps the beginnings of the subsoil.

Stratum IV, from 53 to 64 cm bgs, was slightly lighter in color than Stratum III, and was described as moist, and able to form a ball.

Stratum V was a yellower sandy silt than Stratum IV, and able to hold a ball, suggesting some clay admixture. It was excavated to 67 cm bgs.

No artifacts were recovered in the shovel test.

The shovel test was closed because it became too deep to continue work in and was deeper than the depths at which Selby recovered artifactual material.

ST 2 was 3.75 m east of ST 1 and 3 m south of the grid north baseline. The shovel test was excavated as cx. 171.

Stratum I was a dark brown sandy silt, humus layer, dug to 17 cm bgs.

Stratum II was a light orange silt, soft in texture. It was excavated to 23 cm bgs, at which point a metal pipe was encountered and the test was closed.

Within these two levels a number of small metal pieces (possibly snaps), 4 pieces of glass, a pull tab, numerous small brick fragments and one long metal piece (a possible hairpin), were found. Nothing recovered in the test definitely dated to the 19th century.

ST 3, excavated as cx. 172, was 3.2 m east of ST 2 and 1.75 m south of the northern baseline.

Stratum I, excavated to 16 cm bgs, was a greyish brown sandy silt, probably humus.

Stratum II, from 16 to 37 cm bgs, was a dark yellowish brown silt, possibly an ashy layer. This layer seems to represent fill, in common with other units nearby.

Stratum III was excavated from 37 to 52 cm bgs, and was a yellow-brown silt that clumped easily and had a number of pebbles in it. We believe that this was the beginning of subsoil, as seen in ST 1.

Stratum IV ended at 61 cm bgs, and was a darker yellow clayey silt.

Artifacts recovered from this shovel test included small pieces of glass and badly worn and unidentifiable ceramic sherds, small brick fragments, two pennies (dates of 1980 and 1985), three nails and a piece of plastic. Nothing recovered suggested a relationship to Seneca Village.

ST 5, excavated as cx. 176, was 3 m east of ST 3 and 1.25 m south of the grid's northern baseline.

Stratum I, dug to 14 cm bgs, was fine and powdery (ashy) sandy silt, and likely to have been a humic level.

Stratum II went from 14 to 26 cm bgs and was yellow-brown in color, a sandy silt which contained some coal fragments; as such we suggest it was a fill layer.

Stratum III, from 26 to 36 cm, was an orangey-brown clayey silt that became slightly darker with depth. Its texture changed from compact and pebbly to softer and easier to trowel. This stratum, as well as the succeeding two strata, seemed to be grading into subsoil.

Stratum IV was excavated to 47 cm bgs. It was a dark orangey clayey silt, with the northwest corner mottled with lighter orange and the southeast corner showing a still lighter mottling.

Stratum V, from 47 to 53 cm bgs, continued as clayey silt, yellow-brown in color.

Stratum VI was only excavated for one more cm, to 54 bgs. It was an easily troweled soil similar to the overlying strata.

The entire shovel test contained very little cultural material. The only datable artifact was a small fragment of blue on white transfer printed ware.

As mentioned above, it seems as though the possible E Horizon that Selby encountered was not in fact an E Horizon. And although it does appear to be anthropogenic in origin, it apparently is not related to Seneca Village. Instead, it seems to be more of the fill related to the construction of the park (SC 4A) after the destruction of the village.

Part 4: Pinetum South, Transect 4, and the African Union Transect

<u>Pinetum South</u>

TC H and H Southeast Extension **(Profile 2.19 and Planview 2.19 - Appendix C, D)**

The one-by-one m Test Cut H was located in an area called the Pinetum, across the bridle path and to the east of the other areas tested (**Figs. 2.1 and 2.15 - Appendix A)**. The GPR indicated the presence of a round shaft-like feature, possibly a privy or cistern, which led us to place an excavation unit there. To our surprise, the round feature turned out to be a catch basin with manhole cover. The northwest corner of the test cut was 3.6433 m below the site datum.

The sod and its very dark brown root mat (SC 1; cx. 87) were very moist, contained many worms, and were covered with a 2 to 6 cm layer of leaves. It was dug to 2 to 4 cm bgs. Below the organic leaf/sod level, a humus layer (SC 2; cx. 88) was quite different from that above; it was 11 to 15 cm thick and consisted of dark brown silty sand which contained a 1987 nickel, a Budweiser bottle cap, many pieces of glass, a piece of plastic wrapping, a few ceramics and some other materials consistent with recent deposition. At the bottom of this layer a manhole cover was exposed at about 15 cm bgs (**Fig. 2.16a - Appendix A)**. Since only a quarter of the cover was exposed, we then extended the test cut 50 cm to the east and 50 cm to the south in order to expose the entire cover. This created a unit that consisted of two one by one m squares that interlocked by a quarter meter at their southeast and northwest corners, respectively, similar to TC O.

The southeast extension of TC H was excavated to 10-12 cm bgs (SC 1; cx. 90, 96). We notified the Central Park Conservancy of the manhole cover and Raymond Duggan came to examine it and investigate the catch basin. It appeared to have pipes inside leading to the north, east and south. On the cover were two letters, an interlocking B and S, legible only after cleaning **(Fig. 2.16b - Appendix A)**. These letters apparently refer to the Bureau of Sewers, which was placing those initials on manholes ca. 1919 (New York City 1919).

No further excavation was done within the extension of TC H, but two more levels were dug in the original unit to see if a ground surface could be detected. The next layer was a 10 cm thick stratum of yellow brown silty sand, and it appeared to be fill associated with the construction of the catch basin (SC 3C; cx. 100). The soil of the underlying stratum (SC 3C; cx. 106) was darker in color than the overlying soils and was excavated to 38 to 40 cm bgs. Both of these strata, apparently associated with the installation of the manhole and catch basin, contained a mixture of 19^{th} and 20^{th} century materials, including pieces of plastic from both strata, indicating that the catch basin had been installed in the 20^{th} century.

Two shovel tests were also excavated in the northwest and southwest corners of TC H. The southwest corner test was excavated to 86 cm bgs. No ground surface was located, and the excavators did not indicate that they had reached subsoil. The excavators did not record data on the other shovel test; they apparently had dug down through the trench that had been dug to hold the catch basin.

Transect 4

Two test cuts, TCs I and J, were placed in Transect Four **(Fig. 2.17 - Appendix A)**, the most southerly excavation area at the site. The GPR had picked up reflective objects there that suggested a midden or other cultural feature, but no structures were recorded near either of them on the 1856 Sage map.

TC I **(Profiles 2.20a and b - Appendix C)**

TC I was the southernmost of the two units excavated in Transect 4. It was a one-by-one m unit, quite close to the transect's southern boundary, and its southwest corner was 5 m west of the transect's eastern border **(Fig. 2.17 - Appendix A)**. It was on a slope that grades from higher ground on the west to lower on the east, and it lay in the southeastern part of a basin between higher rock outcroppings. The northwest corner of TC I was 3.424 m below site datum. The unit was characterized by a number of separate layers, mostly marked by color changes, and the majority of them, except the sod and humus, were fill, presumably associated with park construction. An artifact-rich layer of strong brown and grayish brown clayey silt sitting atop subsoil about 42 cm below the present-day ground surface might have been a buried A Horizon associated with the habitation of the village and its demolition.

The sod layer (SC 1; cx. 94) was a very dark colored soil, about 3 cm thick, with lots of little roots that made it hard to screen. It contained some glass and ceramics as well as plastic and bottle caps. The humic layer (SC 2; cx. 95), made up of black sandy silt, was approximately 8 cm thick and contained glass, brick, metal, a plastic wrapper, a 1964 penny, and a pop top pull; this was clearly a modern accumulation of humus.

Beneath the humus lay several layers of fill which were apparently deposited at the time of the park's construction (SC 4A). The uppermost layer, seen during excavation but not visible in the profile, was a dark grey-brown clayey silt with black mottles (cx. 97) from the overlying stratum. It was 7 to 12 cm in thickness and contained a considerable number of small fragments of coal, glass, and ceramics (including a piece of sewer/utility terracotta pipe or a brick, stoneware, and transfer printed whiteware). The soil in the next layer (cx. 98) was quite different, a dark yellow-brown clayey silt. It was close to 10 to 15 cm thick and contained ceramics, metal, coal, brick, glass and quite a number of fist-sized and smaller rocks. The final layer (cx. 103) was composed of soft and easily dug strong brown clayey silt with grayish mottles and many tree roots. It contained small fragments of glass, coal, brick, metal, and ceramic. The ceramics in these three layers of SC 4A fill were similar to one another and consistent with filling during the construction of the park.

The next layer, which was about 15 to 20 cm thick, was the possible buried ground surface (SC 6A; cx. 104). It was yellow-brown sandy silt, mottled with a darker and greyer soil, and it contained one large piece from a large stoneware storage jar and several other kinds of sherds, mostly lying flat.

The next layer of material also may have been associated with the village (SC 6A; cx. 109, 113); it was a yellow-brown silty clay, about 10 cm thick and extended from about 47 to 57 cm bgs. Tree roots continued in the southwest corner, and artifacts recovered included metal, ceramic, ironstone/ white granite, brick, and glass. These artifacts were smaller in size than in the upper layer of SC 6A, possibly indicating that this was a surface that had been regularly walked upon and used by the village's residents.

The possible buried A Horizon (SC 6A) ended with a soil change about 57 cm bgs to sterile subsoil (SC 7; cx. 116). The subsoil was a mixture of multicolored silty sand and sandy clay. As in other areas of the site, the color of this subsoil ranged from yellowish brown to light brown gray to strong brown to reddish brown. A shovel test excavated in the northeast quadrant, followed by an auger test in the center of the shovel test, ended at 165 cm bgs. This material was part of cx. 116. No separate context was established and no artifacts were recovered. After a weekend of heavy rain, the test cut was found to be flooded, likely indicating the near presence of bedrock, which prevented the water from draining deeper into the ground.

TC J **(Profiles 2.21a and b - Appendix C)**

TC J, whose northwest corner was 2.5028 m below the site datum, was the second (and final) unit placed in Transect 4. It lay to the north of TC I. Its southwest corner was located 6 m west of the transect's eastern border and 17 m south of its northern border, just west of the bridle path **(Fig 2.1- Appendix A)**. It was designed to ground truth the possibility of an artifact concentration identified in the GPR survey and to excavate a sample of it, if warranted. Some of the soil in TC J was not screened because we had a temporary shortage of screens. This test unit also contained a great deal of gravel and mica that made screening difficult and time consuming. This meant that some of the dirt was excavated by trowel with artifacts removed as they were found, and excavation was slow. The soil from cx. 125 and 130 was not screened, and cx. 133, a shovel test excavated at the bottom of the unit, was similarly not screened.

The sod (SC 1; cx. 101) was a brown sandy silt containing a 2007 penny and other modern materials. It was about 3 cm thick and was followed by a dark grey-brown humus (SC 2; cx. 105) which contained pieces of slate and quartz and contemporary material (a plastic cup and a pull-tab, for examples). It was about 4 to 6 cm thick and ended due to a soil change.

As in TC I and most other test units, the next stratum cluster consisted of layers of fill associated with the creation of the park (SC 4A). The first (cx. 107, 110) was a yellow-ish brown sandy silt with many small schist pebbles and coal, glass, brick, and some ceramics, notably redware and annular/ dipt whiteware. The level was excavated to a depth of 28 cm bgs where a darker yellow-brown soil was found. A TPQ of the 1820's pertains to this stratum based on whitewares (Brown 1982). The next stratum (cx. 115, 119, 120) was described by the excavators as more compact than the soil of the overlying layer (cx. 107, 110), and sticky. There were many roots in the southwest corner. The deposit contained coal, brick and in cx. 119 and 120, annular/dipt whiteware, yellowware, transfer-printed whiteware and molded ironstone/ white granite, the latter of which provides a TPQ of 1840 (Brown 1982), and this deposit was thus consistent with park-related fill. It ended at 44 cm bgs with a new stratum. Continuing down (cx. 125 and 130), the soil was lighter in color than the overlying layer, with roots throughout. Excavation continued to 54 cm bgs. Artifacts in this level included coal, more than 10 ceramic sherds, including transfer-printed pearlware and whiteware, yellowware, ironstone/ white granite and redware, 2 nails, a pipe stem and a few pieces of glass. The date of this assemblage was again consistent with the fills described above. As the soil became sandier, it was decided to excavate a shovel test in the southwest corner to search for a sterile layer. The test (cx. 133) went to 64 cm bgs and we continued to find artifacts throughout. It seems that the fill was much deeper here than in the area of TC I, where we encountered the buried A Horizon beneath the fill at approximately 30 cm bgs. Two chaining pin probes in the reddish soil went another 8 cm below the shovel test and encountered bedrock. We did not encounter a convincing buried A Horizon in TC J.

<u>The African Union Transect</u>

The African Union Transect was laid out during the ground penetrating radar studies of the site (Conyers 2005, 2011) to see if traces of either the church or its burial ground were still extant. The radar picked up the presence of five possible burials in the transect.

ST 4

In addition, we placed a shovel test (ST 4, cx. 173) in the southeast corner of the transect, where maps showed there had been a house. The shovel test revealed a humic layer, 6.5 cm thick, underlain by orange brown silty sand, which was 11 cm thick, which in turn was atop a layer of more orange silty sand, which was 40 cm thick. Probing with a pin below that layer revealed the presence of bedrock at around 82.5 cm bgs. The shovel test yielded no cultural materials that were suggestive of Seneca Village.

Conclusion

In summary, the excavations were successful. Not only did we discover that parts of the village still survived as an intact archaeological site over a century and a half after its destruction in the 1850s, but also we uncovered some important features which allow us to more extensively investigate the village, the lifeways of its people, and finally its destruction, as the park was constructed. In the next chapter, we look at some of these features: the Wilson home (SC 6B-E); the buried A Horizon (SC 6A), and the fill that was associated with the construction of the park in the 1850s and 1860s (SCs 4A and 5), including the terracotta drainage pipes uncovered in TCs W and F. In addition, we discuss some of the artifacts that we retrieved.

CHAPTER 3: INTERPRETATIONS

In this chapter, we focus on interpreting particular aspects of the discoveries made during the excavations. Our goal is to synthesize the results from different test cuts and site areas and to interpret them to address issues broader than those that can be addressed through the discussion of a single test cut. We have divided the issues into two parts. The first part concerns features and landscape, including the possible buried A Horizon; the mid-19th century topography in Transects (TR) 3 and 4; the construction, occupation and demolition of the Wilson house; and the question of yard sweeping in the Wilsons' yard. The second part concerns the artifacts found in various strata clusters, including those from the fills found throughout the site, in the possible buried A Horizon, and from the Wilson house.

Part 1: Features and Landscape

The Possible Buried A Horizon (TR 3, TR 4, and All Angels')

Possible buried A Horizons were discovered in thirteen of the units at the site: TCs D, E, G, K, O, P, Q, T, U, and V in TR 3; TC I in TR 4; and TCs N and S in All Angels'. The soils in these buried A Horizons were all in various shades of brown, ranging in color from brown to dark brown to strong brown to yellowish brown to grayish brown to light olive brown and in texture from sandy silt to clayey silt. They ranged from 2 to 20 cm in thickness.

As mentioned in Chapter 2, we considered several criteria in identifying a soil stratum as a buried A Horizon. By and large, most important was the presence of a darker organic layer on top of a buried B Horizon, which tended to be lighter and more compact (Selby 2005:22). Furthermore, this stratum might exhibit the presence of artifacts oriented so that their axes were parallel to the surface of the buried A Horizon. The size of artifacts was not, however, a deciding factor in a case like Seneca Village. There, the pieces of glass or ceramic might be quite small, from having been trodden on over a period of years, or they might be in large fragments sitting at the top of the horizon, from things that were broken and/or discarded at the time of the villagers' removal. These larger fragments were then covered relatively quickly with layers of fill as part of subsequent park construction. Additionally, there might be a great number of artifacts, if the houses or activities of villagers were located nearby, or there might be relatively few, if there were no villagers living in the immediate area. There was also an additional factor that had to be considered in identifying buried A Horizons, and that was the practice of yard sweeping. We discuss yard sweeping and the criteria for recognizing it below.

In general, buried A Horizons are important in terms of what they can tell us about the past. They can inform us about the topography in the area where they were uncovered; they can tell us about cultural practices such as yard sweeping; the artifacts they contain can tell us about the activities that were performed where (or near where) they were found; and the botanical and zoological traces can often tell us about the environment where they were found when they were laid down as well as about the kinds of plants and animals exploited by the site's inhabitants. The buried A Horizon at the Seneca Village site did offer us glimpses of each of these things.

Mid-19th-Century Topography

Before the park was created, surveyors working under Edgar Viele, Engineer-in-Chief for the park's construction, reported on the topography of their designated areas of study in the park. Viele himself noted that, in general, the whole park area sloped from west to east. Norman Ewen was the surveyor responsible for describing the topography in the Third Division of the park, which included the Seneca Village area (Ewen 1857). Ewen describes the village area thus:

> The surface of the land from Eighty-eighth to Eighty-sixth streets, between the Sixth and Eighth avenues, partakes of a gradual rise. The …ground, lying between Eighty-fourth and Eighty-fifth streets and the Seventh and Eighth avenues, presents a gradual uniform grade.[22] There is a slight declension, northerly, of the latter street, between said avenues, extending to Eighty-sixth street, the surface of which is, with few exceptions, mostly composed of rock. Southerly from Eighty-fourth street, and between said avenues the surface takes a precipitate rise and is composed mostly of rock, on the summit of which is the highest or greatest point of elevation in my division…and is situated between Eighty-third and Eighty-fourth streets, and distant about one hundred feet easterly from the easterly line or side of the Eighth avenue. (Ewen 1857:65)

Unfortunately, in addition to not mentioning the built environment, this report is very general. It basically says that the land rises between 88th and 86th Street, falls between 85th and 86th Streets, is relatively level between 84th and 85th Streets, and then rises precipitously to Summit Rock, the highest point in the park, south of 84th Street. Furthermore, he notes rock outcrops between 85th and 86th Streets and "mostly" rock south of 84th Street. But there is what appears to be a major error. He notes that Summit Rock is located between 83rd and 84th Streets, 100 feet to the east of the east side of Eighth Avenue, whereas today and on contemporary maps (Viele 1856; Sage 1856) it is located a block south, between 83rd and 82nd Streets, and directly abuts the east side of Eighth Ave. Although the topography inferred from the archaeological study covers a very small area, is does allow us to see the topography of that part of the site in great detail, and at a much finer scale.

The Topography in Transect 3

Eight units in TR 3 provide information about the topography of the area in which they were located before the creation of the park. The depths of the buried A Horizon layer below the site datum show the slope in that area of the site during Seneca Village times and allow us to compare it with that of today. At present the ground slope in the northern section of TR 3 is less steep than it was during Seneca Village times. Today, at the northwest corner of TC O, the northernmost unit in TR 3 where the buried A Horizon was found, the modern ground surface is about .05 m below the site datum (bsd). It slopes downward to the south so that at about 9.8 m in that direction (at the northwest corner of TC V) the ground surface is over a half meter (.64 m) bsd, a slope of 3 degrees. The buried A Horizon, on the other hand, also slopes to the south, but somewhat more precipitously. At TC O it is about .6 m bsd, but at TC V, 9.8 m to the south, it is 1.34 m bsd, a slope of approximately 6 degrees. All in all, the top of the buried A Horizon ranges from a half meter lower than the modern-day ground surface (at its northern end) to .7 m lower (at its southern end). With the obvious exception of levelling out some of the more precipitous slopes, these figures suggest that there was relatively little earth movement, such as filling or grading, in this part of the park during its construction. This interpretation is supported by the shallow depths at which the buried A Horizon and other features related to the village were found.

During the period of the occupation of the village, most of the buried A Horizon we uncovered in TR 3 was located in the backyards behind two houses on the south side of 84th Street. The house and yard furthest to the west, which was explored in TCs O, P, Q, U, and W, was described by Gardner Sage in his *Central Park Condemnation Map* (1856) as a two-story frame house with a basement, an ell extension, and a large, 37 by 23 feet, footprint **(Fig. 2.11 - Appendix A)**. It was one of the more substantial houses in the village, having been valued at $3000 in 1850 (USBC 1850), when it was owned by Nancy Moore. By 1855, Moore had died; her estate still owned the property and George and Eliza Webster were tenants in the house, where they lived with their children (NYSC 1855 - **Appendix I**; Sage 1856).[23]

The next house and yard to the east, where TCs D/K, G, and V were located, were occupied by a young couple, William Philips, a 23-year-old laborer, and his wife Matilda, aged 19. Both had been born in New York (NYSC 1855 - **Appendix I**). Their house was described as a "shanty" on Sage's map (1856), and was much smaller and less substantial than their neighbors' **(Figs. 2.13 and 3.1 - Appendix A)**. Its footprint was 11 by 14 feet, and it did not have a basement. According to the 1855 NY State Census (**Appendix I)**, the property was valued at $500 in that year.

The Topography in Transect 4

We excavated two units in TR 4, TCs I and J, and recognized the buried A Horizon only in TC I. We think that this was because of the topography of the area. TR 4 was located in a basin, and TC J was located closer to the middle of the basin while TC I was at its southern end, where the ground sloped upwards. There, in the area of TC I, the buried A Horizon was encountered at a depth of .42 m bgs, or 3.844 m below the site datum. In TC J, however, it is possible that there was a buried A Horizon undetected either in the shovel test that extended the excavations down to 68 cm bgs or in the 8 cm below that which were explored with chaining pins between the bottom of the shovel test and what appeared to be bedrock. Artifacts continued to turn up in the soil down through the shovel test, suggesting that the fill that was added at the time of the park's creation (SC 4A) was unusually deep. (TC J was also unusual in having a high concentration of small micaceous fragments of the local schist, possibly deposited there in the form of rock fragments by the park construction crew to aid drainage.) It makes sense that the buried A Horizon was buried much more deeply here, toward the center and presumably the deeper portion of the basin, than in the area of TC I, towards its southern edge.

Neither of the properties where these units were located had been developed, and there were no houses nearby. This was perhaps because the ground lay so low in this area, and might have been subject to flooding. In fact, while we were excavating, TC I was badly flooded after a weekend of heavy rain.

The Wilson House in All Angels'

Test Cuts A, B, C, M and R were all at least partially within the Wilson house and shared fairly consistent stratigraphy. When considered together along with TC S (outside the foundation wall), the stratigraphy of each of the test cuts in the All Angels' area suggests the following narrative for the construction and demolition of the Wilson house.

House Construction and Occupation

All Angels' Church opened to the congregation in 1849 (Rosenzweig and Blackmar 1992:72). The Wilson house, where the church sexton lived, is first listed in the tax records in 1852, suggesting it was built sometime between 1849 and that year. Unfortunately, we do not have tax records for this property for 1850 and 1851.[24] According to Sage (1856), the house was a three-story frame structure measuring approximately 21 by 20 feet. The 1855 NY State Census (**Appendix I**) reported that it was valued at $900 in that year.

The bedrock in this area is only a few feet from the ground surface and seems to have provided a good base upon which to build the foundation for a house. The foundation wall excavated in TC A (SC 6E), for example, rested on the bedrock (SC 8) at a depth of about 88 cms bgs. The test cuts within the interior of the house (TC B, C, M, and R), furthermore, all contained indications of bedrock at a similar depth (ranging from 80 to 85 cm bgs), indicating that the builders chose a naturally flat area of the bedrock to build the house upon.

In order to construct the house, the builders first dug a trench to build a stone foundation wall. This foundation was composed mostly of local schist mortared together. The excavators noted that there were larger stones on the bottom and smaller ones on top. The builders also used broken bricks and river stones, in other words, whatever was at hand, to do the job **(Fig. 3.2-Appendix A)**. Given the large number of displaced stones the crew uncovered in TCs A, B, C, and M, it appears that builders extended the foundation wall a foot or more above the Seneca Village ground surface (creating a "stem wall") and then topped it with the wooden frame structure of the house. According to a contemporary map (Sage 1856), the house was "frame" and thus presumably made of wood, like most of the other houses in the village. Some flat colorless glass fragments were found, suggesting the house may have had glass windows.

The more than 70 bricks (many with plaster and/or mortar still attached) uncovered in TC R (SC 6B) indicate that the Wilsons' house had a red brick chimney, which was plastered in white on at least one side **(Fig. 2.7 - Appendix A)**. None of the bricks had makers' marks. Allan Gilbert (pers. comm. 2011), who has expertise in historic bricks, confirmed that local brick makers generally did not mark their bricks in the 1850s, and that the bricks appeared to be locally made, based on their color, uneven firing, and generally mediocre quality.

The many thin and rusting iron sheets found lying on top of one another in TCs B, M, and R **(Fig. 3.3 - Appendix A)** suggest the Wilsons' house or a portion of the house (such as an attached shed, although none was indicated on the Sage map) had a metal roof. The remains of these sheets ranged in size from tiny fragments to large joined pieces that spanned a 50 cm by 100 cm test cut extension (TC M). They were extremely friable and difficult to excavate without fracturing them into tiny pieces. The sheets appear to have been flat, not corrugated, and composed of rectangular sections measuring at least 20 by 24 cm that were joined together with flat seams. Some of these seams appear to have been reinforced with lead, perhaps for waterproofing purposes. Some of the sheets had rolled edges covering a solid iron cylinder or "wire" approximately 3 or 4 mm in diameter. Other edges were folded **(Figs. 3.4 and 3.5 - Appendix A)**. It is likely that these are the remains of tinplate roofing.[25]

According to Gayle and Look (1992:12), tin-plated iron roofing was popular in 19th century, especially in urban areas where it replaced wooden shingling. It was used for both public buildings and private homes. Compared to wooden shingles, tinplate had the advantages of being lightweight, durable, and fire resistant. It was also resistant to corrosion. Uncoated or untreated iron would not be a practical material for roofing, as it would begin to corrode virtually immediately. It is likely that Wilsons chose to invest in a tin roof because of its advantages. The fragments of possible roofing we uncovered in the test cuts associated with the Wilson house are consistent with tinplate roofing in color, size, shape, and joining techniques.[26]

Since no packed living surface was discovered in the test cuts inside the foundation walls (TCs A, B, C, M, and R) and many small nails and tacks were found, it is likely that the house had a wooden floor**,** although only a few wood fragments were recovered from the site. (As discussed below, it is likely that the wooden floor was salvaged sometime before the house was demolished.) Small items found in the deepest culturally significant layer (SC 6D) in TCs M and R (and possibly B and C), such as clothing eyes, nails, and fish bones, presumably fell between the floorboards when the house was occupied. In Part II we discuss these finds in more detail.

Demolition

At the time of the removal of the villagers, likely sometime in the summer or fall of 1857 (Marie Warsh, pers. comm. 2018), All Angels' Church was moved from its 85th Street site in Seneca Village to today's West End Avenue between 80th and 81st Streets, and the Wilsons moved nearby (USBC 1860). After the Wilson's eviction, their house was demolished in preparation for the construction of the park.[27] Since very little wood was found, it is likely that the wood frame and floor of the house were taken to be reused (perhaps even by the Wilsons themselves or by the park construction crew) or disposed of elsewhere. The Central Park Annual Reports suggest that some residents might have salvaged portions of their (former) homes, that the Board of Commissioners sold some homes after they were vacated (and they were subsequently moved elsewhere), and that the park construction crew salvaged wood from some structures and incorporated it into park structures (Marie Warsh, pers. comm. 2018). Similarly, the relatively small number of flat glass fragments found implies that window glass too was salvaged or sold.

Our excavations suggest that demolition involved pushing some of the stone stem wall and brick chimney into the interior (and now floorless) cavity of the house. Next, the metal sheets (which were likely roofing) were thrown in on top, covering the initial rubble and objects that the Wilsons had left behind inside the house (SC 6C) as well as smaller objects at a greater depth that had fallen through the floorboards during the Wilsons' occupation of the house (SC 6D). More demolition followed, involving dumping more brick and foundation stones on top the metal sheets, along with other objects that may have been left in the Wilsons' yard (SC 6B).

Further filling and grading were necessary to smooth the area, so the park construction crew presumably used soil from the surrounding area for this purpose. According to Selby (2005:19), additional soil from other areas of the park or even from New Jersey and/or Long Island was brought in to fill low-lying areas, as needed (SC 4A). However, our analysis of the fill in All Angels' (as well as in TR 3 and TR 4) suggests that it was of local origin, as will be discussed further below. The SC 4A fill layer is significantly lighter and yellower in color and looser in texture than the levels below it. It is likely that some artifacts found in this fill (SC 4A) were from the Wilsons and their neighbors, although these artifacts were no longer in situ. Above this level is a layer of humus (SC 2) which was created by natural soil formation processes over the last 150 years and contained artifacts dating to the late 19th and 20th centuries that were left behind by visitors to Central Park. The sod layer (SC 1) is the modern-day ground surface, composed of grass, weeds, and their root mats, etc., and containing objects left in recent times by park-goers.

In summary, five of the strata clusters (SC 6A, 6B, 6C, 6D, and 6E) almost certainly contain material used by the Wilson family. SC 6E is the remaining in-situ fabric of the house itself (the foundation wall) and its builders' trench. SC 6D contains small objects that likely fell through the floorboards of their home. SC 6C also contains Wilson-related material that was sealed in by metal sheets in several test cuts. SC 6B contains material associated with the demolition of the Wilsons' house: architectural materials and artifacts likely originally used by the Wilson family and possibly their neighbors. SC 6A is the buried A Horizon (the Seneca Village-era ground surface). Above the Wilson-associated layers, SC 4A is fill from the construction of the park which cannot necessarily be connected to the Wilson family. The sod and humus layers (SCs 1 and 2) contain items left behind by visitors to Central Park over the course of the last century and a half.

<u>The Buried Ground Surface in All Angels' and Transect 3: Yard Sweeping?</u>

Yard-sweeping is a custom that has been practiced in West and West Central Africa (where most of the enslaved people in the United States originated) and throughout much of the African diaspora (Heath and Bennett 2000). This custom stands in stark contrast to the neatly manicured, grass-covered lawns which were adopted by the White middle class in the 19th century. For many African Americans, yards were extensions of the house, an important part of "homespace" (Battle-Baptiste 2011:94), and were swept to clean them of rubbish and weeds and discourage the presence of insects and snakes.[28] People used their yards for a variety of purposes, including producing and preparing food and other domestic chores, taking care of animals, playing and recreation, and socializing. In addition, they were "locations for spiritual and artistic expression," including rituals to remove dangerous spirits from the home (Heath and Bennett 2000; Battle-Baptiste 2011:96; Barton and Orr 2015 202; the quote is from Heath and Bennett 2000:43). In some African cultures they were also the loci for the burial of those who had lived in the adjacent houses. Once we realized that the site contained a possible buried A Horizon, we wondered whether or not Seneca Villagers swept their yards, although we realized that yards might not be suitable for use as "homespace" in northern climes throughout much of the winter.

Buried A horizons that have been swept have a somewhat distinctive appearance. First, soils in the buried A Horizon of swept yards are different in "structure, hue and/or compaction [in]…the areas around houses" as opposed to those in surrounding areas (Barton and Orr 2015:200). There should not be a darkened buried humus layer, because sweeping would have removed most of the vegetation that would have contributed to the formation of such a layer. In addition, there should be few of the small artifacts usually found in buried A Horizons, because these would have been swept away (Barton and Orr 2015:200-201).

We encountered two test cuts where it looked possible that yard sweeping may have been practiced: TCs S and N, both in the All Angels' area. TC S provided stratigraphic characteristics which suggested that it might have resulted from yard-sweeping: the layer in question was more compact and lighter than the layer above. In addition, both it and the corresponding layer in TC N had a very light density of artifacts – TC N, with a density of 62.5 artifacts/m^3 and TC S with a density of 133.3 artifacts/m^3. For the most part, the paucity of artifacts in these units was approached only by test cuts that were quite far from where people were living at the site and were still quite a bit higher than those in TCs S and N (TC I at 314.3 and TC E at 533.3 artifacts/m^3; **Table 3.1 - Appendix B).** The lack of a high density of artifacts might easily be explained for TC N – it was located in the footprint of a house that was next door to the Wilsons' **(Figs 2.2b and 3.6 - Appendix A),** and therefore was exposed neither to the accumulation of artifacts nor to being swept. But location cannot explain the lack of artifacts for TC S; it was only about two meters to the east of the Wilson house in an area that was otherwise undeveloped.

This suggests that the Wilsons may in fact have practiced the custom of yard sweeping. And with a large family (ten people lived in the house in 1855 [NYSC 1855 - **Appendix I**]) living in a relatively small space (the footprint of their house was approximately 20 feet by 21 feet), albeit with three stories, it would have been extremely convenient to add the yard, to the east of the house, fronting on "Old Lane" **(see Fig. 3.6 - Appendix A)**, to the usable space at the family's disposal. It is also interesting that apparently the residents of the two houses located in the northern end of TR 3 (the Moore/Webster and the Philips houses) did NOT sweep their yards – none of the buried A Horizons there exhibited the criteria for identifying yard sweeping – and in fact the densities of artifacts in all of these layers were higher than 500/m^3 and ranged up to over 4000 artifacts/m^3 for three of the units (TCs O, P, and T; see **Table 3.1- Appendix B).** It is possible that this disparity in practices is related to yard location: yard sweeping was discovered in what appears to be the Wilson front yard, but not in the backyards behind the Moore/Webster and Philips houses. Perhaps people swept their front, more public, yards, but not their back ones.

<u>The Fill and Superficial Strata Above It</u>

The following is a descriptive and analytic account of several strata clusters (SCs) found across the Seneca Village site. First, we very briefly describe SCs 1 and 2 (sod and humus), and then SCs 3A, B and C, fill deposits which include material dating to the late 19th and 20th centuries. We believe these later features mostly relate to events in which part of the site was subject to reconstructive events after the park had been built.

Then we consider SC 4A and B, representing filling associated with the construction of the park, and also at the same time, the deconstruction of Seneca Village. In many cases, soil colors and textures are not the primary distinctive features in these analyses, as many of these are similar across the site and indistinguishable from SC 3 to SC 4. What distinguishes these strata clusters from one another are context (e.g., stratigraphic superposition) and datable artifacts. We mention some of the relevant time-sensitive objects from these clusters, and also present some quantified data, below.

In dealing with artifacts found in fills, we do not know what the relationship is between where the objects were found and their point of origin, since fill, by definition, is moved from one place to another, as it is needed. We assume that at least some of the objects were brought in with the fill. However, we also assume that, as much of the filling was done through human labor, there would have been a goal of moving as little earth as possible. Furthermore, we anticipate that as houses were razed and their contents leveled, fragments from the houses and their contents may have become mixed with the fill, especially in SCs 4A and 4B. Therefore, we might expect some correlation between the locations where artifacts were found in the fill and their original usage locations. For example, we would anticipate that nails/fasteners found in high densities in the fill might have originated in nearby houses when they were being disassembled. If this were the case, the highest density of these items would be found in test cuts close to structures. Ceramics, bottle or other domestic glass, and faunal materials may also in some cases be expected to correlate with particular locations in which they were used.

Strata Clusters 1 and 2

As noted above, SC 1 and SC 2 are deposits found throughout the site. Each represents current or very recent use of the park. SC 1 is the sod layer and SC 2 is the humus found just below the sod. There were artifacts found on top of or within the sod layer and within the humus. The humus is typically a dark brown to grey-ish brown sandy silt. The objects recovered in both of these strata clusters are often from the 20th and 21st centuries (bottle caps, pull tabs, cigarette butts, straws, food wrappers, coins, keys, plastic barrettes, etc.) along with a few 19th century (or possibly 19th century) things (such as coal, glass, iron fragments, an occasional button, or temporally non-diagnostic sherds such as redware). The thickness of these strata varied across the site between 5 and 12 cm.

Strata Cluster 3

We have divided the remaining material that is not associated with the Seneca Village occupation into two basic types that form two strata clusters, SC 3 and SC 4. SC 3 comprises some fill strata that contain both 19th and 20th century artifacts (SC 3A) and two features dating to the late 19th and 20th centuries (SC 3B and SC 3C).

SC 3A fill (a fill from a later period than that from SC 4) was only identified in TC G, cx. 72. It was brown to dark brown sandy silt, and 18-20 cm in thickness. It was similar in texture to the humus layer above it, but more orange in color; however, as mentioned above, its association with this strata cluster is based on the recovery of a small hollow toy lead soldier with a TPQ of 1893 (Collectors Weekly 2015). Other artifacts found in this context include whiteware, stoneware and other types of ceramics that could date to either the late 19th or early 20th centuries.

SC 3B refers to the top layer of fill in a feature for a metal pipe in TC L (cx. 132). This layer is described as a dark yellow-brown sandy silt with grey mottles. It was 8 to10 cm thick, had 14 sherds (distributed among 7 ceramic types), one Ceramic Vessel and a number (16) of bottle fragments (wine, soda, medicine and other); the density of nails/fasteners in the stratum was low (.09/ m^3). There were two deeper strata in this same test cut (TC L) that were relatively similar in color and texture, but were classified as SC 4A, based on the presence of ceramics that were consistently earlier (see below).

SC 3C is the soil we excavated around a manhole cover and its catch basin in TC H (cx. 100, 106). The excavated matrix is described as dark yellow-brown silty sand, and was about 18 to 30 cm thick. There were only a few artifacts in TC H; they were all relatively modern, and included plastic, showing that the basin was installed in the 20th century. As we mentioned above, the design on the manhole cover supports this interpretation **(Fig. 2.16b - Appendix A)**; the interlocking letters B and S refer to the Bureau of Sewers, which placed those initials on manholes around the year 1919 (New York City 1919: 4575).

Strata Cluster 4

SC 4 is found in almost every test cut. In contrast to SC 3, it comprises mid-19th century fill related to park construction and the probably simultaneous destruction of the village. It has two components, SC 4A, which includes these fills just noted, and SC 4B, which refers to those fills associated with the terra cotta drainage system designed by Olmsted and Vaux and put in place during park construction, but probably after some filling and house demolition had taken place, around 1860 (Rosenzweig and Blackmar 1992:164-165). These pipe trench fills (SC 4B) were found in two test units: TCs F and W (see below).

The colors of the soils in SC 4A are pretty consistently referred to as yellow-brown, or dark yellow-brown, or olive-yellow; some are said to be strong brown. The texture is most often sandy silt or silty sand, occasionally a clayey silt. Layer thickness varies between 7 cm and 32 cm, although the mean thickness is 15-16 cm. In a number of units (TCs N, L, O, E, F, I, P, Q, T, U, and V) there are two or more strata classified as 4A. They did not usually differ much in soil color or texture but were differentiated by depth. In general, these strata are similar to those excavated below the buried A Horizon, suggesting that most of the fill excavated was indigenous to the area.

There is a wide range of 19th-century artifacts found in these strata. These include metal objects (particularly nails and various forms of fasteners), brick, shell, bone, coal, glass fragments from bottles or unidentified vessels (mostly brown, green or colorless), buttons, pipes, and ceramics, including stoneware, transfer-printed whiteware and other earthenwares, such as Rockingham, flow blue, and annular/dipt ware. The transfer-printed sherds were predominantly a medium blue on white, in many patterns. All of these are consistent with the proposition that these materials were deposited as fill during the creation of Central Park.

Quantitative Analysis of Fill: Density

We conducted a quantitative evaluation of artifacts recovered in the SC 4A fills. First, we developed a measure of density for specific artifact types, including nails/fasteners, ceramics, curved glass, pipes, and fauna (**Table 3.2- Appendix B**). Its purpose was to see whether we could gain any information about where the filling materials came from. We wondered if the density of these particular types of artifacts would differ between units from All Angels' and TRs 3 and 4, and if proximity of units to known houses would have an effect on the quantities and types of materials recovered archaeologically. In what follows, we evaluate the results by artifact type within each area and then summarize our general impressions afterwards.

Most of the test cuts in the All Angels' area were within the foundation of the Wilson house (with the exceptions of part of TC A extension and TCs N and S). The concentration of artifact types (and thus the density) within the fill was not similar from unit to unit. Nail/fastener densities were quite different in TCs A and B versus those in TCs M and R, for example. They were very low in the latter (38.1 to 46.6 /m^3) and many times greater in TCs A and B (478.1-516.8/m^3).

With respect to nails/fasteners, it seems likely that the houses were torn down before filling commenced, and useable architectural materials, like wood and nails from the superstructure and floor, were salvaged or sold (see above). Many nails/fasteners, however, appear to have been overlooked or discarded. They likely became part of the fill in the All Angels' test cuts, when the park construction crew covered the foundation walls and interior cavity of the then-demolished Wilson house with soil from the surrounding area. Nails may have fallen into the interior of the house as the latter was being torn down, although some (in TC A) may have been outside the house on the ground. Some of this variation in nail/fastener density between the different test cuts in All Angels' might relate to where workers stood when they pulled down the houses, or where they were when they salvaged the wood and removed the nails, and how they subsequently moved soil from these work areas to cover the Wilson house and grade the area.

In light of the above, we would expect high densities of nails/fasteners in some test cuts close to houses in TR 3. TC D was very close to houses as seen on the overlay of the units on the Sage map **(Fig 2.11- Appendix A)**. TC D has the highest density of nails/fasteners of any test cut (3408/m^3). Its density is anomalously high, at 5 to 6 times higher than the next highest unit in that immediate area, TC K, which abuts TC D. The next highest nail/fastener densities come from TCs F, E, and L (1089-810/m^3). TC E was close to what appears on the map as a shed but

TCs F and L are quite far from that shed or any other structure. Therefore, our initial hypothesis about nails/fastener densities being the result of proximity to houses is only partially supported. (We discuss TCs F and L further below). At the other end of the scale, in TR 4 neither TC I nor TC J was close to a house, and both were low in nail density (TC J was 92.8 and TC I was 134.5/m^3).

Ceramics were more consistently present in the fill in the All Angels' test cuts. TC B had the highest ceramic density in its fill (based on sherd counts/m^3) of all All Angels' test cuts (628.6/m^3), while TC M had about half as much (331/m^3) and the other test cuts ranged from 106-157/m^3. When we excavated non-fill strata in TC B, we also encountered a high percentage of ceramics and some of this material might have found its way into the fill as the park construction crew demolished the house and moved the soil around.

We suggest that additionally there could well have been a number of ceramic sherds lying on the ground in much of Seneca Village, small discarded pieces that were the refuse of daily life in the village over decades and that became part of the fill during park construction. These could be viewed as "noise," that is pieces that have some connection to the village, but not necessarily to the people who occupied the houses at the time of the park's construction. Thus, densities far above or below the mean have the greatest potential of yielding information about past activity areas.

In the All Angels' area, the mean sherd density is about 270/m^3, therefore, the densities in TCs B (especially) and M were quite high, whereas those in TCs C and S were quite low. In TR 3, a much higher mean sherd density of 875/m^3 shows that TCs O, F, and D had larger numbers of sherds than the "noise" level, whereas TCs G, E, and SC 4B of TC F were low. Again, TC D is close to a house, as is TC O but F is not. Some of this difference could be explained by when each area was developed. Some of the houses in TR 3 were built in the 1830s, while the All Angels' area was only developed in the late 1840s. Thus we would expect more refuse in the area that had been occupied for a greater period of time. Additionally, we think the Wilsons swept their yard, which, of course, would result in a lower density of artifacts on the ground surface that could have become part of the fill, as we have described.

We know that TC F had a terra cotta pipe installed in it by 1858 or 1860 and so the higher artifact density there might be explained by a larger quantity of artifacts (ceramics and other types) included in the fill during that event, as the soil had to be excavated for the pipe and then reburied. The construction workers could have dug the trench and put all the soil back in it, all mixed up. TC L also contained a pipe and disturbed soil. A second possibility (for which we have little evidence except that we know the area was wet) is that there was a midden in this swampy area, where villagers disposed of unneeded materials – away from the houses.[29] If this were true, it could explain why so many artifacts were dug up and presumably put back into this trench by workers. And a third speculation occurred to us during the examination of the Viele map (1856) when we noted that there are what appear to be cultivated fields behind the houses associated with TCs D, K, and G; they are also adjacent to TCs E, F and L. It is possible that the planting, fertilizing from a trash midden, and manipulating (filling, dumping, rearrangement) of soil in these fields might have incorporated artifacts from areas adjacent to some test cuts.

Unfortunately we have no firm evidence by which to confirm or disprove any of these possibilities.

Tobacco pipes were mainly found in low frequencies in the fill. The highest densities came from the full-sized units TCs D, L and F. Again, TC D is the outlier, whereas the latter two had been disturbed by having a trench dug through them, which may have affected the presence of high densities of various kinds of materials. As noted above we wonder if there had been a midden in this area near TCs F and L or if gardening had resulted in the presence of more artifacts. Additionally, some of the tobacco pipe fragments in TCs F and L might have been deposited there by workmen, who might have smoked as they dug the trenches and laid the pipes.

Bottle and other curved glass was also extremely high in density in the TC D SC 4A fill of TR 3, as it was in the buried A Horizon in TC D, again highlighting TC D as an outlier. Test cuts L and F also contained curved glass densities greater than the average of about 466 m^3, most likely for some of the same reasons hypothesized above for relatively high densities of ceramic and tobacco pipe fragments in these test cuts disturbed by pipe trenches. Curved glass was relatively low in density in the fill in all of the All Angels' test cuts, with the exception of TC B, which was slightly above average. This scarcity of glass in the All Angels' fill mirrors a relative scarcity in the lower stratigraphic layers associated with the Wilson house (SC 6B-D).

Faunal densities in the fill were not available by taxon and element because we only gave the analysts bones from non-fill strata. Examining the quantities in the faunal database shows that their numbers were quite low, especially in contrast to densities of nails/fasteners and ceramics. They ranged from counts of no bones to a high of 4 bones and a tooth in TC O, so with such small samples any discussion of quantities seems foolish**.** Relatively high densities in the fill of TCs G and D probably relate to areas where there were high faunal counts throughout those test cuts and may represent bones or teeth that were left behind on the surface when filling occurred. (See faunal description, below).

Two units in TR 3 (TCs F and D) had high densities of all kinds of artifacts in the fill. For TC D, this could be because it was close to the Moore/Webster and Philips houses, although other units such as K and G were similarly close to the same houses and lacked these very densities. We have suggested that TCs F and L represent later disturbance and possible proximity to a midden, but do not have an explanation for the situation in TC D. The fill may represent an unusually intense level of various activities, such as drinking beer/soda and smoking that took place in a specific portion of the house-backyard area, such that traces were present in D but not TCs G or K. Alternatively or additionally, it is possible that ceramic and glass vessels that had been used by the households nearby were pulled out by the park workers during the demolition of the house and then they became part of the fill when the workers graded the area.[30] Small objects such as nails or teeth or glass or ceramic fragments could easily have been left lying on the ground when the houses were destroyed and the park was created. However, we note that landfill could not have been taken from areas with intact A Horizons because those strata would have been destroyed and we would not have recovered them.

In sum, the artifact and stratigraphic analysis of the fill does not allow us to determine a great deal about the filling process, but it does suggest that in the areas we excavated, the park construction crew used mostly local soils to fill in the ruins of the village's demolished houses and to level the surrounding areas. Some of it might have come from areas adjacent to the units, including work areas where the park crew demolished houses. In TR 4, where there were no houses nearby, the fills in TCs I and J have lower densities of artifacts than most of the other test cuts. In All Angels', densities are higher than in TR 4 but lower than in most of the TR 3 test cuts. Relatively high densities of certain kinds of material (e.g., ceramics) found both in the fill and deeper Wilson-family-related strata of TC B (located inside the Wilson house) suggest some objects from the Wilson house became part of the fill, in addition to objects that were part of the background "noise" of the village and that were not used by the Wilsons. High densities of fasteners/nails in some test cuts and not others in All Angels' do not correlate with proximity to the house, since all of the test cuts were equally close, but instead might reflect the placement of the park construction crew's work areas and how workers moved soil from their work areas across the remains of the Wilson house. In short, the artifact densities of the fill in All Angels' is likely a result of a combination of activities undertaken by the Wilson family themselves, other Seneca Villagers, and the park construction crew, as well as the site history of the areas where the fill originated.

This pattern was also observed especially in some of the test cuts near TC D (near the Moore/Webster and Philips houses) and F in TR 3. Since these units would have been quite close to the planted fields described above, perhaps some materials left from planters' activities could have been mixed in with the fill. TC D, as noted, is unusual in the presence of high densities of all kinds of material, including teeth (see below); perhaps farming disturbance resulted in a localized increased density of many kinds of artifacts. Another possible explanation, since we know that the houses in TR3 were older than the All Angels' house, is that this part of the Village had been occupied longer, leaving more artifacts on the ground which later were incorporated into the fill. Also in TR 3, TCs F and L show larger quantities of a variety of materials which we suggest relates to their disturbance after much of the fill deposition, their proximity to cultivation and/or to a possible midden which we did not recover during excavation.

Quantitative Analysis of Fill: Frequency

In addition to the density analysis described above, we also tabulated frequencies of several artifact types in the fill, in order to compare those found in the fill on top of the house at All Angels' and the fill on top of those units in which we found the buried A Horizon. We looked at frequencies (at the sherd level) of ceramic types **(Table 3.3 - Appendix B)**, curved glass artifacts **(Table 3.4 - Appendix B),** and small finds **(Table 3.5 - Appendix B)**. Because most of these tables contained rather small quantities, we did no further analysis in most. We did, however, create a rank order analysis for the ceramic types in the fill above the Wilson House and above the buried A Horizon in TR 3 and in the Wilson house and buried A Horizon deposits **(Table 3.6 - Appendix B)**. We discovered that rank orders were identical for the top two ranks in all four assemblages and then quite similar, down to rank 6, with the exception of annular/ dipt whiteware, which was more prominent in TR 3 (rank order 3) than in All Angels' (rank order 9.5).

In addition, in comparing the rank order of ceramic types in the fills (SC 4A) to those in SC 6B, C, and D for All Angels' and for the buried A Horizon (SC 6A) to see if the fill is similar to what lies below it, we saw that the main difference was that stoneware was prevalent in the layers associated with the occupation of the Wilson house (rank 3 in SC 6B-D) and the buried A Horizon (rank 5 in SC 6A) but barely present in the fills above them. The vast majority of these stoneware fragments came from food storage containers. Additionally, there was a low frequency of unglazed redware in both of the Seneca Village occupation assemblages (SC 6 A-D) and high frequencies of unglazed redwares in the fill layers. Another difference is the high frequency of annular/ dipt whiteware in both the fill overlying TR 3 and the TR 3 buried A Horizon deposits, perhaps related to the temporal difference between the All Angels' house and the TR 3 buried A Horizon village-era occupation. The rank of blue shell-edge wares in the TR 3 buried A Horizon may reinforce this interpretation, as this type of ware was more popular earlier in the century. There was a preference for glazed redwares within the Wilson deposits; again these could have served as storage containers.

Part 2: Artifacts

<u>The Artifacts Found in the Buried A Horizon</u>

The majority of the artifacts found in the buried A Horizon are in small pieces, showing that they probably had been trodden on, as might be expected for artifacts deposited on a ground surface where people lived nearby. But also included were some objects which, though broken, were in large pieces and when mended were almost complete. These objects, presumably items that had been lost or broken when the Seneca Villagers were evicted in 1857, tended to lie in the upper levels of the buried A Horizon or at the bottom of the deepest overlying fill layers and apparently had been resting on the ground surface when the fill was added. They included pieces from a gothic ironstone/ white granite plate (CV 88; **Fig. 2.12 - Appendix A),** discovered in TC P, and many fragments from a blue-on-white transfer-printed teapot (CV 80; **Fig. 2.9 - Appendix A)** discovered in TC D. There was also a large piece from a stoneware storage vessel discovered in TC I (cx. 104).

Approximately half of the artifacts in the buried A Horizon in about half of the test cuts (TCs D, O, Q, T, U, and V) were ceramics and curved glass, or domestic in nature, while around half of those in most of the other test cuts that revealed this feature (TCs K, G, P, E, N, and S) were nails and other fasteners and window glass, or architectural in nature **(Table 3.7 - Appendix B)**. These artifacts provide traces of two aspects of life in Seneca Village – the domestic, involving the dishes and the meals served on them, and the architectural, involving the houses where the people lived. Both types of artifacts reflect life in the village before the removals, but the latter also commemorate the evictions and the razing of the village. The nails and window glass along with the brick uncovered in the buried A Horizon stratum provide insight into the materials some of the Seneca Village property owners used to construct their houses (wood for the structures themselves as well as brick for chimneys). They bear witness to the removals of the park's residents in 1857, and the lack of wood recovered archaeologically supports notes in

Central Park documents that the wood from the buildings was removed and re-cycled when possible (Marie Warsh, pers. comm. 2018). Historian Catherine McNeur (2014:211) notes that "[t]he Board of Commissioners sold any shanty that was not dismantled by its owners, and, with just a few exceptions, workers cleared the park of what was left of its more than 300 buildings."[31]

The ceramics recovered from the buried A Horizon included fragments from stoneware storage vessels as well as earthenware dishes and earthenware and porcelain teawares **(Table 3.8 - Appendix B**). We discuss these more fully below. Glass vessels were scarce **(Table 3.9 - Appendix B)**. The most numerous were medicine bottles, followed by beverage bottles as well as a food storage bottle, a lamp chimney, a glass dish or plate, and fragments from a drinking glass or two.

Other kinds of artifacts provided additional insights into the behavior of the Seneca Villagers, including smoking and possible butchering practices. There were 117 fragments of tobacco pipes (e.g., bowls and/or stems) uncovered in the buried A Horizon from eight of the nine units located near the houses in the northern end of TR 3, out of a total of only 219 pipe fragments excavated in the site as a whole – over half of the total. Although the sample is small, it suggests that smoking may have been an activity in which people indulged in their backyards. Over 46 "small finds" were discovered in the buried A Horizon strata **(Table 3.10 - Appendix B)**. They were found in most of the test cuts close to the houses at the northern end of TR 3 (TCs D, G, K, O, and T, but not TCs P, Q, U, and V). In contrast, small finds were not found in TCs E and I (neither of which was close to a house), nor TCs S and N, which were close to the Wilson house. As discussed above, we interpret the possible buried A Horizons in the last two test cuts as having been 'swept,' which would of course have removed most of the artifacts. The "small finds" found in the buried A Horizon in TR 3 include personal items such as a comb (S 70; **Fig. 3.7 - Appendix A)**, pipe fragments (**S** 2; **Fig. 3.8 - Appendix A)**, several buttons and a suspender clip (S 60; **Fig. 3.9 - Appendix A**), pieces of mirror, and numerous pieces of shoe leather, as well as utensils, including a spoon (S 37; **Fig. 3.10 - Appendix A**) and two forks (S 42; **Fig. 3.11 - Appendix A**).

<u>The Artifacts Found in the Wilson-House-Related Strata in All Angels'</u>

Like the artifacts found on top of and within the buried A Horizon, the artifacts found in the strata related to the Wilson house (SCs 6B, 6C, 6D, and 6E in TCs A, B, C, M, and R) ranged in size from small fragments to large pieces and nearly whole objects. This variety can be explained by the type of material of which an object was made and its post-deposition history: where it was located and how it was treated during the house's demolition, as well as how it responded to a shallow burial in the northeast. For example, some of the largest of the ceramic fragments came from the most durable types of ceramics, thick stoneware **(CV 19; Fig. 3.12 - Appendix A)** and Chinese porcelain **(CV 53; Fig. 3.13 - Appendix A)**, while many of the more fragile earthenwares were found in much smaller fragments, likely shattered by stem wall stones and chimney bricks shoved or thrown into the interior cavity of the house to complete its destruction. As mentioned in Chapter 2, many iron objects, such as a roasting pan (S 52; **Fig. 3.14 - Appendix A**), tea kettle (S 53; **Fig. 3.14 - Appendix A**), curry comb **(**S 49; **Fig. 3.15 -**

Appendix A), and small pail handle (S 64; **Fig 3.16 - Appendix A**), were found nearly whole. They were highly corroded from burial in a humid and temperate climate, but in better condition than expected because they were protected by the large sheets of metal roofing, which was placed on top of the displaced stem wall stones and chimney bricks, apparently to fill the house cavity. In addition to these metal objects, large pieces of leather shoe soles, a nearly whole leather-and-fabric shoe, fish bones, and other more fragile objects were also preserved under these metal sheets in spaces between stones.

A wide variety of artifact types was found in the Wilson house deposits. As might be expected, architectural remains of the house made up a large portion of the assemblage. Bricks, mortar, and metal roofing fragments were numerous (too numerous to count). **Table 3.11 - Appendix B** shows the amount of each of these materials we recovered by weight.[32] Fasteners outnumbered all of the other artifact types collected in Wilson house-related layers in All Angels', making up a little over a quarter of the total, while flat glass composed less than a tenth of the total (**Table 3.12 - Appendix B**). These proportions of fasteners and flat glass are similar to those found in the TR 3 Buried A Horizon.

The non-architectural artifact assemblage found in the layers associated with the Wilson house was dominated by ceramic and curved glass sherds **(Table 3.12 - Appendix B)**. The percent of ceramic sherds was about a third lower than the percent of sherds within the buried A Horizon. Two other differences were a greater number and proportion of small finds and many fewer smoking pipe fragments. It is possible that these differences relate to the indoor context of the Wilson-related layers versus the outdoor yard context of the TR 3 buried A Horizon. In other words, more small artifacts related to the Wilson family were left behind in their demolished home than small artifacts related to the Moore/Webster and Philips families were left behind in their yards. The greater presence of smoking pipes in TR 3 might also suggest that smoking was more of an outdoor activity in the village, rather than an indoor activity, and/or broken pipes were discarded outdoors. Alternatively, the small number of pipes in the All Angels' test cuts could simply indicate that the Wilsons were not regular smokers.

Like the ceramics recovered from the buried A Horizon, the ceramics found in the Wilson-house related strata **(Table 3.13 - Appendix B)** included fragments from a variety of ceramic ware types (including, in order of frequency, refined white earthenware, stoneware, white ironstone/ white granite, red earthenware, yellow earthenware, European porcelain, and Chinese porcelain). The ceramics also similarly included both utilitarian forms, like storage containers and mixing bowls, and more decorative forms, like teawares. We discuss the ceramics, including the 66 Ceramic Vessels recovered in these layers, in more detail in a subsequent section.

Curved glass sherds were almost as numerous as ceramic sherds, but a large percentage (45%) were small sherds from unidentified bottles **(Table 3.14 - Appendix B)**. Far fewer medicine bottles were identified in the Wilson-related layers than in the buried A Horizon of TR 3: 2 versus 9, respectively. No glass beer bottles were found, in contrast to the 2 in TR 3, although 3 stoneware beer (or rootbeer) bottles were uncovered in the Wilson assemblage. The Wilsons seemed to have preferred wine, as indicated by the 3 wine bottles we recovered. Other curved glass vessels included a drinking glass, two food storage bottles, a small perfume bottle, and a heavy molded fragment of a candlestick or lamp base, along with the two medicine bottles mentioned above. Only a few small fragments of lamp glass were discovered.

One of the medicine bottles was a green patent medicine bottle **(Fig 3.17 - Appendix A)**. We recovered enough fragments to decipher the brand and type of medicine it once contained to be "Old Dr. Townsend's Sarsaparilla." Sarsaparilla was a very popular type of medicine in the United States and Europe during the middle of the 19th century, so much so that druggists referred to the 1840s as the "sarsaparilla era" (Lindsay 2017). Bottles found by archaeologists at other sites confirm that sarsaparilla was used by both working- and middle-class European Americans in New York City (Howson 1993; Bonasera and Raymer 2001). Made of alcohol, extracts of the roots of a variety of plants from the genus *smilax* (native to the Americas), and other ingredients, it was marketed as a "blood purifier" that could cure a variety of illnesses.[33] Samuel Townsend, a patent medicine maker based in Albany, produced what became the most popular brand of sarsaparilla, beginning in 1839. "Old Dr. Townsend's" appears to have been a New York City-based knock-off of Samuel Townsend's product (Lindsay 2017). The presence of this bottle could suggest that the Wilsons shared the same zeal for sarsaparilla as their White contemporaries and selected a brand with a recognizable name; other interpretations taking traditional African American practices into consideration are discussed in the conclusion of this chapter.

A variety of small finds **(Table 3.15 - Appendix B)** were present in the Wilson house-related layers that offer insight into domestic life. They ranged from kitchen-related items (such as utensil fragments, like a tiny spoon [S 59; **Fig. 3.18 - Appendix A**], possibly used to feed one of the younger Wilson children, and the aforementioned roasting pans [S 46 and 52; **Figs. 2.6 and 3.14 - Appendix A**], tea kettle [S 53; **Fig. 3.14 - Appendix A**], and small pail [S 64; **Fig. 3.16 - Appendix A**]), to a hygienic object (a toothbrush handle [S 36; **Fig. 3.19 - Appendix A**]), to artifacts related to work (see below) and clothing-related items (including a nearly complete shoe [S 74;**Fig. 2.5 - Appendix A**]). Most numerous among the Wilson house small finds were fragments of leather shoe soles and clothing fasteners, including buttons, buckles (S 38; **Fig 3.20 - Appendix A**)*,* clothing hooks (S 33; **Fig. 3.21- Appendix A**) and one clothing eye, that collectively reflect the Wilsons' large family. Other small finds hint at work activities, such as a thimble and possible scissors, that could have been used by Charlotte Wilson or her daughter (also named Charlotte) to make or mend clothes; a curry comb (S 49; **Fig. 3.15 - Appendix A**), perhaps used by William Wilson or one of his sons to care for a horse he might have used to perform his duties as All Angels' Church sexton; a possible fishing weight (S 43; **Fig. 3.22 - Appendix A**), which could have been used by one of the older boys to contribute sustenance to the family's table; and two slate pencils (such as S 15; **Fig. 3.23 - Appendix A**), perhaps used by the children who attended school.[34] Another find, discovered on top of the lowest layer (SC 6D), which we believe represents objects that fell through the house's floorboards while the Wilsons lived there, was a three-cent coin dated 1852 (S 28; **Figs. 3.24a and 3.24b - Appendix A**). More discussion about these objects and the insights they collectively provide about life in Seneca Village will follow towards the end of the chapter.

Insights from the Ceramics

The most striking ceramic in the assemblage from the Seneca Village site is a blue-on-white transfer-printed teapot found in the buried A Horizon in TR 3 near the Moore/Webster and Philips houses (CV 80; **Fig. 2.9 - Appendix A**). While this teapot was neither expensive nor uncommon, we think it is elegant in both its shape and its Florentine pattern. (Florence was a popular stop on the Grand Tour of Europe in the mid-19th century.) It was made by Thomas and Joseph Mayer, proprietors of a firm that was active in Staffordshire, England, from 1842 to 1855 and had a flourishing export trade with the United States (Meta Janowitz pers. comm. 2016; Walthall 2013:x, xiii).[35] Artifacts such as this one give lie to the denigrating stereotypical descriptions of the villagers which were published in contemporary newspapers.[36]

We examined all of the ceramics from the Wilson house and the buried A Horizon in order to see what insights they might provide into the lifeways of the Seneca Villagers. When we compared the two assemblages to each other, we noted two big differences in the frequencies of different kinds of ceramic vessels found in these features. One was a difference in the types of table and teawares. Although both assemblages contained relatively high proportions of transfer-printed dishes (41% and 47%, respectively) and similar proportions of porcelain (24% to 20%, respectively), the buried A Horizon in TR 3 contained a higher percentage of shell-edged dishes than the Wilson assemblage did (16% to 7%), and the Wilson assemblage contained a higher percentage of ironstone/ white granite vessels than the TR 3 assemblage (28% to 18%; see **Table 3.16 - Appendix B).** We think that this is because the Wilson assemblage represents the dishes that were being used in a home at one, relatively late point in time, the mid-1850s, when the Wilsons were being removed from their home, whereas the artifacts from the buried A Horizon were deposited throughout the whole period of the village's existence, the three decades from the 1820s to the 1850s.

Although found in deposits dating throughout the 19th century, shell-edged plates were most common in middle-class European-American homes in New York City in the first few decades of the 19th century (Wall 1994:140-142). Most of those sherds in TR 3 were therefore probably deposited earlier in the century, though probably after ca. 1836, when a house first appears on any of these lots (NYTAR 1836), but well before the Wilson house was demolished two decades later, in the mid-1850s. The ironstone/ white granite dishes prevalent at the Wilson home, on the other hand, represent a kind of ware that became popular only in the 1840s.

Another significant difference between the kinds of ceramic vessels found in the Wilson house compared with those from the buried A Horizon is that there were greater percentages of utilitarian vessels associated with the Wilson house than in the buried A Horizon. More than a third (40%) of all of the Ceramic Vessels found in the Wilson house were redware, stoneware, or yellowware utilitarian vessels, while a mere 16% of those from the buried A Horizon were utilitarian in nature **(Table 3.17 - Appendix B**).

This difference in the percentages of utilitarian vessels from the two features is easily explained by the contexts of the deposits-- one might expect to find more storage and food preparation vessels associated with a house than with a yard-- but they also might provide some insight into the Wilson family's departure. Most of the stoneware fragments found in the Wilson's house, for example, were quite large compared to other ceramics and came from storage jars that could be mended into a greater percentage of a whole vessel than other ceramics (e.g., CV 7, CV 1, CV 29). This is probably related to the nature of the ware. We can speculate that the Wilsons did not leave these stoneware crocks because they were broken, but instead left them behind in usable condition, and they were broken during the house's demolition. Given that the Wilsons moved nearby, the presence of these crocks suggests either that the Wilson family believed they did not need those crocks and/or that they could easily replace them, or that they did not have the time or resources to move such heavy vessels. A relatively large number (seven) of pitchers/ewers (no doubt needed by the Wilson's large family for drinking and washing) were also left behind; these were the second-most numerous of the vessel types found and also among the larger and heavier vessels. Moving a family of nine children (three of them under six in 1857) would have been no small feat (USBC 1860). Perhaps the Wilsons remained in their house until the very last minute, when they were forced to leave, and continued to use these vessels. Other artifacts support the interpretation that the Wilsons didn't bring all of their usable possessions to their new house, including the heavy iron roasting pan, found in-situ with a tea kettle, French ointment pot fragment **(CV 87; Fig. 3.25 - Appendix A)**, and wine bottle fragment inside it, as if it had been packed to go **(Fig. 2.4 - Appendix A)**.

We also compared the dishes from the Wilson house to those from two contemporary White households, the Robsons and the Hirsts of Greenwich Village, a middle-class and elite enclave in the mid-19th century (Wall 1991, 1999a, 1999b), to see the extent to which the assemblages were similar to and different from each other. The first thing that we noticed in looking at the assemblages is how similar they are: the same kinds of ceramics are represented in all of the households. Most of the ceramics that we recovered from the Seneca Village features were of types that had also been found at the Greenwich Village homes. They included the fragments from stoneware storage vessels as well as earthenware and porcelain dishes. The plates common at all of the sites included those in the shell-edged pattern as well as white ironstone/white granite ones in the gothic style **(Table 3.18 - Appendix B)**. In fact, both of the White middle-class families show a preference for gothic-style ironstone/ white granite plates with molded panels.

Tea and coffee were served predominantly in paneled cups and saucers in the ecclesiastical "gothic" style, whether in ironstone/ white granite or in porcelain, in all three homes **(Table 3.19 - Appendix B)**. In the Wilson and Hirst households, these vessels were used not only in family meals, but apparently also when guests came to tea.[37] They could have been used to make statements about morality and the importance of community values and mutual aid when friends and neighbors visited together (Wall 1991:79). Drawing on these sentiments could have been important among the poorer White middle class as well as at the Wilsons, who were members of an oppressed group. The wealthier members of the White middle class (the Robsons of Washington Square), however, supplemented their paneled teawares with fancier Italianate porcelain sets, which they probably used in formal parties to make statements about class.

But the Wilson assemblage included two kinds of dishes that differed in their frequencies from those found in the 19th century White middle-class homes: plates and bowls. In the White middle-class homes, we find ironstone/ white granite plates occurring in matched sets, which we interpret as underlining the corporate nature of the family that dines together. Although the

Seneca Village assemblage included ironstone/ white granite and shell edged plates (albeit in small numbers), it also included blue-on-white transfer-printed plates in much higher frequencies than at the White sites (see Wall et al. forthcoming). And although they are all in blue-on-white prints, the prints do not match. Within the Wilson house, for example, at least five different printed patterns were found on plates: Blue Willow (CV 10, 11, 84), flow blue (CV 49), a gothic revival pattern (CV 54), a romantic landscape (CV 57), and an exotic or romantic landscape (CV 56).

Archaeologists have long noted that they do not find sets of matched dishes in African-American and African-Caribbean assemblages (e.g. Armstrong 1990:135-136; Leone 2005; Mullins 1999; Shepherd 1987); instead, they find arrays of dishes in various colors and patterns that do not match. Some archaeologists have explained this phenomenon with the interpretation that these households aspired to emulate the dominant culture in using matched sets of dishes but failed in that attempt because they did not have the money to buy sets for themselves. Therefore they either used hand-me-downs in various patterns which had been given to them by their employers or masters or bought their dishes by the piece, instead of in matched sets.

But it seems that in setting the table at least some members of the African diaspora who lived in the Americas spoke a different "language of plates" than their European-American middle-class counterparts. Alice Baldwin-Jones, an anthropologist of African descent who grew up in Belize, recounts that her family did not use matched dishes for everyday meals; instead, each individual family member used his or her own individual dish (Baldwin-Jones, pers. comm. 1995; Wall 1999a). Under this system, the dishes used by the household *cannot* match, or family members would not be able to tell which plate belonged to whom. This custom of using personal dishes (and in Belize at least, the concomitant use of personal silverware and chairs) may have been prevalent among many African-American and African-Caribbean families.

Baldwin-Jones offers a possible explanation for this phenomenon: "In the face of slavery where people of various cultures were brought together as property and [were] treated as less than human, [one was forced] to create an identity for oneself... [a] sense of individuality that would lead to using unmatched dishes, and other personal items to create such an autonomy" (1995:3-4). Perhaps the importance of individual improvisation in jazz, the quintessential African-American art form, is also an expression of this phenomenon. The middle-class African-American denizens of Seneca Village may have used the blue-on-white plates in different patterns as a compromise – they were similar enough so that they gave the impression of matching – perhaps part of the middle-class American ethos – but different enough so that each person could recognize their own plate and use it for everyday meals.[38]

We also examined the bowls from the Wilson and the two Greenwich Village homes. Archaeologists have long noted that some African-American assemblages exhibit a preponderance of small bowls, which might be used to serve liquid- or grain-based dishes such as stews or soups. These meals allow the use of relatively small quantities of meat, and while they require a long cooking time, they can be left on the fire untended while one does laundry or some other task (Baker 1978; Otto 1984). Furthermore, as Maria Franklin (2001:97) notes, preparing such meals would have involved reproducing some of the traditional cooking practices of West Africa, albeit "transformed . . . with new ingredients," where grains or vegetables formed the foundation for stews and pieces of meat and condiments were added for protein and flavor. So the prevalence of bowls might indicate that the practitioners of this cuisine were invoking their African heritage to form at least one aspect of their identity in 19th-century New York.

Bearing these practices in mind, we compared the frequencies of the small bowls from the Wilson house with those from the European-American homes **(Table 3.20 - Appendix B)**. Though the sample is small, there does seem to be a pattern of difference. Considering only the portions of the ceramic assemblage consisting of plates and bowls, the percentage of bowls is much higher in the African-American Wilson household (40%) than in the two White households (only 18% and 25% in the Hirst and Robinson households, respectively). Bowls appear to have played a significantly more important role at the Wilsons' house than they did in the White homes.

All in all, then, the ceramics from Seneca Village are in some ways similar to and in other ways different from those from contemporary middle-class White households. In looking at the cups and saucers, the similarities are striking. But the frequencies of both the plates and the bowls show differences between these households. The Wilsons had a larger number of transfer-printed plates and small bowls, while the White homes showed a preponderance of white ironstone/ white granite plates and fewer bowls. We discuss these differences further at the end of this chapter.

<u>Insights from the Fauna</u>

The analysis of a sample of the Seneca Village fauna (consisting of those in good condition from identifiable and significant contexts from occupation layers in the Wilson house and the buried A Horizon in Transect 3) was undertaken by a group of Barnard and Columbia undergraduates, under the direction of Prof. Adam Watson, then of the American Museum of Natural History. The complete analysis can be seen in **Appendix E.**

The density of faunal materials in the fill **(Table 3.2 - Appendix B)** was lower in the All Angels' test cuts than in most of those from Transects 3 and 4, and, not surprisingly, numbers there were also quite small.

Table 3.21 (**Appendix B)** shows the number of specimens from specific taxa and also identifications made to larger classes (cow size, etc.). We chose to analyze fauna only from All Angels' (TCs B, M and R; there was no animal bone from TC A or C that was associated with the occupation of the house) and from the buried A Horizon in Transect 3. In both settings we chose layers we believed to be associated with the occupation of the village. In Transect 3, we focused on the TCs D-G-K group of units and those test cuts that indicated a ground surface (or buried A Horizon) and also contained faunal elements, namely TCs P, Q, and T. TCs E and V have no faunal materials, and although TC U contained bone, it was not identifiable by taxon.

The faunal material came from SC 6A (TCs K, Q, P, D and G); SC 6B (TCs R, B); SC 6C (TCs M, B); SC 6D (TC M); and SC 7 (TC D EAST Extension and TC K).

Three things stand out from this analysis. One, the remains are mostly from domestic animals; two, *Ovis/Capra* (sheep/goat) was the dominant species consumed in Seneca Village, as determined by relative frequency; and three, in each test cut, there was a sizeable proportion of bones classified as "indeterminate," meaning that neither a taxon identification nor a class (such as "large mammal") could be attributed to the specimen, either because of fragment size or worn condition. Apart from these domestic animals there were a few (4) bones from rarer species such as large birds (no taxon identified), one probable turkey bone, one bone from a small rodent, and a mandible from a small carnivore. Although it is often difficult to distinguish the bones from sheep from those of goats, McNeur (2014:210) reports that the Board of Commissioners' Committee on Buildings in the park described pigs, goats, cows and horses roaming at large there. Sheep were not mentioned.

If we ignore test cuts with small samples (e.g., TCs G, P, Q, and T), we see that the percentage of *Ovis/Capra* is highest in TCs R and D (although a disproportionate number of the faunal elements in TC D were teeth, perhaps reflecting consumption of head-based stews, on-site butchering and/or because they were small and overlooked if residents were cleaning up). TCs K and B follow in order, reaching at least 33-35%. *Bos taurus* and *Sus scrofa* are each the second most common species present, cow (and cow-sized bones) at All Angels' and pig in Transect 3. The differences among the counts for these species are too small to state that these represented dietary differences.

The large number of unidentifiable bones (from 17% to 79%) in the full-size units in Transect 3 suggests many small, trampled, or degraded bones, as might be expected on a ground surface.

Faunal elements

There were many more animal bones that were identifiable by element and species, 81, in the A Horizon in six of the Transect 3 test cuts, including jaws and quite a few teeth, than there were in the All Angels' deposits, 35, suggesting that at least some Seneca Villagers may have been butchering animals in their yards. Alternatively, the teeth and jaws might be the remains of meals, e.g. sheep/goat or pig's head stew.

Table 3.22 (Appendix B) shows the dominant animal forms and tabulates which elements were present for each. We have only included elements from specific taxa (and have thus excluded bones designated as "large mammal" and "medium mammal," but we have included "cow-sized" and "pig-sized" in this table).[39]

The resulting sample is rather small: 35 bones from All Angels' deposits and 75 bones from TCs D, K, and G in Transect 3. The difference in quantities between **Table 3.21 (Appendix B)** and **Table 3.22** (**Appendix B)** is because a) we excluded TCs P, Q, and T in the latter, and b) some bones that could be identified by taxon could not be assigned to an element.

As noted, the dominant proportion of bones in both areas is from *Ovis/Capra*. In the All Angels' fauna, *Bos taurus* is the second-most common type (especially when "cow-size" specimens are included), whereas in Transect 3 units, *Sus scrofa* is more highly represented than *Bos*. There are more than twice as many elements from the buried A Horizon than at All Angels', but most are teeth. On the other hand, the most common elements in the All Angels' test cuts (sheep/goat) are from meaty parts of the body, from long bones, although some of those from the axial skeleton (ribs and pelvis) could also represent meaty cuts such as the rump, close to the pelvis. In the Transect 3 units, the number of *Ovis/Capra* teeth dominates other *Ovis/Capra* elements (35/39), which we suggest may mean that these animals were being butchered on site, and the teeth simply were missed when the residents were cleaning up after butchering. A second possibility is that the residents consumed meals made from the head of sheep or goats. For *Sus scrofa*, the most common element present was the skull or jaw, of which there were four, suggesting the possibility of the production of head cheese or pork stew. We can speculate about whether the slightly higher frequency of beef at All Angels' would represent cuts of meat acquired from a butcher, whereas the greater number of pork remains in Transect 3 could have been left from home butchering in the yard.[40] The scant evidence of cut marks does support this proposition, though they are few.

The faunal analysts also looked at variables such as weathering and cut marks. They examined the highest degree of weathering (levels 4 and 5) which could well have hindered a fuller identification of the species or element. Bones with these levels of weathering were most common in TCs D, G, and K. Only a few bones from TCs P, Q, and T, and very few from All Angels', were in such poor condition. Of 68 bones designated either at level 4 or 5 for weathering, 63 were from TR 3 (TCs D, K, G, T, or P) and 47 of these (75%) were from the buried A Horizon, with the remaining 16 from the level just below the A Horizon where they could have been trampled down a few centimeters. This is what we would expect for bones left exposed on a ground surface, as opposed to those that came from a protected environment, such as the Wilson house.

There were a few cut marks visible on bones, mostly at the distal ends or mid shaft. A pig skull in TC D showed four cut marks and an unidentifiable rib, also from TC D, had eight cut marks on it. A few other bones indicated evidence of cutting, but there were not enough to suggest a pattern of butchering practices. It is a little surprising (and disappointing) that more evidence of cutting was not found.

In addition to the faunal materials discussed above, a few fish bones were found in TC R (cx. 251) and R North extension (cx. 245, 248) in SC 6D, but no size or species of fish could be assigned to them. Remnants of clam and oyster were also recovered: clam was found in Wilson-related layers of TCs B, R, and M in All Angels as well as in TCs G, O, and P from Transect 3. Oyster fragments were retrieved from TC B, M, and ST 8 at All Angels' and TCs D, G, T, and U in Transect 3 **(Table 3.23 - Appendix B)**. In both All Angels' and the buried ground surface, the quantity of oyster shell was considerably greater than that of clam shell (either 3 or 4 times as frequent). This could be due to the proximity of the Hudson, where oyster was prevalent, a preference for eating oyster, or some other use for oyster shell (e.g., in making plaster or mortar). Additionally, one scallop shell was found in TC B SC 6C. All these marine resources presumably formed part of the villagers' diets and could have been harvested from the Hudson or East Rivers or purchased in the city's markets.

<u>Information from the Botanical Remains</u>

During excavation, we collected soil samples for pollen analysis and macroplant flotation. These tests had the potential to tell us more about the environment of the village and possibly about the plants that the villagers used for food or other activities. We took samples for both pollen and macroplant analysis from the buried A Horizon (SC 6A) in Transect 3 (TCs P and U) as well as samples for macroplant flotation from the buried A Horizon in TC D. Additionally, we sampled several test cuts in All Angels' (TC B [SC 6C], M [SC 6B, 6C, and 6D], and R [SC 6D]), in contexts associated with the occupation and the demolition of the Wilson house.

Most of the samples were examined by Susan A. Jacobucci and Heather B. Trigg of Andrew Fiske Memorial Center for Archaeological Research at U. Mass Boston (2012), while a few additional macrobotanical flotation samples from TCs B and M were studied by Justine McKnight (2014), archaeobotanical consultant. Unfortunately, the analysts discovered that poor preservation caused the samples to yield low potential for revealing new insights about the village residents' activities. The pollen and macroplant remains do, however, support some important interpretations about the general environment of the village, especially when combined with other archaeological findings. Here, we will briefly summarize these findings. Please see **Appendix F** for copies of both reports as well as an extended analysis of the combination of these reports, subsequent personal correspondence with Trigg and McKnight, and other archaeological discoveries at the site.

Although the preservation of plant remains was poor in layers associated with Seneca Village, the pollen remains (and lack thereof) appear to support three interpretations about village life in the area of Transect 3. First, the generally poor preservation of pollen taken from the buried A Horizon in TR 3 as well as the presence of pollen from weeds in the goosefoot family common to human-disturbed areas, implies that the yard area near the Moore/Webster and Philips homes was heavily utilized. Second, the presence of moss and fern pollen suggests that there was a wet habitat in close proximity to the Moore/Webster and the Philips homes. Third, a combination of plants, such as chestnut, mulberry, oak, pine, and walnut trees, as well as the ferns and mosses, indicate that the environment in or near the village was a moist woodland. These plants could have provided villagers with important resources from food to building material to medicine.

The macrobotanical remains from All Angels' and Transect 3 (while, again, somewhat problematic, as explained further in the appendix) also suggest that villagers had access to a variety of useful plant resources. Macroplant remains included plants often used as food (e.g., berries, including elderberry and raspberry; and greens, including goosefoot, purslane, sheep sorrel, and possibly pokeweed [with proper preparation, otherwise it is poisonous]), drink (elderberry wine and sumac "lemonade"), spice (sumac), dye (sumac, pokeweed), a leather tanning agent (sumac), mattress stuffing (bedstraw), and animal feed (clover, grass). Most of these plants also had folk medicinal applications.

In conclusion, the pollen and macroplant remains recovered from the soil samples were disappointing in their degree of preservation. Nevertheless, they do provide some indication of available botanical resources in the area, and they make life in the village somewhat more accessible to the imagination.

Final Thoughts

In the previous sections, we provided an overview of the discoveries from our excavations. Here we consider the insights these discoveries collectively bring to our understanding of our main research question about identity among Black residents in this unique, majority Black, multi-ethnic 19th-century village, on the edge of the nation's largest city.

As mentioned in the introduction (Chapter 1), several scholars have written about Black identity in the United States in the 19th and early 20th centuries. Many have drawn on W.E.B. DuBois's turn-of-the-twentieth-century concept of double-consciousness as a model for exploring these identities (e.g., Nash 1988:80, cf. Alexander 2008). As DuBois (1994:2 [1903]) put it, an African-American "ever feels his two-ness --an American, a Negro; two souls, two thoughts, two unreconciled strivings."

Historian Leslie Alexander (2008) developed a binary model to look at this issue, exploring the extent to which African-American New Yorkers regarded themselves as Africans or as Americans. Historian Gary Nash also developed a framework, in his case a tri-partite one, for examining the same issue (1988): American, African, and African American. Obviously, such models are simplistic, but they are helpful in allowing us to explore some of the different strands that make up identity. Naturally, these strands were not mutually exclusive, and how they were defined and operationalized changed through time (see Alexander 2008; Wilder 2001).

"American" identities for Blacks focused on achieving the full rights of citizenship, including the right to vote, often with the goal of assimilation into American society. Some of those who identified as "Americans" might have had the goal of regarding themselves as "Americans with dark skins," without the discrimination attached to African descent (Nash 1988:79). Promoted primarily among middle-class African Americans, strategies for being accepted as "American" included racial uplift through moral reform activities, such as education and participation in church functions (actions used to promote class status, as discussed above), and the abandonment of street displays, such as parades (Harris 2003:120; Alexander 2008).

Other identities centered around an African heritage. Those who might be referred to as "Africans in America" (Nash 1988:79) regarded themselves primarily as Africans, and many wanted to return to the ancestral homeland or move to Black-ruled states, such as Haiti. They wanted to leave primarily because they felt that they would never be able to achieve equality with Whites in the United States. The strategies clustered around this identity included both the colonization movement (predominantly but not exclusively promoted by Whites to remove Blacks physically, along with the perceived problems that their presence presented in the United States) and the emigration and nationalist movements (predominantly supported by Blacks).[41]

Still other aspects of identity might be grouped as “African American” (Nash 1988:79). Those who identified in this way also regarded Africa as their ancestral homeland, but looked on themselves as Americans of African cultural heritage whose future lay in the United States. Aspects of that heritage included music and dance and participation in street displays such as parades, as well as collective action as expressed through voluntary organizations and churches, including participation in the abolitionist movement (Wilder 2001). Some of these behaviors are discernible archaeologically.

Looking at our data, we think for most African Americans in Seneca Village, identity was composed of certainly two and perhaps all three of these strands, but with the emphasis varying in different cultural contexts. Some of these behaviors may have conflicted with others and not all are accessible through archaeology. Mobilizing these different strands called for different sets of strategies, and some of these strategies called on material culture that was similar to that that was being employed by the dominant White middle-class culture, while other strategies called on material culture that was different.

Strategies used to promote middle-class “Americanness” were exercised by a higher proportion of Seneca Villagers than by their African-American contemporaries who lived in the lower city (Wall et al. 2008). This is shown not only in their practices but also physically in the built environment of the village, with its school, its three churches, and its cemeteries. Villagers also created, in some cases, substantial, single-family homes. These houses were likely important not only as living spaces but also as markers of their status as respectable property owners. Property ownership has long been important for Americans of all races, but was especially important for Black Americans who faced discrimination and for whom at that time property ownership was obligatory for enfranchisement.

Excavation revealed that the Wilsons invested considerable effort into the construction of their three-story frame house. A substantial foundation, built of locally gathered stone, placed directly on top of the bedrock, literally anchored the house to the land. A chimney provided the conduit for smoke from the hearth that kept the house warm and cooked the family’s meals. Composed of locally-produced bricks, it was plastered and would have presented a clean appearance to residents and visitors. The innumerable fragments of iron we uncovered suggest that the Wilsons had a roof made of iron sheet or tiles, a relatively new water-tight technology that implies their knowledge of innovations in building (McAlester 2015:50).

But while some Seneca Villagers conformed to White, American middle-class aspirations in some aspects of their built environment, some of them seem to have expressed differences from those standards as well - in their yards. The data suggest that at least some Seneca Villagers may have practiced the strategy of yard sweeping (whereby the yard is literally swept to keep it clear of vegetation, debris, and pests) and is used as part of “homespace,” an extension of the house. This is a practice shared by many West Africans and their descendants throughout the African diaspora. The archaeological evidence suggests that the Wilsons practiced this strategy, while the Moore/Webster and Philips families did not. Could the evidence of this practice indicate the expression of an African or African American identity?

Many of the "small finds" suggest that the villagers, like their White middle-class contemporaries, cultivated respectable personal appearances. These artifacts include a toothbrush, dental hygiene technology that we consider commonplace today but that was not widely used in the United States until the 20th century; a fragment of a hair comb, decorative buttons, and shoes for adults and children.[42] The latter would not have been considered necessities among poor rural dwellers in the 19th century, including recent immigrants to New York City from impoverished areas of rural Ireland.

The presence of some brand name goods found in association with the Wilson house also suggests the Wilsons chose quality objects for themselves and their homes that would keep up appearances. These include the "Townsend's" sarsaparilla bottle as well as ceramics made by T. & R. Boote, Ridgway, and T. J. & J. Mayer, all well-known companies in Staffordshire, England, the epicenter of refined earthenware production throughout the 19th century. Similarly, Paul Mullins has shown that African American families in 19th-century Annapolis purchased brand name goods to guarantee quality at a time when prejudice led many shopkeepers to sell inferior goods to them, as well as to reap the "greater symbolic worth of nationally recognized brands" (1999:25).

As middle-class Americans, the Wilsons used not only some of the same brands of ceramics but also some dishes in the same patterns as their White contemporaries: shell-edged plates and ironstone/ white granite plates and cups and saucers with molded panels. But the frequencies of some of their kinds of dishes were quite different. First of all, they possessed proportionately many more plates in non-matching transfer-prints than their coeval White contemporaries. As discussed earlier in this chapter, we think that the practice of using unmatched transfer-printed plates may represent a different "language of dishes," whereby instead of all the diners aspiring to use dishes in the same pattern, every individual diner had his or her own plate, and therefore the patterns had to be distinct. This may well be a practice common throughout the African diaspora in the Americas, an African American custom.

As we also mentioned above (Table 3.20), there were proportionately more bowls as opposed to plates in the Wilson assemblage in comparison with those from two White middle-class households in Greenwich Village. The use of individual bowls is common in West African cuisine. This cuisine often includes stews of meats and vegetables, which also became staples of the diets of Africans enslaved in the United States.

Taken together, the data from the excavations suggest that for meals like tea – which they might share with outsiders, including perhaps White Seneca Villagers - the Wilsons used cups and saucers in the same molded-paneled pattern used by their White middle-class contemporaries. However, in meals that they held among themselves, in private and not in the presence of outsiders (meals such as breakfast, lunch, or dinner), they in part used dishes that were different from those used by their White contemporaries. They used proportionately many more bowls and non-matching, blue-on-white transfer printed plates. The preponderance of bowls could alternatively be explained by the fact that the Wilsons had so many children at home - eight in 1855 (NYSC 1855 - **Appendix I)**. But although it is possible that the younger children ate their meals from bowls, we should also remember that the use of individual bowls is a custom in many

West African cuisines. The faunal remains we found, which include elements ranging from the skull to the carpals of sheep/goat, cow, and pig, indicate residents might have eaten goat/lamb or beef stews, or dishes today recognized as "soul food," such as ribs, hog jowl, and pigs' feet (Poe 1999:8-11).

So the preference for bowls could in fact be acknowledging a strand of African or African-American identity; the latter concept is reinforced by the prevalence of un-matched, transfer-printed plates. But the preponderance of plain-paneled porcelain and ironstone/ white granite teawares was shared by their White middle-class contemporaries, and thus may have made a statement about shared "American" identity.

The presence of the "Old Dr. Townsend Sarsaparilla" bottle at the Wilson house also reminds us that identities and their intersections with material culture are complex. As mentioned earlier, this bottle was found inside the remains of the Wilson house and could be interpreted as evidence that the Wilsons shared White Americans' enthusiasm for sarsaparilla as a medicine. But it is also possible that the Wilsons acquired this medicine for somewhat different reasons as well. The advertised use of sarsaparilla as a blood purifier fit with African American ethnomedical ideas (which emerged from a blending of African, European, and Native American traditions) about the importance of balanced blood qualities for good health. Choosing a medicine like sarsaparilla would enable the Wilsons both to connect with their African American heritage and conceptions of the world in personal acts of bodily cultivation, and to simultaneously participate in (and project to outsiders the appearance of participating in) White American trends.[43]

We acknowledge that these interpretations are based on small sample sizes but offer them as hypotheses to be considered in future research. We hope that we or others will be able to carry out more of this research.

CHAPTER 4: CONCLUSION

This site report is made up of three major parts. In the first, we introduced the project, explaining first what Seneca Village was, why it is important, and what we hoped to learn from the excavations that could not be known from historic and documentary sources. We outlined our research questions, focusing on Seneca Village's distinctiveness as a middle-class African American community. Few such communities are known, and little research has been done on middle class 19th-century African Americans, but these communities form a significant element in the structure of the United States in the 19th-century.

We briefly summarized the project's long history, from 1997 to 2011 (when excavations began) to 2017, when this site report was completed. We spent several years on documentary background research, soil borings and GPR studies before we were able to make a case for needing to excavate and getting permission to do so.

The second part of the report provides a description of the field project, beginning with soil and GPR testing and ending with a detailed description of the excavation and the special requirements for digging in Central Park. We then outlined our overall definitions of the strata clusters we encountered. They include the superficial sod and humus layers which immediately overlay one or more layers of fill, the deepest of which we have interpreted to be associated with both the construction of the park and the destruction of the village. Below these there were strata, features, and artifacts associated with the occupation of the village. These include some from the Wilson house, located near All Angels' Church and occupied by the church sexton, William Godfrey Wilson, and his family. In addition, in several different portions of the site we were able to identify what appears to be a buried A Horizon that we believe represents the ground surface that Seneca Villagers, such as the members of the Moore/Webster, Wilson, and Philips households, walked upon. We took soil and pollen samples from that surface. Below these layers we encountered naturally deposited post-Pleistocene soils and bedrock across the site.

In the remainder of Chapter 2 we described the excavation history and stratigraphy of each of the test cuts and shovel tests that made up the excavation. In regard to the test cuts, seven (TCs A, B, C, M, N, R, and S) were excavated within or near the Wilson House in the All Angels' transect, thirteen (TCs D, E, F, G, K, L, O, P, Q, T, U, V, and W) were excavated within Transect 3, two (TCs I and J) within Transect 4, and one (TC H) within Pinetum South. We also excavated 18 shovel tests in three different sets. One set, composed of four shovel tests (STs 1, 2 3 and 5), was in Transect 3, where soil testing done by Suanna Selby suggested an area with 19th-century materials in it. A second set of 13 shovel tests (STs 6-18) was used to define the walls of the Wilson house; the walls of the house were simply uncovered and not removed. The final set with a single shovel test (ST 4) was placed in the African Union Transect.

In addition to finding the buried A Horizon in a number of the excavation units and the features and artifacts associated with the Wilson House, we also encountered (in TCs F and W) portions of the terracotta pipe system originally laid down as part of Olmsted's efforts to drain the wet portions of the park-to-be. And we found more recent metal pipes in TCs L and O. In Pinetum

South we excavated only one unit (TC H), where we encountered a buried early 20th-century catch basin and manhole cover.

The most substantive chapter, Chapter 3, presents our findings from the excavations based on the stratigraphic and artifact analyses. In discussing the buried A Horizon, we considered the custom of yard sweeping, how it appears archaeologically, and why we think it might have been practiced in some parts of the site and not others. We made suggestions about the original topography of the park in the northern end of the Transect 3 and Transect 4. Pinetum South and Transect 4 provided the least compelling narratives related to Seneca Village; the Pinetum because the feature encountered was related to post-park additions, and the Transect 4 units because there were no houses nearby, probably explaining the relative paucity of materials (although we did identify a putative ground surface in TC I).

In this chapter we also analyzed the contents of the fill layers that we believe were associated with the destruction of the village which was concurrent with the construction of the park. Comparative analysis of artifact densities by test cut indicate that the initial hypothesis that the frequencies of artifacts such as nails/fasteners would vary in relation to proximity to houses was not consistently supported, but it was clear that most fill did come from loci fairly close to the test cuts being examined. This idea is supported by the consistent nature of the soil in the fill, and by the fact that the artifacts in the fill were generally similar to those in more protected contexts, although occurring in lower densities in the fill. As well, the fact that there were fewer artifacts in the fill of Transect 4, in TCs I and J, where there were no houses nearby, reinforces this interpretation. So we believe that although some of the fill used in the construction of Central Park was brought in from off-site (from New Jersey and Long Island), for the most part those creating the Park landscape in the village area moved as little soil as possible and used locally-available dirt originating near adjacent houses and gardens, resulting in the presence of artifacts in the fill similar to those in the deeper Seneca Village-related strata.

The test cuts in All Angels' and in Transect 3 provided the greatest amount of information about life in the village. The Wilson test cuts revealed how the house was constructed. A comparison of artifacts from the ground surface with those from the Wilson house showed some interesting differences. Taken together, the two different kinds of contexts – indoors vs. outdoors – provide better insight into village life than either one on its own. The remains from the buried A Horizon in Transect 3 suggest the kinds of activities that occurred outdoors, perhaps in backyards, such as smoking and drinking, and perhaps outdoor eating (seen in the faunal material), whereas those from the Wilson home were more clearly associated with kitchens and domestic tasks; the higher frequencies of storage containers and bottles support this hypothesis.

Perhaps of most interest, in our introduction to this report we outlined some of our research questions for the Seneca Village project. In Chapter 3 we explored some of the insights we have gained into issues related to those questions. Our first question had to do with whether or not archaeological traces of the village had survived the construction of the romantic landscape of Central Park in the 1850s in the intervening century and a half. We discovered that the answer to that question is a resounding yes. We encountered the foundation wall and associated deposits of the home of the Wilson family along with what appears to be a buried A Horizon related to the occupation of Seneca Village. The elevation of the ground surface allowed us to reconstruct a small part of the topography of the area. In addition, the artifacts we found associated with the Wilson house and with the ground surface associated with the Moore/Webster and Philips houses have enabled us to begin to explore another important research question related to the issue of African-American identity in the mid-19th century.

At the end of Chapter 3, we discussed the variable identities that Seneca Villagers might have claimed or affiliated themselves with. It is important to remember that this was a volatile period in New York City and American history marked by conflict between African Americans and Whites, conflict which might have increased the attractiveness of mutable identities among Blacks. As we noted, there are three obvious possibilities: "American," "African-American," or "African." Each of these identities could be marked by different behaviors, not all of which would be accessible archaeologically. It is likely that any of these could have been mobilized selectively when there was an advantage to doing so, be it social, economic, or psychological.

In our analyses we saw hints of each of these different identities: a joint identity of "American" and middle-class is visible, we think, in Seneca Village's built environment: the practice of home ownership, the number of substantial private homes, and the presence of three churches and a school. The high frequency of particular "small finds" (a toothbrush, a comb, a slate pencil, decorative buttons) reinforces this identity. The practice of yard-sweeping, however, probably expresses African traditions, which could also be reflected in the relatively high frequency of individual bowls, commonly used in some West African cuisines, and faunal material which may represent the cooking of stews. And the recovery of blue on white transfer-printed plates in a variety of patterns could well suggest an African-American adaptation which mixes the "American" (i.e., White middle class) identity with a behavior derived from the period of enslavement, in which individual plates, as opposed to sets of plates, may have underlined individual agency. It is clear that any interpretations such as these are hypothetical and will, we hope, provoke discussion with other researchers.

The Seneca Village project, combining extensive documentary research, soil study, and GPR, all done prior to excavation; the excavations themselves; and the analysis of the stratigraphy and the artifacts after the excavation, and public outreach via talks, site tours, and a website have thus far has been very fruitful. A sign of its success is that it has helped to generate much more attention to the village. A play, several books, poetry and music, two exhibits, as well as numerous newspaper articles, have been written about Seneca Village since the project began. We now have considerable information about the lives of many of those who lived there.
We plan to do more research with these materials and more writing, some of it oriented specifically to a public audience and to have the village become incorporated into school curricula. We are also trying to identify descendants of the people who lived in Seneca Village in order to add an oral history component to the study. Since our excavations in 2011, there has also been additional archaeological work: The Central Park Conservancy asked Richard Hunter and his team to conduct both archaeological investigations and further GPR survey in Seneca Village areas designated for ground disturbance in advance of Parks projects (Lee and Hunter 2016). In each case, the Hunter team discovered evidence of additional structures. So there may well be additional archaeology in Seneca Village's future that could add substantially to our discoveries

and reveal more about this important community. We hope our work will help to make the story of Seneca Village become a prominent chapter in New York City’s history.

REFERENCES CITED

Ace. 2017. The Ace Story. History. 1844 to 1899 http://aceformen.com/enUS/History/1844-1899.html. Accessed June 21, 2017.

Alexander, Leslie. 2008. *African or American? Black Identity and Political Activism in New York City, 1784-1861*. University of Illinois Press, Urbana.

Armstrong, Douglas V. 1990. *The Old Village and the Great House: An Archaeological and Historical Examination of Drax Hall Plantation, St. Ann's Bay, Jamaica*. University of Illinois Press, Urbana.

Baker, Vernon G. 1978. Historical Archaeology at Black Lucy's Garden, Andover, Massachusetts: Ceramics from the Site of a Nineteenth century Afro-American. *Papers of the Robert S. Peabody Foundation for Archaeology* 8. Academy, Andover, MA.

Baldwin-Jones, Alice. 1995. Historical Archaeology and the African-American Experience. Unpublished paper submitted to fulfill the course requirements for Historical Archaeology, Program in Anthropology. Copies available from the City University of New York Graduate Center, New York.

Barton, Christopher P., and David G. Orr. 2015. A Practice Theory of Improvisation at the African American Community of Timbuctoo, Burlington County, New Jersey. In *The Archaeology of Race in the Northeast*, Christopher N. Matthews and Allison Manfra McGovern, editors, pp. 198-211. University Press of Florida, Gainesville, FL.

Battle-Baptiste, Whitney. 2010. *Black Feminist Archaeology.* Left Coast Press, Walnut Creek, CA.

Bonasera, Michael, and Leslie Raymer. 2001. Good for What Ails You: Medicinal Use at Five Points. *Historical Archaeology* 35(3): 49-64.

Brown, Ann R. 1982. *Historic Ceramic Typology*, DelDOT Archaeological Series 15, DelDOT Dept of Archaeology and Historic Preservation, Dover, DE.

Busch, Jane. 1987. Second Time Around: A Look at Bottle Reuse. *Historical Archaeology* 21(1): 67-80.

Collectors Weekly. 2007-2017. Culture. Britains Toy Soldiers. http://www.collectorsweekly.com/toys/britains-toy-soldiers. Accessed June 21, 2017.

Colton, J.H. 1997 [1836]. Topographical Map of the City and County of New-York, and the Adjacent Country. In *Manhattan in Maps: 1527-1995,* by Robert T. Augustyn and Paul E. Cohen. Rizzoli, New York.

Conyers, Lawrence. 2005. GPR Surveys, Seneca Village Project Sites, Central Park, New York, Final Report. Institute for the Exploration of Seneca Village History, NY, NY.

_______2011. Short Report on GPR mapping Central Park, May 12-13, 2011. Institute for the Exploration of Seneca Village History, NY, NY.

Davidson, James Michael. 2004. *Mediating Race and Class through the Death Experience: Power Relations and Resistance Strategies of an African-American Community, Dallas, Texas (1869-1907).* PhD Dissertation, University of Texas. https://repositories.lib.utexas.edu/bitstream/handle/2152/1184/davidsonjm81614.pdf. Accessed August 27th, 2017.

Dripps, Matthew. 1851. Map of That Part of the City and County of New-York North of 50th St. Map Room, New York Public Library, New York, NY.

DuBois, W.E.B.1994 [1903] *The Souls of Black Folk*. Dover Publications, New York.
Fennell Christopher C., Terrance J. Martin, and Paul A. Shackel. 2010. New Philadelphia: Racism, Community, and the Illinois Frontier. *Historical Archaeology* 44(1).

Ewen, Norman. 1857. Report of Progress in Third Division. In First Annual Report of the Improvement of the Central Park, New York, 61-70. Charles W. Baker, New York.

Fennell, Christopher, Terrance J. Martin, and Paul A. Shackel, eds. 2010. New Philadelphia: Racism, Community, and the Illinois Frontier. *Historical Archaeology* 44(1).

Fike, Richard E. 1987. *The Bottle Book: A Comprehensive Guide to Historic Embossed Medicine Bottles*. Peregrine Smith, Salt Lake City, UT.

Franklin, Maria. 2001. The Archaeological Dimensions of Soul Food. In *Race and the Archaeology of Identity*, Charles E. Orser, Jr., editor, pp. 88-107. University of Utah Press, Salt Lake City.

Gayle, Margot and David W. Look. 1992. *Metals in America's Historic Buildings. Part I A Historical Survey of Metals.* U.S. Department of the Interior, National Park Service Cultural Resources Preservation Assistance, Washington D.C.

Haberman, Clyde. 1997. The History Central Park Almost Buried. *The New York Times.* 28 February. New York, NY. http://www.nytimes.com/1997/02/28/nyregion/the-history-central-park-almost-buried.html. Accessed 18 June 2017.

Harris, Leslie M. 2003. *In the Shadow of Slavery: African Americans in New York City, 1626-1863.* University of Chicago Press, Chicago.

Heath, Barbara J., and Amber Bennett. 2000. "The little Spots allow'd them": The Archaeological Study of African American Yards. *Historical Archaeology* 34(2):38-55.

Howson, Jean E. 1993. The Archaeology of 19th-Century Health and Hygiene at the Sullivan Street Site, New York City. *Northeast Historical Archaeology* 22(1): 137-160.

Jacobucci, Susan A., and Heather B. Trigg. 2012. Pollen and Macrobotanical Analyses of Soils from Seneca Village, New York. *Cultural Resources Management Study* 57. Andrew Fiske Memorial Center for Archaeological Research, University of Massachusetts, Boston, MA.
Koeppel, Gerard T. 2000. *Water for Gotham: A History.* Princeton University Press, Princeton, NJ.

Landon, David. 2007. *Investigating the Heart of a Community: Archaeological Excavations at the African Meeting House, Boston, Massachusetts*. Andrew Fiske Memorial Center for Archaeological Research, University of Massachusetts, Boston, MA.

Lee, James and Richard Hunter. 2016. Archaeological Investigations West 84th Street/Mariners' Playground, West 86th Street/Spector Playground, Central Park, New York. Hunter Research, Trenton. Report on file with the Central Park Conservancy.

Leone, Mark. 2005. *The Archaeology of Liberty in An American Capital: Excavations in Annapolis*. University of California Press, Berkeley.

Lindsay, Bill. 2017. Historic Glass Bottle Identification & Information Website. U.S. Bureau of Land Management and Society for Historical Archaeology. https://sha.org/bottle/index.htm.

Linn, Meredith B. 2010. Elixir of Emigration: Soda Water and the Making of Irish-Americans in Nineteenth-Century New York City. *Historical Archaeology* 44(4):69-109.

_______2014. Irish Immigrant Healing Magic in 19th-century New York City. *Historical Archaeology* 48(3):144–165.

Lockhart, Bill. 2006. The Color Purple: Dating Solarized Amethyst Container Glass. *Historical Archaeology* 40(2):45-56.

Martin, Douglas. 1995. Before Park, Black Village; Students Look into a Community's History. *The New York Times* 7 April. New York, NY. http://www.nytimes.com/1995/04/07/nyregion/before-park-black-village-students-look-into-a-community-s-history.html. Accessed June 22, 2017.

_______1997. A Village Dies, A Park Is Born. *The New York Times* 31 January. New York, NY. http://www.nytimes.com/1997/01/31/arts/a-village-dies-a-park-is-born.html . Accessed June 22, 2017.

Maryland Archaeological Conservation Lab [MAC Lab]. 2015a. Printed Underglaze Earthenware. Jefferson Patterson Park and Museum. State Museum of Archaeology. http://www.jefpat.org/diagnostic/Post-Colonial%20Ceramics/Printed%20Earthenwares/index-PrintedEarthenwares.html. Accessed June 20, 2017.

_______2015b. Rockingham Ware. Jefferson Patterson Park and Museum, State Museum of Archaeology. <http://www.jefpat.org/diagnostic/post-Colonial%20ceramics/Less%20Commonly%20Found/Rockingham/index-Rockingham.html>. Accessed June 20, 2017.

McAlester, Virginia Savage. 2015. *A Field Guide to American Houses.* Alfred A. Knopf. New York, NY.

McKnight, Justine. 2014. "Observations. Three Flotation-recovered Samples from Seneca Village." Report. Institute for the Exploration of Seneca Village History, New York, NY.

McNeur, Catherine. 2014. *Taming Manhattan: Environmental Battles in the Antebellum City*. Harvard University Press, Cambridge, MA.

Mattick, Barbara E. 2010. *A Guide to Bone Toothbrushes of the 19th and Early 20th Centuries*. Xlibris Press, Bloomington, IN.

Miller, George L., and Patricia Samford, Ellen Shlasko, and Andrew Madsen. 2000. Telling Time for Archaeologists. *Northeast Historical Archaeology* 29:1-22.

Mudge, Jean McClure. 1962. *Chinese Export Porcelain for American Trade, 1785-1835.* University of Delaware Press, Newark, DE.

Mullins, Paul. 1999. *Race and Affluence: An Archaeology of African America and Consumer Culture*. Kluwer Academic/ Plenum Publishers, New York.

______2001. Racializing the Parlor: Race and Victorian Bric-a-Brac Consumption. In *Race and the Archaeology of Identity,* Charles E. Orser, editor, pp 158-176. Univ. of Utah Press, Salt Lake City, UT.

______2006. Racializing the Commonplace Landscape: An Archaeology of Urban Renewal Along the Color Line. *World Archaeology 38*(1): 60-71.

______2008. Marketing in a Multicultural Neighborhood: An Archaeology of Corner Stores in the Urban Midwest. *Historical Archaeology* 42(1): 88-96.

Nash, Gary B. 1988. *Forging Freedom: The Formation of Philadelphia's Black Community, 1720-1840*. Harvard University Press, Cambridge, MA.

New York City. 1829, 1836, 1840. Tax Assessment Records [NYTAR]. Collection of New York City Municipal Archives, Bureau of Old Records, New York, NY.

_______1856. Affidavits of Petition. Collection of New York City Municipal Archives, Bureau of Old Records, New York, NY.

_______1919. The City Record: Official Record. Thursday August 28, 48(14072):4575. New York, NY.

New York State [NYSC]. 1855. Census of the State of New York, County of New York. Research Division, New York Public Library, NY.

Ng, Olivia. 1999. Seneca Village Perspectives. Senior thesis, Department of Anthropology, Columbia University. Manuscript on file with the Institute for the Exploration of Seneca Village History, New York, NY.

Otto, John Solomon. 1984. *Cannon's Point Plantation 1794-1860: Living Conditions and Status Patterns in the Old South*. Academic Press, Orlando, FL.

Palus, Matthew. 2010. *Materialities of Government: A Historical Archaeology of Infrastructure in Annapolis and Eastport.* Ph D dissertation, Department of Anthropology, Columbia University, NY.

Peters, John Punnett, ed. 1907. *Annals of St. Michael's: Being the History of St. Michael's Protestant Episcopal Church, for One Hundred Years, 1807-1907.* G. P. Putnam, New York, NY.

Poe, Tracey N. 1999. The Origins of Soul Food in Black Urban Identity: Chicago, 1915-1947. *American Studies International* 37(1):4-33.

Praetzellis, Mary, and Adrian Praetzellis. 1992. "We Were There, Too": Archaeology of an African-American Family in Sacramento, California. Cultural Resources Facility, Anthropological Studies Center, Sonoma State University. Rohnert Park, CA.

______2004. Putting the "There" There: Historical Archaeologies of West Oakland. Anthropological Studies Center, Sonoma State University. Rohnert Park, CA.

Ramirez, Anthony. 1998. Neighborhood Report: New York On Line; Reconstructing Central Park's Black History. *The New York Times* 22 February. New York, NY. http://www.nytimes.com/1998/02/22/nyregion/neighborhood-report-new-york-on-line-reconstructing-central-park-s-black-history.html. Accessed 18 June 2017.

Randel, John Jr. 1819-1820. The City of New York as Laid out by the Commissioners Appointed by an Act of Legislature. Manhattan Borough President's Office, New York.

MCNY web site: http://gigapan.com/gigapans/fa872952d35e237828aea5dda50b3126/ Accessed June 20, 2017.

Reckner, Paul. 2002. Remembering Gotham: Urban Legends, Public History, and Representations of Poverty, Crime, and Race in New York City. *International Journal of Historical Archaeology* 6(2):95-112.

Rosenzweig, Roy, and Elizabeth Blackmar. 1992. *The Park and the People: A History of Central Park.* Cornell University Press, Ithaca, NY.

Rothschild, Nan A. 1991. The Outdoors as Living Space: Ethnoarchaeology at Zuni Pueblo, NM. Special Issue on Ethnoarchaeology, Carol Kramer and William A. Longacre, editors. *Expedition* 33(1):24-33.

Sage, Gardner A. 1856. Central Park Condemnation Map. Municipal Archives, New York, NY.

Salwen, Peter. 1989. *Upper West Side Story.* Abbeville Press, New York, NY.

Selby, Suanna C. 2005. The Seneca Village Soil Testing Program, Fall 2004: Summary of Observations. Prepared for Drs. Nan Rothschild, Diana Wall, and Cynthia Copeland and the Seneca Village Advisory Board. Institute for the Exploration of Seneca Village History, New York, NY.

Shepherd, Steven Judd. 1987. Status Variation in Antebellum Alexandria: An Archaeological Study of Ceramic Tableware. In *Consumer Choice in Historical Archaeology*, Suzanne Spencer-Wood, editor, pp.163-198. Plenum, New York, NY.

Tower, F.B. 1843. *Illustrations of the Croton Aqueduct*. Wylie and Putnam, New York, NY.

United States Bureau of the Census (USBC). 1850. *Population Schedules of the Seventh Census of the United States, 1850*. Research Division, New York Public Library, New York, NY.

_______1860. *Population Schedules of the Eighth Census of the United States, 1860*. Research Division, New York Public Library, New York, NY.

Viele, Egbert L. 1856. Topographical Survey for the Grounds of Central Park. The New-York Historical Society, NY.

________. 1857. *First Annual Report on the Improvement of The Central Park, New York.* Baker, New York, NY.

________. 1865. Topographical Map of the City of New York Showing Original Water Courses and Made Land. Map Division, New York Public Library, NY.

Wall, Diana diZerega. 1991. Sacred Dinners and Secular Teas: Constructing Domesticity in Mid-19th-Century New York. *Historical Archaeology* 25:69-81.

_______. 1994. *The Archaeology of Gender*. Plenum, New York.

_______. 1999a. Examining Gender, Class, and Ethnicity in 19th-Century New York City. *Historical Archaeology* 33:102-117.

_______. 1999b. Family Meals and Evening Parties: Constructing Domesticity in 19th-Century Middle-Class New York. In *Lines That Divide: Historical Archaeological Studies in Race, Class, Gender and Ethnicity*, James Delle, Stephen Mrozowski, and Robert Paynter, editors, pp. 109-141. University of Tennessee Press, Knoxville.

Wall, Diana di Zerega, Nan A. Rothschild, and Cynthia Copeland. 2008. Seneca Village and Little Africa: Two African American Communities in Antebellum New York City. *Historical Archaeology* 42(1):97-107.

Wall, Diana di Zerega, Nan A. Rothschild, and Meredith B. Linn. Forthcoming. "constructing Identity in Seneca Village." In *O Brave New World. The Archaeology of Identity in Contexts of Dissonance*, edited by Diane George and Bernice Kurchin. University Press of Florida, Tallahassee, FL.

Walthall, John A. 2013. Queensware Direct from the Potteries: U.S. Importers of Staffordshire Ceramics in Antebellum America 1820-1860. *Studies in Archaeological Material Culture*, no. 1. Illinois State Archaeological Survey, Champaign-Urbana. (https://sha.org/assets/documents/Staffordshire_ceramic_importers-ISAS.pdf). Accessed June 21, 2017.

Warner, John W., and Willis E. Hanna. 1982. Soil Survey of Central Park. Prepared by the US Department of Agriculture Soil Conservation Service in cooperation with Cornell University Agricultural Experiment Station. Institute for the Exploration of Seneca Village History, New York, NY.

Warner, Mark. 1998. Food and the Negotiation of African American Identities in Annapolis, Maryland and the Chesapeake. Ph.D. Dissertation, Department of Anthropology, University of Virginia, Charlottesville.

Wetherbee, Jean. 1996. *White Ironstone : A Collector's Guide*. Antique Trader Books, Dubuque, IA.

Wilder, Craig Steven. 2001. *In the Company of Black Men: The African Influence on African American Culture in New York City*. New York University Press, NY.

Wilkie, Laurie. 1996. Medicinal Teas and Patent Medicines: African-American Women's Consumer Choices and Ethnomedical Traditions at a Louisiana Plantation. *Southeastern Archaeology* 15(2):119-31.

Young, James Harvey. 1961. *The Toadstool Millionaire: A Social History of Patent Medicines in America before Regulation*. Princeton University Press, Princeton, NJ.

Notes:

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[1] We still have questions about the Croton system and its impact on Seneca Village. Although for most of their length the pipes were above ground (Rosenzweig and Blackmar 1992:62), it seems likely that they were below ground when they ran through the village. Peters (1907:82) described them as "disappearing beneath the surface" at around 84th St. Contemporary maps show just the line of the aqueduct. Furthermore, at least one source shows the pipes carrying the water passing through Seneca Village on 86th Street and not 85th Street (Colton 1836).

[2] Five years after the passage of the law, the city's African American population had declined by 15% (Harris 2003:275).

[3] This analysis of who lived in Seneca Village in 1855 is based on a close study and comparison of two sources, the 1855 NY State Census and the Sage map of 1856. The sources do not agree completely, and we have made some interpretive leaps based, for example, on the order in which names appear in the census and potential routes of the census taker(s).

[4] The more detailed 1855 NY State Census shows in that year that the village's African American residents had been born in four different New York counties, eight different states other than NY (VA, MD, NJ, PA, GA, RI, ME, and the District of Columbia) and one, Charles Silvan, had been born outside the U.S., in Haiti (NYSC 1855 **- Appendix I**).

[5] Some unmarried younger black men did work in service, however, including some of the Wilson sons, for example (NYSC 1855 - Appendix I).

[6] Access to education appears to have been engendered in New York's African American community, just as it was in the European American community. Although nearly two-thirds of the men could read and write, only about one third of the women were listed as literate in the 1850 census.

[7] The breakdown of the dwellings is as follows: 11 shanties, 7 1-story, 6 1.5- story, 21 2- story, 1 2.5- story, and 5 3-story houses (Marie Warsh pers. comm. 2018).

[8] Peter Salwen's book *Upper West Side Story* (1989) mentioned the village, but it was Rosenzweig and Blackmar's extensively-researched chapter that brought the village into the modern imagination.

[9] Please note that this stage of testing was preliminary and Versteeg did not create a report.

[10] A copy of Selby's (2005) report is on file with the Landmarks Preservation Commission.

[11] According to the New York State Census of 1855 **(Appendix I)**, the Wilson family was composed of the following members: William G[odfrey] (head, age 41, porter), Charlot[te] (wife, age 39) William H. (child, age 17, waiter), Joseph (child, age 15), John (child, age 13), Josiah (child, age 11), Charlotte (child, age 7), James (child, age 5), Mary (child, age 3), and David (child, age 4 months). The 1860 Federal Census suggests that another child, Morris, was born to the family around 1856.

[12] See the section in Chapter 3 titled "The Topography in Transect 3" for information about the families who occupied these houses.

[13] The names for these excavation areas were derived from Suanna Selby's map of the soil corings (2005). We recognize that using the term "transect" to describe an area of excavation might seem unusual to some readers. In our 2011 excavation of Seneca Village, Transect 3 and Transect 4 are the equivalent of what in other projects might be called "Excavation Area 3" and Excavation Area 4." The names Transect 3 and Transect 4 were retained in order

to clearly indicate that the areas excavated were the same as those tested through soil coring in 2004 and by GPR in 2005 and 2011.

[14] Note that because we excavated several excavation units simultaneously, the context numbers for each excavation unit are not contiguous.

[15] Small finds numbers were assigned numerically, beginning with 1.

[16] Again, “analytical context” or “interpretive context” are synonyms for our use of the term “strata cluster.” Thus, “strata Cluster” is used to refer to sets of soil strata that we think were deposited at the same time as part of the same historical event.

[17] By “stem wall,” we mean the above-ground extension of a foundation. It serves to support the walls of the structure and was a common building technique in the 19th century, as it is today.

[18] Beginning with cx. 39, TC A and TC A North Extension were excavated together**.**

[19] Some contexts were later determined to have been included in more than one Strata Cluster

[20] If, in fact, this layer contained the buried A Horizon that was the SV ground surface, the lack of many artifacts within this layer could indicate that the Wilsons and their neighbors regularly swept their yards, a traditional practice in many parts of Africa and the New World to keep the areas outside homes clean and to keep away animals and insects. We develop this idea in Chapter 3.

[21] Context 54 is in both SCs 4A and 6A.

[22] Ewen reduces his area of concern from that bordered on the east by Sixth Avenue, to Seventh Avenue because the Reservoirs, which are located south of 86th Street, extend west to Seventh Avenue.

[23] In 1850, when she was 60, Nancy Moore lived there with three other women, Phillis Prince (aged 68), Sarah Bennett (aged 58), and Mary Shantlin (aged 28), and the property was valued at $3000 (USBC 1850). All of these women had been born in Connecticut. The Websters lived there with their children. George, junior, who was three at that time, and 4 other children: Malvina 18 (who worked as a domestic), John, 16, Benjamin, 13, and Edward Hall, 7. The Hall children were listed as the step children of George Webster, and presumably were Eliza Webster’s children from an earlier marriage. George Webster had been born in Virginia, while his wife and all of the children had been born in New York (NYSC 1855 **– Appendix I**).

[24] The records are ambiguous in revealing when the Wilson house was built and when the Wilsons moved onto the property. The house was located on Lots 52 and 53 of Block 785. The tax records for 1849 list William Wilson as being assessed for Lot 52, but no house is listed on the property. In 1850, Lot 52 is not mentioned but All Angels’ Church is assessed for Lot 53, with no house listed on the property. In 1851, Lot 52 is not mentioned, but Lot 53 is listed twice, each time assessed to All Angels’; no house is listed on either lot. It is only in 1852 that William G. Wilson is assessed for a house on Lot 52. The tax records may well be inaccurate and the Wilsons could have lived on the property as early as 1849, or they may not have moved in until 1852. The census data for 1850 show the Wilson family living in that general vicinity in that year (USBC 1850).

[25] We are grateful to Jessica Striebel MacLean, Urban Archaeologist at the NYC Landmarks Preservation Commission, for suggesting that the roofing material we found is likely tinplate and for sharing a copy of Gayle and Look’s (1992) study.

[26] Although some tinplate was painted light green, presumably to imitate more costly copper, most was painted with “tinner’s red.” Tinner’s red has a red or reddish-brown color like that of rusted iron (Gayle and Look 1992:12), thus similar in color to the fragments. Tinplate was sold in rectangular sheets measuring approximately 10 by 14 inches

through the 1830s, afterwards larger plates measuring approximately 14 by 20 inches began to be produced. None of the fragments we discovered were larger than either of these standard sizes, and some fragments still retained rectilinear corners, suggesting they were what remained of rectangular sheets. Additionally, most early tinplate roofs were soldered together with flat seams, similar to those we observed on some of the fragments, to produce a waterproof covering (the standing seams now often associated with tin roofs did not become popular until the 1860s) (Gayle and Look 1992:12). Gayle and Look (1992) do not describe how the free edges of tinplate roofing were constructed. Additional research into these finishing techniques and how they compare with the folded and rolled edges on some of the fragments we discovered, would help to further confirm that the Wilsons had a tinplate roof, but the evidence thus far leans heavily in that direction.

[27] It is possible that the Wilson house stood empty or in partial ruins for several months before it was completely demolished and its remains buried. According to Park reports, most of the residents of the *entire area* that was to become the Park were evicted by the fall of 1857, and most of the buildings had been demolished and cleared by the spring of 1858, when the construction of the Park began. However, the reports do not specify when the Seneca Village buildings were taken down and when construction in this particular area of the Park took place; maps within the reports suggest that this portion of the Park was not completed until 1863 (Marie Warsh, pers. comm. 2018).

[28] It should be noted that yard-sweeping was not and is not exclusively an African or African-American practice. As Barton and Orr note, it is a practice found among many groups in the United States (2015:208; see also Rothschild 1991).

[29] We observed that it was wet in the field after rains, and we believe that the area was also wet when the village was occupied because of botanical evidence (Jacobucci and Trigg found pollen from water-loving plants in the soils sampled from TR 3, indicating a wet area nearby), geological evidence (we encountered glacial clays in the lowest layers of some of the test cuts in that area that would have trapped water in the soil), and cartographic evidence (the 1856 Viele map suggests that area was used for gardening/agriculture). Villagers might have deposited refuse, including broken dishes and food scraps in this area to aid drainage and fertilize crops, respectively.

[30] The Sage Map (1856) indicates the Moore/Webster house had a cellar, for example, where residents might have stored homemade sauces and beverages in bottles, as was common practice during this period (Busch 1987).

[31] We wonder if the Wilsons might not have taken the wood from their own house after they were evicted to help build their new home near West End Avenue, where All Angels' Church moved. The 1860 Federal Census shows them living in a single-family house with a personal estate valued at $1000, but not including real estate. Perhaps they owned the house but not the land, which may have been owned by the Church.

[32] Note that stem wall stones were neither counted nor weighed, but were indicated in photographs and plan and profile drawings.

[33] Illnesses that sarsaparilla makers claimed their product could cure included dysentery, tuberculosis, typhus fever, rheumatism, scurvy, and syphilis, among other diseases then thought to arrive from "poisoning of the blood." It became well-known especially as an alternative to the mercury prescribed by professional physicians to treat syphilis (Young 1961:61-63, 187; Howson 1993:149). Other ingredients in sarsaparilla could include potassium iodide, cinchona, and senna (Fike 1987:214).

[34] In 1850 (the only year for which such information is available), five of the Wilson children (William, Jr., Josiah, John, Isaiah, and Charlotte) were listed as having attended school within the year (USBC 1850).

[35] Most of the table and teawares popular in the United States before the late 19th century were made in England.

[36] Archaeologists have also found these types of ceramics (typically linked with White middle class) in association with working-class European immigrant families residing in the Five Points neighborhood in Lower Manhattan,

including a teapot similar to CV 80. These archaeologists have made arguments similar to ours that the presence of these types of ceramics, along with hygienic items and children's toys, suggest that the negative reputation of this so-called slum neighborhood was inaccurate and colored by class and ethnic prejudice (Reckner 2002) and, additionally, that the same artifacts might have different meanings for different peoples (Linn 2008).

[37] This is inferred from the lack of fancier sets of cups and saucers in these assemblages.

[38] There were also teacups that matched plates in All Angels', suggesting that each person might have had their own matched place-setting of dishes. A transfer-printed teacup (CV 55) in a Gothic revival pattern matched a supper plate (CV 54), and flow blue teacup (CV 50) appears to match a plate (CV 49). In addition, there is a possible match between a plain molded ironstone/ white granite saucer and a supper plate.

[39] The categories "cow-sized" and "pig-sized" indicate a higher probability that bones came from these taxa, than the categories "large mammal" or "medium mammal."

[40]It is possible that the Villagers were eating boneless cuts of meat that would not leave much trace in the archaeological record.

[41] One organization that was part of the latter movement, The American Colonization Society, actually began in 1821 to purchase the land that became Liberia for resettlement (Nash 1988:79; Alexander 2008). The disillusionment of Blacks with the ACS and fears of forcible resettlement resulted in their abandonment and discrediting of the term "African," used in the naming of numerous Black institutions (including the African Burial Ground) up until the mid-19th century (Wilder 2001:158).

[42] According to Susan Mattick (2010:25) by the 1920s still only about twenty percent of the population of the U.S. used toothbrushes.

[43] Similarly, African Americans used teacups both for drinking regular tea and for drinking homemade medicinal teas. They used leaves from elderberry trees, for example, to make a tea to treat rheumatism (Wilkie 1996:22). Remains of elderberries were found in the soil samples from both All Angels' and TR 3.

Appendix A: Figures

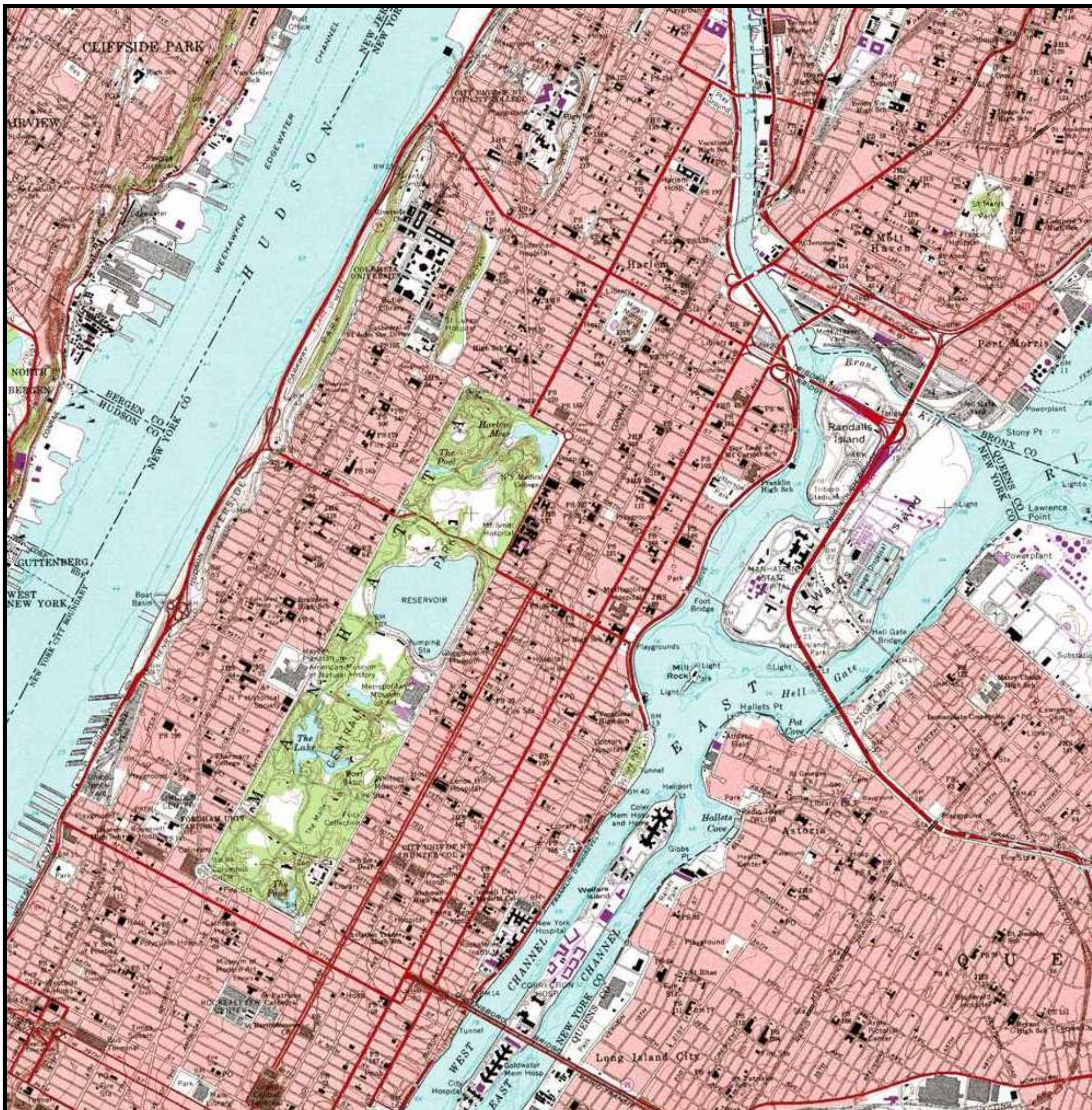


Figure 1.1: USGS sheet, Central Park quadrant, detail. Seneca Village was located to the southwest of the reservoir.

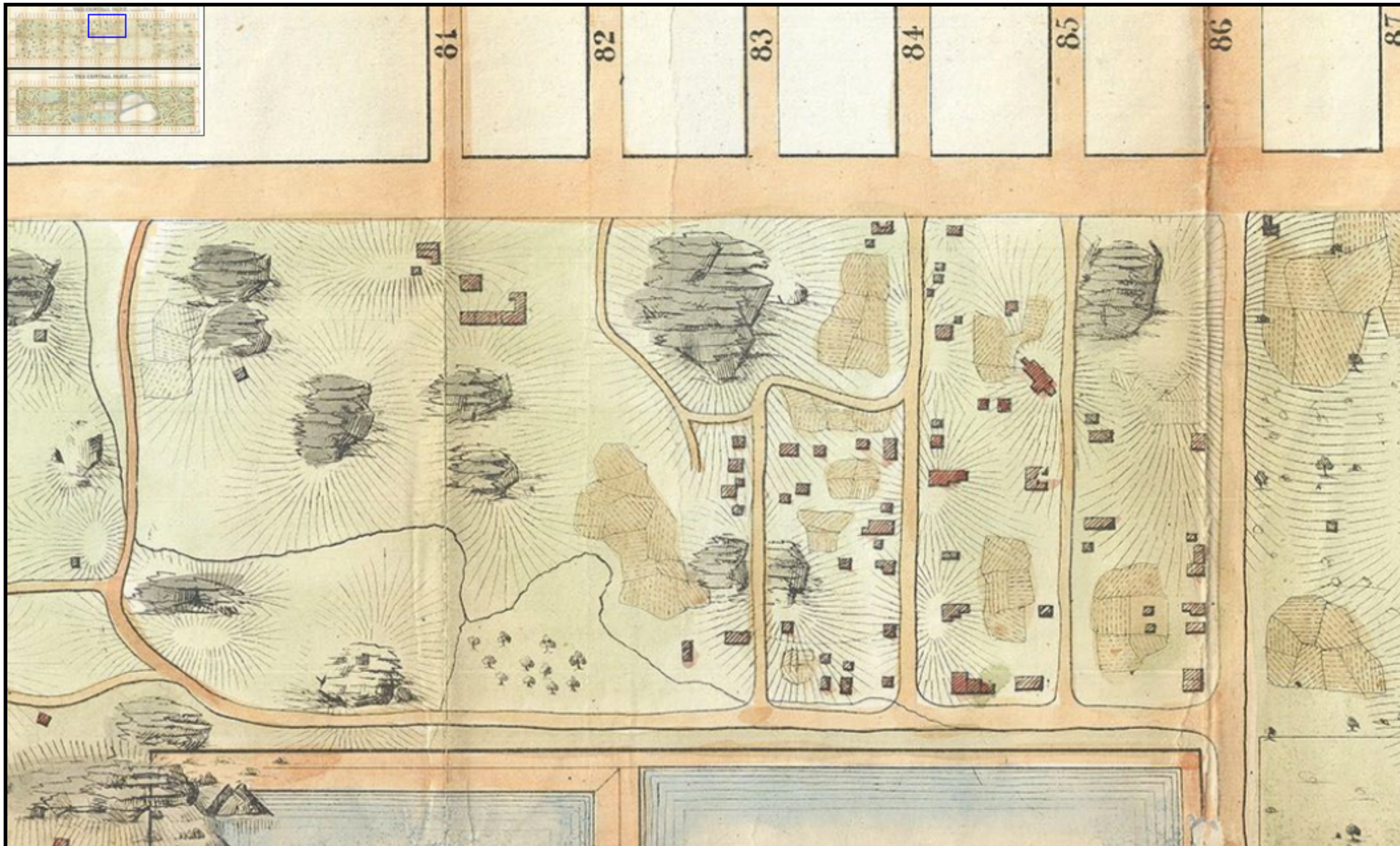


Figure 1.2: "Map of the lands included in the Central Park" (Viele 1856, published in Viele 1857, courtesy of Geographicus.com). Detail showing Seneca Village. The rectangles at the bottom of the map indicate the original Croton Aqueduct Receiving Reservoir, completed in 1842.

Figure 1.3: Crew member Randy Henry discusses his research about stoneware storage vessels found at the site with visitors at the Seneca Village Open House, August 2011.

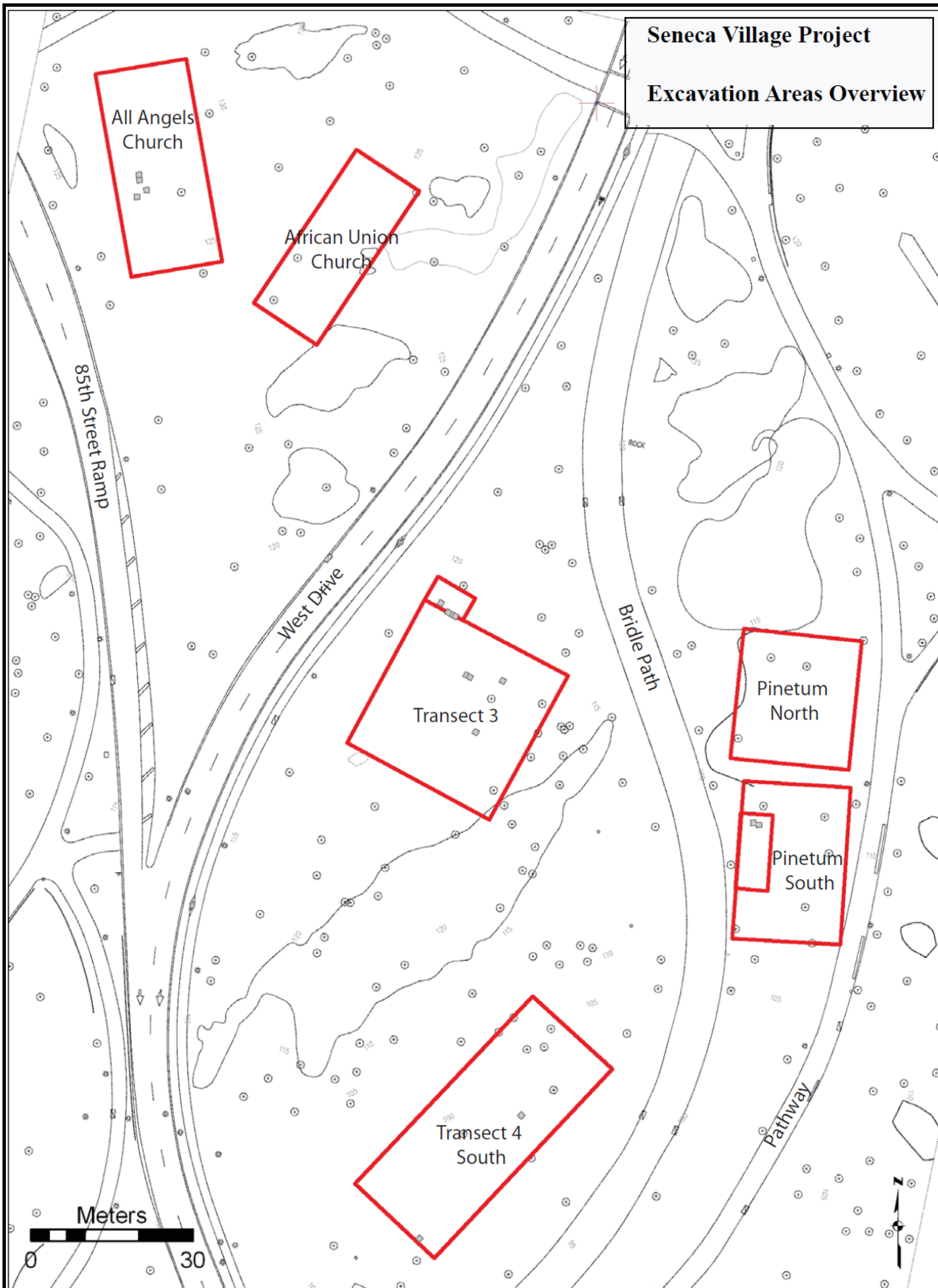


Figure 2.1: Seneca Village 2011 excavation site map. Note that no excavation was performed in the Pinetum North, and that some of the test cuts and shovel tests are not included here. See detailed maps of each area (Figures 2.2a, 2.8, 2.15, and 2.16).

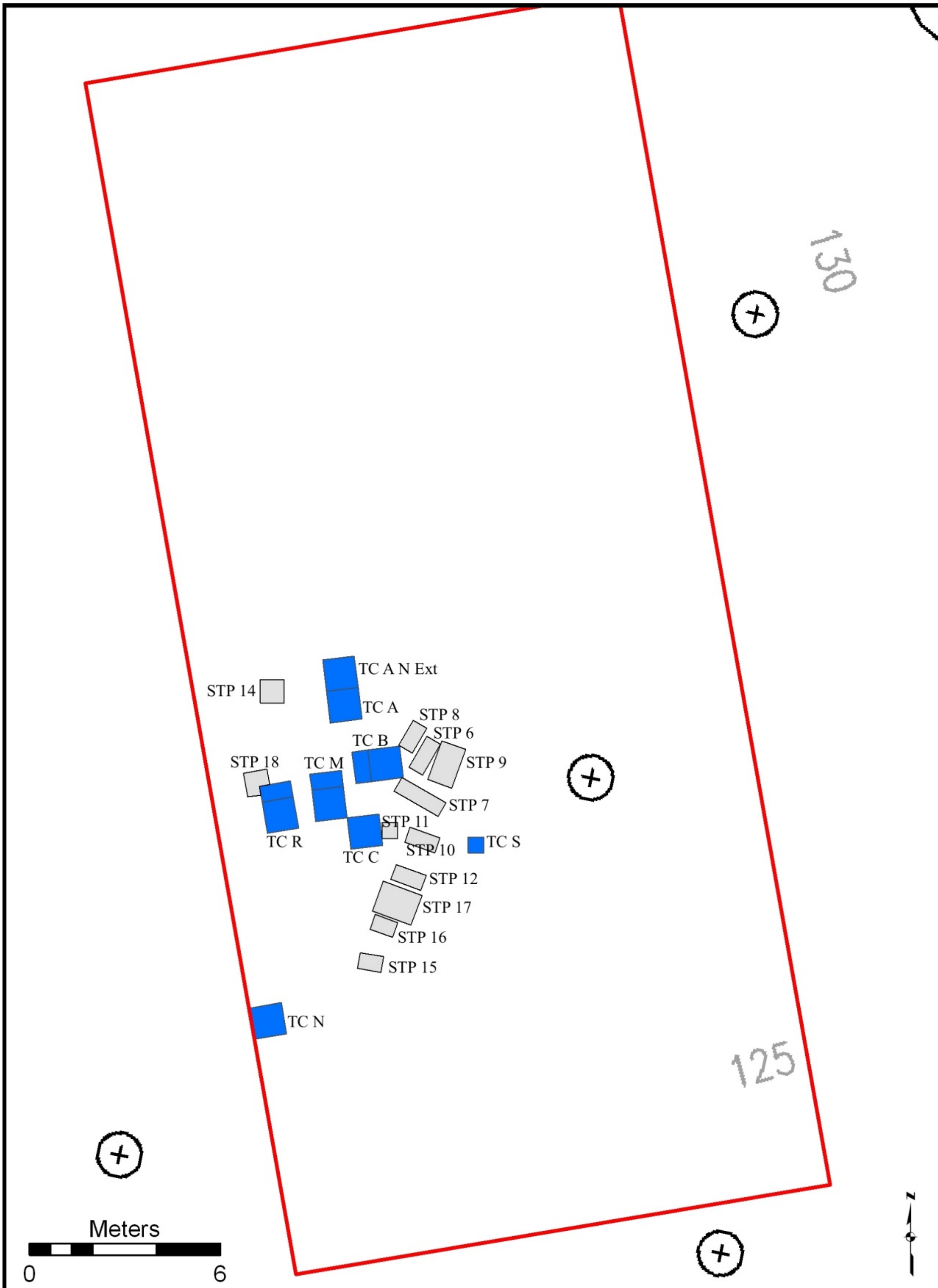


Figure 2.2a: A map of the excavation units in the All Angels' transect.

Figure 2.2b: Superposition of the map of excavation units in All Angels' with the Sage (1856) map, showing the Wilson house to the north and C. Wallace's "shanty" to the south. The alignment of the Sage map is not perfect; we found the north wall of the Wilson house running through TC A (and possibly STP 8), the northwest corner of the wall in STP 14, the west wall in STP 18, the east wall in STP 12 (and possibly 7 and 10), and the southern wall in STP 17.

Figure 2.3a: Part of the Wilson house's foundation wall that was exposed in TC A. Displaced bricks and stones can be seen in the walls of the test cut.

Figure 2.3b: Field photograph showing the approximate footprint of the Wilson House outlined in bricks on the last day of the excavation. Crew member Madeline Landry is finishing a profile drawing in Test Cut R.

Figure 2.4: An in-situ photograph of the roasting pan, kettle, and ointment pot found in TC B, within the ruins of the Wilson house. The artifacts were embedded within the western wall of the original 1 x 1 m. TC B.

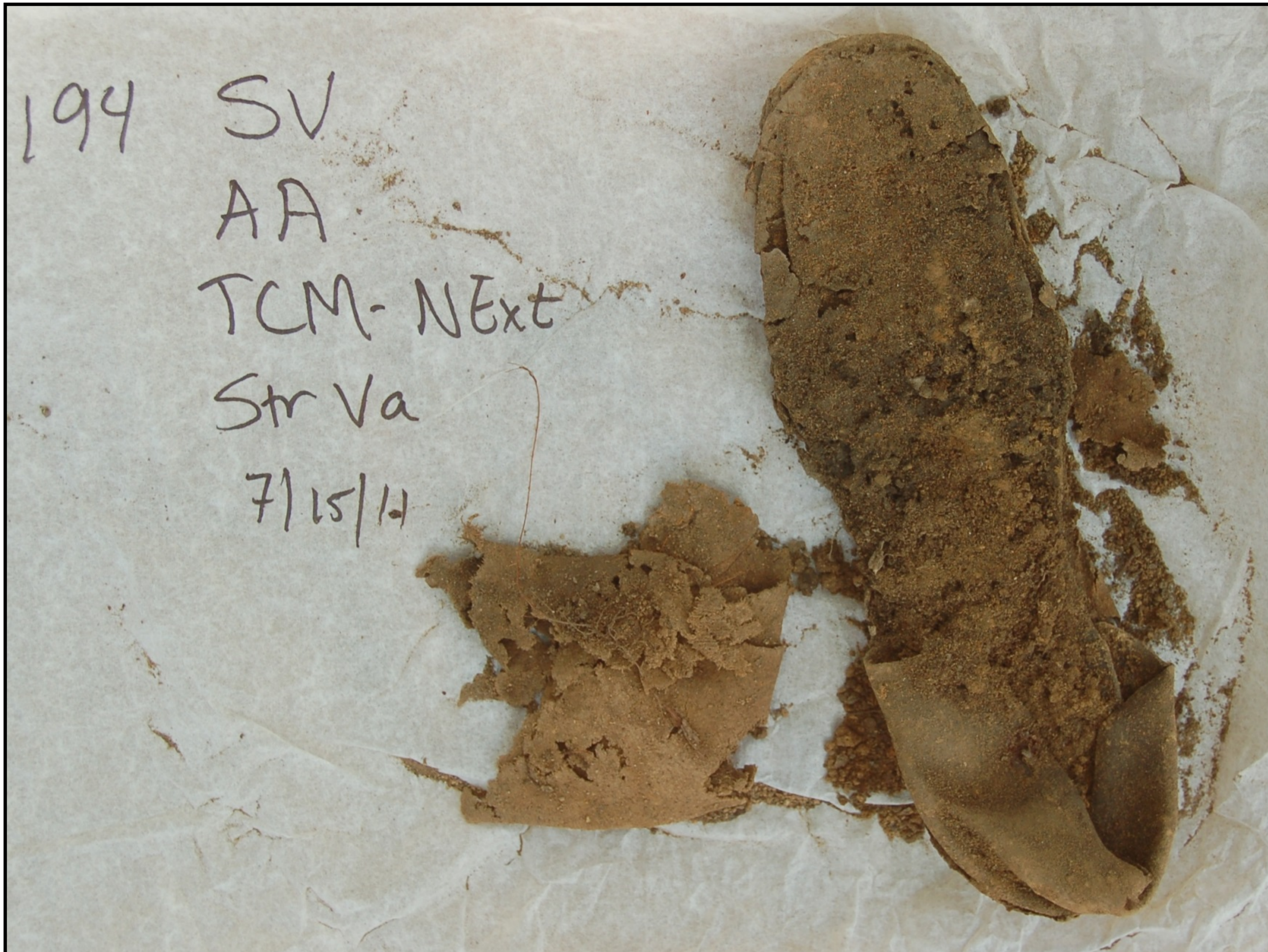


Figure 2.5: A field photograph of the fabric and leather shoe found within TC M.

Figure 2.6: A field photograph of an iron box (S 46) found in TC M, within the ruins of the Wilson house.

Figure 2.7: A field photograph of chimney rubble from the Wilson house exposed in TC R.

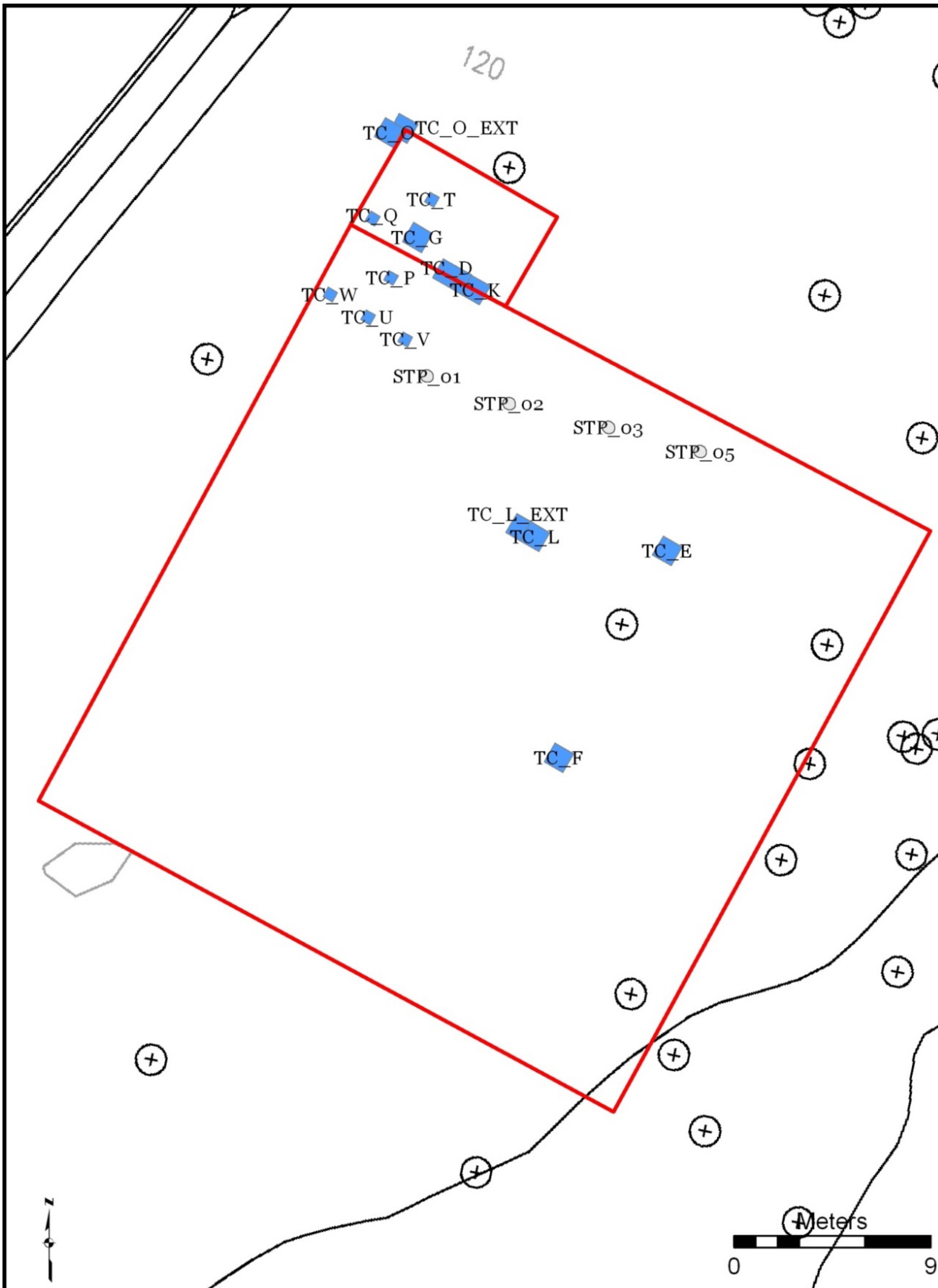


Figure 2.8: A map of the excavation units in Transect 3 and part of the West Drive in the northwest corner.

Figure 2.9: The light blue transfer-printed teapot found atop the buried A Horizon in TCs D and K.

Figure 2.10: A field photograph of the northern profile of TCs D and K showing the buried A Horizon.

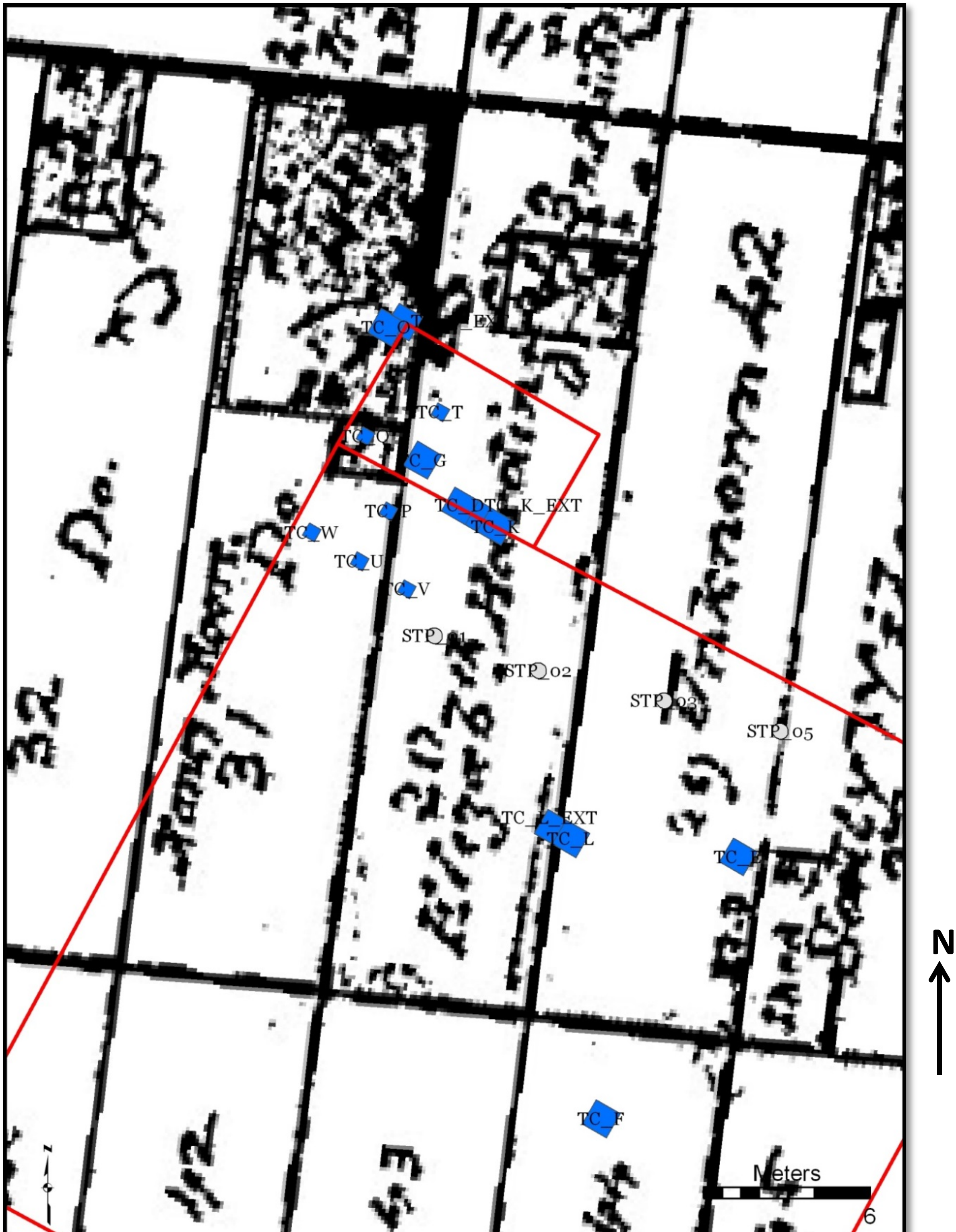


Figure 2.11: Superposition of the map of excavation units in Transect 3 with the Sage (1856) map, showing the Moore/Webster and Philips houses towards the north and Sally Wilson's shed towards the southeast.

Figure 2.12: Nearly half of an ironstone/ white granite plate found atop the buried A Horizon in TC P.

Figure 2.13: Superposition of the map of excavation units in Transect 3 with the Sage (1856) map, showing the structures of Seneca Villagers, including Nancy Wilson's shed and Philip Dunn's "shanty" (at the bottom center of the image).

Figure 2.14: A field photograph showing a terracotta drainage pipe discovered in TC F, believed to be original to Central Park's construction and to date to about 1860.

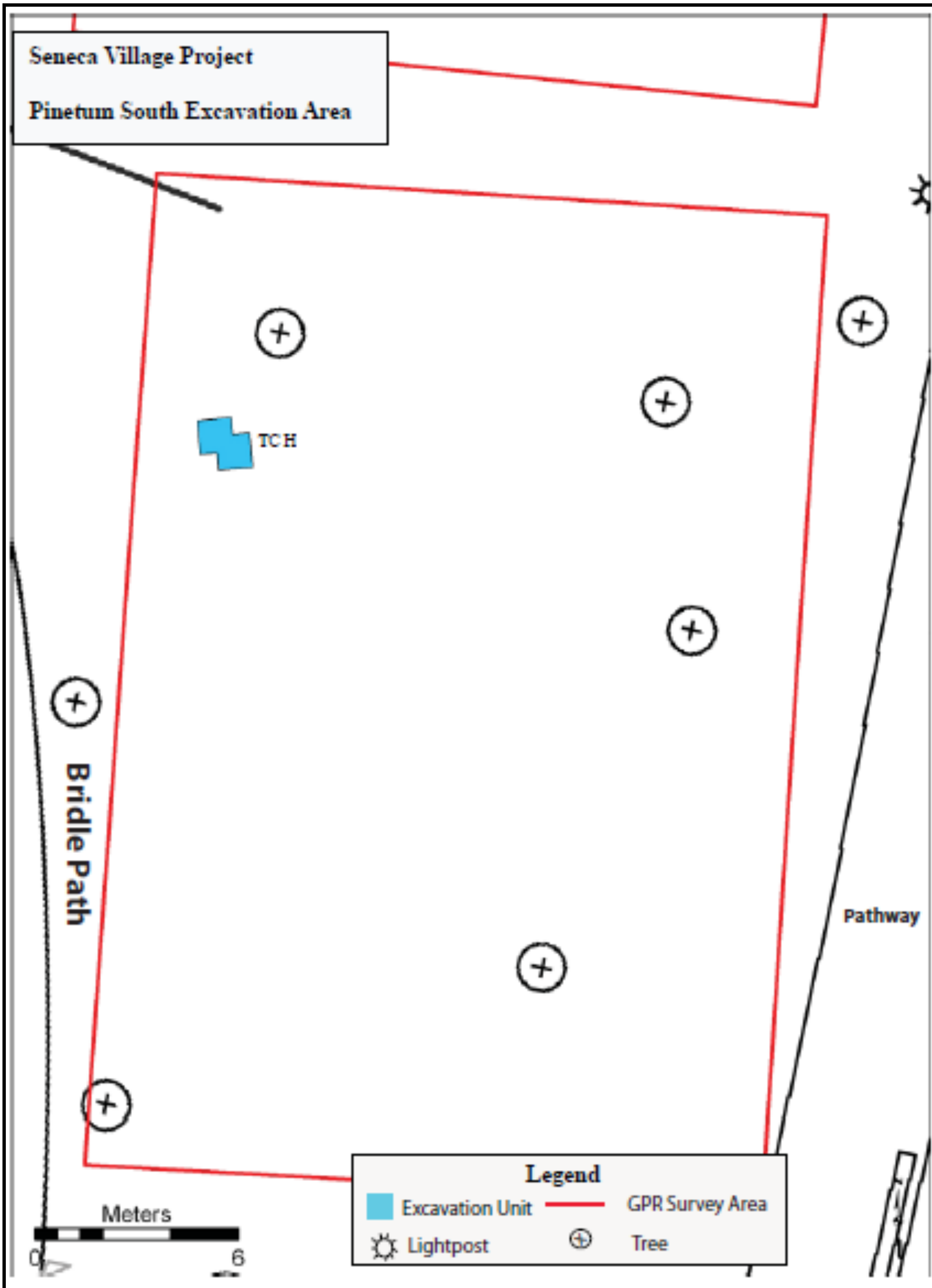


Figure 2.15: A map of Test Cut H in the Pinetum South transect.

Figure 2.16a: A field photograph of the manhole cover unearthed in TC H.

Figure 2.16b: A field photograph of the manhole cover unearthed in TC H after cleaning when the interlocking B and S at the center of the cover were revealed.

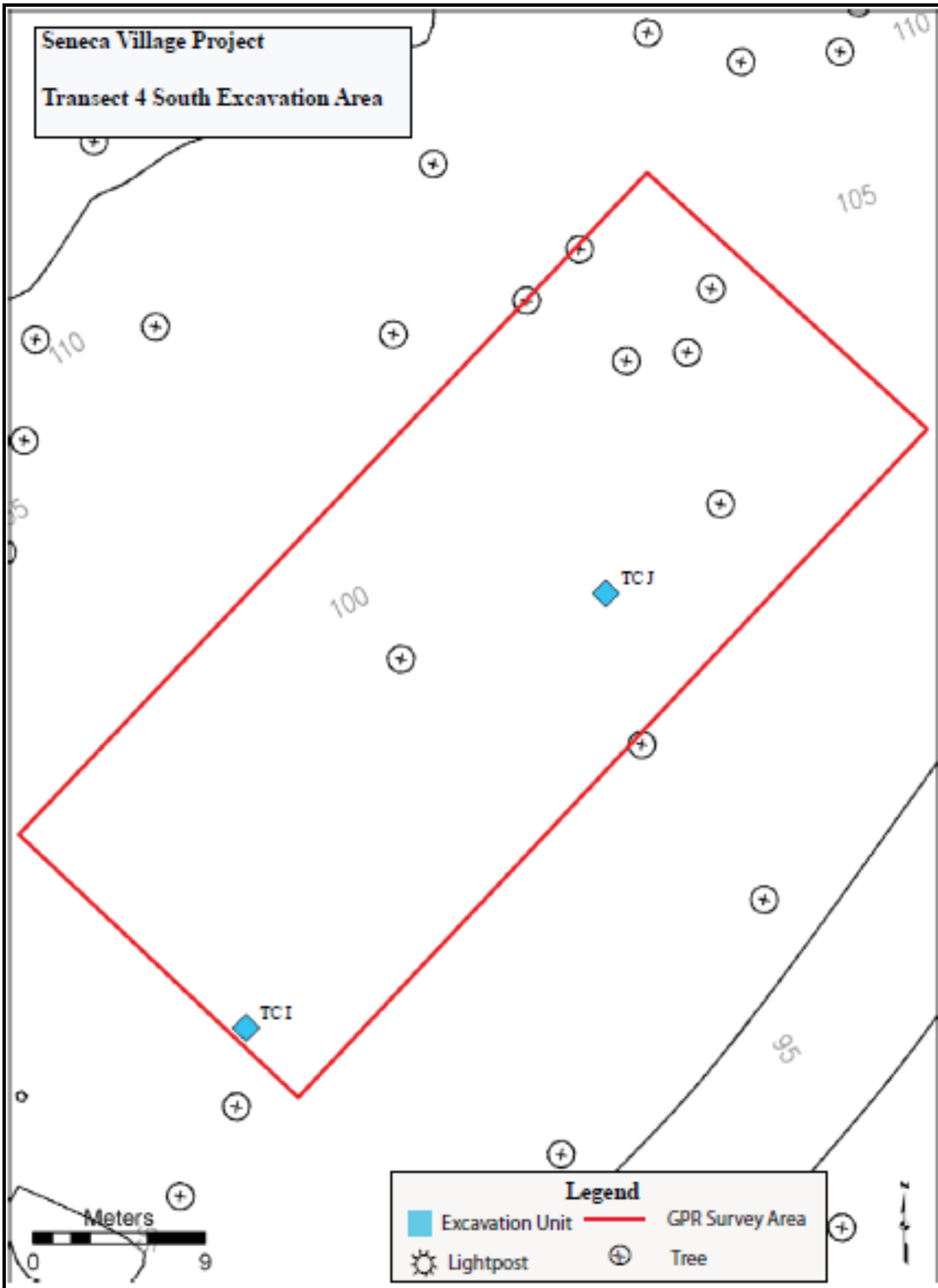


Figure 2.17: A map of Transect 4 showing the locations of TCs I (to the southwest) and J (to the northeast).

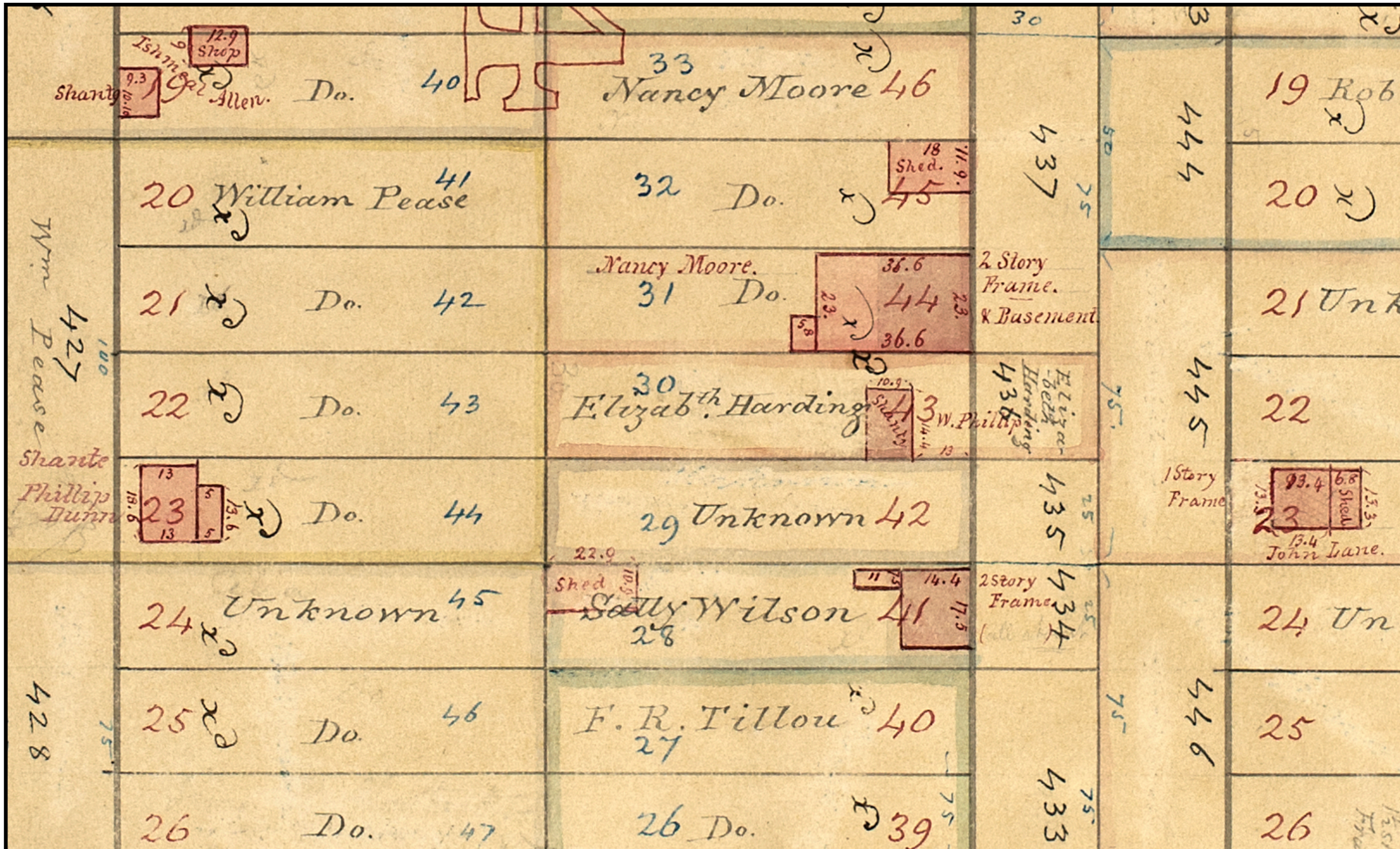


Figure 3.1: Sage (1856) map, close-up of houses near Transect 3. 84^{th} Street (indicated by the vertical rectangles) is to the right of the Moore house (where the Websters later lived). 83^{rd} Street is to the left of the Dunn "shanty." (Original map courtesy of the Collection of the Municipal Archives. High-resolution image courtesy of the New-York Historical Society and the Central Park Conservancy.)

Figure 3.2: A field photograph showing the southeast corner of the foundation wall of the Wilson house, exposed in shovel test 17.

Figure 3.3: A field photograph of the west profile of TC M showing iron sheets that we have interpreted as roofing material from the Wilson house.

Figure 3.4: A fragment of the iron sheets interpreted as roofing material from the Wilson's house. This is an example of a piece with a rolled edge.

Figure 3.5: A fragment of the iron sheets interpreted as roofing material from the Wilson's house. This is an example of a piece with a folded edge.

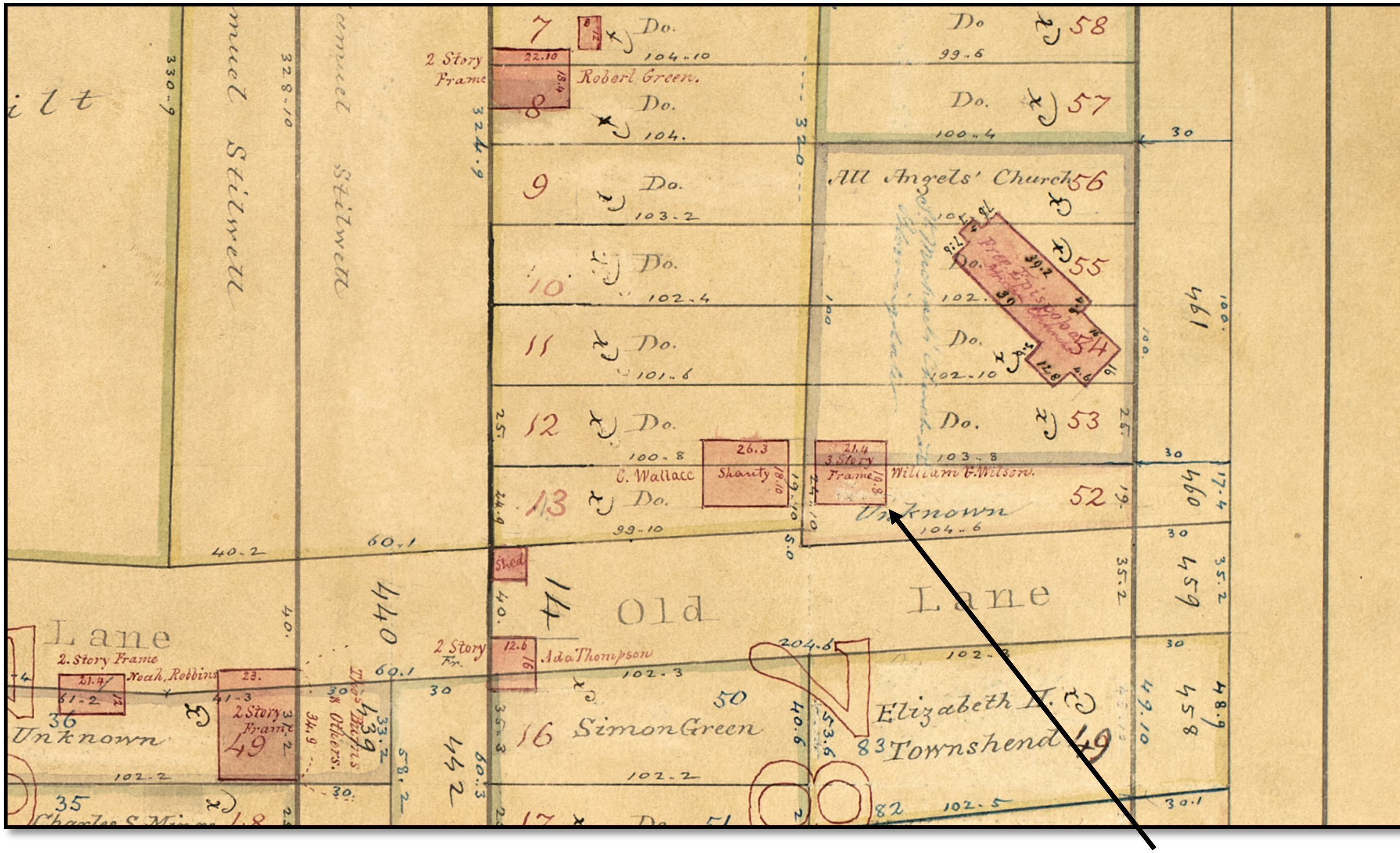


Figure 3.6: Sage (1856) map, close-up of houses near All Angels' area. The Wilson house is indicated by the arrow. 85th Street is to the right of the Wilson house, just beyond All Angels' Church, while 84th street is to the left, beyond C. Wallace's "shanty." (Original map courtesy of the Collection of the Municipal Archives. High-resolution image courtesy of the New-York Historical Society and the Central Park Conservancy.)

Figure 3.7: A comb fragment (S 70) found in the buried A Horizon of Transect 3.

Figure 3.8: A smoking pipe bowl (S 2) found in the buried A Horizon of Transect 3, embossed with the letters “TD” inside a ring of stars. Note that this kaolin pipe is stained.

Figure 3.9: A suspender clip (S 60) found in the buried A Horizon of Transect 3.

Figure 3.10: A spoon (S 37) found in the buried A Horizon of Transect 3.

Figure 3.11: A fork (S 42) found in the buried A Horizon of Transect 3.

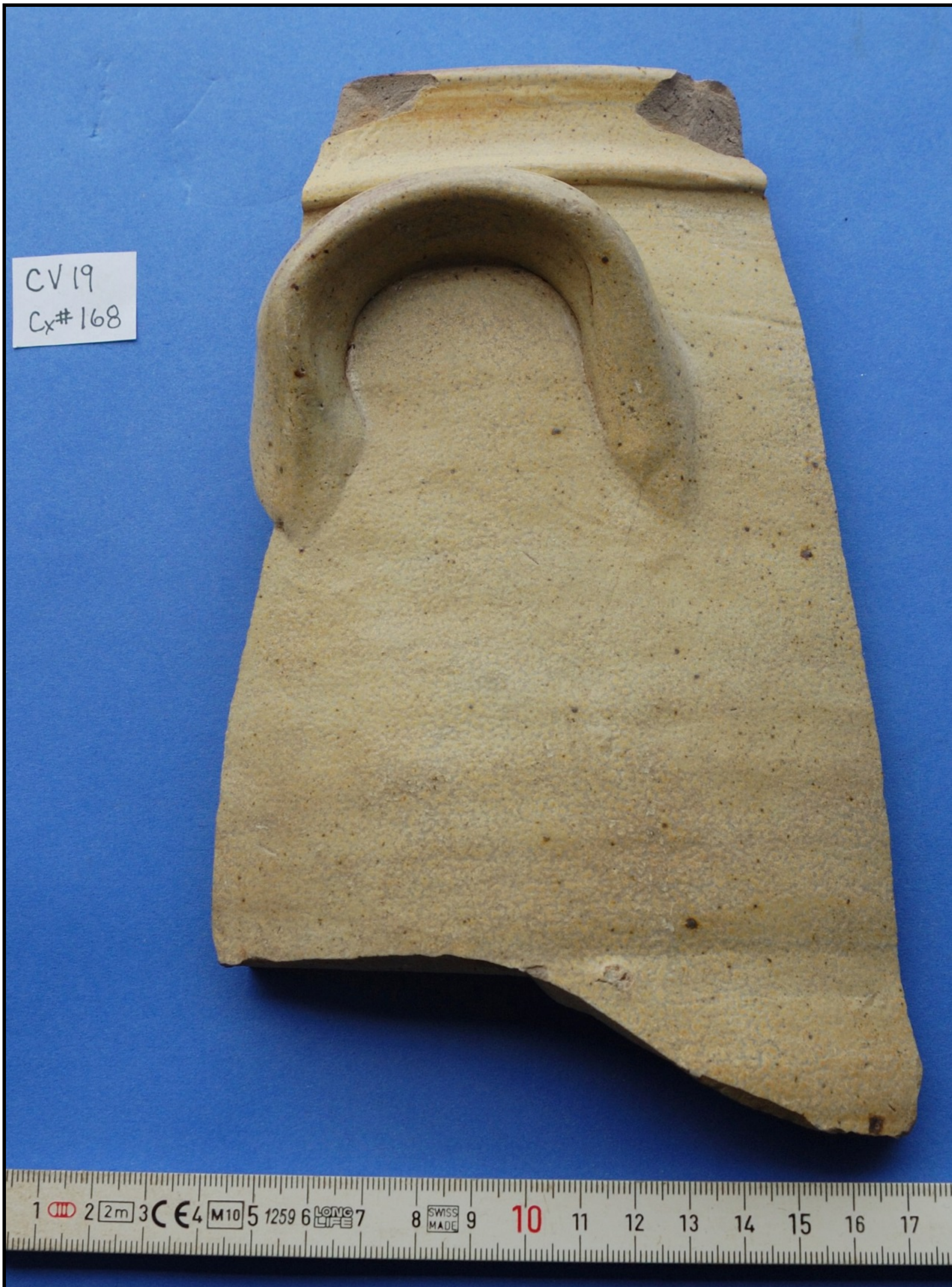


Figure 3.12: A large fragment of a thick stoneware storage vessel (CV 19) from the Wilson house in All Angels'.

Figure 3.13: A fragment of a Chinese porcelain (CV 53) vessel from the Wilson house in All Angels'.

Figure 3.14: The roasting pan (S 52) and tea kettle (S 53) from the Wilson house after conservation.

Figure 3.15: A curry comb (S 49) from the Wilson house.

Figure 3.16: A small pail handle (S 64) from the Wilson house.

Figure 3.17: An "Old Dr. Townsend" sarsaparilla bottle from the Wilson house.

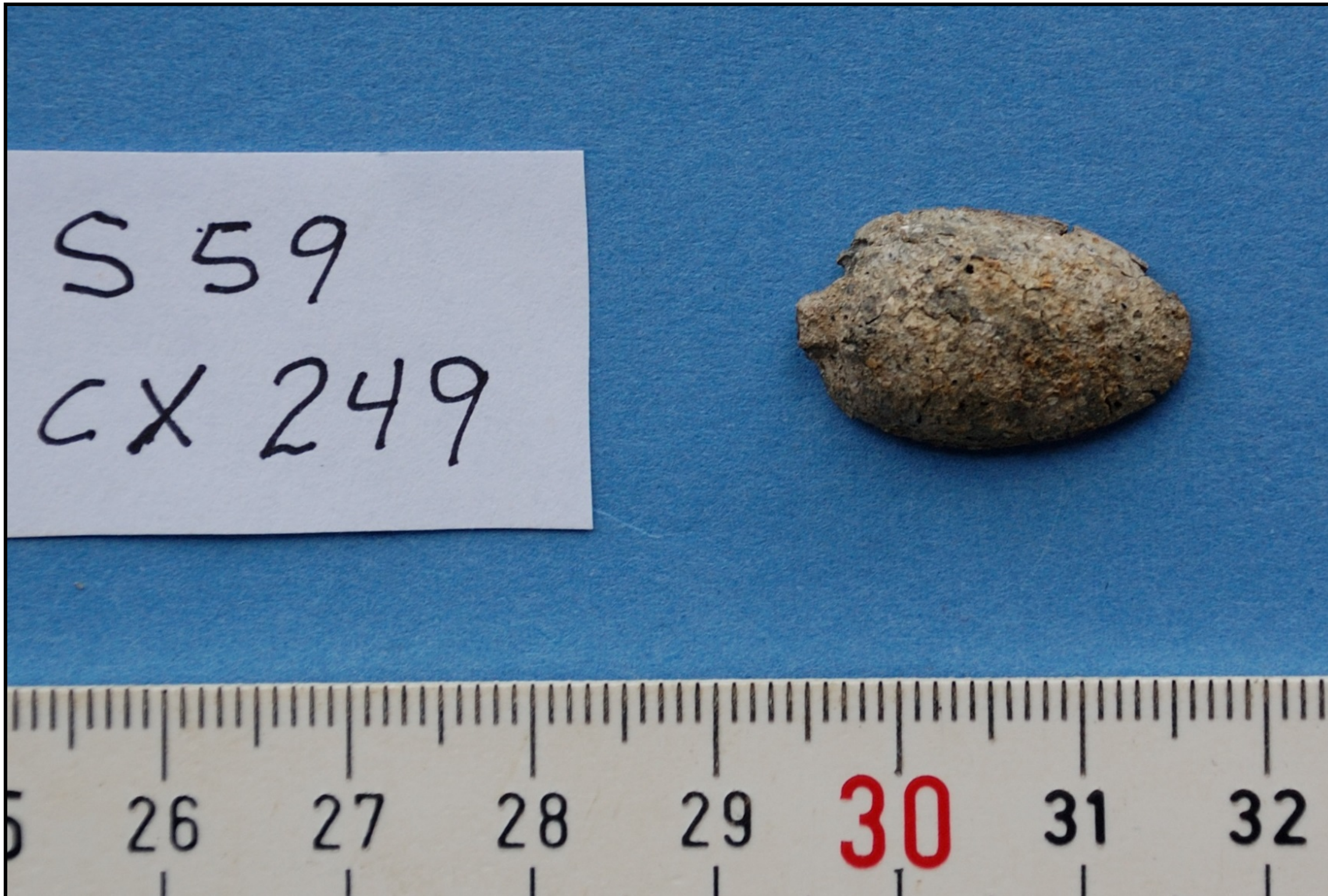


Figure 3.18: A small spoon (S 59) from the Wilson house.

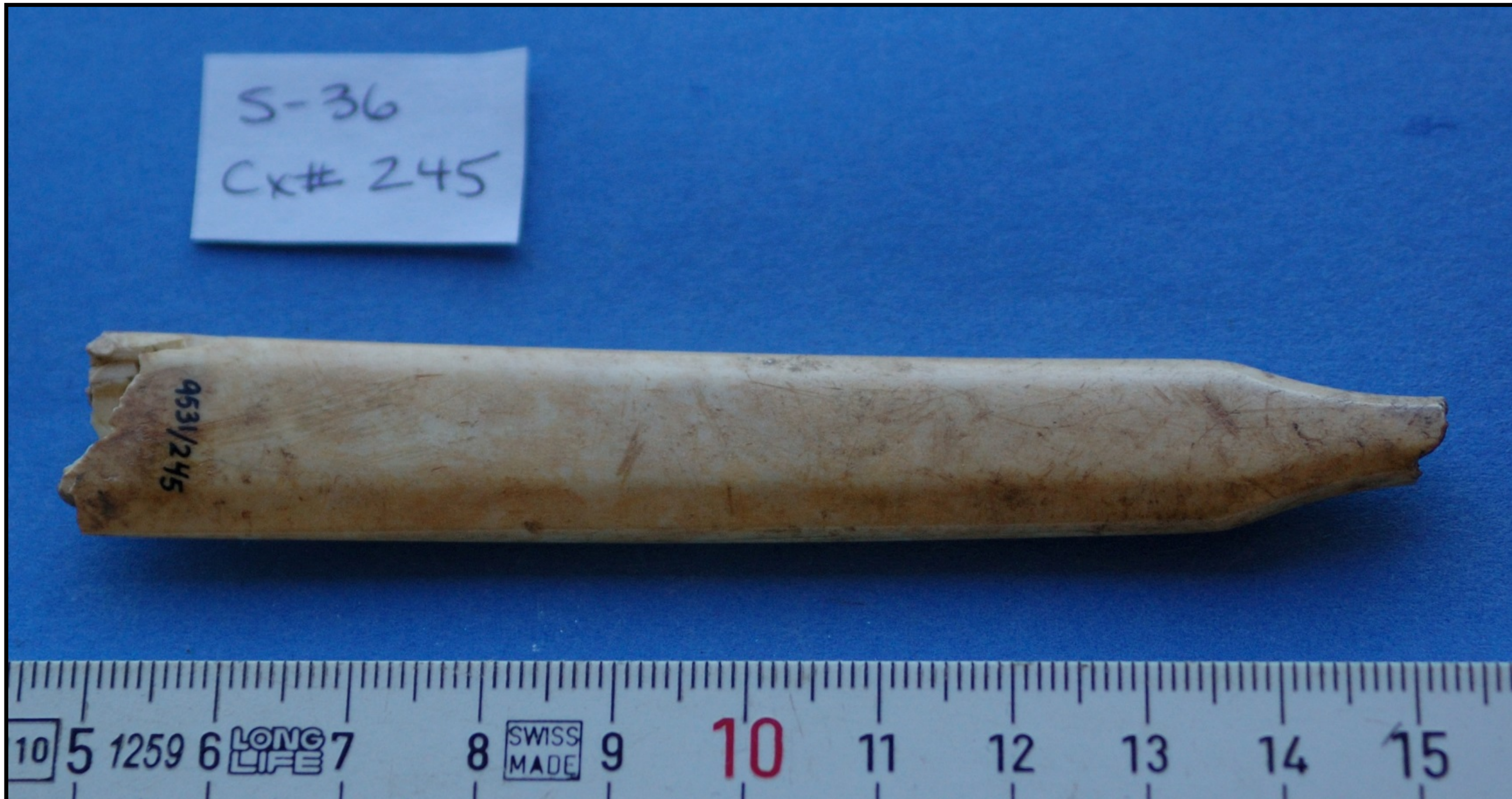


Figure 3.19: A toothbrush handle (S 36) from the Wilson house.

Figure 3.20: A buckle (S 38) from the Wilson house.

Figure 3.21: A clothing hook (S 33) from the Wilson house.

Figure 3.22: A fishing weight (S 43) from the Wilson house.

Figure 3.23: A pencil (S 15) from the Wilson house.

Figure 3.24a: A three-cent coin dated 1852 (S 28) (obverse side) from the Wilson house.

Figure 3.24b: A three-cent coin dated 1852 (S 28) (reverse side) from the Wilson house.

Figure 3.25: A tin-glazed ointment pot fragment (CV 87) marked with the letters "PD," likely produced in France (Janowitz, pers. comm. 2016).

Appendix B: Tables

TABLE 2.1 AREA DATA AND TEST CUT DATUM ELEVATIONS RELATIVE TO SITE DATUM (IN METERS)

Test Cut	Site datum elevation (arbitrary)	Area Datums	Difference Between Site and Area Datums	TC NW corner elevation relative to area datum	TC elevation relative to site datum	Above/ below site datum
A	100.000 m	101.816	1.816	0.4	1.416	above
B	100.000 m	101.816	1.816	0.36	1.456	above
C	100.000 m	101.816	1.816	0.5	1.316	above
D, D Ext	100.000 m	99.978	-0.022	0.33	0.352	below
E	100.000 m	99.7059	-0.2941	0.663	0.9571	below
F	100.000 m	99.2621	-0.7379	0.469	1.2069	below
G	100.000 m	99.978	-0.022	0.25	0.272	below
H	100.000 m	99.1567	-2.8433	0.8	3.6433	below
I	100.000 m	92.8338	7.1662	0.58	7.7462	below
J	100.000 m	93.755	-6.755	0.4	7.145	below
K	100.000 m	99.978	-0.022	0.375	0.397	below
L	100.000 m	99.8849	-0.1151	0.925	1.0401	below
M	100.000 m	101.816	1.816	-0.465	1.351	above
N	100.000 m	101.816	1.816	0.5	1.316	above
O	100.000 m	100.4264	0.4264	-0.48	0.0536	below
P	100.000 m	99.978	-0.022	0.37	0.392	below
Q	100.000 m	99.978	-0.022	0.32	0.342	below
R	100.000 m	101.816	1.816	-0.44	1.376	above
S	100.000.m	101.6868				
T	100.000 m	100.4264	0.4264	-0.61	0.1836	below
U	100.000 m	99.978	-0.022	0.52	0.542	below
V	100.000 m	99.978	-0.022	0.62	0.642	below
W	100.000 m	99.978	-0.022	0.5	0.522	below

TABLE 2.2 CONCORDANCE TABLE (in alphabetical order by test cut)

Test Cut	SC 1 Sod	SC 2 Humus	SC 3A Fill	SC 3B Pipes & trenches	SC 3C Manhole & catch basin	SC 4A Park creation fill	SC 4B Terracotta drainage pipes & trenches	SC 6A Possible buried A horizon	SC 6B Wilson house demolition	SC 6C Objects left by Wilson family	SC 6D Objects left by Wilson family below floorboards	SC 6E Wilson house foundation wall & trench	SC 7 Naturally deposited post-Pleistocene soils	SC 8 Bedrock
	2011 ground surfce	20-21st century	late 19th & early 20th century		ca. 1919	late 1850s-early1860s	ca. 1860	mid 19th century	late 1850s	late 1850s	between 1849 & 1857	between 1849 & 1852	holocene	
TC A	3	6				8, 12, 17			17*, 30, 33, 35, 39, 40*			40, 45*	44, 45	present
A Ext	19	21				22, 25, 29			29*, 32, 38, 39, 40*			40, 45*	44, 45	present
TC B	2	5, 9				9, 11			13, 15, 18, 129	23, 28, 31, 126, 129*, 152	142		149	present
B Ext	34	34*, 36				36*			37, 42, 129	126, 129*, 152	142		149	present
TC C	1	4, 7				10			14, 16, 20, 24	26, 27*	27		27	present

TABLE 2.2 CONCORDANCE TABLE (CONTINUED)

Test Cut	SC 1	SC 2	SC 3A	SC 3B	SC 3C	SC 4A	SC 4B	SC 6A	SC 6B	SC 6C	SC 6D	SC 6E	SC 7	SC 8
TC D	46, 49	46, 49				50, 53, 83, 85		57, 70, 65					137, 66, 73, 76	present
D Ext	78	81				86, 91		92					93	
TC E	47	48				51, 52, 54		54*					55, 59, 61, 63	present
TC F	58	60				62, 64, 71	67, 74, 79, 80							not probed
TC G	68	69	72			75		77, 82					84, 89	not probed
TC H	87	88			100, 106									not probed
H Ext	90	96												
TC I	94	95				97, 98, 103		104, 109, 113					116	not probed
TC J	101	105				107, 110, 115, 119, 120, 125, 130, 133								present

TABLE 2.2 CONCORDANCE TABLE (CONTINUED)

Test Cut	SC 1	SC 2	SC 3A	SC 3B	SC 3C	SC 4A	SC 4B	SC 6A	SC 6B	SC 6C	SC 6D	SC 6E	SC 7	SC 8
TC K	102	102				111		117, 118, 121					128, 131,134	not probed
TC L	120	127		132		143, 147, 148, 151, 153							154, 157	not probed
L Ext	135	138				140								
TC M	139	144				146, 150			168, 164*	164, 170, 174*	174, 179, 181		181	present
M Ext	185	188				189, 191			192	194, 198, 204*, 214, 207	204, 207*		207	present
TC N	155	156				158		163	159				167	present
TC O	161	162				165, 169		175, 180, 182,					184, 186	?
O Ext	195	196				199, 206		208, 211, 215, 218					221, 224	

TABLE 2.2 CONCORDANCE TABLE (CONTINUED)

Test Cut	SC 1	SC 2	SC 3A	SC 3B	SC 3C	SC 4A	SC 4B	SC 6A	SC 6B	SC 6C	SC 6D	SC 6E	SC 7	SC 8
TC P 1/4	177	178.1				178.2, 178.3		178.4					178.5, 178.6	not probed
TC Q 1/4	203.1	203.2				203.3, 203.4, 203.5		203.6, 203.7					203.8, 203.9, 203.10	not probed
TC R	210	212, 216				217, 219			225, 227, 230, 234, 245	245*	248, 249, 251		present	not probed
R Ext	235	235				237, 238, 239			240, 242, 245	245*	248, 249, 251		present	not probed
TC S	222.1	222.2				222.3, 222.4		222.4?						present
TC T 1/4	229.1	229.1				229.2, 229.3, 229.4		229.5, 229.6					229.7, 229.8	not probed
TC U 1/4	228.1	228.1				228.2, 228.3, 228.4, 228.5		228.6, 228.7					228.8	not probed

TABLE 2.2 CONCORDANCE TABLE (CONTINUED)

Test Cut	SC 1	SC 2	SC 3A	SC 3B	SC 3C	SC 4A	SC 4B	SC 6A	SC 6B	SC 6C	SC 6D	SC 6E	SC 7	SC 8
TC V 1/4	246.1	246.1				246.2, 246.3, 246.4, 246.5, 246.6		246.7					246.8	not probed
TC W 1/4	247.1	247.2				247.3	247.4, 247.5, 247.6, 247.7						247.8	not probed

Note: SC= Strata cluster= interpretive or analytical context

* Indicates part of context was also contained in another SC. Artifacts were tallied within the SC in which asterisk appears next to the context number.

TABLE 3.1: DENSITY OF SELECTED ARTIFACTS IN THE BURIED A HORIZON (SC 6A), BY AREA
[Density = # artifacts /cubic area (m)]

TRANSECT 3

TEST CUT	CUBIC AREA	FASTENERS		FLAT GLASS		CERAMICS		CURVED GLASS		PIPES		SMALL FINDS		FAUNA w/o SHELL		TOTALS	
		#	density	#	density	#	density	#	density	#	density	#	density	#	density	#	density
D	0.48	97	202.1	20	41.7	180	375	204	425	16	33.3	14	29.1	116	241.7	647	1348
K	0.21	132	628.6	14	66.7	55	261.9	14	66.7	4	19	8	38.1	17	81	243	1157
G	0.25	258	1032	36	144	93	372	74	296	15	60	8	32	35	140	520	2080
O	0.08	125	1562.5	26	325	271	3388	18	225	61	762.5	12	150	20	250	533	6662
P	0.02	16	800	1	50	16	800	4	200	8	400	0	0	43	2150	88	4400
Q	0.04	2	50	4	100	16	400	1	25	3	75	0	0	14	350	40	1000
T	0.02	3	150	1	50	13	650	66	3300	3	150	6	300	3	150	95	4750
U	0.07	4	57.1	3	42.9	15	214.3	6	85.7	5	71.4	0	0	2	28.6	35	500
V	0.03	5	166.7	2	66.7	11	366.7	0	0	2	66.7	0	0	0	0	20	666.7
E	0.09	35	388.9	3	33.3	8	88.9	2	22.2	0	0	0	0	0	0	48	533.3
TOTAL #s		**677**		**110**		**678**		**389**		**117**		**48**		**250**		**2269**	

TRANSECT 4

I	0.07	0	0	4	57.1	9	128.6	5	71.4	0	0	0	0	4	57.1	22	314.3

ALL ANGELS'

N	0.08	3	37.5	1	12.5	0	0	1	12.5	0	0	0	0	0	0	5	62.5
S	0.03	3	100	1	33.3	0	0	0	0	0	0	0	0	0	0	4	133.3
TOTAL #s		**6**		**2**		**0**		**1**		**0**		**0**		**0**		**9**	

TABLE 3.2: DENSITY AND PERCENTAGE OF SELECTED ARTIFACTS IN THE FILL (SC 4A), BY AREA

[density = artifacts/cubic area (m)]

TRANSECT 3

TEST	CUBIC	FAST'NRS			CERAMICS			CURVED GLASS			PIPES			FAUNA (no shell)			TOTALS		
CUT	AREA	#	%	density	#	%	density	#	%	density	#	%	density	#	%	density	#	%	density
D, D ext	0.07	183	25	3408	144	16	2057	158	24	2942.3	7	21	100	2	9	28.6	494	21	7057.1
G	0.05	11	1	244.4	13	1	260	8	1	177.8	1	3	22.2	2	9	40	35	1	700
K	0.06	40	5	615.4	38	4	633.3	16	2	246.2	0	0	0	1	5	17	95	4	1583.3
O	0.18	69	9	262.9	170	19	944.4	116	17	441.9	6	18	22.8	5	23	27.8	366	16	2033.3
F	0.09	98	13	1089	154	18	1711	51	8	566.7	4	12	44.4	3	14	33.3	310	13	3444.4
F 4B	0.14	9	1	63.9	24	3	170.4	2	0	14.2	0	0	0	0	0	0	35	1	250
E	0.09	95	13	1009	44	5	488.9	34	5	360.9	2	6	21.2	0	0	0	175	7	1944.4
L, L ext	0.08	64	9	810	59	7	737.5	52	8	658.2	6	18	75.9	2	9	25	183	8	2287.5
TR 3 Total #s		**569**			**646**			**437**			**26**			**15**			**1693**		

TRANSECT 4

I	0.09	12	2	134.5	53	6	544.2	21	3	235.4	0	0	0	2	9	22.2	88	4	977.8
J	0.09	8	1	92.8	8	1	92.8	10	1	116.0	0	0	0	1	1	11.1	27	1	300
TR 4 Total #s		**20**			**61**			**31**			**0**	**0**		**3**			**115**		

ALL ANGELS'

TEST	CUBIC	FAST'NRS			CERAMICS			CURVED GLASS			PIPES			FAUNA (no shell)			TOTALS		
CUT	AREA	#	%	density	#	%	density	#	%	density	#	%	density	#	%	density	#	%	density
A, A ext	0.18	92	13	516.8	25	3	138.9	55	8	309.0	4	12	22.5	2	9	11.1	178	8	988.9
B, B ext	0.07	24	3	478.1	44	5	628.6	24	4	478.1	1	3	0.002	0	0	0	93	4	1328.6
C	0.15	7	1	46.7	16	2	106.7	9	1	60	0	0	0	1	5	6.7	33	1	220
M, M ext	0.16	11	1	46.6	53	6	331.3	34	5	143.9	2	6	8.5	1	5	6.3	101	4	631.3
N	0.07	1	4	14.29	12	46	171.4	12	46	171.4	1	4	14.3	0	0	0.0	26	5	371.4
R, R ext	0.21	12	2	38.1	33	4	157.1	78	12	247.6	0	0	0	0	0	0	136	6	647.6
S	0.03	1	13	36.4	3	38	109.1	2	25	72.5	1	13	36.4	1	13	36.4	8	1	290.9
AA Total #s		**148**			**171**			**214**			**9**			**5**			**575**		
GRAND TOTALS		**735**	**31%**		**878**	**38%**		**668**	**29%**		**33**	**1%**		**22**	**1%**		**2383**		

TABLE 3.3: FREQUENCY OF CERAMIC SHERDS IN THE FILL (SC 4A) ABOVE THE WILSON HOUSE IN ALL ANGELS' AND ABOVE THE GROUND SURFACE IN TRANSECT 3

CERAMIC WARE TYPE & DECORATION		ALL ANGELS' (TCs A, B, C, M, R)		TR 3 (TCs D, G, K, P, Q, T, U, V)	
		# of sherds	% of sherds	# of sherds	% of sherds
EARTHENWARE					
red					
	glazed, brown	3	1.8	3	1.1
	glazed, colorless	2	1.2	2	0.7
	unglazed	8	4.7	14	5.1
white (pearlware and whiteware)					
	annular	2	1.2	15	5.5
	flow blue	3	1.8	3	1.1
	painted	1	0.6	9	3.3
	plain	93	54.4	148	54.4
	shell-edged, blue	2	1.2	5	1.8
	transfer-printed, blue	36	21.1	33	12.1
	transfer-printed, red	0	0.0	3	1.1
	clobbered	1	0.6	0	0.0
yellow					
	plain	1	0.6	2	0.7
	Rockingham-like	1	0.6	0	0.0
WHITE IRONSTONE					
molded		4	2.3	12	4.4
plain		7	4.1	5	1.8
PORCELAIN					
European plain		4	2.3	7	2.6
Chinese (blue on white)		0	0.0	1	0.4
unknown porcelain		1	0.6	4	1.5
STONEWARE					
buff-bodied, red slip		1	0.6	0	0.0
buff-bodied & salt-glazed		0	0.0	3	1.1
buff-bodied & salt-glazed + cobalt ext. slip		1	0.6	0	0.0
gray-bodied & salt-glazed		0	0.0	3	1.1
TOTAL		**171**	**100**	**272**	**100**

TABLE 3.4: FREQUENCY OF CURVED GLASS SHERDS IN THE FILL (SC 4A) ABOVE THE WILSON HOUSE IN ALL ANGELS' AND ABOVE THE GROUND SURFACE IN TRANSECT 3

		ALL ANGELS (TCs A, B, C, M, R)		TR 3 (TCs D, G, K, P, Q, T, U, V)	
FUNCTIONAL CATEGORY	**OBJECT TYPE**	**# glass pieces**	**% of glass pieces**	**# glass pieces**	**% of glass pieces**
beverage					
	beer	0	0	3	0.9
	soda	1	0.5	0	0
	unident bottle	33	16.3	90	27.1
household					
	lamp	1	0.5	42	12.7
	drinking glass	2	1	0	0
hygiene					
	medicine	4	2.1	4	0.16
	perfume	1	0.5	0	0
unident.		160	79.2	198	58.7
TOTAL		**202**	**100**	**337**	**100**

TABLE 3.5: FREQUENCY OF SMALL FINDS IN THE FILL (SC 4A) ABOVE THE WILSON HOUSE IN ALL ANGELS' AND ABOVE THE GROUND SURFACE IN TRANSECT 3

		ALL ANGELS (TCs A, B, C, M, R)	TR 3 (TCs D, G, K, P, Q, T, U, V)	TOTAL
FUNCTIONAL CATEGORY	**OBJECT TYPE**	**# pieces**	**# pieces**	**# pieces**
clothing				
	button	3	3	6
	buckle	1	0	1
	hook	0	1	1
	leather (shoe)	many	0	?
household				
	fork	1(handle)?	1(handle)?	2
	furniture	1	0	1
	pencil, slate	1	0	1
personal adornment				
	chain	1	0	1
	jewelry	1	0	1
	hair ornament	1	0	1
smoking				
	pipe	8	5	13
other				
	coin	5	0	5
	strap, iron	2	0	2
	marble	5	0	5
	Other	1 (whetstone)	0	1
TOTAL		**31+**	**10**	**41+**

TABLE 3.6: RANK ORDERED FREQUENCIES OF CERAMICS IN ALL ANGELS' AND TRANSECT 3 FILL (SC 4A), ALL ANGELS' WILSON HOUSE-RELATED LAYERS (SC 6B, C, & D), AND THE BURIED A HORIZON (SC 6A)

WARE & DECORATION TYPE	Rank, AA FILL (SC 4A)	Rank, TR 3 FILL (SC 4A)	Rank, AA Wilson house layers (SC 6B, C, & D)	Rank, Buried A Horizon (SC 6A)
white earthenware (pearlware and whiteware)	1	1	1	1
whiteware, transfer-printed (blue)	2	2	2	2
unglazed red	3	4	14.5	Tr*
whiteware, annular	9.5	3	12	3
ironstone, plain	4	8.5	-	7
ironstone, molded	5.5	5	4	9
porcelain, European	5.5	7	6	9
whiteware, hand-painted	-	6	13	4
stoneware	Tr*	Tr*	3	5
porcelain, Chinese	-	Tr*	8	11
redware, glazed	7.5	Tr*	5	9
shell-edged, blue	Tr*	8.5	6	10
yellowware, annular	-	-	7	-

Tr* = trace or small amount; - = absent

TABLE 3.7: SELECTED ARTIFACTS IN THE BURIED A HORIZON (SC 6A), NUMBER AND PERCENT

TRANSECT 3

TEST	FASTENERS		FLAT GLASS		CERAMICS		CURVED GLASS		PIPES		SMALL FINDS		FAUNA w/o SHELL		TOTALS	
CUT	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
D	97	15	20	3	180	28	204	32	16	3	14	2	116	18	647	100
K	132	54	14	6	55	23	16	7	4	2	5	2	17	7	243	100
G	258	50	36	7	93	18	74	14	15	3	9	2	35	7	520	100
O	125	24	26	5	271	51	18	3	61	11	12	2	20	4	533	100
P	16	18	1	1	16	10	4	1	8	9	0	0	43	49	88	100
Q	2	5	4	10	16	40	1	3	3	8	0	0	14	35	40	100
T	3	3	1	1	13	14	66	70	3	3	6	6	3	3	95	100
U	4	11	3	9	15	43	6	17	5	14	0	0	2	6	35	100
V	5	25	2	10	11	55	0	0	2	10	0	0	0	0	20	100
E	35	73	3	6	8	17	2	4	0	0	0	0	0	0	48	100
TOTAL #s	**677**		**110**		**678**		**391**		**117**		**46**		**250**		**2269**	**100**

TRANSECT 4

I	0	0	4	20	9	45	5	25	0	0	0	0	4	20	22	100

ALL ANGELS'

N	3	60	1	20	0	0	1	20	0	0	0	0	0	0	5	100
S	3	75	1	25	0	0	0	0	0	0	0	0	0	0	4	100
TOTAL #s	**6**		**2**		**0**		**1**		**0**		**0**		**0**		**9**	

TABLE 3.8: CERAMIC FRAGMENTS AND VESSELS IN THE BURIED A HORIZON (SC 6A) IN TRANSECT 3, TRANSECT 4, AND ALL ANGELS', BY WARE TYPE AND DECORATION

Ceramic ware type & decoration		sherd count	bottle	bowl	flow-er pots	food prepa ration	muffin (less than 8")	plate and soup	pitcher/ ewer	saucer	ser-ving	stor-age	tea-cup	twiffler (8-10")	other /uni-dent	total # of vessels	% of vessels
EARTHENWARE																	
red	glazed	11							1						3	4	5
	unglazed	5			3											3	3.75
white (pearlware & whiteware)																	
	annular	48		4											1	5	6.25
	flow blue	1															
	painted	30						1					3		3	7	8.75
	plain	315	1						1				2		1	5	6.25
	shell-edged blue	15						7								7	8.75
	sponge	2													1	1	1.25
	transfer-print, black	1															
	transfer-print, blue	131					1	2		5	1		2		5	16	20
	transfer-print, blue gilded	1															
	transfer-print, brown	4								1			1		1	3	3.75
	transfer-print, red	9													1	1	1.25
	transfer-print, purple	5													1	1	1.25
	clobbered	3															
	unident white	21															
yellow	plain	1						1							1	2	2.5
	Rockingham- like	3				1										1	1.25
unident earthenware		8															
WHITE IRONSTONE																	
molded		11					1	2		3						6	7.5
plain		13											1		1	2	2.5

TABLE 3.8: CERAMIC FRAGMENTS AND VESSELS IN THE BURIED A HORIZON (SC 6A) IN TRANSECT 3, TRANSECT 4, AND ALL ANGELS', BY WARE TYPE AND DECORATION *(continued)*

Ceramic ware type & decoration		sherd count	bottle	bowl	flow-er pots	food prepa ration	muffin (less than 8")	plate and soup	pitcher/ ewer	saucer	ser-ving	stor-age	tea-cup	twiffler (8-10")	other /uni-dent	total # of vessels	% of vessels
PORCELAIN																	
European	gilded	2															
	molded	1															
	plain	4															
	soft-paste, tp, gilded	4								2			1			3	3.75
Chinese	blue on white	2					1								1	2	2.5
	overglaze	5								1						1	1.25
	plain	2								1						1	1.25
unknown, blue on white		1															
	plain	5		1												1	1.25
	overglaze	1											1			1	1.25
STONEWARE																	
buff-bodied & salt-glazed		1	1									2				3	3.75
buff-bodied & salt-glazed + cob ext sli		1															
gray-bodied & salt-glazed		13	3									1				4	5
brown no salt glaze		1															
Unident		6															
TOTAL		**687**	**5**	**5**	**3**	**1**	**3**	**13**	**2**	**12**	**1**	**3**	**11**		**20**	**80**	**100**

TABLE 3.9: CURVED GLASS SHERDS AND VESSELS IN THE BURIED A HORIZON (SC 6A) IN TRANSECT 3, TRANSECT 4, AND ALL ANGELS'

FUNCTIONAL CATEGORY	OBJECT TYPE	Sherd count	Vessel count
beverage			
	beer	3	2
	soda	0	1
	wine	1	1
	unident bot	102	0
household			
	food storage	126	1
	lamp	51	1
	dish/plate	2	1
	drinking glass	2	0
hygiene			
	medicine	15	9
unident.		95	0
TOTAL		**397**	**16**

TABLE 3.10: SMALL FINDS AND PIPES IN THE BURIED A HORIZON (SC 6A) IN TRANSECT 3, TRANSECT 4, AND ALL ANGELS'

FUNCTIONAL CATEGORY	OBJECT TYPE	Count
clothing		
	button	4
	leather (shoe)	many
	suspender clip	1
household		
	mirror	2
	ceramic handle	1
	fork	2
	spoon	1
	furniture	2
	tack	2
	lock/latch	2
hygiene		
	comb	1
smoking		
	pipe	117
other		
	stone	10
	iron straps	13
	pail	4 pcs
unident		1
TOTAL		**163**

TABLE 3.11: ARCHITECTURAL MATERIALS FROM THE WILSON-HOUSE-RELATED STRATA (SC 6 B, C, D, & E) IN ALL ANGELS', BY WEIGHT IN GRAMS

TEST CUT	BRICK	MORTAR	METAL ROOFING
A + Ext	7112	403	850
B + Ext	10599	761	4487
C	5568	37	Tr*
M + Ext	14182	11551	14209
R + Ext	24289	33108	386
TOTAL	**61,750**	**45,860**	**19,932**

Tr* = trace

TABLE 3.12: SELECTED ARTIFACTS IN ALL ANGELS' WILSON HOUSE-RELATED LAYERS (SCs 6B, C, D & E), NUMBER AND PERCENT

TEST CUT	FASTENERS		FLAT GLASS		CERAMICS		CURVED GLASS		PIPES		SMALL FINDS		FAUNA w/o SHELL		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A	21	24	9	10	16	18	27	31	5	6	9	10	0	0	87	100
B	106	25	26	6	118	28	79	19	1	0.2	54+	13	32	8	416	100
C	62	58	22	21	15	14	4	4	0	0	4	4	0	0	107	100
M	91	17	14	3	106	20	67	13	3	1	157+	29	97+	18	535	100
R	70	41	37	22	7	4	18	10	0	0	15	9	25	15	172	100
Total #s	**350**		**108**		**262**		**195**		**9**		**239+**		**154+**		**1317**	**100**
Total %		**27**		**8**		**20**		**15**		**1**		**18**		**12**		**100**

TABLE 3.13: CERAMIC FRAGMENTS AND VESSELS FROM ALL ANGELS' WILSON HOUSE-RELATED TEST CUTS (TCs A, B, C, M, & R); SCs 6B, C, & D

Ceramic ware type & decoration		sherd count 6B	sherd count 6C	sherd count 6D	TOTAL sherd count, 6A, B, & C	bottle	bowl	chamber pot?	flower pot	food prep (e.g. pie pl, mix bwl)	hy giene	jug	lid	muffin (less than 8")	plate (10")	pitcher/ ewer	saucers	plat ters	soups	stor age vess els	supper plate (9")	tea-cup	twiffler (8-10")	other	unident/ holloware	total number of vessels	% of vessels
EARTHENWARE																											
red	glazed, colorless	7	1		8				2							1										3	4.5
	glazed, magnesium		2		2																				1	1	1.5
	glazed, yellow slip underglaze		1		1					1																1	1.5
	glazed, brown		9		9															1						1	1.5
	tin-glazed, white		1		1						1 (oint. jar)															1	1.5
	unglazed	1			1																				1	1	1.5
white (pearlware and whiteware)																											
	annular	2	1		3		1									1										2	3.0
	flow blue	2	3		5										1							1				2	3.0
	painted	2			2		1																			1	1.5
	plain	51	24		75																				1	1	1.5
	plain, molded																										
	shell-edged, blue	5			5													1					1			2	3.0
	sponge, red,		1		1											1 (small)										1	1.5
	transfer-printed																										
	transfer-printed, blue	20	21	1	42								1	1		2		1	1		1	1	2		1	11	16.7
	transfer-printed, red	2			2																				1	1	1.5
yellow																											
	annular	2	8		10			1								1										2	3.0
	molded and blue band décor		1		1																			1		1	1.5
	plain	6	2		8		2			2																4	6.1
unident earthenware			5		5																				1	1	1.5
WHITE IRONSTONE																											
molded		18	6		24		2									1	3				1	1				8	12.1

TABLE 3.13: CERAMIC FRAGMENTS AND VESSELS FROM ALL ANGELS' WILSON HOUSE-RELATED TEST CUTS (TCs A, B, C, M, & R); SCs 6B, C, & D *(continued)*

Ceramic ware type & decoration	sherd count 6B	sherd count 6C	sherd count 6D	TOTAL sherd count, 6A, B, & C	bottle	bowl	chamber pot?	flower pot	food prep (e.g. pie pl, mix bwl)	hygiene	jug	lid	muffin (less than 8")	plate (10")	pitcher/ ewer	saucers	platters	soups	storage vessels	supper plate (9")	tea-cup	twiffler (8-10")	other	unident/ holloware	total number of vessels	% of vessels
PORCELAIN																										
European, plain	7	4		11										1									1 (unid. pl)		2	3.0
paneled	1			1												1					1				2	3.0
Chinese, blue one white	3	3		6								1					1							1	3	4.5
STONEWARE																										
buff-bodied, red slip		1		1								1													1	1.5
buff-bodied & salt-glazed	9			9															2						2	3.0
buff-bodied & salt-glazed + cobalt ext sli	4			4							1								1						2	3.0
gray-bodied & salt-glazed	11	5	1	17	3														6						9	13.6
Unident ceramic	3	5		8																						
TOTAL #	**156**	**104**	**2**	**262**	**3**	**6**	**1**	**2**	**3**	**1**	**1**	**3**	**1**	**2**	**7**	**4**	**3**	**1**	**10**	**2**	**4**	**3**	**2**	**7**	**66**	**100**
TOTAL % of vessels					**4.5**	**9.1**	**1.5**	**3.0**	**4.5**	**1.5**	**1.5**	**4.5**	**1.5**	**3.0**	**10.6**	**6.1**	**4.5**	**1.5**	**15.2**	**3.0**	**6.1**	**4.5**	**3.0**	**10.6**		**100**

TABLE 3.14: CURVED GLASS FRAGMENTS AND VESSELS FROM ALL ANGELS' WILSON HOUSE-RELATED TEST CUTS (TCs A, B, C, M, & R); SCs 6B, C, & D

FUNCTIONAL CATEGORY	OBJECT TYPE	Total sherd count	% of total glass sherd count	Total vessel count total	% of glass vessel count
beverage					
	wine	51	**26**	3	**25**
household					
	food storage	4	**2**	2	**17**
	candlestick	1	**1**	1	**8**
	drinking glass	2	**1**	1	**8**
	possible lamp	3	**2**		
hygiene					
	medicine	43	**22**	2	**17**
	perfume	3	**2**	1	**8**
unident bottle		88	**45**	2	**17**
TOTAL		**195**	**100**	**12**	**100**

TABLE 3.15: SMALL FINDS AND PIPES FROM ALL ANGELS' WILSON HOUSE-RELATED TEST CUTS (TCs A, B, C, M, & R), SC 6B, C, & D

Functional category	Object type	Total # pieces	Total # objects
clothing			
	button	13	13
	buckle	4	4
	eye	1	1
	hook	2	2
	leather (shoe)	136+	?
household			
	furniture	1	1
	handle, utensil	3	2
	hinge	1	1
	kettle	1	1
	pan	27+	2?
	pencil, slate	2	2
	scissors	4	1
	spoon	1	1
	thimble	1	1
hygiene			
	toothbrush	1	1
personal adornment			
	bead	5	5
	chain	1	1
smoking			
	pipe	9	3
other			
	barrel hoop?	11	2
	coin	1	1
	curry comb	4	1
	pail	1	1
	stone	7	7
	weight	1	1
unident		10	?
TOTAL		**248+**	**55+**

TABLE 3.16: PERCENT OF TRANSFER-PRINT, IRONSTONE/ WHITE GRANITE, AND SHELL-EDGED VESSELS IN THE WILSON HOUSE (SC 6B, C, & D) AND BURIED A HORIZON (SC 6A) ASSEMBLAGES

	Transfer-Printed		Ironstone		Shell-Edged		Porcelain		Total	
	number	%	number	%	number	%	number	%	number	%
Wilson House	12	41	8	28	2	7	7	24	29	100
TR 3 Buried A Horizon	21	47	8	18	7	16	9	20	45	100

***Note: %= % of ceramic vessel assemblage from the same Strata Clusters in each area.**

TABLE 3.17: THE ASSEMBLAGES OF UTILITARIAN VESSELS FROM THE \WILSON HOUSE (SC 6B, C, & D) AND THE BURIED A HORIZON (SC 6A)

	Redware	Stoneware	Yellowware	Total Utilitarian Vessels	Total All Vessels	% of Total Vessels
Wilson House	8	14	4	26	66	40%
Buried A Horizon	7	4	3	14	80	16%

TABLE 3.18: THE ATTRIBUTES OF THE PLATES FOUND AT THE SENECA VILLAGE AND GREENWICH VILLAGE SITES

Ware type & decoration	The Wilsons		The Hirsts		The Robsons	
	#	%	#	%	#	%
Earthenware						
cc plain			5	36	4	10
edged	1	11.1	1	7	5	13
transfer print	6	66.7	1	7	5	13
Ironstone						
molded panel	1	11.1	6	43	19	48
Porcelain						
plain	1	11.1			4	10
painted - gilt			1	7	3	8
TOTALS	**9**	**100**	**14**	**100**	**40**	**102**

TABLE 3.19: THE ATTRIBUTES OF THE CUPS AND SAUCERS FOUND AT THE SENECA VILLAGE AND GREENWICH VILLAGE SITES

Ware type & decoration	The Wilsons		The Hirsts		The Robsons	
	#	%	#	%	#	%
Earthenware						
transfer print	1 lgt bl ldsc	12.5			2 lgt bl ldsc	5
flow blue	1	12.5				
painted					6	14
Ironstone						
plain			3	38		
molded panel	4	50	3	38	3	7
molded other			2	25		
Porcelain						
molded panel	2	25			17	39
gilt					10	23
gilt + other.					3	7
painted other					3	7
TOTALS	**8**	**100**	**8**	**100**	**44**	**100**

TABLE 3.20: THE NUMBER AND PERCENT OF SMALL BOWLS RELATIVE TO PLATES FROM THE THREE HOUSEHOLDS

Vessel Form	The Wilsons		The Hirsts		The Robsons	
	#	%	#	%	#	%
Bowls	6	40	3	18	13	25
Plates	9	60	14	82	40	75
TOTAL	15	100	17	100	53	100

TABLE 3.21: SENECA VILLAGE FAUNA FROM SELECTED CONTEXTS

AREA & TC	TAXA & OTHER INDENTIFICATIONS						
	Ovis/ Capra	*Bos taurus*	*Sus scrofa*	Cow-sized	Pig-sized	Indeter-minate	TOTAL
All Angels'							
B (#)	5	2	1	3	1	3	15
Percent SC 6B, 6C	33%	11%	7%	20%	7%	20%	
M (#)	10	2	1			30	53
Percent SC 6C, 6D	19%	4%	2%			56%	
R (#)	7	1	2			2	12
Percent SC 6B	58%	8%	17%			17%	
Transect 3							
D (#)	37	6	10	2		40	95
Percent SC 6A, 7	39%	6%	9%	2%		42%	
G (#)	1	1	3	1		23	29
Percent SC 6A	3%	3%	10%	3%		79%	
K (#)	7	2	2	1		8	20
Percent SC 6A, 7	35%	10%	10%	5%		40%	
P (#)	1					48	49
Percent SC 6A	2%					98%	
Q (#)	3					15	18
Percent SC 6A	17%					83%	
T (#)	1	3				2	6
Percent SC 6B, 7	17%	50%				33%	
TOTAL	**72**	**17**	**19**	**7**	1	**171**	**287**

Table 3.22: SENECA VILLAGE FAUNAL ELEMENTS BY TAXON

AREA & TC	TAXA & ELEMENTS										TOTAL
	ovis/capra	%	bos taurus	%	sus scrofa	%	cow size	%	pig size	%	
ALL ANGELS' TC B, M, R											
skull, jaw	1	50%	1	50%							2
teeth											0
rib	5	56%	3	33%					1	11%	9
vertebrae							3	100%			3
femur/tibia, "long bone"	5	100%									5
humerus/radius/ulna	3	50%			2	33%	1	17%			6
pelvis	3	60%			2	40%					5
carpals, etc.	1	100%									1
ALL ANGELS' TOTAL	18	58%	4	13%	4	13%	4	13%	1	3%	31
AREA & TC	**TAXA & ELEMENTS**										**TOTAL**
	ovis/capra	**%**	**bos taurus**	**%**	**sus scrofa**	**%**	**cow size**	**%**	**pig size**	**%**	
TR 3 TC D, G, K											
skull, jaw	1	20%			4	80%					5
teeth	35	78%	3	7%	7	16%					45
rib			1	33%			2	67%			3
vertebrae			1	50%			1	50%			2
femur/tibia, "long bone"	1	25%			3	75%					4
humerus/radius/ulna	1	33%			2	67%					3
pelvis					1	100%					1
scapula			2	100%							2
carpals etc	1	25%	1	25%	2	50%					4
TR 3 TOTAL	39	57%	8	12%	19	28%	3	4%			69

TABLE 3.23: SHELL FROM ALL ANGELS' WILSON HOUSE-RELATED TEST CUTS (TCs A, B, C, M, & R; SCs 6B, C, & D) AND THE BURIED A HORIZON (SC 6A) IN TRANSECT 3 (TCs D, G, T, & U)

ALL ANGELS'

Test Cut	# clam	# oyster	# scallop	Unident	total
A	1				1
B	1	3	1		5
C					0
M	6	23		15+	44+
R	5			8	13
TOTAL	13	26	1	23+	63+

TRANSECT 3

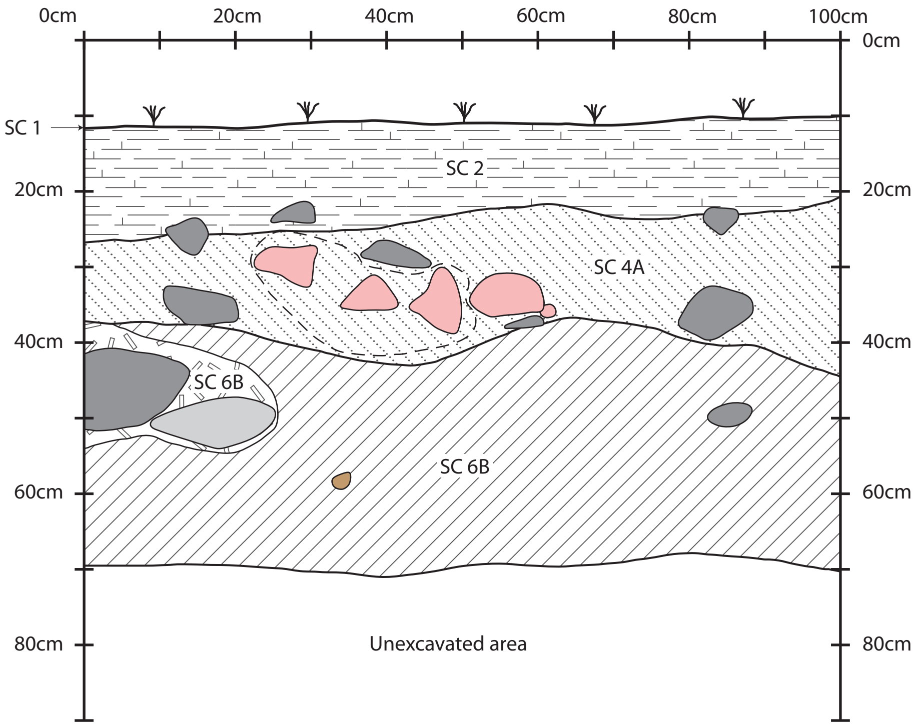
Test Cut	# clam	# oyster	# scallop	Unident	total
D		3		2	5
G	1	4			5
O	2				2
P	2				2
T		5+			5+
U		2		1	3
TOTAL	5	14+		3	22+

Appendix C:

Profile Drawings

The project of converting the field drawings to the polished ones included in this report took a great deal of effort, and we are grateful to everyone involved. Marie Warsh, Director of Preservation Planning at the Central Park Conservancy, supervised the entire project. Richard Hunter and Jim Lee, President and Vice-President of Hunter Research, Inc., provided consulting. Allie Davis helped with the initial round of AutoCAD drawings and Evan Mydlowski worked on the final round. Christopher J. Nolan, CEO and Chief Landscape Architect at the Central Park Conservancy, authorized the work.

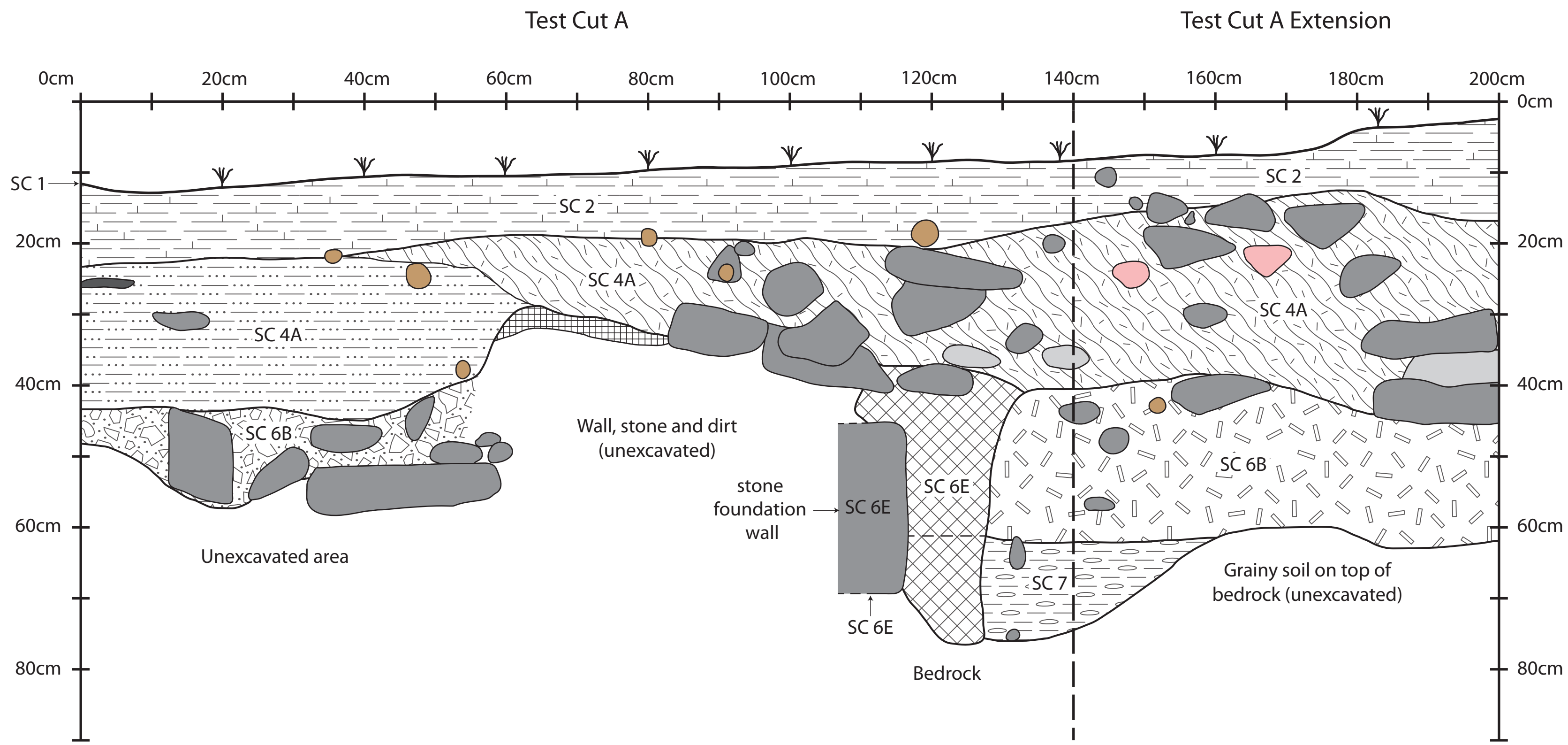
Seneca Village
All Angels'
Profile 2.1a
North Wall of Test Cut A
North Extension



Key

Note:
Ground surface of the northwest corner is 1.416m above site datum.

Seneca Village
All Angels'
Profile 2.1b
West Wall of Test Cut A and
Test Cut A North Extension



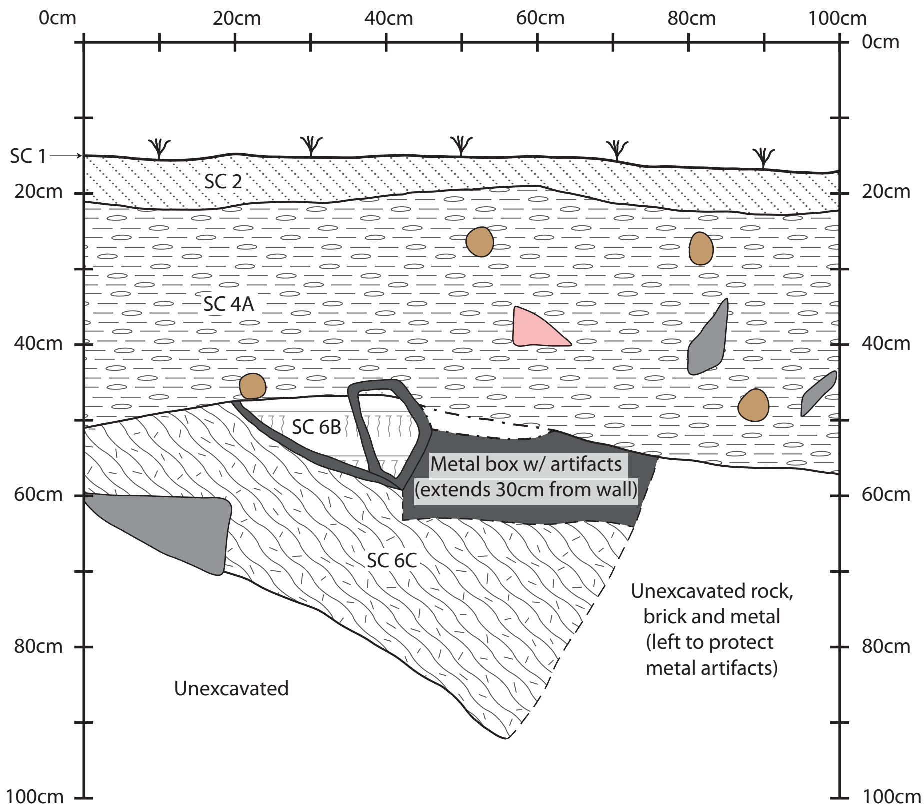
Key

- Brick
- Loose Dirt
- Metal
- Mortar
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus
- SC 4A: 10YR 4/6, silty sand
- SC 4A: 7.5YR 4/4, silty clay
- SC 6B: 10YR 3/4, silty sand
- SC 6B: 10YR 4/4, silty sand
- SC 6E: 10YR 3/3, silty sand, builders' trench
- SC 7: 7.5YR 4/6, silty sand

Note:
Ground surface of the northwest corner
is 1.416m above site datum.

0 20
Centimeters

Seneca Village
All Angels'
Profile 2.2a
West Wall of Test Cut B



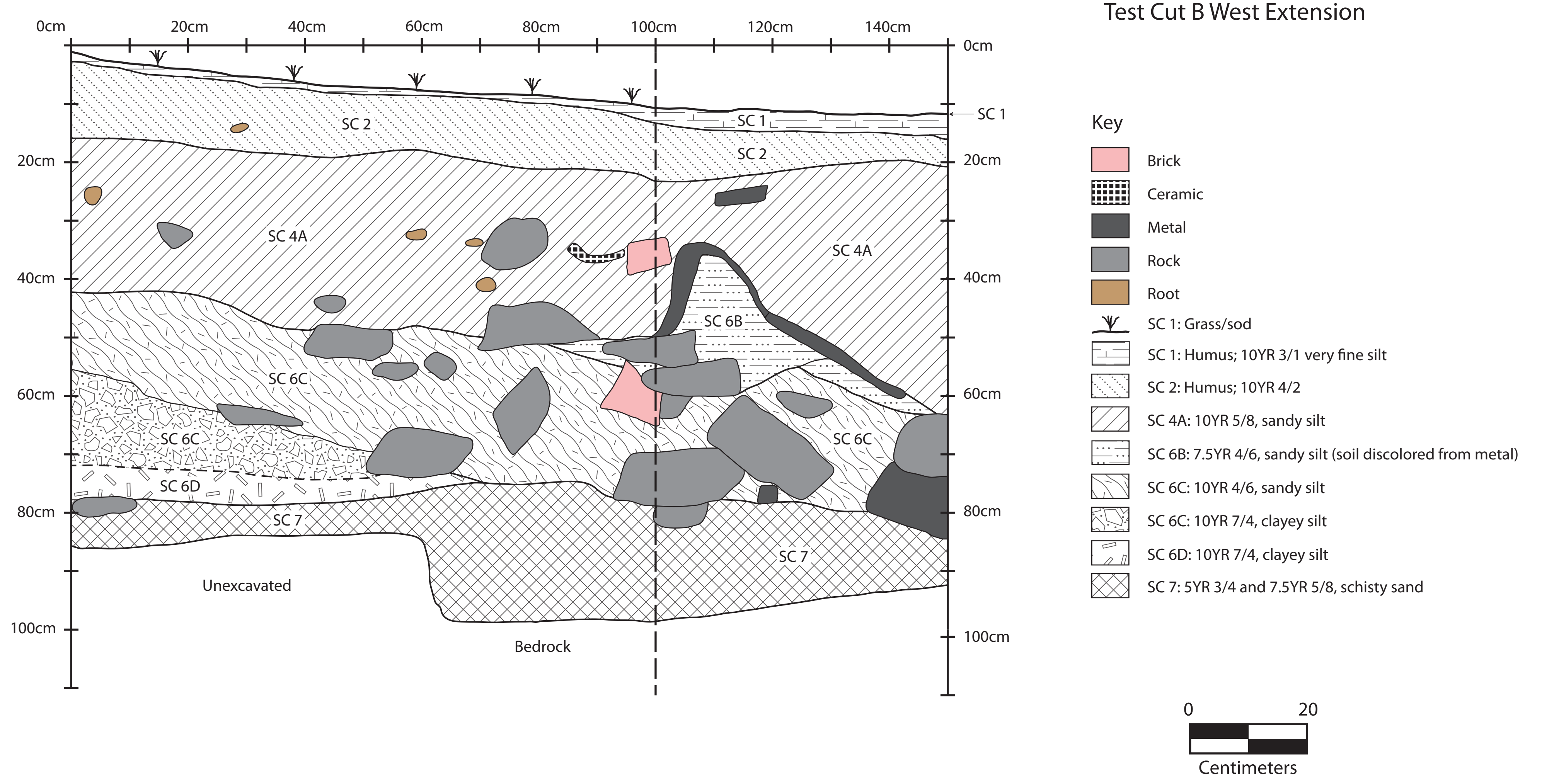
Key

- Brick
- Metal
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus
- SC 4A: 7.5YR 5/6, clayey sand
- SC 6B: 10YR 4/6, sandy silt
- SC 6C: 10YR 4/6, sandy silt
- Void

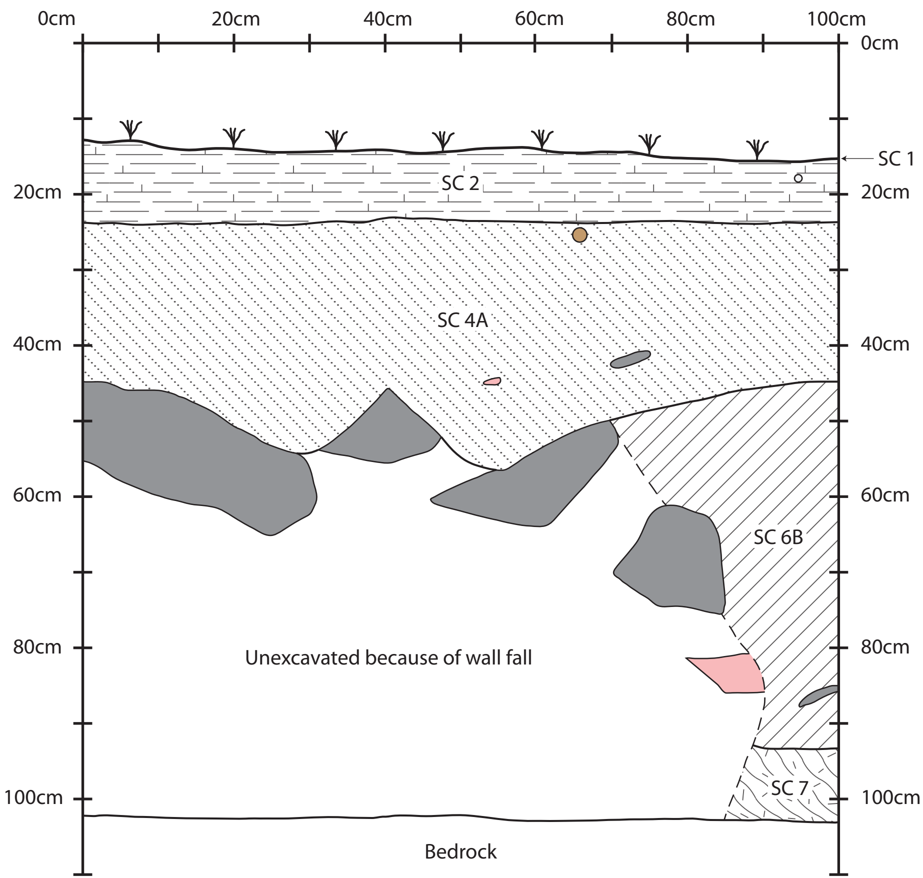
Note:
Ground surface of the northwest corner is 1.456m above site datum.

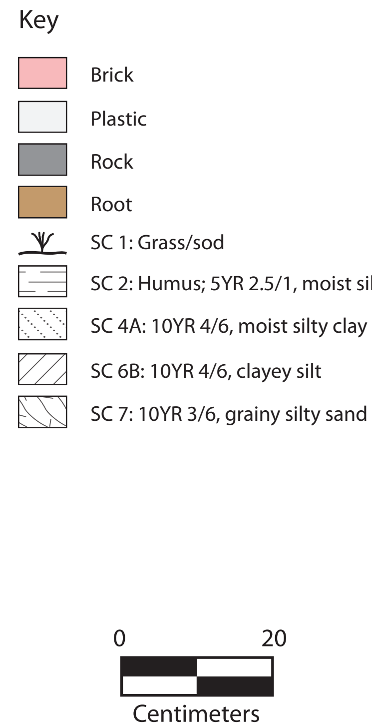
0 20
Centimeters

Seneca Village
All Angels'
Profile 2.2b
South Wall of Test Cut B and Test Cut B West Extension

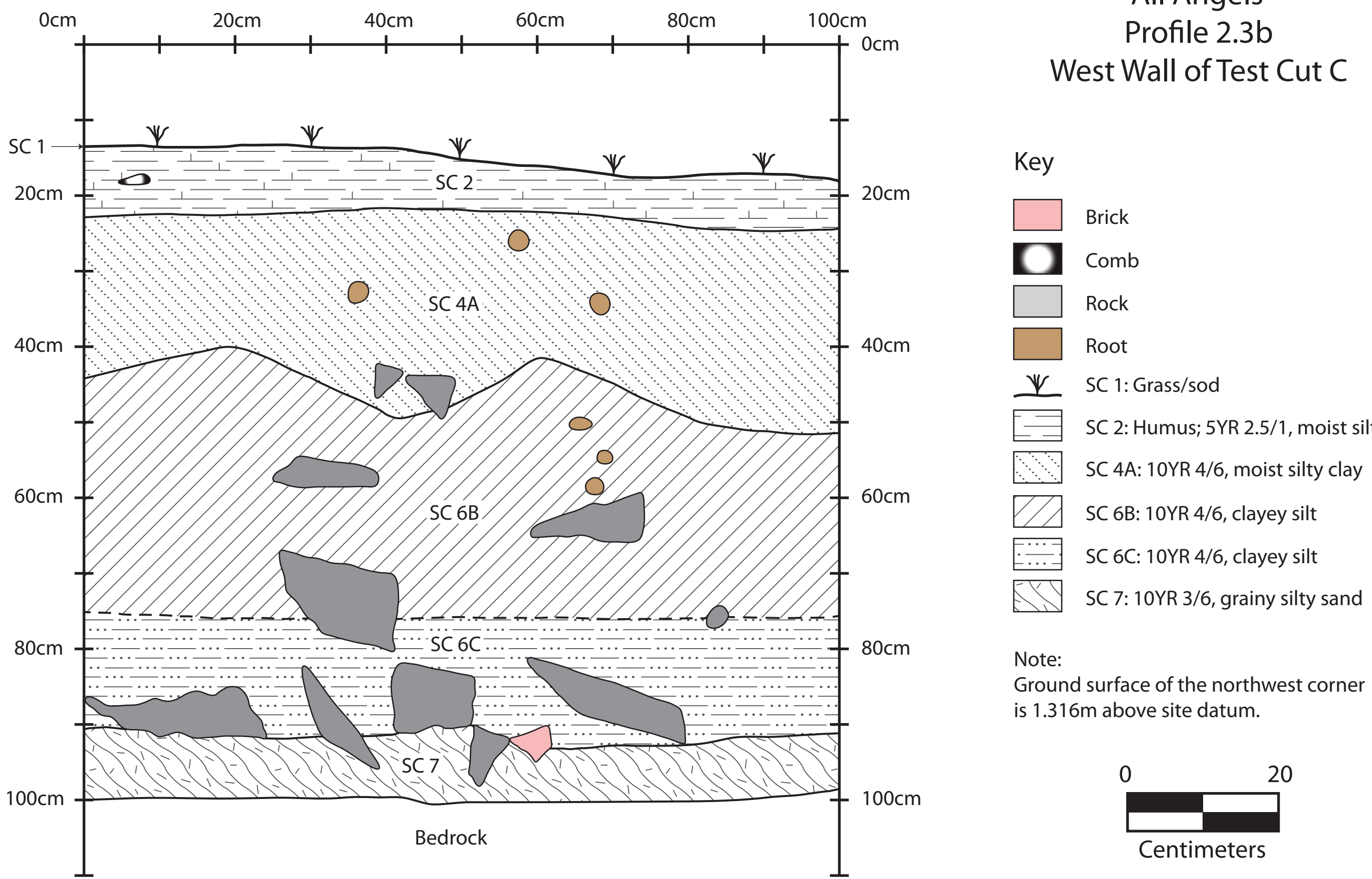


Seneca Village
All Angels'
Profile 2.3a
South Wall of Test Cut C



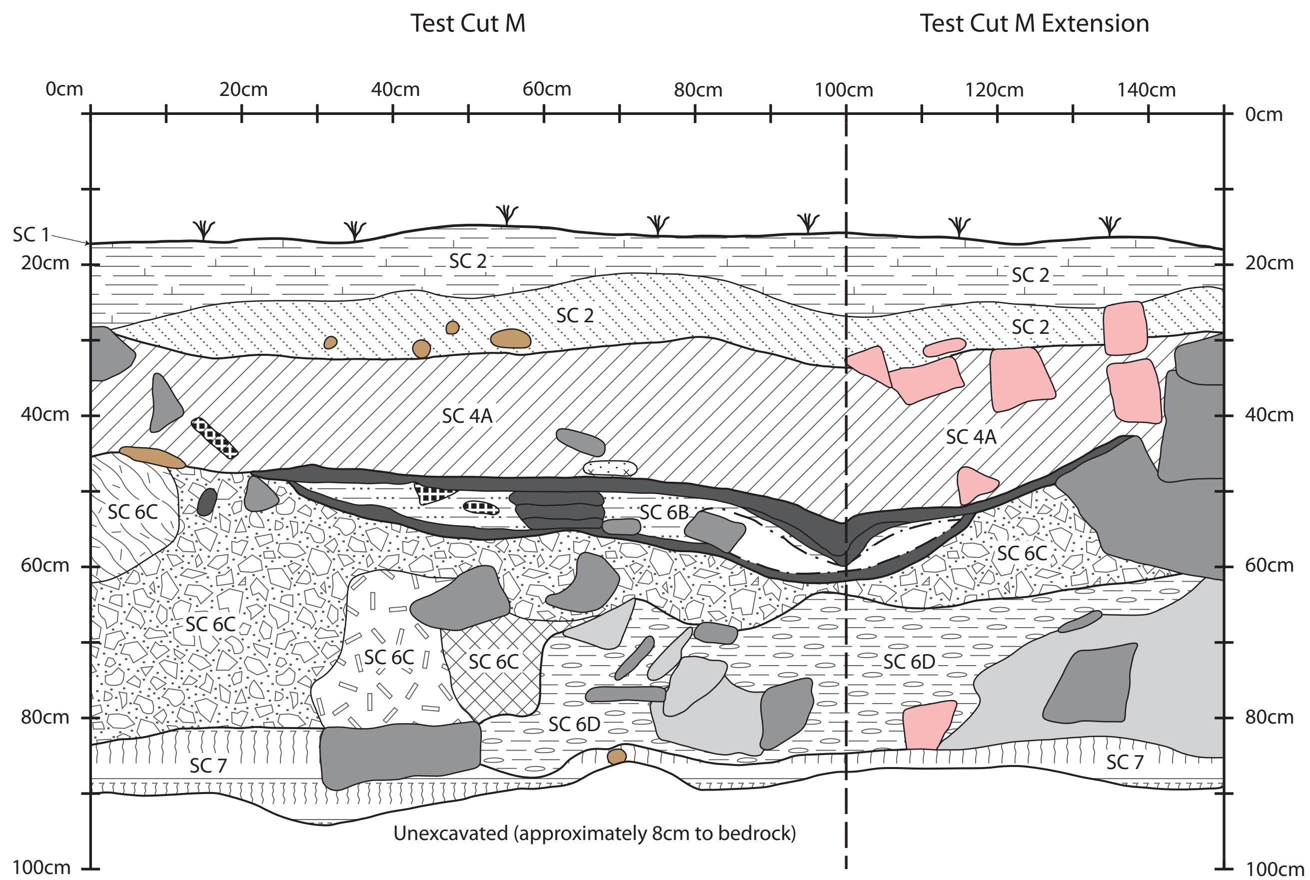


Seneca Village
All Angels'
Profile 2.3b
West Wall of Test Cut C



Note:
Ground surface of the northwest corner is 1.316m above site datum.

Seneca Village
All Angels'
Profile 2.4a
West Wall of Test Cut M and
Test Cut M North Extension



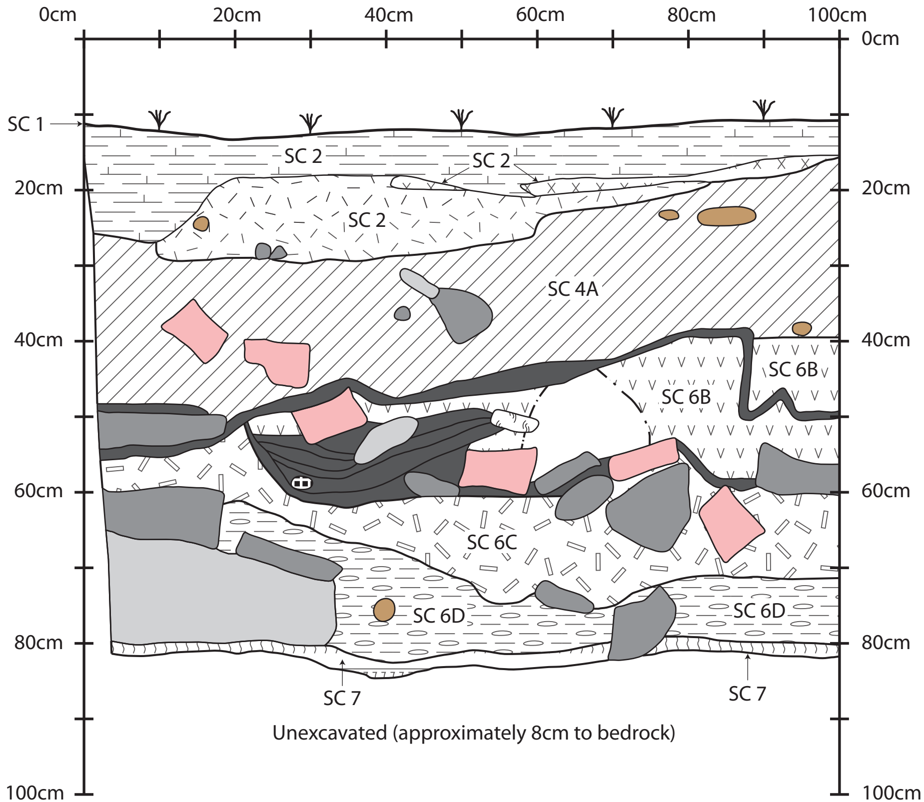
Key

- Brick
- Ceramic
- Metal
- Mortar
- Rock
- Root
- Shell
- SC 1: Grass/sod
- SC 2: Humus; 2.5Y 3/2, silty sand
- SC 2: 2.5Y 4/2, sandy silt
- SC 4A: 2.5Y 6/6, very fine sandy silt
- SC 6B: 10YR 5/8, sandy silt
- SC 6C: 10YR 4/6, clayey silt
- SC 6C: 10YR 5/8, sandy silt
- SC 6C: 10YR 4/6, sandy silt
- SC 6C: 2.5Y 6/6, silty sand
- SC 6D: 10YR 5/6 mottled w/ 10YR 3/2, mixed soil w/ mortar, coal and brick
- SC 7: 5YR 3/4 and 7.5YR 5/8, schisty sand
- Void

Note:
Ground surface of the northwest corner is 1.351m above site datum.

0 20
Centimeters

Seneca Village
All Angels'
Profile 2.4b
North Wall of Test Cut M



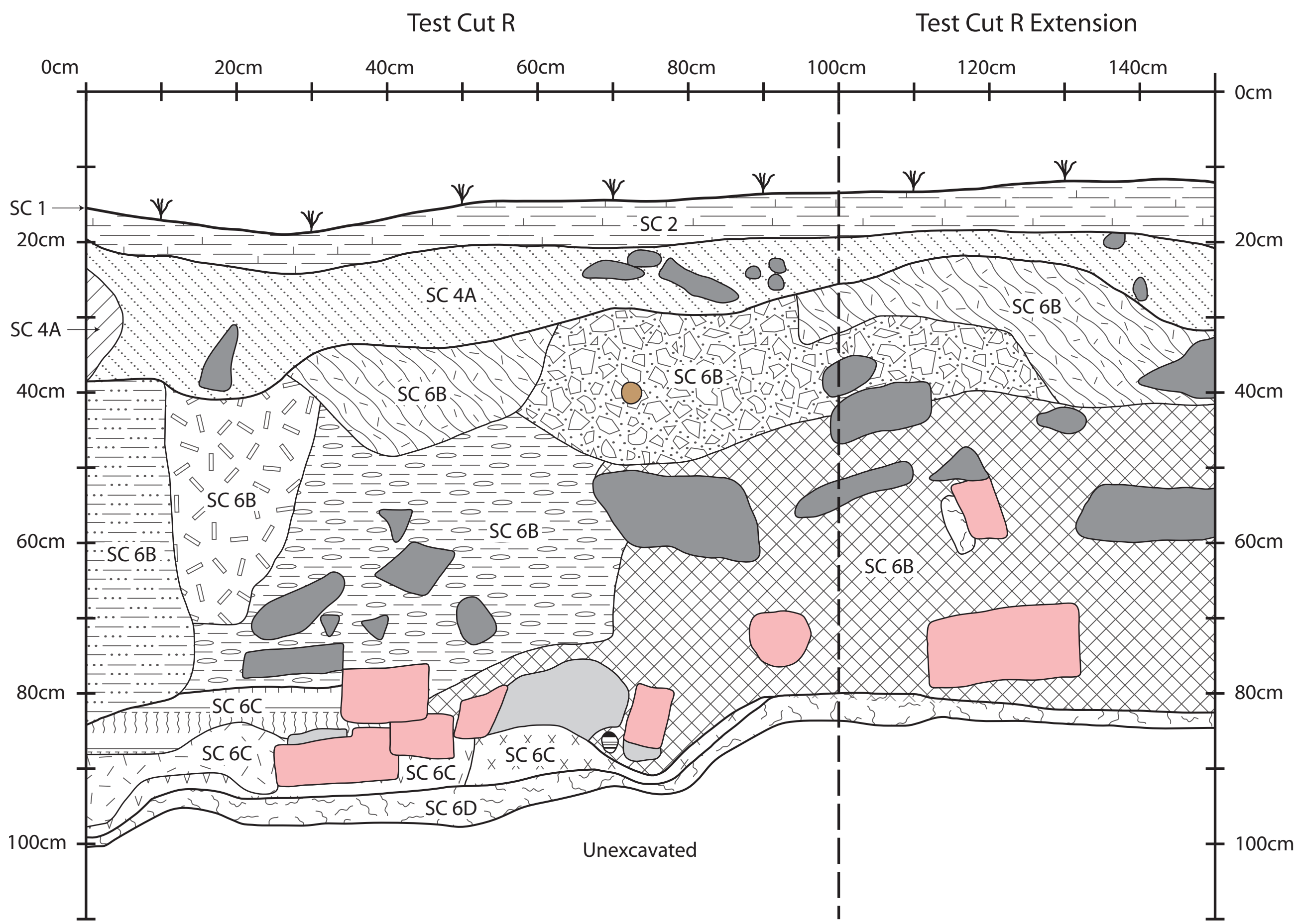
Key

- Brick
- Mortar
- Ceramic
- Rock
- Leather
- Root
- Metal
- SC 1: Grass/sod
- SC 2: Humus; 2.5Y 3/2, silty sand
- SC 2: Humus; 10YR 3/1, fine silt
- SC 2: 2.5Y 5/3, silty sand
- SC 4A: 2.5Y 6/6, very fine sandy silt
- SC 6B: 10YR 4/6, sandy silt
- SC 6C: 10YR 4/6, sandy silt
- SC 6D: 10YR 5/6 mottled w/ 10YR 3/2, mixed soil w/ mortar, coal and brick
- SC 7: 5YR 3/4 and 7.5YR 5/8, schisty sand
- Void

Note:
Ground surface of the northwest corner is 1.351m above site datum.

0 20
Centimeters

Seneca Village
All Angels'
Profile 2.5a
West Wall of Test Cut R and
Test Cut R North Extension



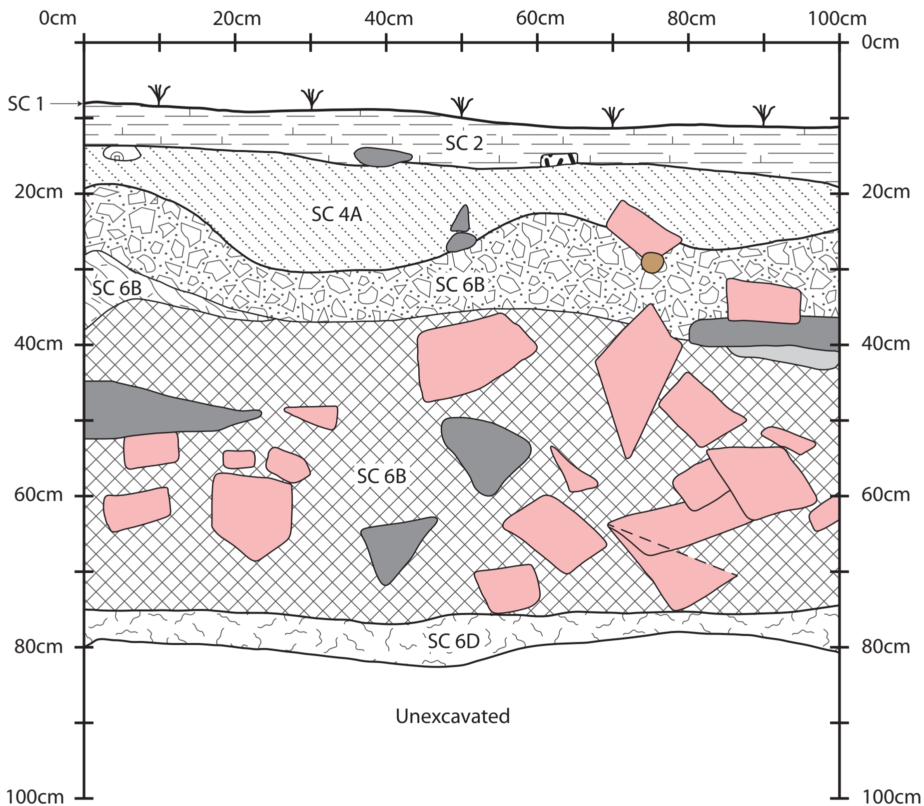
Key

- Bone
- Brick
- Coal
- Mortar
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 2.5Y 3/2 sandy silt
- SC 4A: 2.5Y 4/2 sandy silt
- SC 4A: 10YR 4/6
- SC 6B: 2.5Y 3/2, sandy silt
- SC 6B: 10YR 6/6 and 2.5Y 3/2 sandy silt
- SC 6B: 10YR 7/4 and 2.5Y 4/2, sandy silt
- SC 6B: 10YR 7/4, clayey silt
- SC 6B: 10YR 5/2, mortary sand, mortar rubble layer
- SC 6B: 7.5YR 3/1 and 10YR 6/6, schisty sand
- SC 6C: 7.5YR 3/1 and 10YR 6/6, schisty sand
- SC 6C: 10YR 2/1 and 10YR 5/8, clayey silt, coal layer
- SC 6C: 10YR 5/2, mortary sand, mortar rubble layer
- SC 6C: 10YR 2/1, coaly ashy schisty silt
- SC 6D: 5YR 3/4 mottled w/ 7.5YR 5/8, schisty sand

Note:
Ground surface of the northwest corner is 1.376m above site datum.

0 20
Centimeters

Seneca Village
All Angels'
Profile 2.5b
North Wall of Test Cut R
North Extension



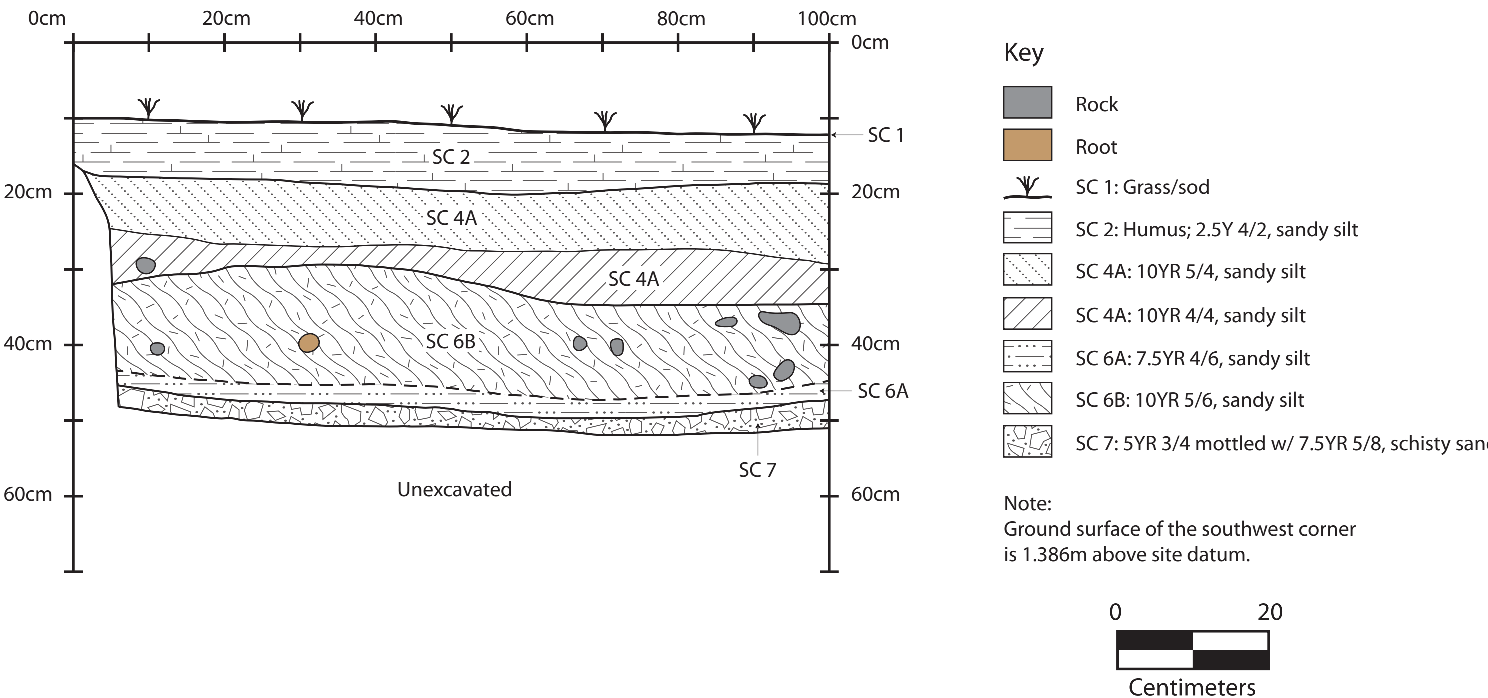
Key

- Brick
- Glass
- Mortar
- Rock
- Root
- Rubber
- SC 1: Grass/sod
- SC 2: Humus; 2.5Y 3/2 sandy silt
- SC 4A: 2.5Y 4/2 sandy silt
- SC 6B: 10YR 6/6 and 2.5Y 3/2 sandy silt
- SC 6B: 10YR 7/4 and 2.5Y 4/2, sandy silt
- SC 6B: 10YR 5/2, mortary sand, mortar rubble layer
- SC 6D: 5YR 3/4 and 7.5YR 5/8, schisty sand

Note:
Ground surface of the northwest corner is 1.376m above site datum.

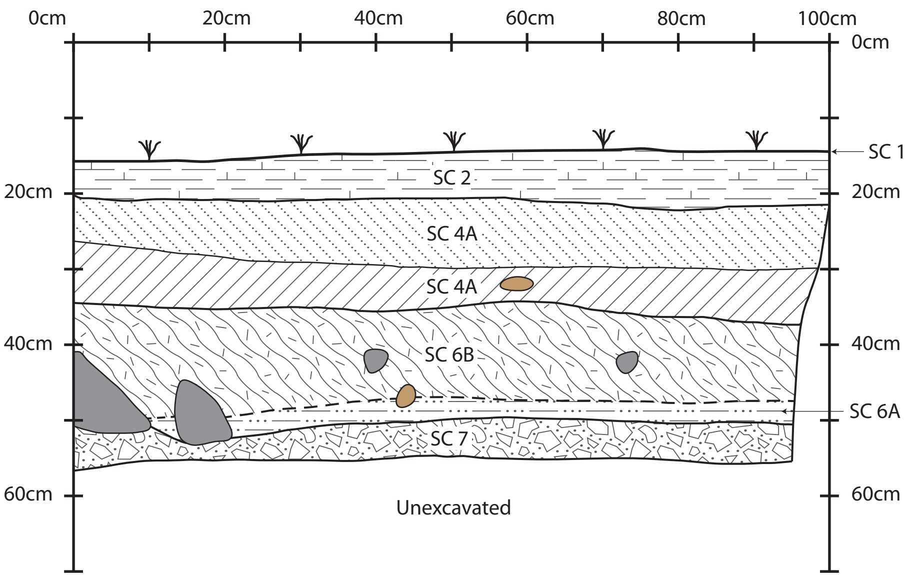
0 20
Centimeters

Seneca Village
All Angels'
Profile 2.6a
South Wall of Test Cut N



Note:
Ground surface of the southwest corner is 1.386m above site datum.

Seneca Village
All Angels'
Profile 2.6b
East Wall of Test Cut N

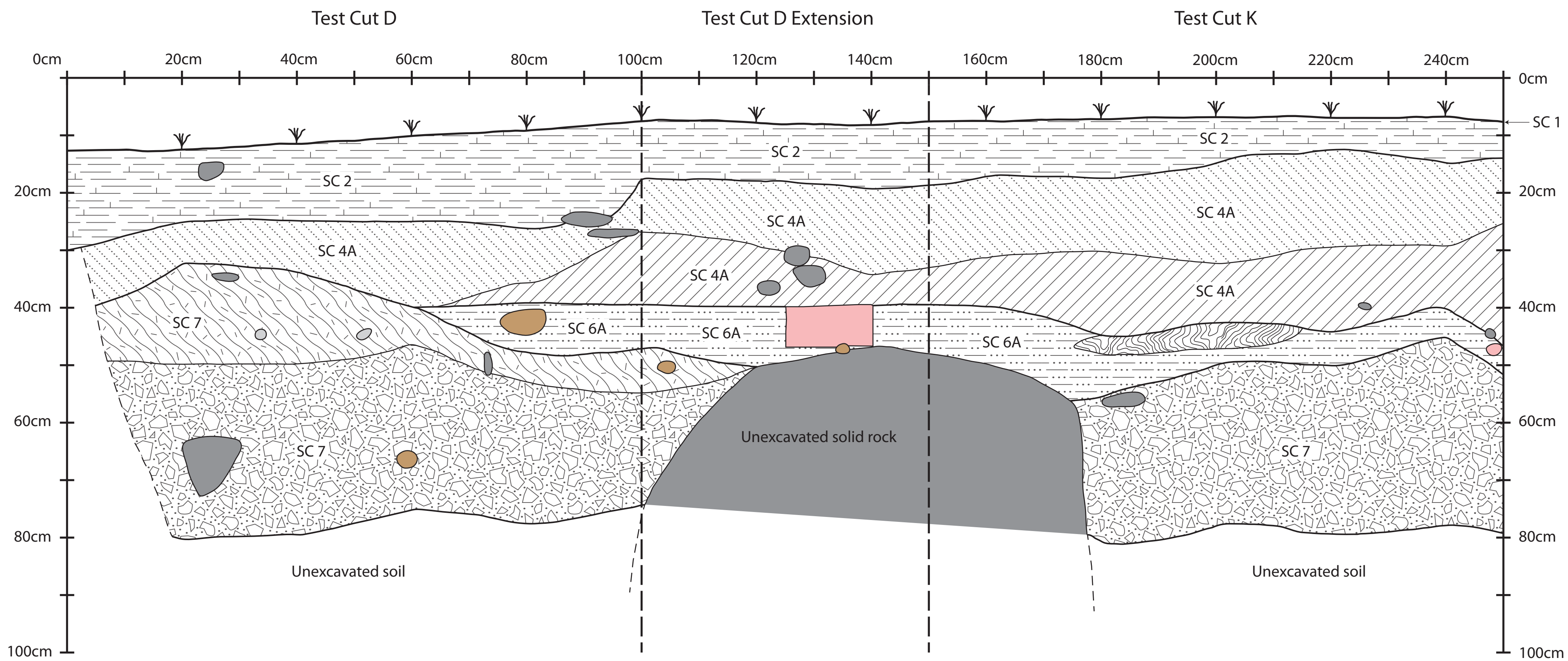


Key

- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 2.5Y 4/2, sandy silt
- SC 4A: 10YR 5/4, sandy silt
- SC 4A: 10YR 4/4, sandy silt
- SC 6A: 7.5YR 4/6, sandy silt
- SC 6B: 10YR 5/6, sandy silt
- SC 7: 5YR 3/4 mottled w/ 7.5YR 5/8, schisty sand

Note:
Ground surface of the southwest corner is 1.386m above site datum.

Seneca Village
Transect 3
Profile 2.7a
South Wall of Test Cut D,
Test Cut D East Extension
and Test Cut K

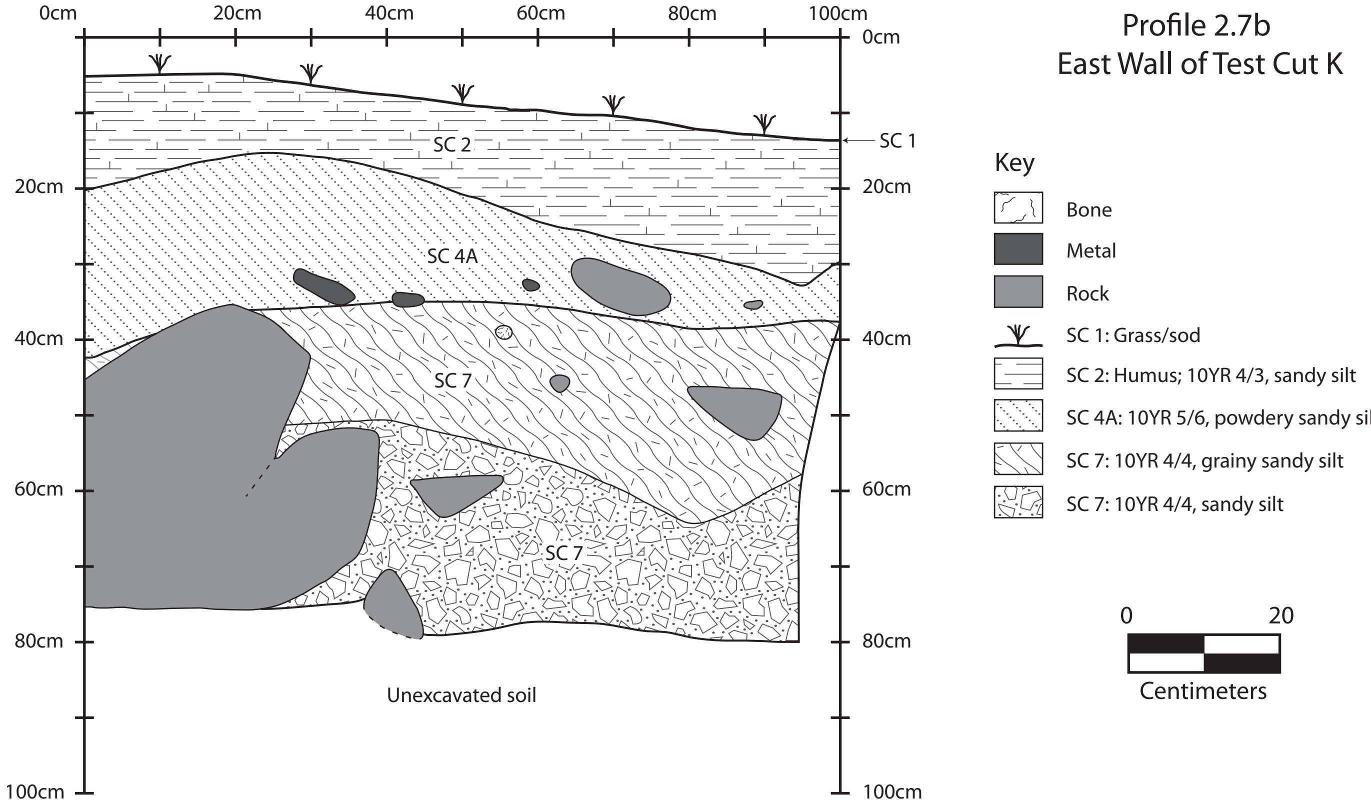


Key
- Ash
- Brick
- Mortar
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 10YR 4/3, sandy silt
- SC 4A: 10YR 5/6, powdery sandy silt
- SC 4A: 10YR 4/4, grainy sandy silt
- SC 6A: 10YR 5/2, very grainy sandy silt, possible living surface
- SC 7: 10YR 4/4, grainy sandy silt
- SC 7: 10YR 4/4, sandy silt

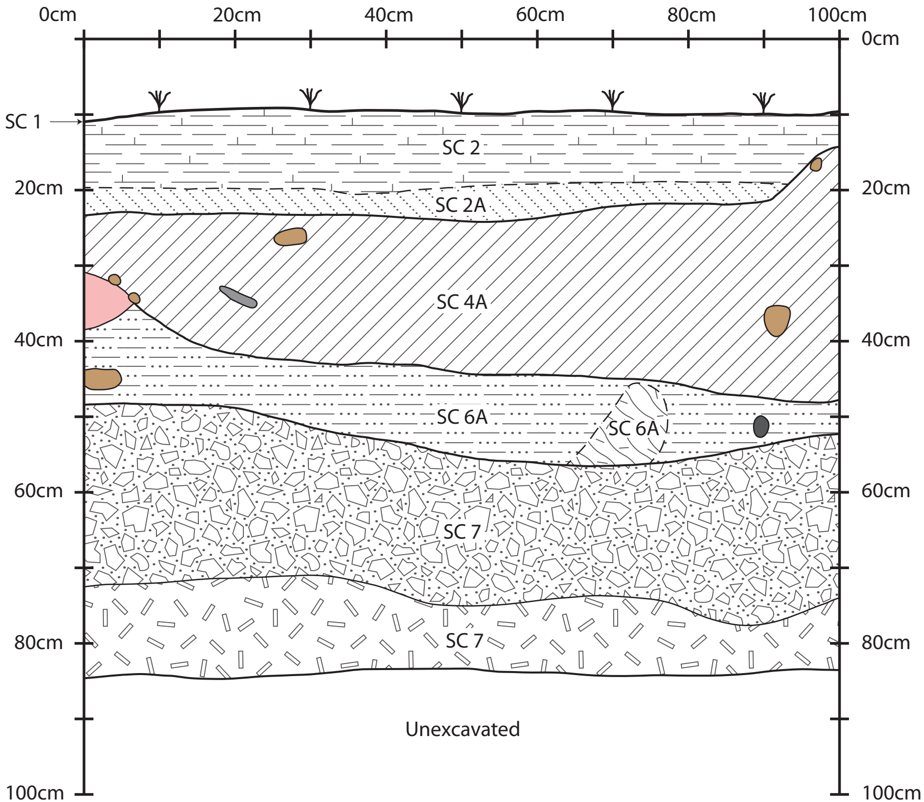
Note:
Ground surface of the northwest corner is 0.378m below site datum.

0 20
Centimeters

Seneca Village
Transect 3
Profile 2.7b
East Wall of Test Cut K



Seneca Village
Transect 3
Profile 2.8a
North Wall of Test Cut G



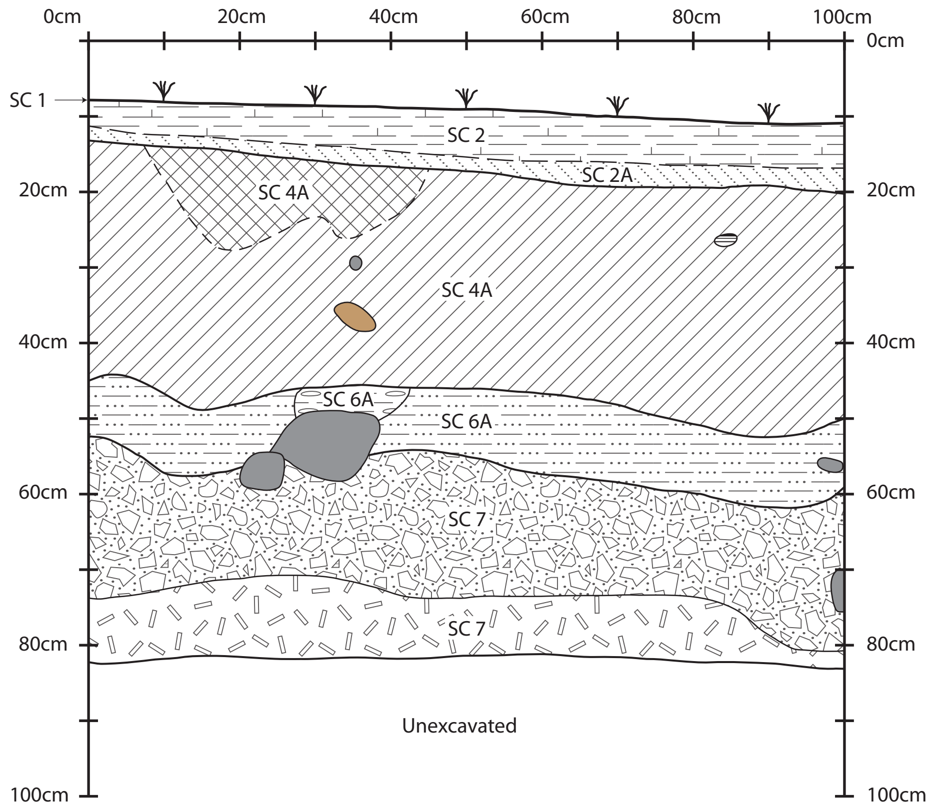
Key

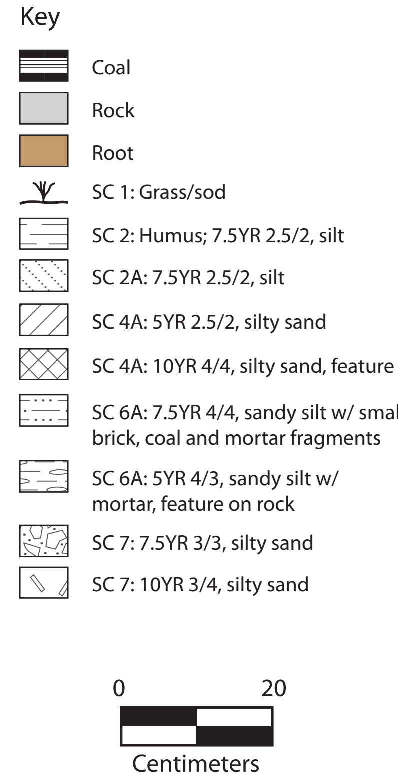
- Brick
- Metal
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 7.5YR 2.5/2, silt
- SC 2A: 7.5YR 2.5/2, silt
- SC 4A: 5YR 2.5/2, silty sand
- SC 6A: 7.5YR 4/4, sandy silt w/ small brick, coal and mortar fragments
- SC 6A: 7.5YR 3/3, silty sand, feature
- SC 7: 7.5YR 3/3, silty sand
- SC 7: 10YR 3/4, silty sand

Note:
Ground surface of the northwest corner is 0.272m below site datum.

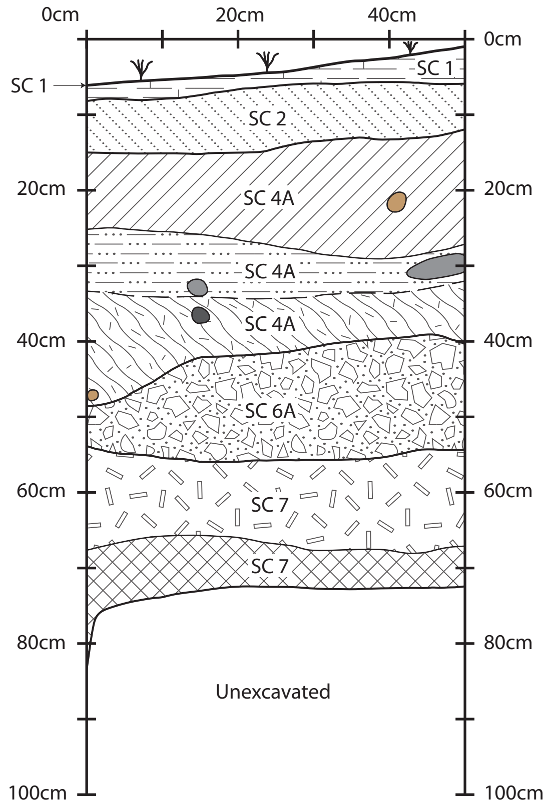
0 20
Centimeters

Seneca Village
Transect 3
Profile 2.8b
East Wall of Test Cut G





Seneca Village
Transect 3
Profile 2.9a
West Wall of Test Cut O
Northeast Extension

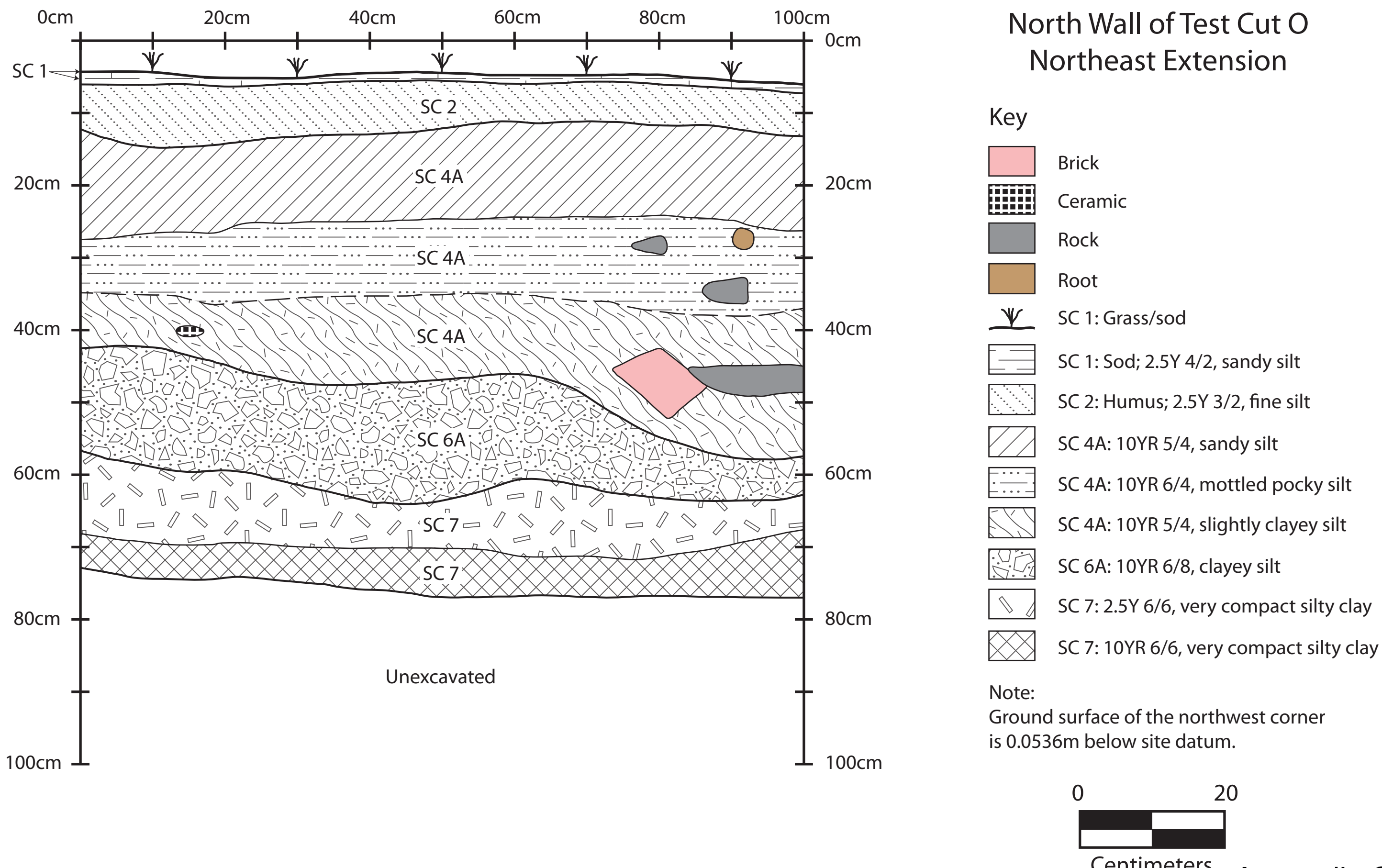


Key

- Metal
- Rock
- Root
- SC 1: Grass/sod
- SC 1: Sod; 2.5Y 4/2, sandy silt
- SC 2: Humus; 2.5Y 3/2, fine silt
- SC 4A: 10YR 5/4, sandy silt
- SC 4A: 10YR 6/4, mottled pocky silt
- SC 4A: 10YR 5/4, slightly clayey silt
- SC 6A: 10YR 6/8, clayey silt
- SC 7: 2.5Y 6/6, very compact silty clay
- SC 7: 10YR 6/6, very compact silty clay

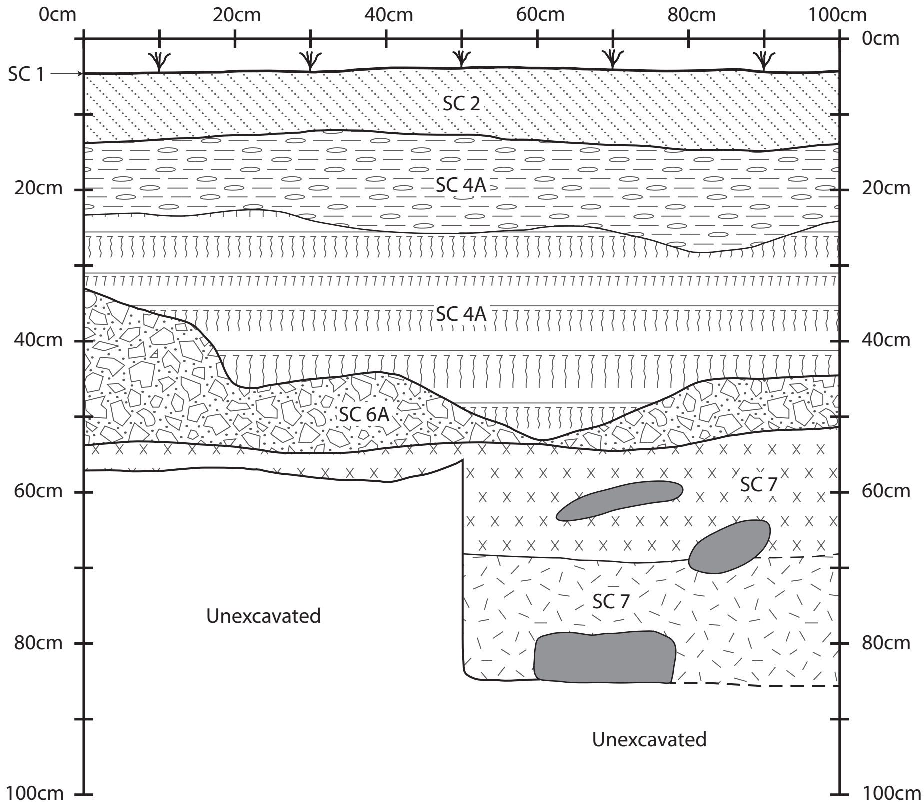
Note:
Ground surface of the northwest corner is 0.0536m below site datum.

Seneca Village
Transect 3
Profile 2.9b
North Wall of Test Cut O
Northeast Extension

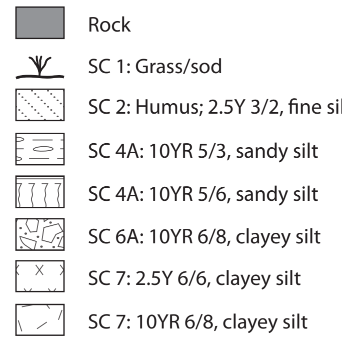


Note:
Ground surface of the northwest corner is 0.0536m below site datum.

Seneca Village
Transect 3
Profile 2.9c
North Wall of Test Cut O



Key

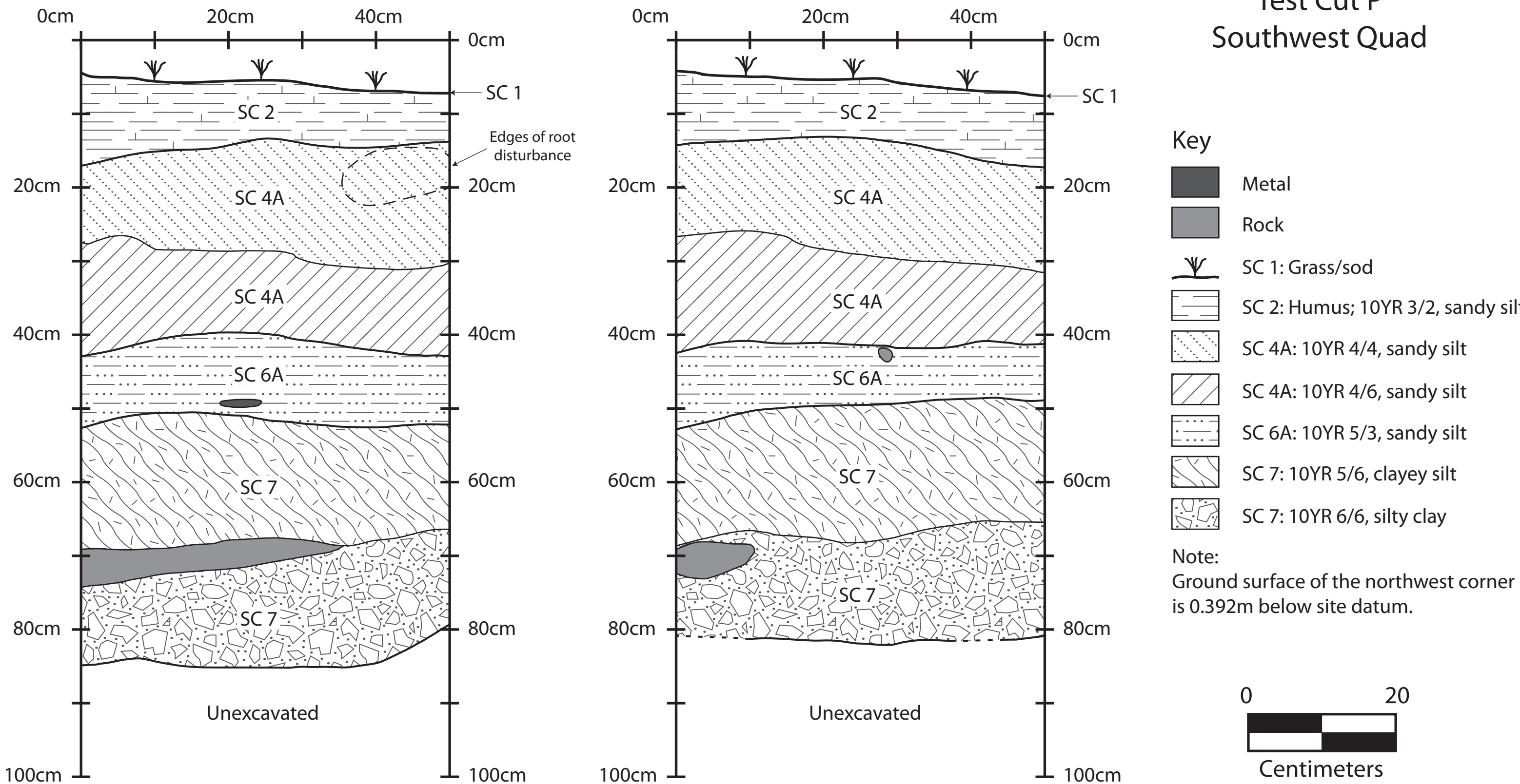


Note:
Ground surface of the northwest corner is 0.0536m below site datum.

Profile 2.10a
North Wall

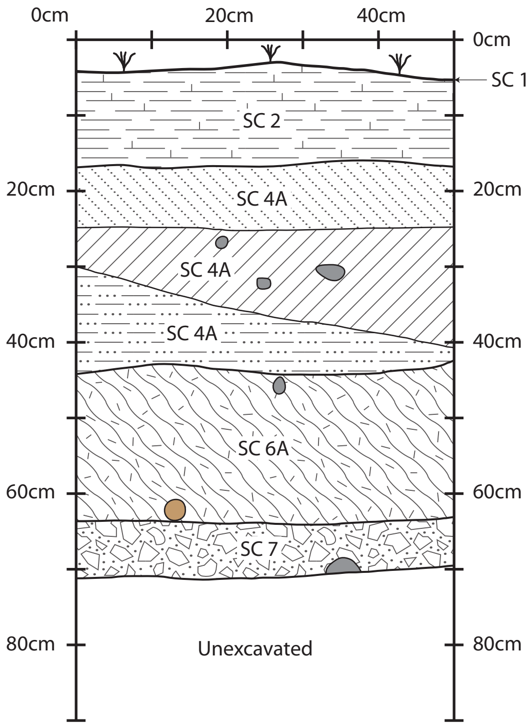
Profile 2.10b
West Wall

Seneca Village
Transect 3
Test Cut P
Southwest Quad

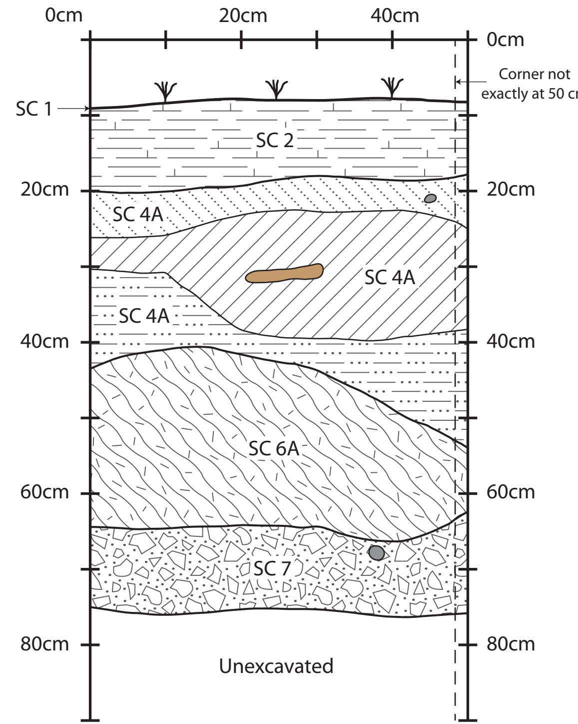


Seneca Village
Transect 3
Test Cut Q
Southwest Quad

Profile 2.11a
East Wall



Profile 2.11b
North Wall



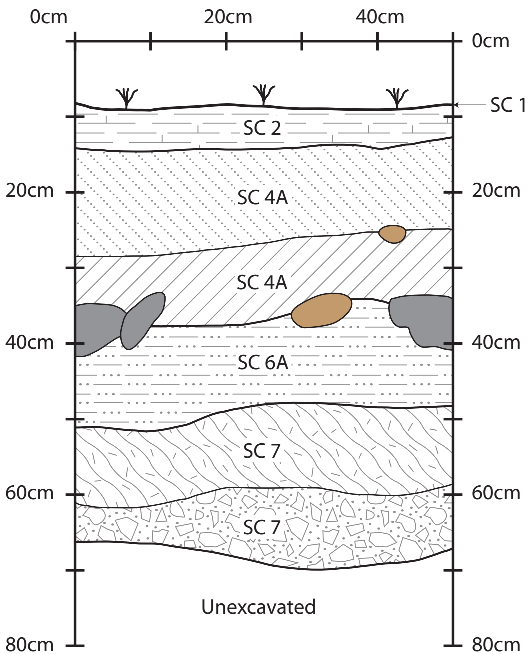
Key

- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 10YR 4/2, silty sand
- SC 4A: 10YR 5/4, silty sand
- SC 4A: 10YR 6/6, sandy silt
- SC 4A: 2.5Y 5/4, sandy silt
- SC 6A: 10YR 4/6, clayey silt
- SC 7: 10YR 6/8, clayey silt

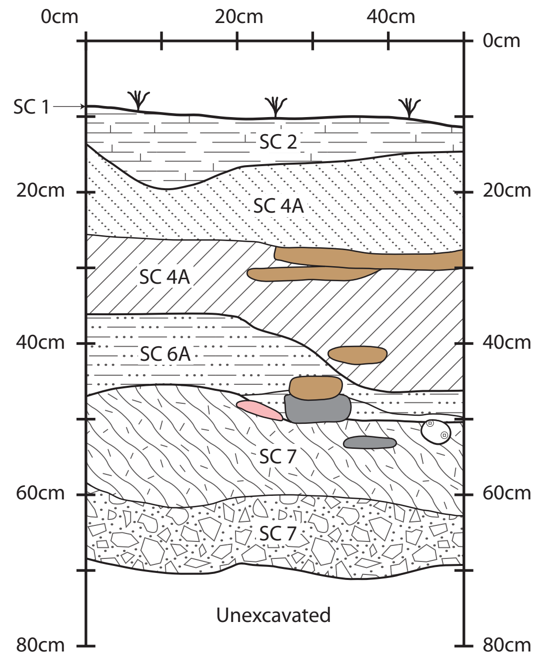
Note:
Ground surface of the northwest corner is 0.342m below site datum.

Seneca Village
Transect 3
Test Cut T
Southwest Quad

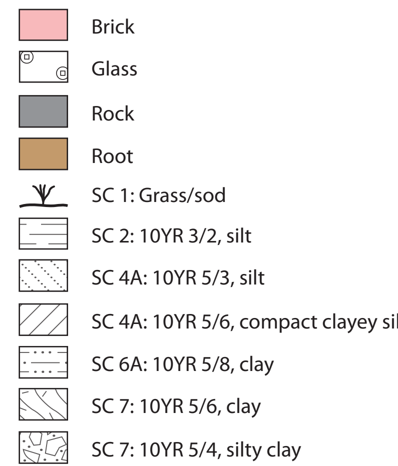
Profile 2.12a
North Wall



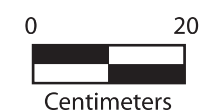
Profile 2.12b
East Wall



Key

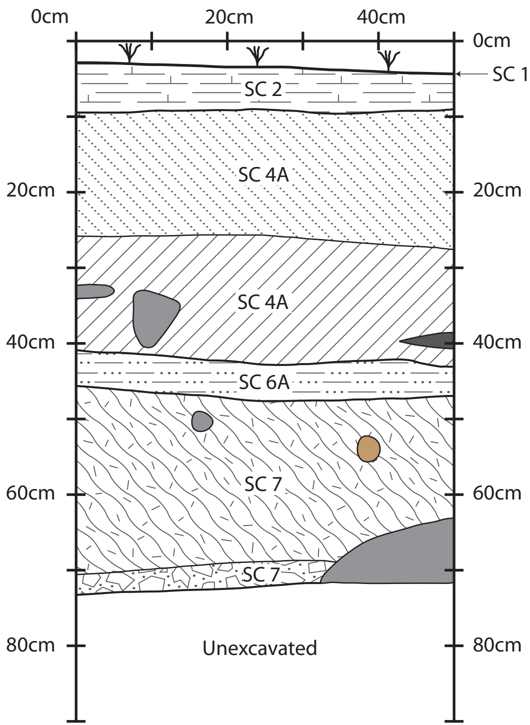


Note:
Ground surface of the northwest corner is 0.1836m below site datum.

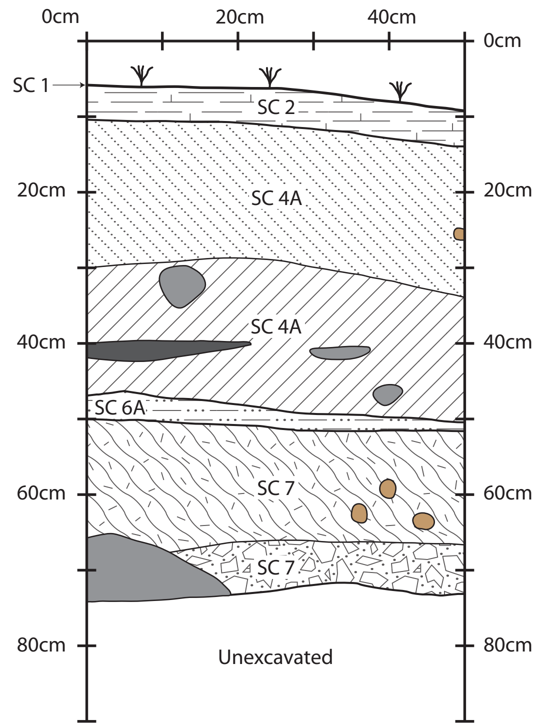


Seneca Village
Transect 3
Test Cut U
Southwest Quad

Profile 2.13a
North Wall



Profile 2.13b
East Wall



Key

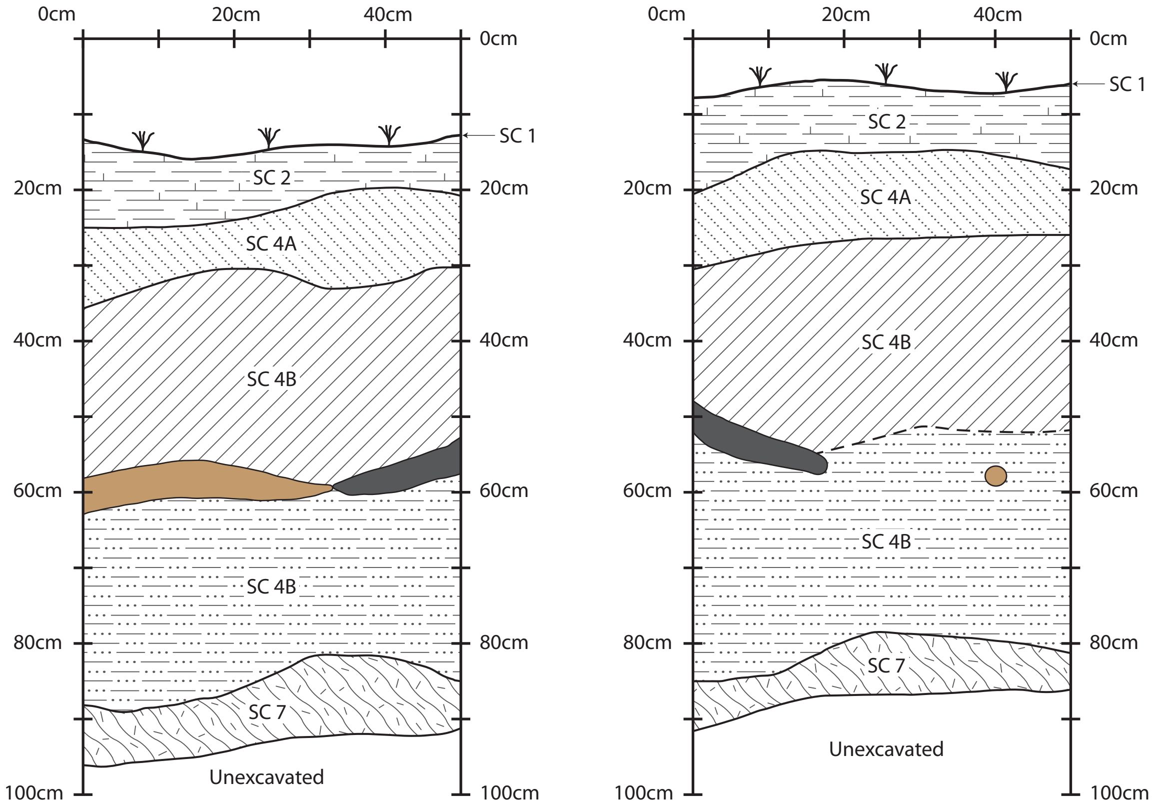
- Metal
- Rock
- Root
- SC 1: Grass/sod
- SC 2: 10YR 3/2, silty sand
- SC 4A: 10YR 4/3, silty sand
- SC 4A: 10YR 5/6, sandy silt
- SC 6A: 10YR 4/4, clayey silt
- SC 7: 10YR 5/4, clayey silt
- SC 7: 10YR 7/6, clayey silt

Note:
Ground surface of the northwest corner is 0.542m below site datum.

Profile 2.14a
West Wall

Profile 2.14b
North Wall

Seneca Village
Transect 3
Test Cut V
Southwest Quad



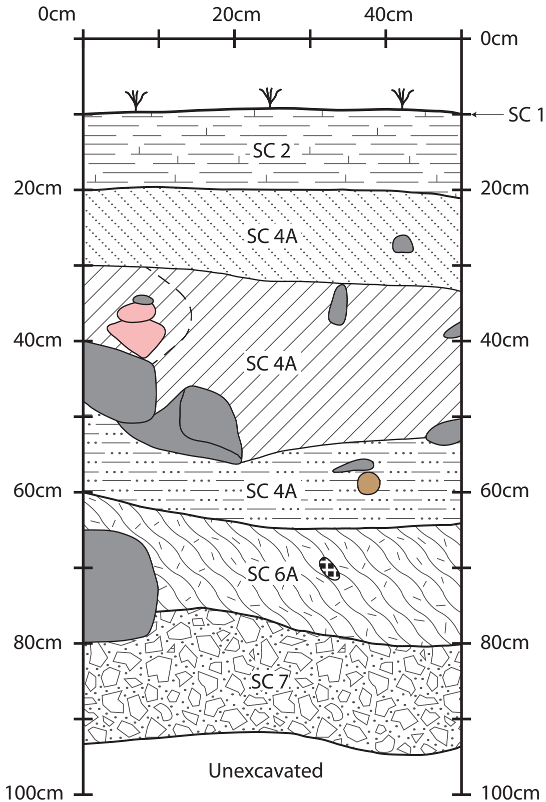
Key

- Metal
- Root
- SC 1: Grass/sod
- SC 2: Humus; 10YR 3/2, silt
- SC 4A: 10YR 3/4, sandy silt
- SC 4B: 10YR 3/6, sandy silt
- SC 4B: 10YR 3/6, compact sandy silt
- SC 7: 10YR 5/8, very compact sandy clay

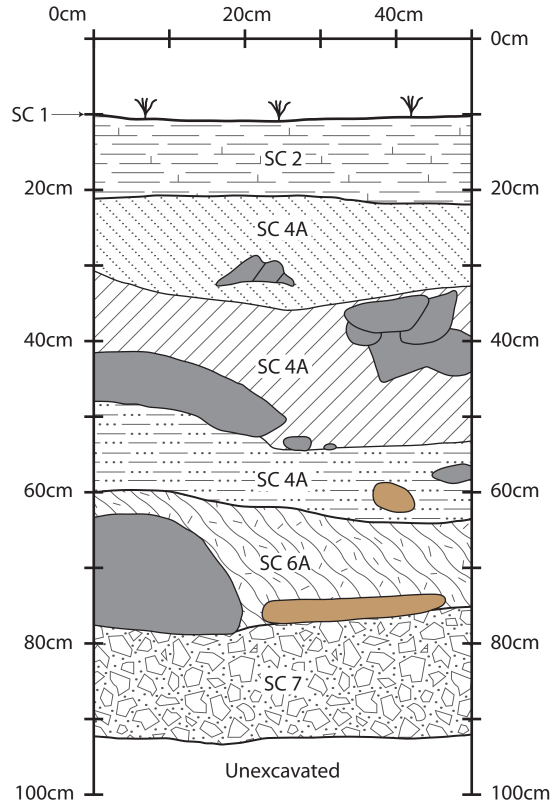
Note:
Ground surface of the northwest corner is 0.522m below site datum.

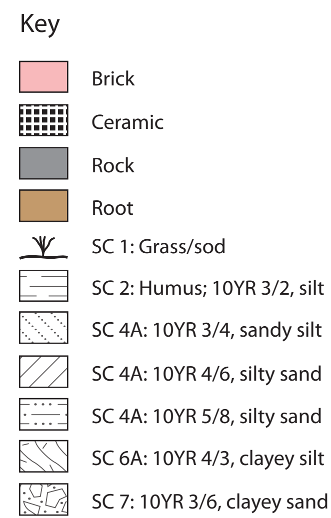
Seneca Village
Transect 3
Test Cut W
Southwest Quad

Profile 2.15a
North Wall

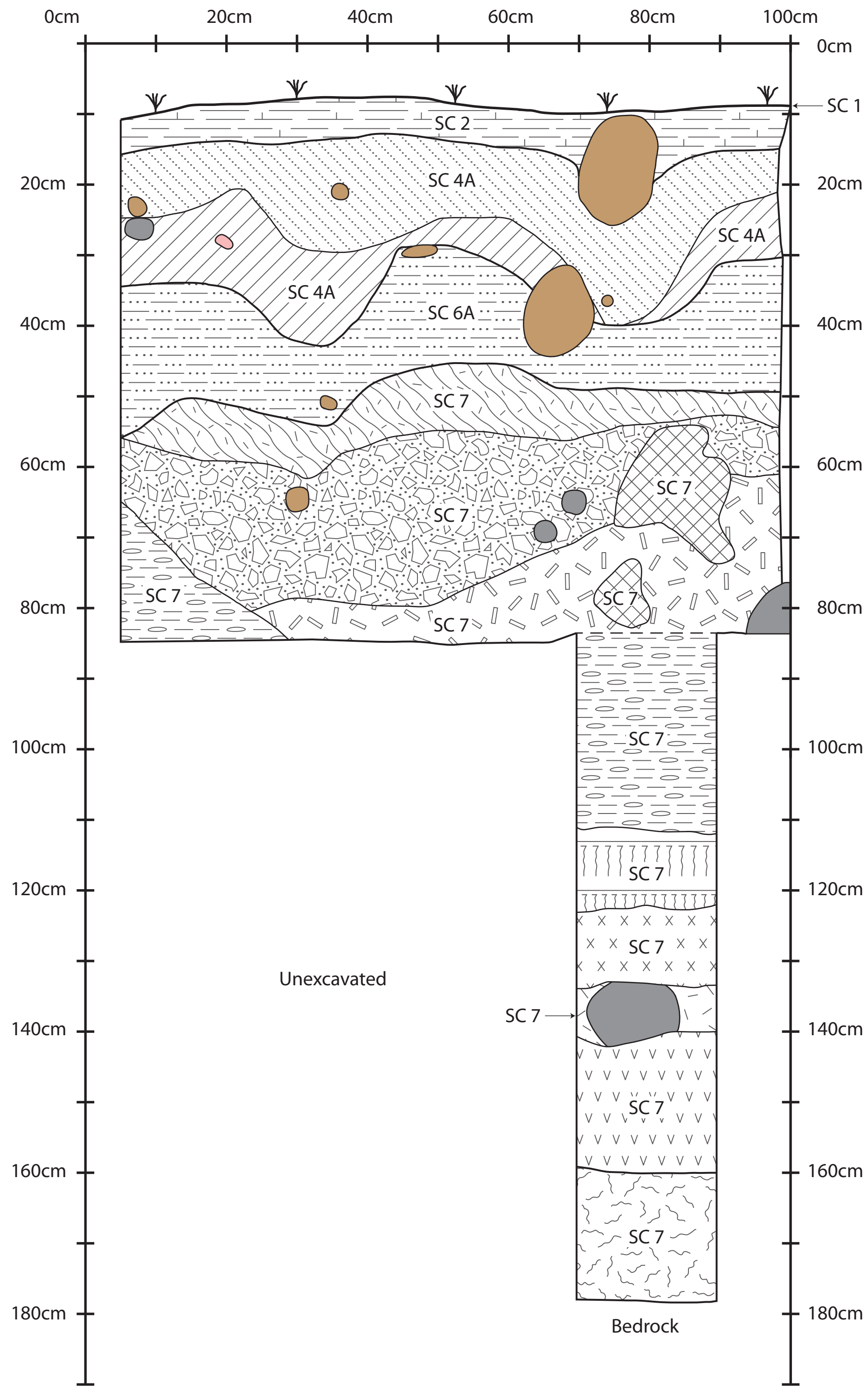


Profile 2.15b
West Wall





Note:
Ground surface of the northwest corner is 0.642m below site datum.

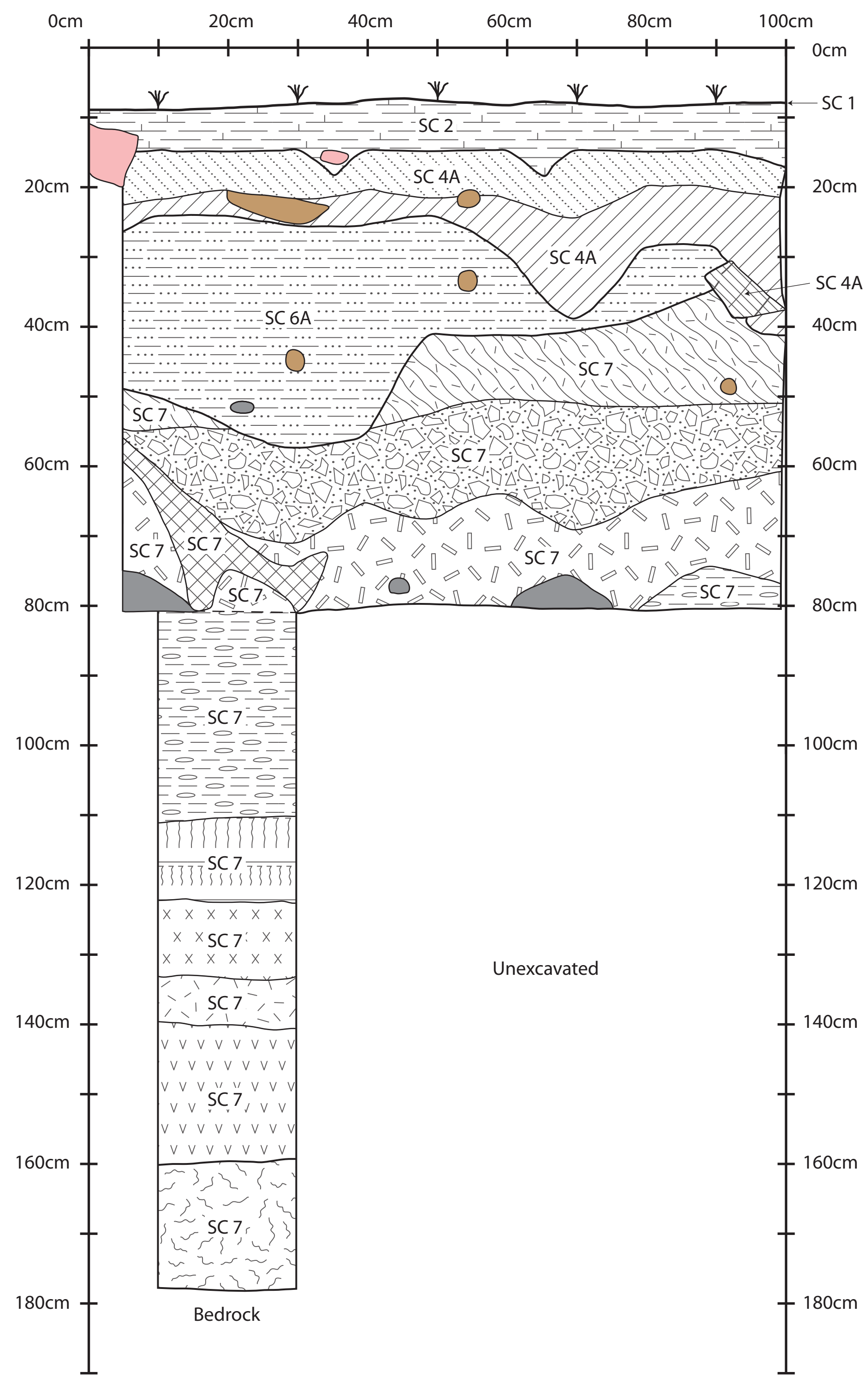


Seneca Village
Transect 3
Profile 2.16a
South Wall of Test Cut E

Key

- Brick
- Rock
- Roots and rootlets
- SC 1: Grass/sod
- SC 2: Humus; 10YR 4/4 sandy silt
- SC 4A: 10YR 3/3, sandy silt
- SC 4A: 10YR 5/4, sandy silt
- SC 6A: 10YR 4/4, slightly clayey silt w/ a little fine sand
- SC 7: 10YR 5/6, clayey silt
- SC 7: 2.5Y 6/6, clayey silt
- SC 7: 10YR 6/8, clayey silt
- SC 7: 10YR 4/4, clayey silt
- SC 7: 5Y 6/2, slightly silty clay
- SC 7: 7.5YR 5/8, sandy clay
- SC 7: 10YR 6/4, sandy clay
- SC 7: 7.5YR 6/4, silty clay
- SC 7: 5YR 5/4, silty clay
- SC 7: 2.5YR 3/4, slightly silty clay

0 20
Centimeters

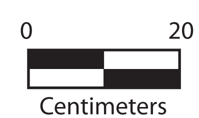


Seneca Village
Transect 3
Profile 2.16b
West Wall of Test Cut E

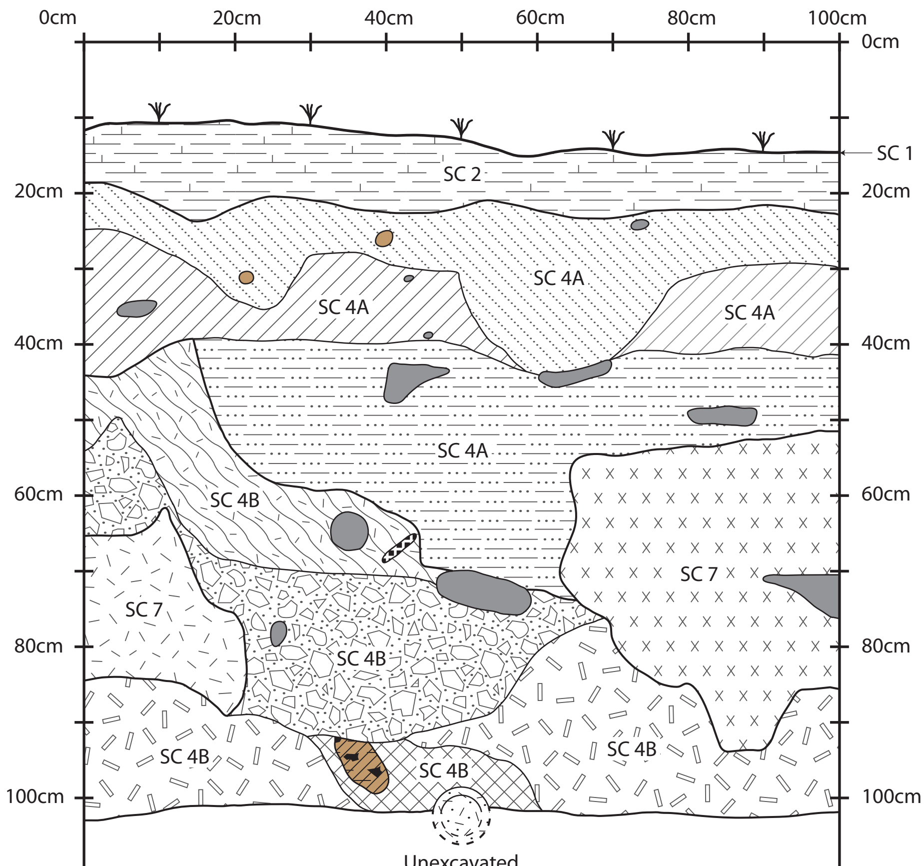
Key

- Brick
- Rock
- Roots and rootlets
- SC 1: Grass/sod
- SC 2: Humus; 10YR 4/4 sandy silt
- SC 4A: 10YR 3/3, sandy silt
- SC 4A: 10YR 5/4, sandy silt
- SC 6A: 10YR 4/4, slightly clayey silt w/ a little fine sand
- SC 6A: 7.5YR 5/8, sandy silt
- SC 7: 10YR 5/6, clayey silt
- SC 7: 2.5Y 6/6, clayey silt
- SC 7: 10YR 6/8, clayey silt
- SC 7: 10YR 4/4, clayey silt
- SC 7: 5Y 6/2, slightly silty clay
- SC 7: 7.5YR 5/8, sandy clay
- SC 7: 10YR 6/4, sandy clay
- SC 7: 7.5YR 6/4, silty clay
- SC 7: 5YR 5/4, silty clay
- SC 7: 2.5YR 3/4, slightly silty clay

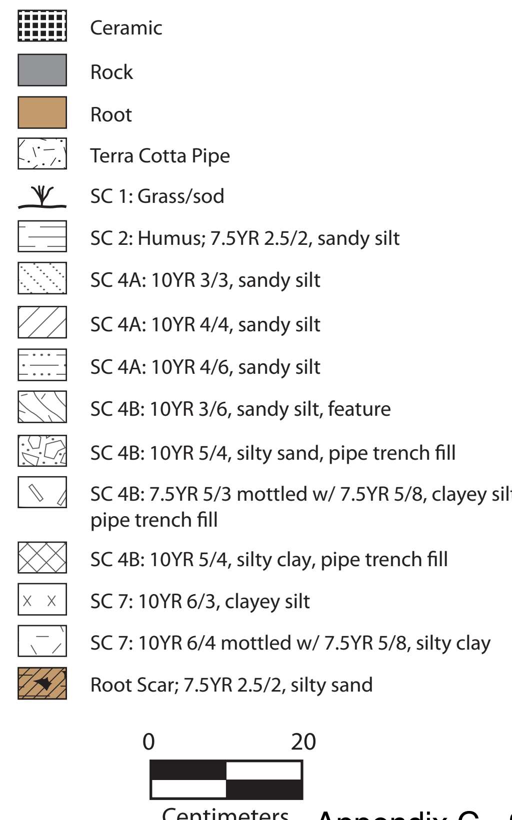
Note:
Ground surface of the northwest corner is 0.9571m below site datum.



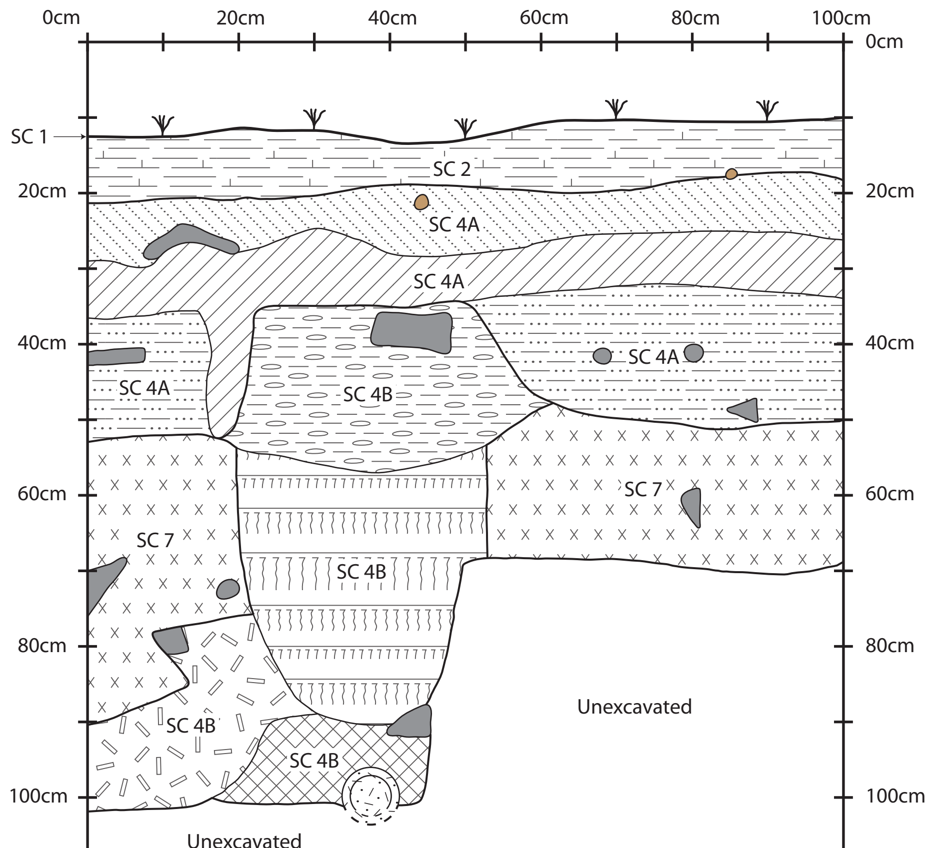
Seneca Village
Transect 3
Profile 2.17a
South Wall of Test Cut F



Key



Seneca Village
Transect 3
Profile 2.17b
West Wall of Test Cut F

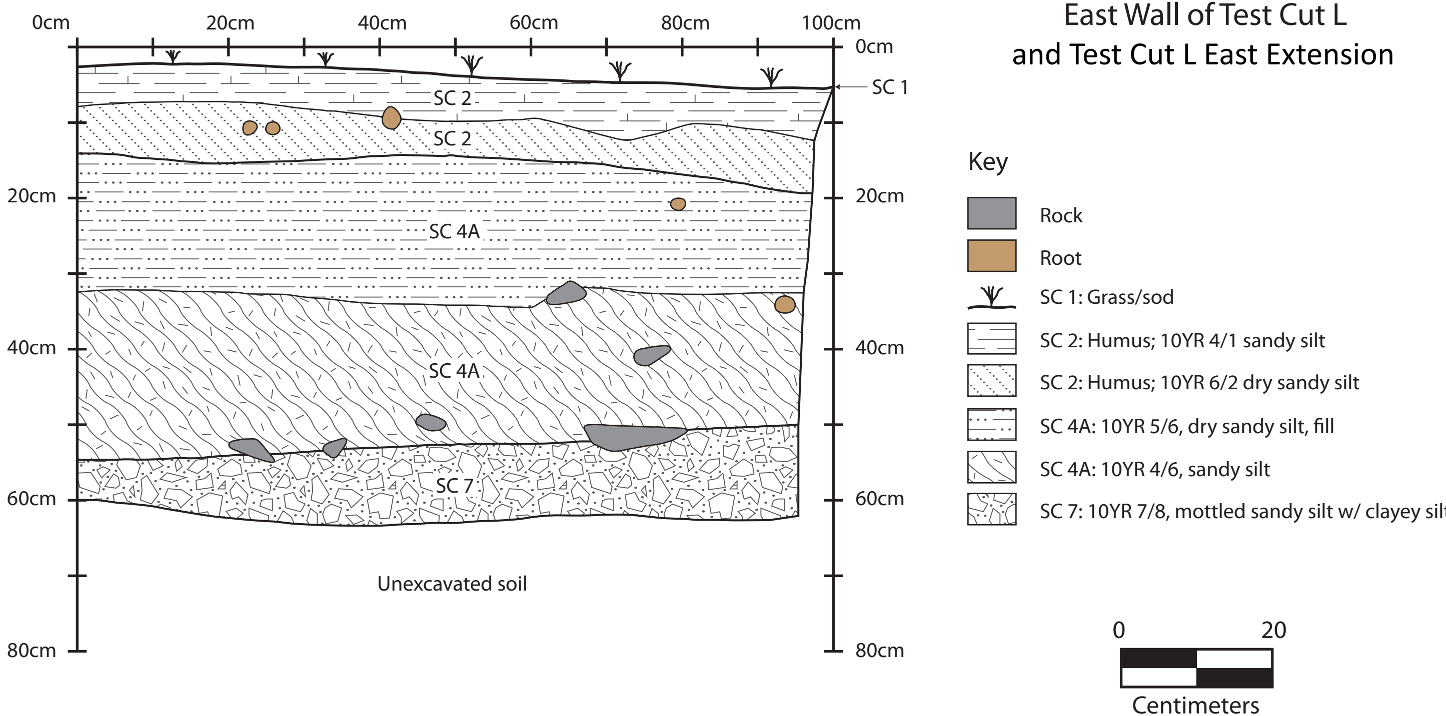


Key

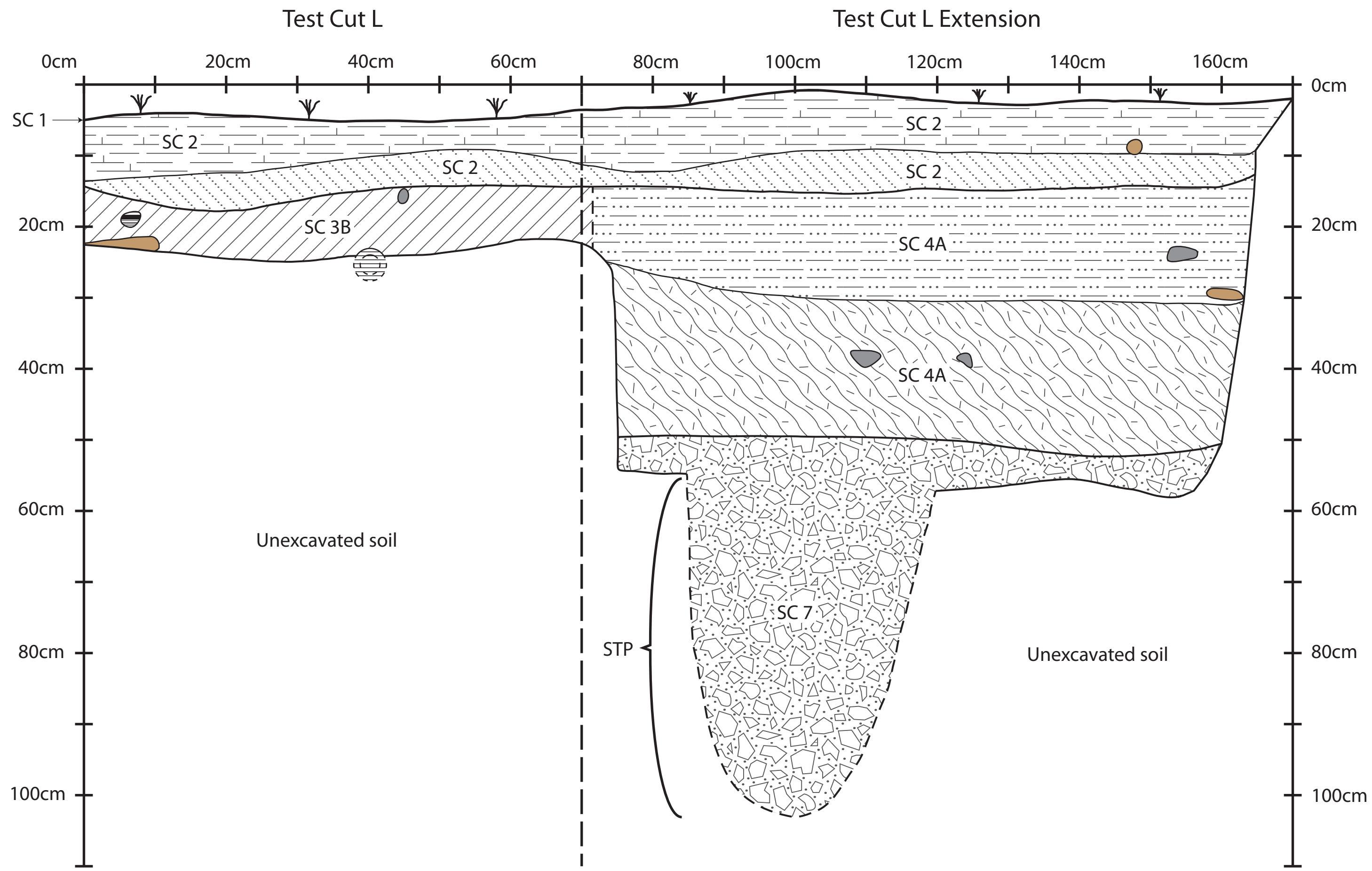
- Rock
- Root
- Terra Cotta Pipe
- SC 1: Grass/sod
- SC 2: Humus; 7.5YR 2.5/2, sandy silt
- SC 4A: 10YR 3/3, sandy silt
- SC 4A: 10YR 4/4, sandy silt
- SC 4A: 10YR 4/6, sandy silt
- SC 4B: 7.5YR 5/3 mottled w/ 7.5YR 5/8, clayey silt, pipe trench fill
- SC 4B: 10YR 5/4, silty clay, pipe trench fill
- SC 4B: 10YR 5/4, sandy silt, pipe trench fill
- SC 4B: 10YR 7/4 mottled w/ 10YR 5/8, 10YR 7/8 and 5YR 5/8 silty clay, pipe trench fill
- SC 7: 10YR 6/3, clayey silt

Note:
Ground surface of the northwest corner is 1.2069m below site datum.

Seneca Village
Transect 3
Profile 2.18a
East Wall of Test Cut L
and Test Cut L East Extension



Seneca Village
Transect 3
Profile 2.18b
North Wall of Test Cut L and
Test Cut L East Extension

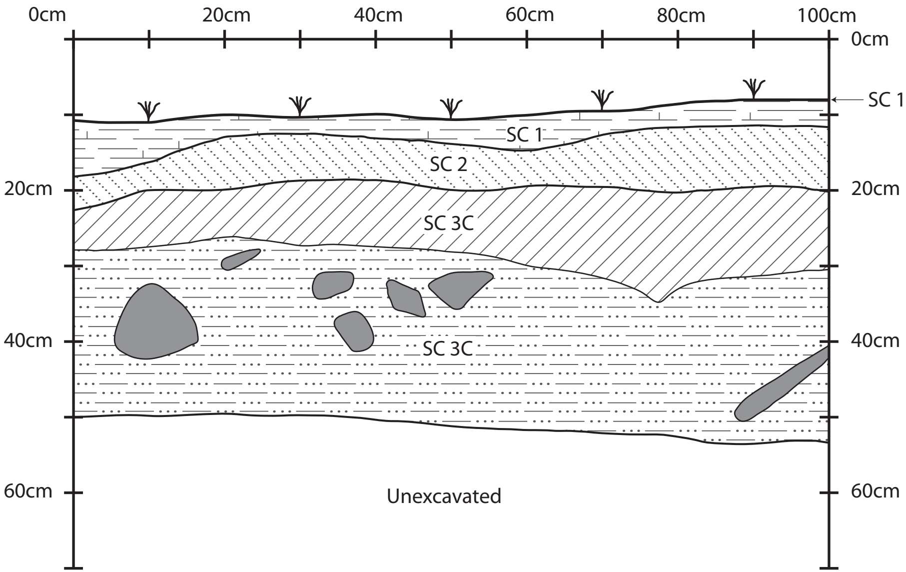


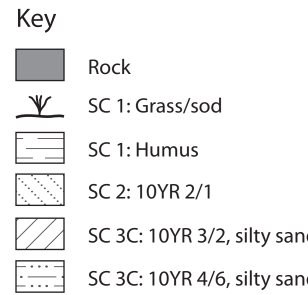
Key

- Coal
- Pipe
- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 10YR 4/1 sandy silt
- SC 2: Humus; 10YR 6/2 dry sandy silt
- SC 3B: 10YR 5/6, dry sandy silt, fill
- SC 4A: 10YR 5/6, dry sandy silt, fill
- SC 4A: 10YR 4/6, sandy silt
- SC 7: 10YR 7/8, mottled sandy silt w/ clayey silt

Note:
Ground surface of the northwest corner is 1.0401m below site datum.

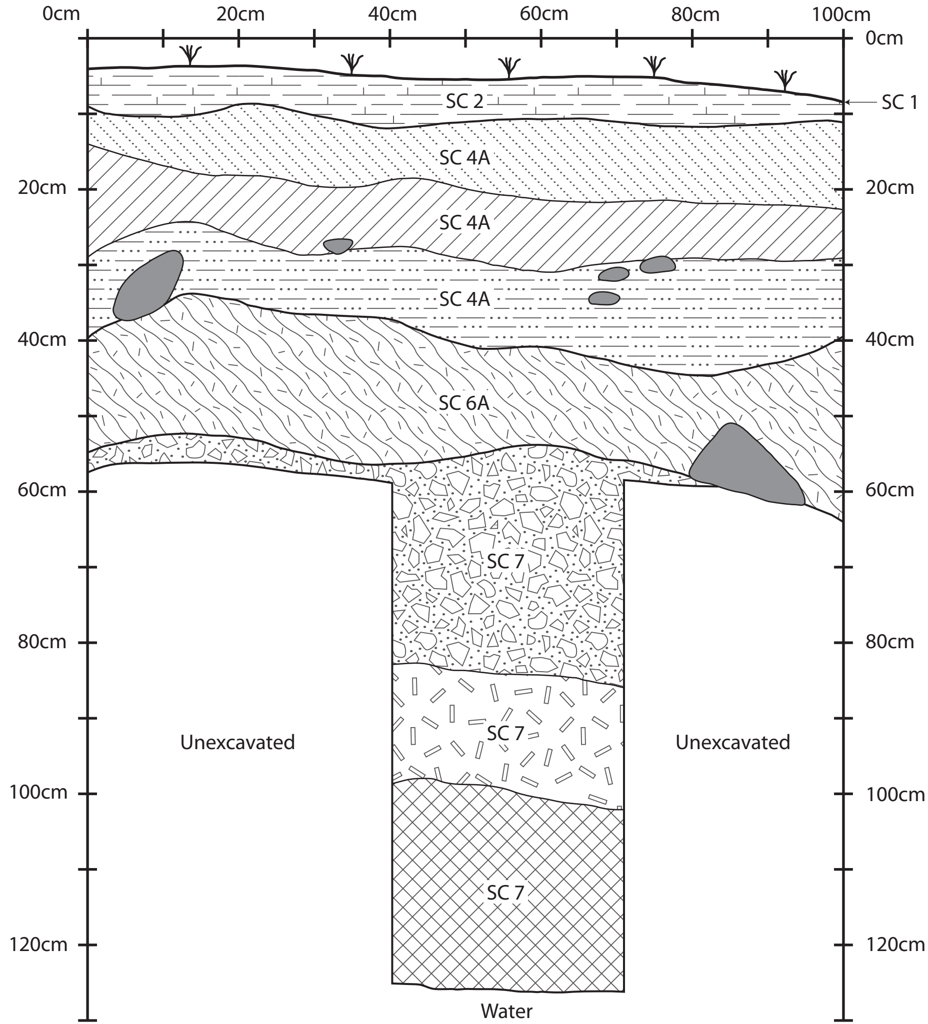
Seneca Village
Pinetum South
Profile 2.19
North Wall of Test Cut H





Note:
Ground surface of the northwest corner is 3.6433m below site datum.

Seneca Village
Transect 4
Profile 2.20a
North Wall of Test Cut I

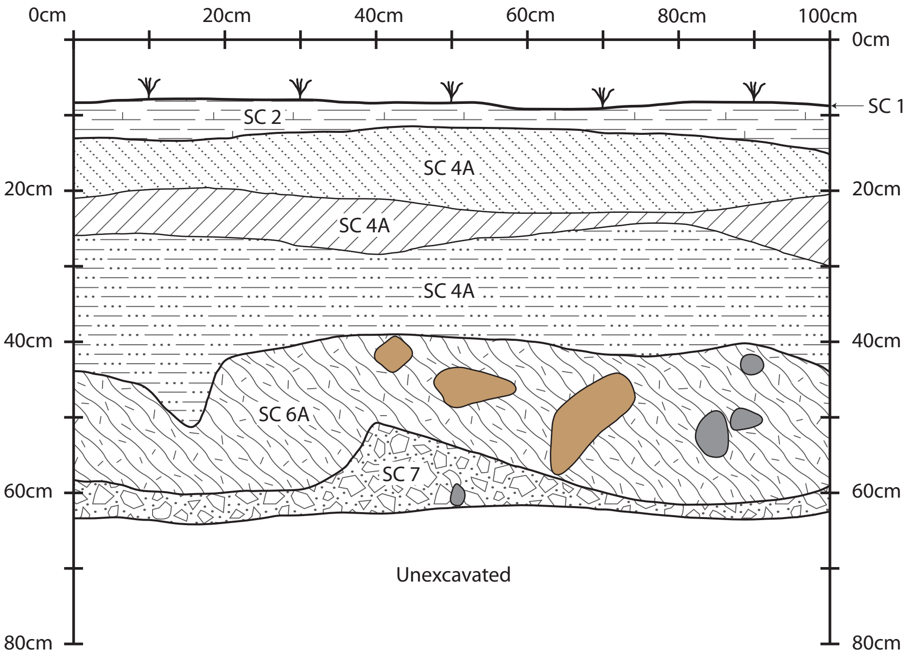


Key

- Rock
- SC 1: Grass/sod
- SC 2: Humus; 10YR 3/2 sandy silt
- SC 4A: 10YR 2/1, sandy silt
- SC 4A: 10YR 4/2, clayey silt
- SC 4A: 10YR 4/6, clayey silt
- SC 6A: 7.5YR 5/8, clayey silt
- SC 7: 10YR 5/6 mottled w/ 10YR 6/8, 10YR 6/2, 7.5YR 5/8 and 5YR 4/3, sandy clay
- SC 7: 7.5YR 4/4, sandy clay
- SC 7: 10YR 6/6 mottled w/ 10YR 4/4, silty clay

Note:
Ground surface of the northwest corner is 3.424m below site datum.

Seneca Village
Transect 4
Profile 2.20b
West Wall of Test Cut I

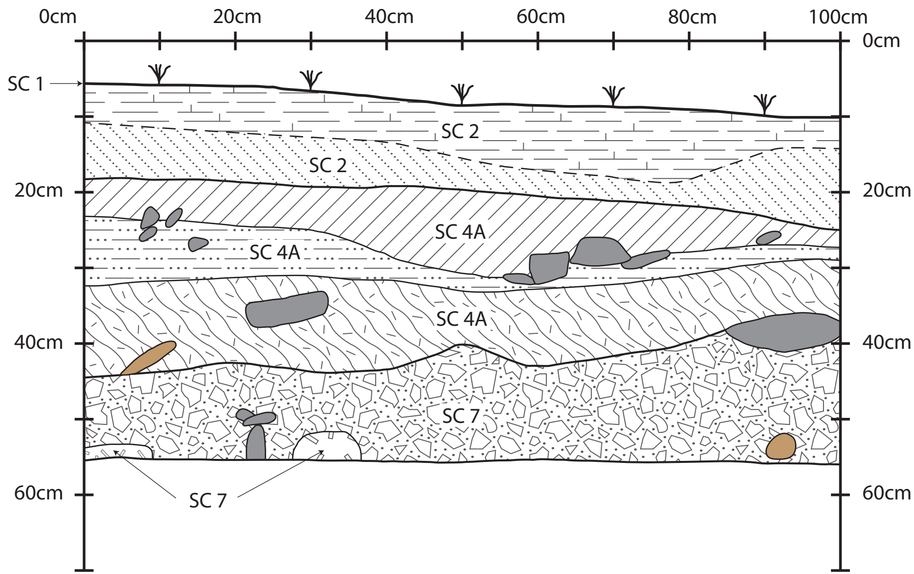


Key

	Rock
	Roots and rootlets
	SC 1: Grass/sod
	SC 2: Humus; 10YR 3/2 sandy silt
	SC 4A: 10YR 2/1, sandy silt
	SC 4A: 10YR 4/2, clayey silt
	SC 4A: 10YR 4/6, clayey silt
	SC 6A: 7.5YR 5/8, clayey silt
	SC 7: 10YR 5/6 mottled w/ 10YR 6/8, 10YR 6/2, 7.5YR 5/8 and 5YR 4/3, sandy clay

Note:
Ground surface of the northwest corner is 3.424m below site datum.

Seneca Village
Transect 4
Profile 2.21a
North Wall of Test Cut J

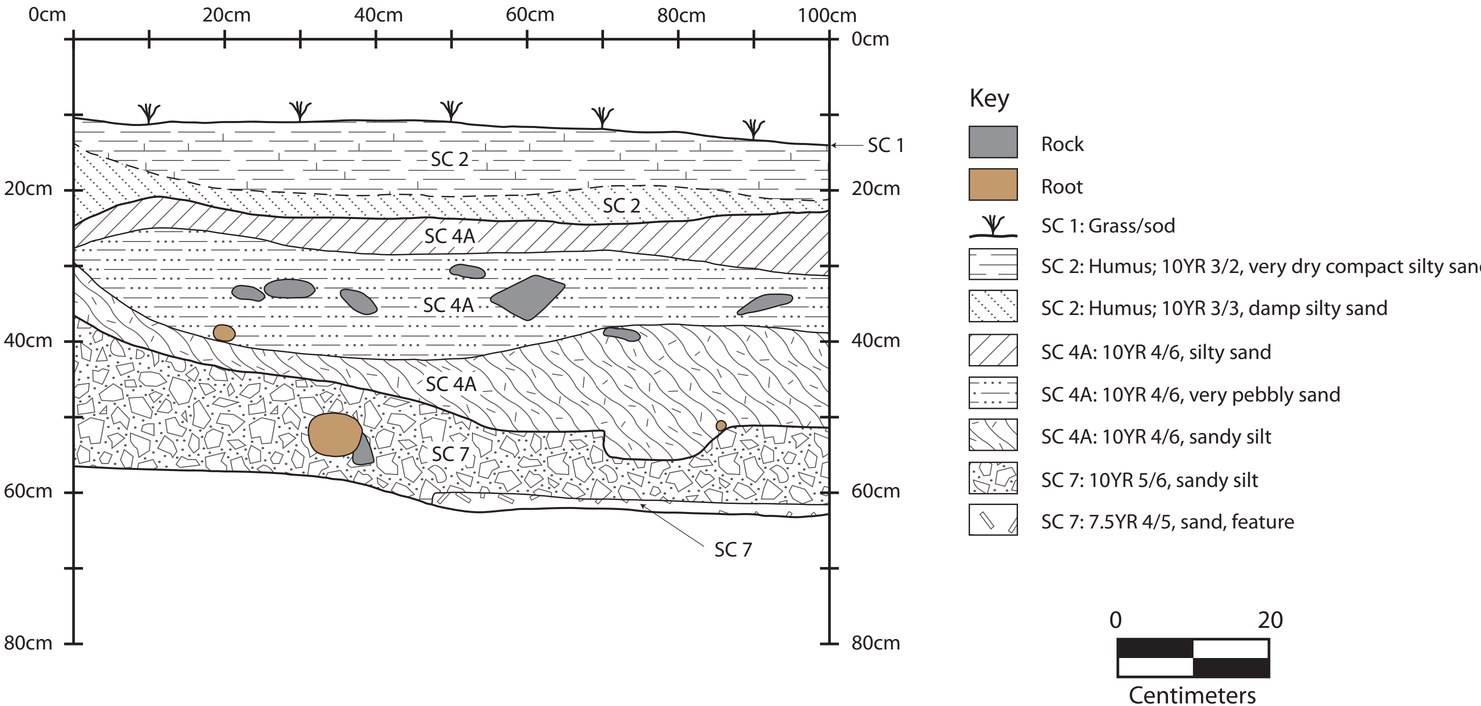


Key

- Rock
- Root
- SC 1: Grass/sod
- SC 2: Humus; 10YR 3/2, very dry compact silty sand
- SC 2: Humus; 10YR 3/3, damp silty sand
- SC 4A: 10YR 4/6, silty sand
- SC 4A: 10YR 4/6, very pebbly sand
- SC 4A: 10YR 4/6, sandy silt
- SC 7: 10YR 5/6, sandy silt
- SC 7: 7.5YR 4/5, sand, feature

Note:
Ground surface of the northwest corner is 7.145m below site datum.

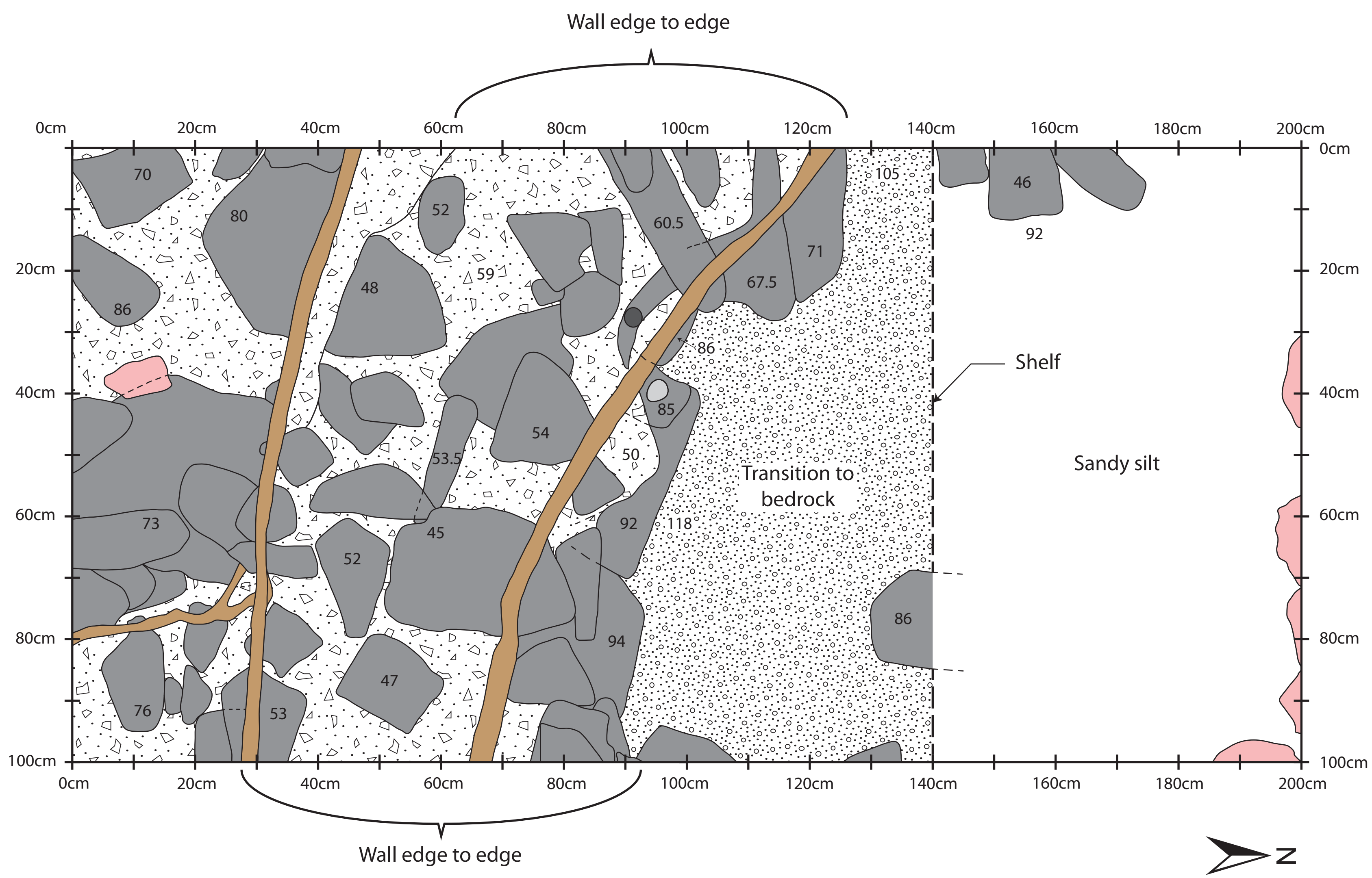
Seneca Village
Transect 4
Profile 2.21b
East Wall of Test Cut J



Appendix D:

Planview Drawings

The project of converting the field drawings to the polished ones included in this report took a great deal of effort, and we are grateful to everyone involved. Marie Warsh, Director of Preservation Planning at the Central Park Conservancy, supervised the entire project. Richard Hunter and Jim Lee, President and Vice-President of Hunter Research, Inc., provided consulting. Allie Davis helped with the initial round of AutoCAD drawings and Evan Mydlowski worked on the final round. Christopher J. Nolan, CEO and Chief Landscape Architect at the Central Park Conservancy, authorized the work.



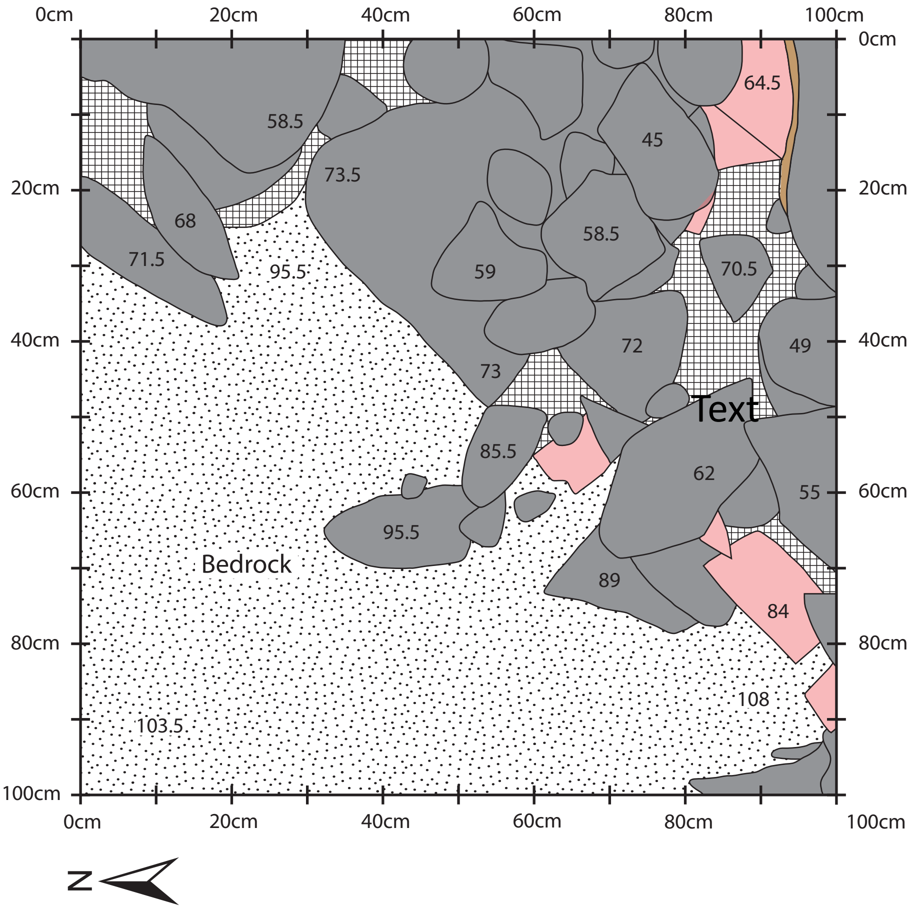
Seneca Village
All Angels'
Plan View 2.1
Test Cut A and
Test Cut A North Extension

Key
- Brick
- Metal
- Mortar
- Rock
- Root
- Sandy silt
- Small stones and dirt
- Transition to bedrock

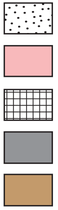
Note:
All elevations are measured from area datum.

0 20
Centimeters

Seneca Village
All Angels'
Plan View 2.3
Test Cut C



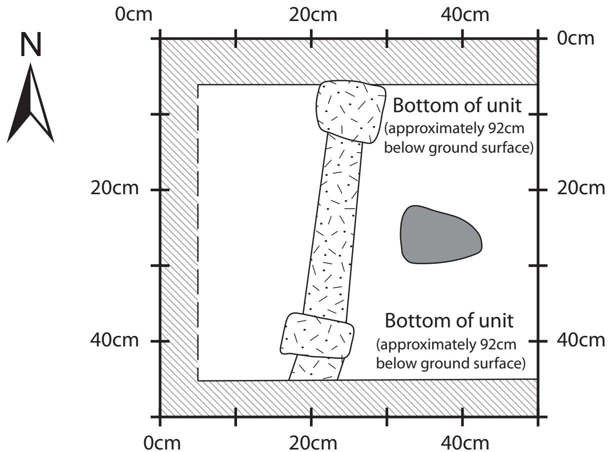
Key

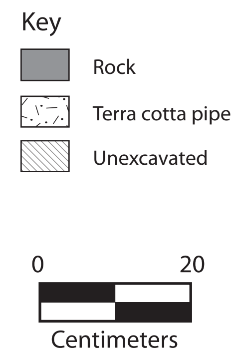


Note:
All elevations are 25 cm below area datum and are measured in centimeters.

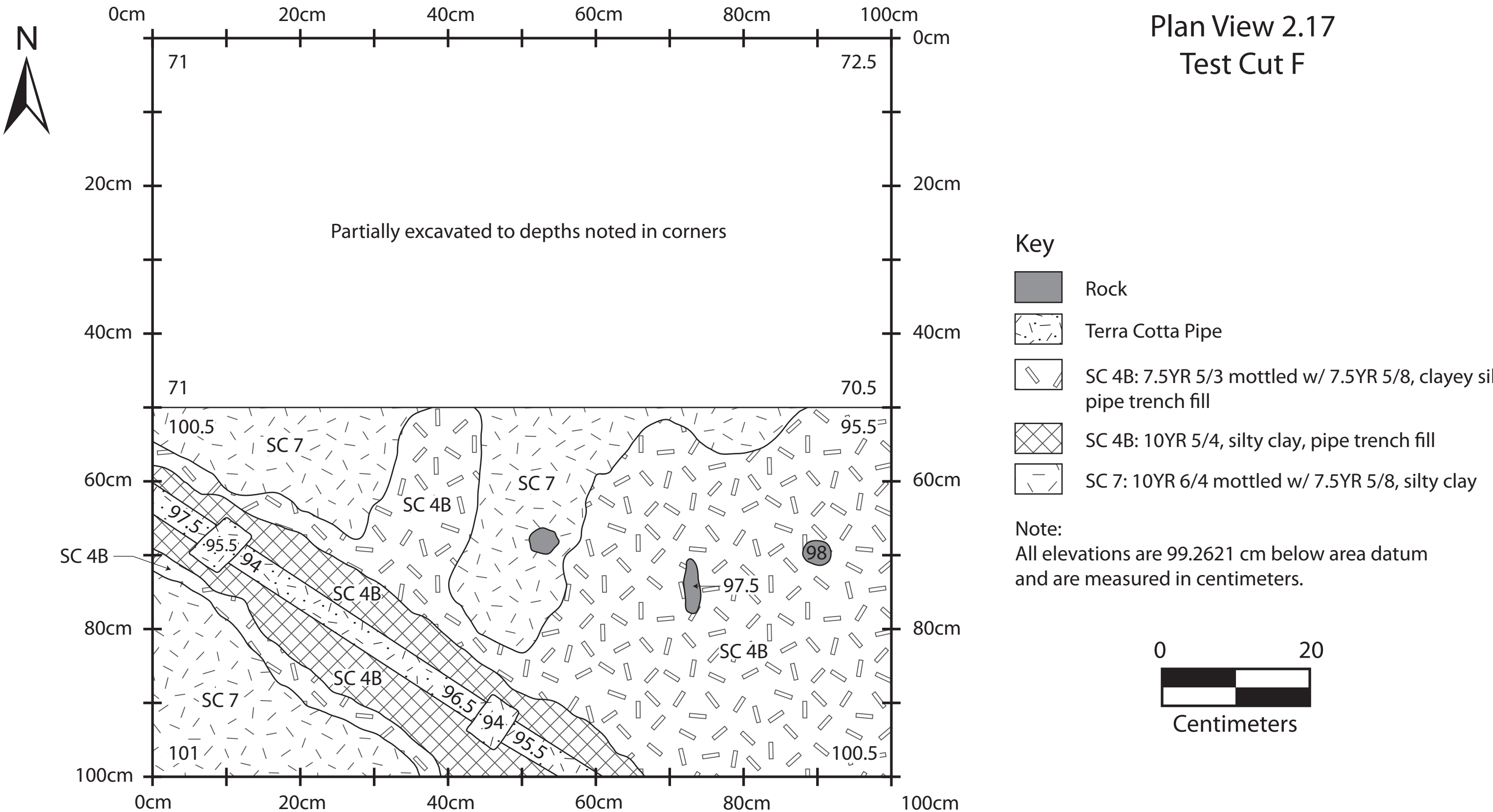
Appendix D - 3

Seneca Village
Transect 3
Plan View 2.15
Test Cut W
Southwest Quad



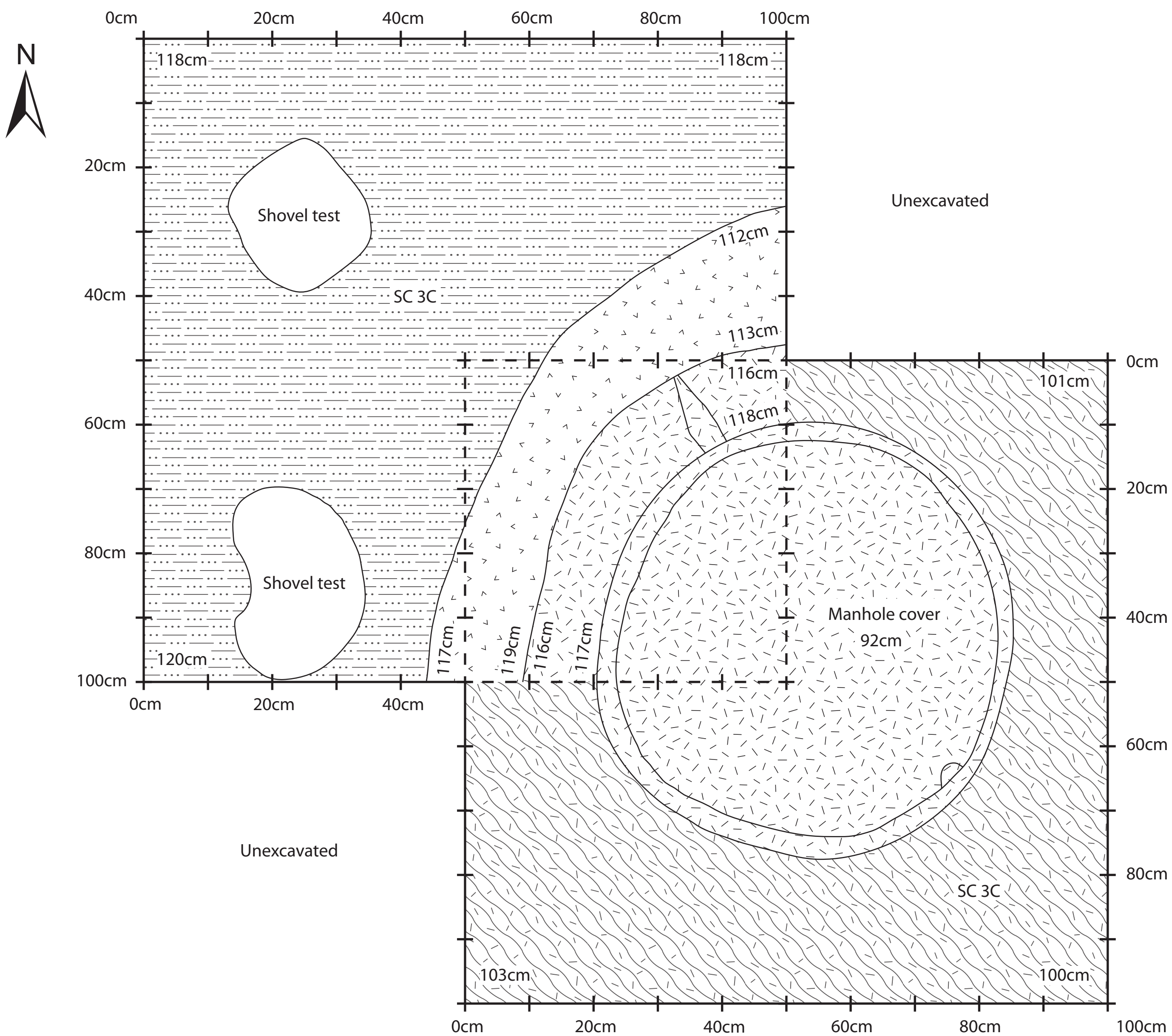


Seneca Village
Transect 3
Plan View 2.17
Test Cut F



Appendix D - 5

Seneca Village
Pinetum South
Plan View 2.19
Test Cut H and
Southeast Extension



Key

Concrete
Iron
SC 3C: 10YR 4/6, silty sand
SC 3C: 10YR 5/6, silty sand

0 20
Centimeters

Appendix E: Faunal Analysis

Appendix E: Faunal Analysis

Introduction

Faunal remains (animal bone and shell) collected from the site were cleaned, labeled (when appropriate), and catalogued in the general artifact database (see Appendix H). Select (well-preserved) faunal remains from contexts associated with the occupation of the Wilson House in All Angels' and the buried A Horizon in Transect 3 were subsequently re-analyzed by students at Barnard College and Columbia University, under the direction of Dr. Adam Watson, a zooarchaeologist at the American Museum of Natural History. We incorporated the most salient results of the students' analysis into our analysis and discussion of the faunal material from the site in Chapter 3 of the report text. The students' data are included as a separate Excel file; their key/ "codebook" is included here.

Seneca Village Faunal Codebook
Provenience Table

Site

Context Number
Number assigned to context

Unit Number
Number assigned to unit

Feature Number
Number assigned to feature

Feature Level

Northing

Easting

Date Excavated

Recovery Method
Size of mesh or Flotation

Depth
Depth of recovery

Data Analyzed
Date recorded

Analyst
FirstInitial.LastName

General Description
General description of specimen

Fauna Table

Context (foreign key)

Specimen Number (primary key)
1952.WHContext#. Unique Catalogue Number

Data Analyzed
Date recorded

Analyst
FirstInitial.LastName

Taxon

0	Indeterminate	93	Large bird
1	Small Rodent (smaller than rabbit)	94	Accipitridae sp. (eagles, hawks, and kites)
2	Rabbit-Size (cottontail to jackrabbit)	95	*Accipiter cooperii* (Cooper's hawk)
3	Sheep-size (med. Dog to med. Sheep)	96	*Accipiter gentilis* (Northern Goshawk)
4	Beaver-size	97	*Accipiter striatus* (Sharp-shinned Hawk)
5	Pig-size	98	*Aegolius acadicus* (Northern Saw-whet Owl)
6	Deer-size	99	*Aegolius funereus* (Boreal Owl)
7	Cow-size	100	*Agelaius phoeniceus* (Red-winged blackbird)
8	Small Mammal	101	*Anas cyanoptera* (Cinnamon teal)
9	Medium Mammal	102	*Anas discors* (Blue winged teal)
10	Large Mammal	103	*Anas platyrhynchos* (Mallard)
11	Artiodactyl	104	*Aquila chrysaetos* (Golden eagle)
12	*Ovis/Capra*	105	*Ardea Herodias* (Great blue heron)
13	*Ovis aries* (domestic sheep)	106	*Asio flammeus* (Short-eared Owl)
14	*Capra aegagrus hircus* (domestic goat)	107	*Asio otus* (Long-eared owl)
15	*Bos* sp.	108	*Athene cunicularia* (Burrowing Owl)
16	Bos taurus (domestic cattle)	109	*Bonasa umbellus* (Ruffed grouse)
17	*Bison bison* (American bison)	110	*Branta canadensis* (Canada goose)
18	*Cervus canadensis* (Elk)	111	*Bubo scandiacus* (Snowy Owl)
19	*Odocoileus virginianus* (White-tailed Deer)	112	*Bubo virginianus* (Great horned owl)
20	*Sus scrofa* (pig)	113	*Buteo jamaicensis* (Red-tailed hawk)
21	Small/Medium Equid	114	*Buteo lagopus* (Rough-legged hawk)
22	Large equid	115	*Buteo regalis* (Ferruginous hawk)
23	Small carnivore	116	*Buteo* sp.

24	Medium carnivore	117	*Buteo swainsoni* (Swainson’s hawk)
25	Large carnivore	118	*Cathartes aura (*Turkey vulture)
26	Small canid	119	*Circus cyaneus* (Northern harrier)
27	Medium canid	120	*Colaptes auratus* (Northern flicker)
28	Large canid	121	*Coragyps atratus* (Black Vulture)
29	*Canis* sp.	122	Corvidae sp. (ravens and jays)
30	*Canis familiaris* (Domestic dog)	123	*Corvus brachyrhynchos* (American Crow)
31	*Canis latrans* (Coyote)	124	*Corvus Corax* (common raven)
32	*Canis lupus* (Gray wolf)	125	*Corvus ossifragus* (Fish Crow)
33	*Urocyon cinereoargenteus* (Common gray fox)	126	*Cyanocitta cristata* (Blue jay)
34	*Vulpes vulpes* (Red fox)	127	*Cygnus columbianus* (Tundra swan)
35	*Ursus americanus* (American black bear)	128	*Ectopistes migratorius* (Passenger pigeon)
36	Small felid	129	*Elanoides forficatus* (Swallow-tailed Kite)
37	Medium felid	130	*Elanus leucurus* (White-tailed Kite)
38	Large felid	131	*Eremophilia alpestris* (horned lark)
39	*Lynx rufus* (Bobcat)	132	*Euphagus cyanocephalus* (Brewer’s blackbird)
40	*Puma concolor* (Mountain lion)	133	*Falcipennis canadensis* (Spruce grouse)
41	*Mephitis mephitis* (Striped skunk)	134	*Falco columbarius* (Merlin)
42	Small mustelid	135	*Falco rusticolus* (Gyrfalcon)
43	Medium mustelid	136	*Falco peregrinus* (Peregrine Falcon)
44	Large mustelid	137	*Falco sparverius* (American kestrel)
45	*Mustela* sp. (Weasels, Badgers, and Otters)	138	Fringillidae sp. (finches)
46	*Lontra canadensis (Lutra canadensis)* (Northern River Otter)	139	*Grus canadensis* (sandhill crane)
47	*Mustela erminea* (Ermine)	140	*Haliaeetus leucocephalus* (bald eagle)
48	*Mustela frenata* (Long-tailed weasel)	141	Hirundinidae sp. (Swallows)
49	*Mustela vison* (American Mink)	142	*Hirundo rustica* (Barn swallow)
50	*Taxidea taxus* (American badger)	143	*Icteridae* (Black birds and Orioles)
51	*Procyon lotor* (Northern Raccoon)	144	*Icterus bullockii* (Bullock's Oriole)
52	*Didelphis virginiana* (Virginia opossum)	145	*Icterus galbula* (Baltimore oriole)
53	Leporid	146	*Icterus parisorum* (Scott’s oriole)
54	*Lepus americanus* (Snowshoe Hare)	147	*Icterus spurius* (Orchard Oriole)
55	*Sylvilagus floridanus* (Eastern Cottontail)	148	*Ictinia mississippiensis* (Mississippi Kite)
56	*Castor canadensis* (American beaver)	149	*Iridoprocne bicolor* (Tree swallow)
57	*Clethrionomys gapperi* (Southern Red-backed Vole)	150	*Junco hyemalis* (Dark-eyed junco)
58	*Erethizon dorsatum* (North American porcupine)	151	*Laniidae* (Shrikes)
59	*Marmota monax* (Woodchuck)	152	*Lanius excubitor* (Northern Shrike)
60	*Microtus pennsylvanicus* (Meadow Vole)	153	*Lanius ludovicianus* (Loggerhead shrike)
61	*Microtus pinetorum* (Woodland Vole)	154	*Megascops asio* (Eastern Screech Owl)

62	*Ondatra zibethicus* (Muskrat)	155	*Meleagris gallopavo* (Turkey)
63	*Peromyscus leucopus* (White-footed Mouse)	156	Odontiphoridae (New World quails)
64	*Peromyscus maniculatus* (Deermouse)	157	Passeriformes sp. (Perching birds)
65	*Glaucomys sabrinus* (Northern Flying Squirrel)	158	*Pelecanus erythrorhynchos* (White pelican)
66	*Glaucomys volans* (Southern Flying Squirrel)	159	*Pelecanus occidentalis* (Brown Pelican)
67	*Sciurus carolinensis* (Eastern Gray Squirrel)	160	*Petrochelidon pyrrhonota* (Cliff swallow)
68	*Sciurus niger* (Eastern Fox Squirrel)	161	Phasianidae sp. (turkeys, grouse, pheasants, and partridges)
69	*Synaptomys cooperi* (Southern Bog Lemming)	162	*Pica hudsonia* (Black-billed Magpie)
70	*Tamias striatus* (Eastern Chipmunk)	163	*Pipilo erythrophthalmus* (Eastern towhee)
71	*Tamiasciurus hudsonicus* (Red Squirrel)	164	*Pipilo maculatus* (Spotted towhee)
72	*Napaeozapus insignis* (Woodland Jumping Mouse)	165	*Podiceps nigricollis* (Eared grebe)
73	*Zapus hudsonius* (Meadow Jumping Mouse)	166	*Riparia riparia* (Sand martin/bank swallow)
74	*Eptesicus fuscus* (Big Brown Bat)	167	*Sialia* sp. (Bluebirds)
75	*Lasionycteris noctivagans* (Silver-haired Bat)	168	Strigidae sp. (typical owls)
76	*Lasiurus borealis* (Red Bat)	169	*Strix nebulosa* (Great Gray Owl)
77	*Lasiurus cinereus* (Hoary Bat)	170	*Strix varia* (Barred Owl)
78	*Lasiurus seminolus* (Seminole Bat)	171	*Surnia ulula* (Northern Hawk-Owl)
79	*Myotis leibii* (Eastern Small-footed Myotis)	172	*Tachycineta thalassina* (Violet-green swallow)
80	*Myotis lucifugus* (Little Brown Bat)	173	*Trochilidae* sp. (Humming birds)
81	*Myotis septentrionalis* (Northern Long-eared Myotis)	174	*Tympanuchus cupido* (Greater prairie-chicken)
82	*Pipistrellus subflavus* (Eastern Pipistrelle)	175	*Xanthocephalus xanthocephalus* (Yellow-headed blackbird)
83	*Blarina brevicauda* (Northern Short-tailed Shrew)	176	*Zenaidura macroura* (Mourning dove)
84	*Cryptotis parva* (Least Shrew)	400	Reptile
85	*Sorex cinereus* (Cinereus Shrew)	401	Snake
86	*Sorex fumeus* (Smoky Shrew)	402	Turtle
87	*Sorex hoyi* (Pygmy Shrew)	500	Amphibian
88	*Condylura cristata* (Star-nosed Mole)	600	Fish
89	*Parascalops breweri* (Hairy-tailed Mole)	800	Freshwater mussel
90	Bird	805	Marine mussel
91	Small bird	850	Snail
92	Medium bird	860	Marine snail
		861	Indet. Shellfish

Element

1	Skull	106	Proximal sesamoid
13	Loose upper tooth	107	Distal sesamoid
14	Loose lower tooth	108	Sesamoid
16	Premaxilla with teeth	109	First phalanx
17	Premaxilla without teeth	110	Second phalanx
18	Maxilla with teeth	111	Third phalanx
19	Maxilla without teeth	112	Phalanx
20	Mandible with teeth	115	Humerus or Femur
21	Mandible without teeth	116	Long Bone
22	Horn Core	117	Indeterminate
23	Antler	118	Tooth fragment
24	Hyoid	119	Flotation fragment
25	Vertebra	120	Dew Claw
26	Atlas	200	Indeterminate Bird bone
27	Axis	201	Bird skull
28	Cervical vertebra	210	Bird mandible
29	Thoracic vertebra	219	Bird vertebra
30	Lumbar vertebra	220	Bird atlas
31	Sacrum	221	Bird axis
32	Caudal vertebra	222	Bird cervical vertebra
33	Rib	230	Bird thoracic vertebra
34	Costal cartilage	231	Bird lumbar vertebra
35	Sternum	232	Bird sacral vertebra
36	Scapula	233	Bird sacral vertebra
37	Clavicle	235	Bird coccygeal vertebra
38	Humerus	236	Bird pygostyle
39	Radius	237	Bird coracoid
40	Ulna	240	Bird clavicle
41	Carpal	241	Bird scapula
42	Radial carpal/Scaphoid	242	Bird sternum
43	Intermediate carpal/Semilunar	243	Bird rib
44	Ulnar carpal/Cuneiform	245	Bird sternal rib
45	Accessory carpal/Pisiform	255	Bird furculum
46	First carpal/Trapezium	256	Bird hyoid
47	Second carpal/Trapezoid	257	Bird humerus
48	Third carpal/Os magnum	258	Bird ulna
49	Fourth carpal/Unciform	259	Bird radius
50	Radial+intermediate carpal	260	Carpometacarpus

51	Second+third carpal	261	Pollex
52	Metacarpal I	262	Bird digit II (first phalanx)
53	Metacarpal II	263	Bird digit II (second phalanx)
54	Metacarpal III	264	Bird digit III
55	Metacarpal IV	265	Bird digit IV
56	Metacarpal V	266	Bird foot digit (first phalanx)
57	Metacarpal III+IV	267	Bird foot digit (second phalanx)
58	Indeterminate metacarpal	268	Bird foot digit (third phalanx)
59	Anterior proximal sesamoid	269	Bird foot digit (ungual phalanx)
60	Anterior distal sesamoid	270	Bird synsacrum
61	Anterior sesamoid	271	Bird pelvis
62	Anterior first phalanx	272	Bird femur
63	Anterior second phalanx	273	Bird patella
64	Anterior third phalanx	274	Bird tibiotarsus
65	Anterior phalanx	275	Bird fibula
66	Pelvis	276	Bird tarsometatarsus
67	Ilium+Ischium	277	Bird ossified tendon
68	Ilium+Pubis	600	Indeterminate fish bone
69	Ischium+Pubis	601	Fish maxilla
70	Ilium	602	Fish dentary w/o teeth
71	Ischium	603	Fish dentary w/teeth
72	Pubis	604	Fish premaxilla
73	Os Penis	605	Fish articular
74	Femur	606	Fish nasal
75	Patella	607	Fish lacrymal
76	Tibia	608	Fish frontal
77	Fibula	609	Fish quadrate
78	Os malleolare	610	Fish circumorbital series
79	Astragalus	610	Fish hyomandibula
80	Calcaneus	611	Fish preopercular
81	Tarsal	612	Fish opercular
82	Central tarsal/Navicular	613	Fish opercular
83	First Tarsal/Internal Cuneiform	614	Fish supraoccipital
84	Second Tarsal/Middle Cuneiform	615	Fish postemporal
85	Third Tarsal/External Cuneiform	616	Fish cleithrum
86	Fourth Tarsal/Cuboid	617	Fish pelvic girdle
87	Central+fourth tarsal/Naviculo-cuboid	618	Fish radials
88	First+second tarsal	619	Fish pectoral fin

89	Second+third tarsal	620	Fish pelvic fin
90	Metatarsal I	621	Fish dorsal fin
91	Metatarsal II	622	Fish second dorsal fin
92	Metatarsal III	623	Fish pleural ribs
93	Metatarsal IV	624	Fish epipleurals
94	Metatarsal V	625	Fish trunk vertebra
95	Metatarsal III+IV	626	Fish caudal vertebra
96	Indeterminate metatarsal	627	Fish penultimate vertebra
97	Posterior proximal sesamoid	628	Fish ultimate vertebra
98	Posterior distal sesamoid	629	Fish anal fin
99	Posterior sesamoid	630	Fish dorsal spine
100	Posterior first phalanx	631	Fish anal spine
101	Posterior second phalanx	632	Fish neural spine
102	Posterior third phalanx	633	Fish caudal fin
103	Posterior phalanx	634	Fish scale
104	Metapodial III+IV	700	Mussel shell
105	Indeterminate metapodial	701	Snail shell
		702	Egg shell

Confidence
1 High
2 Medium
3 Low
4 Check

Animal Size
0 Indeterminate
1 Small
2 Medium
3 Large

Symmetry
0 Indeterminate
1 Right
2 Left

Sex
0 Indeterminate
1 Male
2 Possibly Male
3 Female
4 Possibly female

Age

	MAMMAL		BIRD
0	Indeterminate	0	Indeterminate
1	Young	1	Small Juvenile (Hatching-1 month)
2	Fetal	2	Medium Juvenile (2-3 mos)
3	Fetal/neonate	3	Immature (4 mos – 2 yrs)
4	Infantile	4	Young Adult (1-2 yrs)
5	Infantile/juvenile	5	Adult (> 2 yrs)
6	Juvenile		
7	Juvenile/subadult		
8	Subadult		
9	Subadult/adult		
10	Adult		
11	Old		

Proximal Fusion

0 Absent
1 Neonatal
2 Young
3 Unfused
4 Fusing (fusion line open)
4.5 Fusion Line Closed but still Evident
5 Fused

Distal Fusion

0 Absent
1 Neonatal
2 Young
3 Unfused
4 Fusing (fusion line open)
4.5 Fusion Line Closed but still Evident
5 Fused

Pathology

1 See comment
2 Malocclusion
3 Fracture without dislocation
4 Fracture with dislocation
5 Exostosis
6 Ossified hematoma
7 Osteomyelitis/Abscess/Infection
8 Osteoarthritis
9 Osteoporosis
10 Missing tooth
11 Congenital anomaly

<u>Mammalian Elements/Landmarks</u> - indicate proportion of landmark present (1, 0.5, etc.), leave blank if absent

Atlas

Cranial Articular Surface – 1
Dorsal Tubercle – 2
Ventral Tubercle – 3
Wing – 4
Caudal Articular Surface – 5

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GB - 1
GL - 2
BFcr - 3
BFcd - 4
GLF - 5
LAd - 6
H - 7

Axis

Dens – 1
Cranial Articular Surface – 2
Spinous Process – 3
Both Transverse Processes – 4
Both Caudal Zygophoses – 5
Caudal Centrum Metaphysis – 6
Caudal Epiphysis - 7

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
LCDe - 1
LAPa - 2
BFcr - 3
BPacd - 4
BPtr - 5
SBV - 6
BFcd - 7
H – 8

Calcaneus

Proximal Epiphysis – 1
Proximal Metaphysis – 2

Fibula Facet – 3
Cuboid Facet – 4
Sustentaculum – 5

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
GB - 2

Compact Bones

Carpals
Cuneiform
Unciform
Lunate
Magnum
Scaphoid
Pisiform
Trapezoid
Trapezium

Other
Patella
Fibula
Proximal Sesamoid
Distal Sesamoid

Tarsals
Astragalus
Cuboid
Navicular
Naviculo-Cuboid
External Cuneiform
Internal Cuneiform
Middle Cuneiform

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GLI - 1
GLm - 2
DI - 3
Dm - 4
Bd - 5
GB - 6
GH(E) - 7
LmT(E) – 8
BFd(E) - 9

Cranial (Mammal)

Premaxilla – 1
Maxilla w/teeth – 2
Maxilla w/o teeth – 3
Palatine – 4
Sphenoid – 5
Lacrimal – 6
Nasal – 7
Frontal – 8
Infra-orbital Foramen – 9
Supra-orbital Foramen – 10
Temporal – 11
Parietal – 12
Zygomatic – 13
Temporal Bulla – 14
Glenoid Fossa – 15
Jugular Process – 16
Occipital – 17
Occipital Condyle -18
Horn Core/Antler Tip – 19
Horn Core/Antler Base – 20
Hyoid – 21

Femur

Femoral Head Epiphysis – 1
Femoral Head Metaphysis – 2
Greater Trochanter Epiphysis – 3
Greater Trochanter Metaphysis – 4
Lesser Trochanter Epiphysis – 5
Lesser Trochanter Metaphysis - 6
Linear Aspera – 7
Nutrient Foramen – 8
Supracondyloid Fossa – 9
Intercondylar Fossa – 10
Patellar Groove Epiphysis – 11
Patellar Groove Metaphysis – 12
Medial Condyle Epiphysis – 13
Medial Condyle Metaphysis – 14
Lateral Condyle Epiphysis – 15
Lateral Condyle Metaphysis – 16

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)

GL - 1
GLC - 2
Bd - 3
Bp - 4
DC - 5
SD - 6
CD – 7
Btr - 8

Humerus

Humeral Head Epiphysis – 1
Humeral Head Metaphysis – 2
Greater Tuberosity Epiphysis – 3
Greater Tuberosity Metaphysis – 4
Lesser Tuberosity Epiphysis – 5
Lesser Tuberosity Metaphysis – 6
Deltoid Tuberosity – 7
Terres Major Tuberosity – 8
Nutrient Foramen – 9
Olecranon Fossa – 10
Coronoid Fossa – 11
Trochlea Epiphysis – 12
Trochlea Metaphysis – 13
Capitulum Epiphysis – 14
Capitulum Metaphysis – 15

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
GL1 - 2
GLC - 3
Bp - 4
Dp - 5
SD - 6
Bd – 7
BT - 8

Mandible w/teeth - Mandible w/o teeth

Coronoid Process – 1
Mandibular Condyle – 2
Mandibular Foramen – 3
Symphyseal Surface – 4

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
Cr - 1
Goc - 2
Go1 - 3
Gov - 4
Id - 5

Metapodial – Metacarpal, Metarsal, Metapodial, Lateral Metapodial **(choose one)**

Proximal End – 1
Proximal Anterior Foramen – 2
Proximal Posterior Foramen – 3
Mid-shaft Posterior Foramen – 4
Middle Shaft Anterior Groove – 5
Distal Anterior Foramen – 6
Distal Posterior Foramen – 7
Both Distal Condyle Epiphyses – 8
Both Distal Condyle Metaphyses – 9

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
GL1(E) - 2
L1(E) - 3
Bp - 4
Dp - 5
SD - 6
CD – 7
DD – 8
Bd – 9
Dd - 10

Pelvis

Ilium Blade – 1
Ilium Shaft – 2
Acetabulum – 3
Ilio-Ischial Border – 4
Ischium Shaft – 5
Ischial Tuberosity – 6
Pubis Shaft – 7
Pubic Symphysis - 8

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1

LA - 2
LAR - 3
LS - 4
SH - 5
SB - 6
SC – 7
LFo – 8
GBTc – 9
GBA - 10
GBTi – 11
SBI - 12

Phalanges

Proximal Epiphysis - 1
Proximal Metaphysis - 2
Middle Shaft – 3
Distal Epiphysis - 4

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)

1st Phalanx
GL(E) - 1
Bp - 2
BFp(E) - 3
Dp(E) - 4
SD - 5
Bd - 6
BFd(E) – 7
GLpe – 8

2nd Phalanx
GL - 1
Bp - 2
BFp(E) - 3
Dp(E) - 4
SD - 5
Bd - 6

3rd Phalanx
GL(E) - 1
GB(E) - 2
LF(E) - 3
BF(E) - 4
Ld - 5

HP(E) - 6
DLS – 7
MBS – 8

Radius

Medial Articular Epiphysis – 1
Medial Articular Metaphysis – 2
Lateral Articular Epiphysis – 3
Lateral Articular Metaphysis – 4
Radial Tuberosity – 5
Nutrient Foramen – 6
Mid-shaft Ulnar Groove – 7
Distal Shaft Ulnar Groove - 8
Distal Ulnar Articular Facet – 9
Distal End Epiphysis – 10
Distal End Metaphysis - 11

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
PL(E) - 2
L1(E) - 3
Bp - 4
BFp - 5
SD - 6
CD – 7
Bd – 8
BFd – 9

Rib

Rib Head Epiphysis – 1
Rib Head Metaphysis – 2
Tubercle – 3
Costal Angle – 4
Costal Cartilage Facet – 5

Scapula

Superior Border – 1
Inferior Border – 2
Vertebral Border – 3
Supraglenoid Tubercle – 4
Spine – 5

Acromion – 6
Glenoid Fossa Epiphysis – 7
Glenoid Fossa Metaphysis – 8

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
HS - 1
DHA - 2
Ld - 3
SLC - 4
GLP - 5
LG - 6
BG – 7

Tibia

Medial Condyle Epiphysis – 1
Medial Condyle Metaphysis – 2
Lateral Condyle Epiphysis – 3
Lateral Condyle Metaphysis – 4
Anterior Crest Epiphysis – 5
Anterior Crest Metaphysis – 6
Nutrient Foramen External – 7
Nutrient Foramen Internal – 8
Anterior Crest at Mid-shaft – 9
Anterior Distal Tuberosity – 10
Medial Articular Groove Epiphysis – 11
Medial Articular Groove Metaphysis – 12
Lateral Articular Groove Metaphysis – 13
Lateral Articular Groove Metaphysis – 14

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
L1(E) - 2
Bp - 3
SD - 4
CD - 5
Bd - 6
Dd – 7

Ulna

Olecranon Process Epiphysis – 1
Olecranon Process Metaphysis – 2
Anconeal Process – 3

Humeral Articular Surface – 4
Proximal Radius Articulation – 5
Mid-shaft Radius Articulation – 6
Distal Shaft Radius Articulation – 7
Distal Shaft Epiphysis – 8
Distal Shaft Metaphysis – 9

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
GL - 1
LO - 2
DPA - 3
SDO - 4
BPC – 5

Vertebrae

Cranial Centrum Epiphysis – 1
Cranial Centrum Metaphysis – 2
Both Cranial Zygapophysis – 3
Both Caudal Zygapophysis – 4
Neural Arch – 5
Both Transverse Processes – 6
Spinous Process – 7
Caudal Centrum Epiphysis – 8
Caudal Centrum Metaphysis – 9

Metrics (sensu von den Driesch) (mm – accurate to 2 decimal places)
PL - 1
GLPa (cervical) - 2
Bpacr (cervical) - 3
Bpacd (cervical) - 4
BPtr – 5
BF(cr) – 6
BF(cd) – 7
HF(cr) - 8
HF(cd) – 9
H - 10

<u>Avian Element/Landmarks</u> - indicate proportion of landmark present (1, 0.5, etc.), leave blank if absent

Atlas
Cranial Articular Surface – 1
Hypapophysis – 2
Neurapophysis – 3

Axis
Odontoid Process – 1
Cranial Articular Surface – 2
Vertebrarterial Canal – 3

Carpometacarpus
Metacarpal I – 1
Intermetacarpal Tuberosity – 2
Metacarpal II – 3
Metacarpal III – 4
Distal Metacarpal Symphysis – 5
Digit II-Phalanx I – 6
Digit II-Phalanx II – 7
Digit III – 8

Coracoid
Head – 1
Glenoid Facet – 2
Scapular Facet – 3
Pneumatic Foramen – 4
Sternal Facet – 5
Brachial Tuberosity – 6

Cranial Bones
Occipital Condyle – 1
Quadrate – 2
Pterogoid – 3
Basisphenoidal Rostrum – 4
Basitemporal Plate – 5
Temporal Foramen – 6
Supra-orbital Foramen – 7
Premaxillary – 8
Ethmoid - 9
Lachrymal – 10

Nasal – 11
Squamosal – 12
Parietal – 13
Maxillary – 14
Vomer - 15
Frontal – 16
Occipital – 17
Palatine – 18
Sphenoid – 19
Jugular Process – 20
Zygomatic – 21
Mandible - 22

Compact Bones
Cuneiform
Scapholunar
Pollex
Patella

Femur
Femoral Head – 1
Trochanter – 2
Anterior Intermuscular Line – 3
External Condyle – 4
Internal Condyle – 5
Intercondylar Fossa – 6
Rotular Groove - 7

Humerus
Humeral Head – 1
Shaft – 2
Bicipital Crest – 3
Pneumatic Foramen – 4
Deltoid Crest – 5
Impression of Brachialis Anticus – 6
External Condyle – 7
Internal Condyle - 8

Pelvis
Ilium – 1
Preacetabular Ilium – 2
Acetabulum – 3

Postacetabular Ilium – 4
Ischium – 5
Ishial Angle – 6
Pubis – 7
Synasacrum – 8

Phalanx (Digit I, II, III, or IV)
Proximal End – 1
Shaft – 2
Distal End – 3

Radius
Head – 1
Shaft – 2
Scapho-lunar Facet - 3

Rib (Rib, Sternal Rib, Furculum, Hyoid apparatus)
Rib Head – 1
Uncinate Process – 2
Tubercle – 3
Sternal Facet – 4
Furcular Process – 5
Sacpular Tuberosity - 6

Scapula
Acromion – 1
Glenoid Facet – 2
Pneumatic Foramen – 3
Neck – 4
Blade – 5
Apex - 6

Sternum
Sterno-Coracoidal Process – 1
Dorsal Manubrial Spine – 2
Ventral Manubrial Spine – 3
Anterior Carinal Margin – 4
Carina – 5
Sternal Plate – 6
Posterior Lateral Process – 7

Tarsometatarsus
External Cotyla – 1
Internal Cotyla – 2
Hypotarsus – 3
Anterior Metatarsal Groove – 4
Spur Core – 5
Distal Foramen – 6
Trochlea for Digit II – 7
Trochlea for Digit III – 8
Trochlea for Digit IV - 9

Tibiotarsus
Inner Cnemial Crest – 1
Fibular Crest – 2
Fibular Head – 3
Fibula – 4
Fibular Spine – 5
Tendinal Groove – 6
External Condyle – 7
Internal Condyle - 8

Ulna
Olecranon – 1
Impression of Brachialis Anticus – 2
Anconal and Inner Papillae of Secondary – 3
External Condyle – 4

Vertebra
Centrum – 1
Articular Surface of Centrum – 2
Hypapophysis – 3
Pleurapophysis – 4
Neural Spine – 5
Neural Arch – 6
Transverse Process – 7
Diapophysis – 8
Vertebrarterial Canal – 9

Weathering Stage (sensu Behrensmeyer 1978/Johnson 1985)

	Weathering Stage	Description
0	Unweathered	Greasy, no cracking or flaking,perhaps with skin or ligament/soft tissue attached (marrow edible, bone still moist)
1	Very slight weathering	Cracking parallel to fiber structure (longitudinal); articular surfaces perhaps with mosaic cracking of covering tissue and bone (split lines begin to form, low moisture, marrow sours and is inedible)
2	Slight weathering	Flaking of outer surface (exfoliation), cracks are present, crack edge is angular
3	Moderate weathering	Rough homogeneously altered compact bone resulting in fibrous texture; weathering penetrates 1-1.5mm maximum; crack edges are rounded
4	Heavy weathering	Coarsely fibrous and rough surface with weathering penetrating inner cavities; open cracks
5	Very heavy weathering	Bone falling apart in situ, large splinters present, bone material very fragile

Behrensmeyer, Anna K.
1978 Taphonomic and Ecologic Information from Bone Weathering. *Paleobiology* 4(2):150-162.

Johnson, E.
1985 Current Developments in Bone Technology. In *Advances in Archaeological Method and Theory*, edited by Michael B. Schiffer, Vol. 8, pp.157-235.

Gastric Etching

0 Absent
1 Present
2 Possible

Fragmentation
(sensu Villa and Mahieu 1991)

Overall Fragmentation

1 Whole
2 Predepositional
3 ?Predepositional
4 Postdepositional
5 ?Postdepositional
6 Modern
7 ?Modern
8 Mostly predepositional, some recent
9 Mostly recent, some predepositional
10 Mostly predepositional, some postdepositional
11 Mostly postdepositional, some predepositional

Fracture Angle (end one)
0 Indeterminate
1 Unbroken
2 Oblique
3 Right
4 Oblique/Right

Fracture Angle (end two)
0 Indeterminate
1 Unbroken
2 Oblique
3 Right
4 Oblique/Right

Fracture Outline (end one)
0 Indeterminate
1 Curved
2 Transverse
3 V-Shaped
4 Transverse/Curved

Fracture Outline (end two)
0 Indeterminate
1 Curved
2 Transverse
3 V-Shaped
4 Transverse/Curved

Maximum Circumference
0 Not Relevant
1 < 1/2
2 > 1/2
3 Complete

Length (mm)
Width (mm)
Weight (g)

Surface Modification

Cut Marks (HC=High Concentration; MC=Moderate Concentration; Cut mark/Tooth mark # = number of actions…repeated cut-marks for single attempt to remove tendon, for instance would receive a ‘1’)

HC Cutmark Proximal End
MC Cutmark Proximal End
HC Cutmark Proximal Shaft
MC Cutmark Proximal Shaft
HC Cutmark Middle Shaft
MC Cutmark Middle Shaft
HC Cutmark Distal Shaft
MC Cutmark Distal Shaft
HC Cutmark Distal End
MC Cutmark Distal End
HC Percussion Mark
MC Percussion Mark
HC Tooth Mark
MC Tooth Mark
HC Rodent Gnaw Mark
MC Rodent Gnaw Mark
HC Percussion Notch
MC Percussion Notch
HC Tooth Notch
MC Tooth Notch
Non ID Mark
Non ID Notch

Tooth Mark Frequency

0	Not Recorded
1	<5
2	5-10
3	10-15
4	>15

Burnt Bone (sensu Buikstra and Swegle 1989)
Surface Color (select one)
1 Uniformly Smoked
2 Heavily but Unevenly Smoked
3 Sparsely Smoked
4 Heavily Smoked w/some Calcination
5 Calcined (white)
6 Calcined (grey)
7 Calcined (blue)
8 Light brown/tan

Cross-Section Color (select one)
1 Uniformly Smoked
2 Heavily but Unevenly Smoked
3 Sparsely Smoked
4 Heavily Smoked w/some Calcination
5 Calcined (white)
6 Calcined (grey)
7 Calcined (blue)

Heat Alteration Stage
0 Not Burned
1 <0.5 Carbonized – 1
2 >0.5 Carbonized – 2
3 Fully Carbonized – 3
4 <0.5 Calcined – 4
5 >0.5 Calcined – 5
6 Fully Calcined(white/grey) – 6
7 Mostly Carbonized, some calcined – 7
8 Mostly Calcined, some carbonized - 8

Overall Color
0 Indeterminate
1 Black
2 Dark Brown
3 Brown
4 Light Brown
5 Beige
6 Yellow
7 Grey
8 White
9 Black/Grey

White Springs Dentition Table

Context (foreign key)

Specimen Number (primary key)
NYSM #.WHContext#. Unique Catalogue Number

Upper/Lower
Upper
Lower
Indeterminate

Side
Right
Left
Indeterminate

<u>Dentition</u>

Deciduous Dentition
-indicate proportion of landmark present (1, 0.5, etc.), leave blank if absent
DI1
DI2
DI3
DI (Indeterminate)
DC
DP2
DP3
DP4
DP (Indeterminate)

Deciduous Eruption (Partially Erupted, Fully Erupted, Indeterminate)
DI1
DI2
DI3
DI (Indeterminate)
DC
DP2
DP3
DP4
DP (Indeterminate)

Deciduous Wear (Unworn, Very Early Wear, Early Wear, Middle Wear, Late Wear, Very Late Wear, Socket, Indeterminate)
DI1
DI2
DI3
DI (Indeterminate)
DC
DP2
DP3
DP4
DP (Indeterminate)

Mortality
Robinette (1957) Mule Deer Age Class
4 mos
6.5 mos
1 yr 4 mos
1 yr 7 mos
1 yr 10 mos
2 yr 4 mos
2.5 to 3.5 yrs
3.5 to 4.5 yrs
4.5 to 5.5 yrs
5.5 to 8 yrs
8 to 9 yrs
9 to 10 yrs
10 to 15 yrs
> 16 yrs

Giles (1963) Bighorn Age Class
1 to 6 mos
6 to 12 mos
12 to 16 mos
16 to 30 mos
30 to 36 mos
36 to 42 mos
42 to 48 mos
> 48 mos

Giles (1963) Pronghorn Age Class
6 wks to 15 mos
15 to 17 mos
17 to 27 mos
27 to 29 mos
29 to 39 mos
39 to 41 mos
41 mos to 4.5 yrs
4.5 to 5.5 yrs
5.5 to 6.5 yrs
6.5 to 9 yrs
> 9 yrs

Seasonality (start)
Jan
Feb
Mar
Apr
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Seasonality (end)
Jan
Feb
Mar
Apr
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Permanent Dentition
-indicate proportion of landmark present (1, 0.5, etc.), leave blank if absent
I1
I2
I3
I (Indeterminate)
C
P2
P3
P4
P (Indeterminate)
M1
M2
M1/M2
M3

Permanent Eruption (Partially Erupted, Fully Erupted, Indeterminate)
I1
I2
I3
I (Indeterminate)
C
P2
P3
P4
P (Indeterminate)
M1
M2
M1/M2
M3

Permanent Wear (Unworn, Very Early Wear, Early Wear, Middle Wear, Late Wear, Very Late Wear, Socket, Indeterminate)
I1
I2
I3
I (Indeterminate)
C
P2
P3
P4
P (Indeterminate)
M1
M2
M1/M2
M3

Dental Metrics (mm)

(for these two entries, provide amplifying information in comments field as necessary)
Broken (Y/N)
In Socket (Y/N)

Length
DI1
DI2
DI3
DI (Indeterminate)
DC
DP2
DP3
DP4
DP (Indeterminate)
I1
I2
I3
I (Indeterminate)
C
P2
P3
P4
P (Indeterminate)
M1
M2
M1/M2
M3

Breadth
DI1
DI2
DI3
DI (Indeterminate)
DC
DP2
DP3
DP4
DP (Indeterminate)
I1
I2
I3
I (Indeterminate)

C
P2
P3
P4
P (Indeterminate)
M1
M2
M1/M2
M3

Lingual Crest Height
M1
M2
M1/M2
M3

Von den Driesch Mandible Metrics
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

Appendix F:
Botanical Analysis

Appendix F: Botanical Analysis

Introduction

Two sets of soil samples from the site (from both the All Angels' area and Transect 3) were analyzed for botanical remains in order to gain more information about the natural environment of Seneca Village and the ways of life of the villagers. Susan A. Jacobucci and Heather B. Trigg from the Andrew Fiske Memorial Center for Archaeological Research at the University of Massachusetts Boston analyzed the first and larger set, and analyzed both pollen and macrobotanical remains. Their 2012 report is the first in this appendix. Justine McKnight, Archaeobotanical Consultant, analyzed a second and smaller set of samples for macrobotanical remains and other micro artifacts and ecofacts in 2014. Her one-page summary report is the second in this section. These reports are followed by a summary statement by Linn, Rothschild, and Wall that reconsiders the results of the botanical analyses, in light of archaeological context and personal communication with Trigg and McKnight.

Pollen and Macrobotanical Analyses of Soils from Seneca Village, New York

Prepared For:

Diana Wall and Nan Rothschild

Submitted By:

Susan A. Jacobucci and Heather B. Trigg

Andrew Fiske Memorial Center for Archaeological Research at
The University of Massachusetts Boston
100 Morrissey Blvd
Boston, MA 02125

Cultural Resources Management Study No. 57

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Introduction

The Andrew Fiske Memorial Center for Archaeological Research at the University of Massachusetts Boston conducted a palynological analysis on 24 soil samples that were collected from

Seneca Village in Manhattan and examined 9 sediment samples for macrobotanical materials. Seneca Village is a 19th–century African-American and white European-immigrant community that was founded by free African-Americans in the 1820s (http://www.mcah.columbia.edu/seneca_village/). In the 1850s the residents of Seneca Village were evicted, their village demolished, and buried beneath what is today Manhattan's Central Park. Information gathered from the pollen analysis in this study is used to look at the life-ways and activities of the people who lived there and to reconstruct a former vegetation history for the area from the time Seneca Village was occupied to its transformation into parkland. Flotation samples were taken in hopes that they could also shed light on the activities of the inhabitants, in particular their foodways and subsistence practices. However, at the initial stage, the macrobotanical analysis primarily focused on determining whether archaeobotanical materials were preserved in this open-air context.

The Pollen Analysis

Pollen from archaeological soils allows for the identification of former vegetation that produced the pollen, and archaeopalynological research frequently targets the reconstruction of local environments and the identification of specific plants used by site inhabitants. However, both the identification of specific taxa and the reconstruction of vegetation communities using pollen analysis are complicated. Subsequent land clearance activities such as burning, plowing, and animal husbandry as well as soil conditions such as pH, alternating wet-dry cycles, and the depth and age of sediments affect the preservation of deposited pollen and spores (Campbell and Campbell 1994; Dimbleby 1957; Bryant and Hall 1993:282; Hevly 1981:48; Marshall 2000:122, 124, 126-127; Pearsall 2000:261-262). There is also variation in the durability of pollen among taxa (Havinga 1964, 1984; Marshall 2000:120); therefore, pollen grains are differentially preserved (Pearsall 2000:260). Pollen and spore exines are composed of sporopollenin, a rather resistant biopolymer (Kapp 2000:266; Traverse 2008:698). Because of the relatively low sporopollenin content in the exine of some taxa such as *Equisetum*, *Juniperus* and *Populus*, these pollen types are easily destroyed and infrequently recovered (Bryant and Hall 1993:282; Traverse 2008:499-501; Tschundy and Scott 1969:87-89).

Variation among plants in their production and dispersal of pollen, especially their pollination strategies (whether by wind, animals, or water), also influences the number and types of pollen grains recovered in deposits and their relationship to the parent vegetation (Marshall 2008:120; Pearsall 2000:258-260). Finally, it is difficult to identify many pollen grains to species or even genus using light microscopy because many taxa look similar. These factors affect our ability to identify pollen and reconstruct environments based on pollen assemblages (Bryant and Hall 1993:281; Dincauze 2000:345-346; Faegri et al. 1989:11-38; King et al. 1975:181; Moore and Webb 1978:109-118; Pearsall 2000:251-252).

Considering the number of pollen types or categories, whether or not the most plentiful pollen types are the most sturdy, the number of unidentifiable pollen grains and the pollen density also gives an indication of the deterioration of the pollen assemblage and its usefulness for environmental reconstruction (Bryant and Hall 1993:282-283). Nevertheless pollen and spores allow us to recreate a partial history of vegetation that was molded by forces such as climate, environment, and human activities (Bradley et. al 1983; Brugam 1978; Davis 1969; Kelso and Beaudry 1990; Kelso 1998; Jacobucci et al. 2007; Oldfield 1978; Pearsall 2000:265-269, 324). By uncovering the impact that people have on vegetation, and through understanding how pollen grains arrive at a site, palynology also helps answer questions about site function by identifying task-specific areas (Cahill et al. 1991:66; Kelso et al. 2006; Pearsall 2000:274).

The pollen recovered from an archaeological site is a mixture of local and regional background pollen rain as well as that coming from deliberately used plants. The recovery of pollen from a structure such as a dwelling is influenced by human activities and may represent primarily a local signature of what was used or processed within the structure (Faegri and Iversen 1989:178). Nevertheless most structures are not closed environments because pollen is introduced through open doors and windows. Samples taken from in a doorway of a structure would probably include "a fairly complete representation of pollen rain" while pollen from wind-pollinated taxa may be lacking from contexts situated away from openings (Pearsall 2000:272).

Location of Seneca Village within Regional Vegetation Communities

Seneca Village is located in New York's Manhattan Island, which is situated in the southeastern section of the state. Prior to intensive urbanization, "Manhattan formerly hosted a rugged topography watered by over 108 km of streams and at least twenty-one ponds, flowing in and out of wetlands that covered nearly 10% of the island in the late 18th-century" (Sanderson and Brown 207:545). The island is located within the Eastern Forest Community, specifically within the Northern Pine-Oak Forest and in close proximity to the Oak-Hickory Forest (Kricher and Morrison 1988:38-39). The island was home to various habitats due to its proximity to the ocean and bordering forest communities. Many types of flora indigenous to these forest communities and common in the preindustrial city were identified in the current pollen analysis.

The dominant arboreal vegetation native to the Eastern Deciduous Forest Province consists of hardwood species such as basswood (*Tilia*), beech (*Fagus*), hickory (*Carya*), maple (*Acer*), oak (*Quercus*), and tulip tree (*Liriodendron tulipifera*) among others (Gleason and Cronquist 1964: 312). Eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), black willow (*Salix nigra*), sycamore (*Platanus*), sweet gum (*Liquidambar styraciflua*), and river birch (*Betula nigra*) are common on flood plains and along streams (Gleason and Cronquist 1964:316). Birch (*Betula*), eastern hemlock (*Tsuga canadensis*), flowering dogwood (*Cornus florida*), hophornbeam (*Ostrya*), and hackberry (*Celtis*) among others (Kricher and Morrison 1988) populate the area. Black locust (*Robinia pseudoacacia*), gray birch (*Betula populifolia*), eastern red cedar (*Juniperus virginiana*), quaking aspen (*Populus tremuloides*) are more prevalent in disturbed areas (Kricher and Morrison 1988:57). Softwoods such as several types of pine (*Pinus*) (Britton and Brown 1896:50-53) are sporadically present and readily colonize burned areas (Gleason and Cronquist 1964:316). Some understory shrubs and small trees include striped maple (*Acer pennsylvanicum*), mountain laurel (*Kalmia latifolia*), sumac (*Rhus*), blueberry (*Vaccinium*), and serviceberry (*Amelanchier canadensis*) (Kricher and Morrison 1988).

Non-arboreal vegetation characteristic of the Eastern Deciduous Forest Province consists of a number of low growing herbs including several species belonging to the Asteraceae family such as goldenrods (*Solidago*) and ragweeds (*Ambrosia*) (Gleason and Cronquist 1964:307). Former marshlands on the island supported grasses, sedges, rushes, and cattails. Taxa such as wild geranium (*Geranium*), mayapple (*Podophyllum*), and bloodroot (*Sanguinaria*), all herbaceous flowering plants were plentiful in wooded areas as were several species of ferns such as royal fern (*Osmunda regalis*), interrupted ferns (*Osmunda claytonia*) and wood ferns (*Dryopteris*) which prefer moist soils (Britton and Brown 1896:5-6, 14-18).

Contexts

The samples were recovered from two profiles, Contexts 201 and 250 (Table 1; samples are presented in stratigraphic order, top to bottom, for each soil column) from "deposits from a buried ground surface behind two houses" that stood in the village (http://www.mcah.columbia.edu/seneca_village/excavation.html).

Table 1
Seneca Village Pollen Samples

Unit	Transect	Quadrant	Context	Sample	Description
TCP	3	SW	201	6 b	West Profile
TCP	3	SW	201	6 a	West Profile

TCP	3	SW	201	5 b	West Profile
TCP	3	SW	201	5 a	West Profile
TCP	3	SW	201	4 b	West Profile, Demolition Layer
TCP	3	SW	201	4 a	West Profile, Demolition Layer
TCP	3	SW	201	3 b	West Profile, Buried Former Surface
TCP	3	SW	201	3 a	West Profile, Buried Former Surface
TCP	3	SW	201	2 b	West Profile
TCP	3	SW	201	2 a	West Profile
TCP	3	SW	201	1 b	West Profile
TCP	3	SW	201	1 a	West Profile
TCU	3	SW	250.2	1 b	East Wall
TCU	3	SW	250.1	1 a	East Wall
TCU	3	SW	250.4	2 b	East Wall
TCU	3	SW	250.3	2 a	East Wall
TCU	3	SW	250.6	3 b	East Wall, Demolition Layer
TCU	3	SW	250.5	3 a	East Wall, Demolition Layer
TCU	3	SW	250.8	4 b	East Wall, Buried Former Surface
TCU	3	SW	250.7	4 a	East Wall, Buried Former Surface
TCU	3	SW	250.10	5 b	East Wall
TCU	3	SW	250.9	5 a	East Wall
TCU	3	SW	250.12	6 b	East Wall
TCU	3	SW	250.11	6 a	East Wall

Methods

On average approximately 15g of sediment were processed for each sample. Soil samples were weighed before they were processed using standard pollen extraction techniques; they were treated with hydrochloric acid to remove carbonates, hydrofluoric acid to remove silicates, and acetolysis to remove organics (Moore and Webb 1978: 22-27; Pearsall 2000: 294-296). Two tablets containing a known number of exotic *Lycopodium* sp. spores (batch number 483216) were added to each sample as a tracer to assist in the calculation of pollen and spore densities and assess preservation (Hall 1981; Larsen and MacDonald 1998:819).

Pollen residue was mounted in glycerol and several slides were prepared for each sample. The slides were scanned at 400x and 600x magnifications. Following other studies (Bryant Jr. and Hall 1993:281; Pearsall 2000:303; Trigg et al. 2003:35), an attempt was made to count a minimum of 300 pollen grains and spores for each sample in addition to the *Lycopodium* tracer spores. Pollen grains were identified by comparing them to online images (www.geo.arizona.edu/palynology/polonweb.html), to a modern reference collection housed in the Paleoethnobotany Lab at the University of Massachusetts Boston, and to published sources (Erdtman 1943; Kapp 1969; Kapp et al. 2000; McAndrews et al. 1973; Moore and Webb 1978; Moore et al. 1991). The modern reference collection includes pollen from many trees, cultivars, weedy and invasive plants that are associated with the human colonization of environments. Pollen grains too deteriorated, crumpled, torn, or distorted to identify were classified as "unidentifiable," while any pollen grains encountered that were in good physical condition but could not be identified were classified as "identifiable."

Some pollen grains could only be identified to the family level although most were identified to genus. Few can be identified to species (Marshall 2008:221). Several members of the genus *Lycopodium* are common to New York (Britton and Brown 1896:39-43). Pollen grains identified as clubmoss (*Lycopodium* sp.) were easily distinguishable from the tracer spike (*Lycopodium*), which is larger and resembles spores produced by stiff club-moss (*Lycopodium annotinum*). Grass pollen grains smaller than 45 µm are usually considered to be of a wild type (see Wodehouse 1965:310-319). Grass pollen grains between 45 µm and 65 µm are considered European-introduced cereals such as oats (*Avena*), rye (*Secale*), wheat (*Triticum*), and barley (*Hordeum*). Morphologically pine and spruce pollen are composed of two main parts, a body and two wings or bladders. When separated bladders were encountered, only one Pine family pollen grain was counted for every two bladders.

Pollen identified to the Asteraceae or sunflower family were categorized as individual genera whenever possible, but grouped for discussion purposes based on their pollen morphology. Pollen grains of the Liguliflorae-type have a fenestrate surface sculpturing, and are insect pollinated although large quantities of this pollen type have been recovered from disturbed or anthropogenic environments (http://www.geo.arizona.edu/palynology/pid00029.html). Other Asteraceae are grouped into the Tubuliflorae, which are typically tricolporate and lack fenestrate openings. Some members are insect pollinated, but others such as ragweed (*Ambrosia*) and sagebrush (*Artemisia*) are wind pollinated.

Many ornamental and economic plants and some weedy taxa are non-arboreal and generally insect or self-pollinated (Faegri et al. 1989:186). These plants which includes many plants classified as Tubuliflorae that belong to the Asteraceae family, such as sunflower (*Helianthus*), aster (*Aster*), and goldenrod (*Solidago*) with pollen from these taxa recovered in this examination, generate a smaller quantity of pollen thus their appearance in the pollen spectrum is generally limited (Faegri et al. 1989:186). Because the pollen grains of insect-pollinated taxa tend to be heavier (Faegri et al. 1989:13) and, in the case of many herbaceous plants, are dispersed near the ground surface where wind velocities are reduced (Kelso 1994a:11; Moore and Webb 1978:111), they are infrequently incorporated in the pollen rain (Pearsall 2000:259). Therefore their presence in the pollen spectrum typically signifies local vegetation and environmental conditions (Kelso and Beaudry 1990:65). Numerous trees such as pine (*Pinus*) and oak (*Quercus*) and many common weeds such as ragweed (*Ambrosia*) and Cheno-Ams are wind-pollinated. These taxa produce large quantities of pollen and although they are often interpreted as reflecting regional vegetation (Kelso and Beaudry 1990:65; Moore and Webb 1978:109-114; Pearsall 2000:258-260), we cannot rule out the possibility that their pollen may have come from local vegetation especially in cases where a significant percentage is recovered.

Results

Pollen Preservation

In order to reconstruct vegetation patterns, sufficient quantities of pollen are needed. Pollen and spores are differentially destroyed by taphonomic conditions, and this is often reflected in the palynological record by low pollen and spore densities. Pollen and spore densities greater than 1000 grains per gram of sediment or 2,500 to 3,000 grains per cubic centimeter of sediment are generally considered satisfactory for environmental reconstruction (Bryant and Hall 1993:280; Hall 1981; Pearsall 2000:309). Samples with lower densities may indicate that the pollen assemblage was weathered or that the sedimentation rate was high (Pearsall 2000:309; Bryant and Hall 1993). The addition of the control spike, allows for a quantitative assessment of pollen density (Hall 1981; Larsen and MacDonald 1998:819; Marshall 2000:132).

The pollen and spore densities for all 24 samples were calculated and are presented in stratigraphic order from the top of each profile or context to the bottom of the profile (Table 2). Densities were greater than 1,000 grains/g soil in 9 of the 24 samples. Low pollen densities could be the result of several different processes. First, they can be the consequence of a highly weathered pollen assemblage – one in which there is a great deal of destruction of pollen. Because the pollen of various taxa is differentially resistant to decay, a highly weathered assemblage is problematic because taxa are selectively destroyed (Bryant and Hall 1993:280). Low pollen and spore densities can be the result of rapid sediment deposition, and fire also destroys pollen. It is likely that a combination of factors were responsible for the low pollen densities for some of the Seneca Village samples. With a highly weathered assemblage, we would expect high percentages of unidentifiable pollen grains. Several samples with low pollen and spore densities, such as Context 201, Samples 4b and 4a, also had high percentages of unidentifiable grains, suggesting that these assemblages were highly deteriorated.

Table 2

Pollen and Spore Densities, Grains Counted and Percentage of Unidentifiable Grains

Context	Strata/ Sample	Density in Grains/G of Soil	Grains Counted	Spike Counted	Percent Unidentifiable
201	**6/ 6 b**	**53,665.19**	**329**	**21**	**5.17**
201	**6/ 6 a**	**26,713.79**	**300**	**41**	**8.00**
201	**5/ 5 b**	**18,019.23**	**303**	**56**	**7.92**
201	**5/ 5 a**	**5,571.47**	**300**	**161**	**11.33**
201	4/ 4 b	702.40	23	100	21.74
201	4/ 4 a	646.66	19	100	26.32
201	3/ 3 b	793.58	24	100	16.67
201	3/ 3 a	735.92	21	100	33.33
201	2/ 2 b	614.67	22	100	22.73
201	2/ 2 a	710.18	27	100	7.41
201	1/ 1 b	656.18	25	100	24.00
201	1/ 1 a	868.00	15	57	26.67
250.2	I/ 1b	0	0	50	0
250.1	**I/ 1a**	**54,577.34**	**327**	**19**	**7.95**
250.4	**II/ 2b**	**19,507.66**	**300**	**33**	**13.33**
250.3	**II/ 2a**	**6,849.74**	**300**	**87**	**10.67**
250.6	**III/ 3b**	**2,335.53**	**300**	**280**	**18.66**
250.5	**III/ 3a**	**2,946.66**	**325**	**244**	**15.38**
250.8	**IV/ 4b**	**3,618.19**	**300**	**192**	**10.00**
250.7	IV/ 4a	880.97	32	100	15.63
250.10	V/ 5b	718.63	39	100	10.25
250.9	V/ 5a	996.46	141	300	7.80
250.12	VI/ 6b	902.90	43	100	16.28
250.11	VI/ 6a	837.67	91	250	8.79

Samples in bold have pollen densities adequate for environmental reconstruction.

However, in order to create Central Park, Seneca Village was demolished and the land beneath it reworked "to create the park's grassy grounds and meadows, winding paths, and carefully landscaped vistas" (http://maap.columbia.edu/place/32.html). The construction of the park grounds may have created areas of rapid sediment deposition so samples from fill layers may be expected to have low densities. Although some samples did not have adequate densities, they were useful for providing insights into the types of plants in the area of the site. For example Old World cereal pollen was recovered from several samples with poor preservation. The pollen analysis identified 107 distinct taxa in addition to the identifiable and unidentifiable categories (Table 3). A tally of the recovered pollen by sample is included in Appendix A (samples are presented in stratigraphic sequence). A description of the recovered taxa follows.

Table 3
Taxa Identified in Seneca Village Samples

Scientific Name	Common Name
	Arboreal Taxa - Trees and/or Shrubs
Abies	Fir

Acer	Maple
Acer negundo	Boxelder
Alnus	Alder
Betula	Birch
Carpinus	Hornbeam
Carya	Hickory
Castanea	Chestnut
Celtis	Hackberry
Cornus	Dogwood
Corylus	Hazel
Daphne	Daphne
Fabaceae – *Acacia*-Type	Bean family – Acacia type
Fabaceae-*Gleditsia*-Type	Bean family-Honey locust type
Fabaceae-*Robinia*-Type	Bean family-Black locust type
Fagus	Beech
Fraxinus	Ash
Juglandaceae	Walnut family
Juglans cinerea	Butternut
Juglans nigra	Walnut
Juniperus	Juniper
Larix	Larch
Moraceae-*Morus* Type	Mulberry family-mulberry type
Myricaceae	Bayberry family
Nyssa	Blackgum
Pinaceae	Pine family
Picea	Spruce
Pinus	Pine
Populus	Cottonwood, poplar
Ptelea	Hoptree
Quercus	Oak
Rhamnus	Buckthorn
Rhus	Sumac
Salix	Willow
Shepherdia	Buffaloberry
Staphylea	Bladdernut
Symphoricarpos	Snowberry
Thuja	Arborvitae
Tilia	Basswood
Tsuga	Hemlock
Ulmus	Elm
Vaccinium	Blueberry, cranberry
Viburnum	Viburnum
Xanthoxylum	Prickly Ash

Either Arboreal or Non-Arboreal

Scientific Name	Common Name
Rosaceae	Rose family
Fabaceae	Bean family

Herbs

Scientific Name	Common Name
Actaea	Baneberry
Apiaceae-*Daucus* Type	Carrot family-Wild carrot type
Apiaceae-*Cryptotaenia* Type	Carrot family- Honewort type

Artemisia	Sagebrush or wormwood
Asteraceae-*Ambrosia*	Sunflower family-ragweed/cocklebur
Asteraceae-*Aster* Type	Sunflower family-Aster type
Helianthus	Sunflower
Asteraceae-Liguliflorae	Sunflower family-Liguliflorae
Solidago	Goldenrod
Brassicaceae	Mustard family
Carex	Sedge
Caryophyllaceae	Pink family
Cheno/Am	Chenopodiaceae/Amaranthaceae
Equisetum	Horsetail or scouring rush
Euphorbia	Spurge
Fabaceae-*Lathyrus*	Bean family-Sweet pea, vetchling
Gentiana	Gentian
Glandularia Type	Mock vervain
Hepatica Type	Hepatica
Impatiens	Impatiens
Iridaceae	Iris family
Jeffersonia	Twinleaf
Juncus	Rush
Lamiaceae	Mint family
Liliaceae	Lily family
Lysimachia Type	Loosestrife
Malvaceae	Mallow family
Melilotus	Sweet clover
Menyanthes	Buckbean
Oxalis	Woodsorrel
Panax	Ginseng
Pedicularis	Lousewort
Plantago	Plantain
Poaceae	Grass family-Wild grasses
Poaceae-Cereals	Grass family-Old World cereal
Podophyllum	May Apple
Polygonum	Knotweed
Potamogeton	Pondweed
Proserpinaca	Mermaid weed
Prunella	Selfheal
Ranunculus	Buttercup
Sanguisorba	Burnet
Saxifraga	Saxifrage
Scilla	Scilla, squill
Solanaceae-*Physalis*	Nightshade family-ground cherry
Stratiotes, cf.	Water soldiers
Thalictrum	Meadow-rue
Trifolium	Clover
Utricularia	Bladderwort
Vernonia	Ironweed
Vitis	Grape

Mosses and Ferns (Cryptogams)

Scientific Name	Common Name
Botrychium	Grape fern
Dicraniaceae-*Dicranum*	Moss
Didymodon	Moss
Dryopteris	Wood-fern
Lycopodium sp.	Clubmoss
Osmunda	Royal fern
Plagiothecium	Moss
Pottiaceae	Moss
Sphagnum	Peat moss
Ulota crispa	Moss

Arboreal Vegetation

Abies: Pollen grains of this genus appeared in two samples from Context 250 (2a and 3a). These samples had densities that were adequate for environmental reconstruction and bracket the demolition layer. Firs inhabit boreal regions, but also grow in mountainous areas (Britton and Brown 1896:56), beside streams and in swamps (Harlow 1957:68). Since this genus is wind-pollinated, it is likely that the presence of fir pollen in this study denotes regional vegetation especially since no large percentages of this genus were recovered in any sample.

Acer: Small amounts of maple pollen were recovered in three samples from Context 201 and seven samples from Context 250. Several species of maple are found throughout the eastern United States (http://plants.usda.gov) and typically favor moist soils (Harlow 1957: 239-248). Maple moderately produces and disperses pollen; however, it is generally poorly preserved (http://www.geo.arizona.edu/palynology/pid00021.html).

Acer negundo: A small amount of box elder pollen was recovered in one sample from Context 250 (Sample 2a). Box elders grow along streams (Britton and Brown 1897:400).

Alnus: Alder pollen was identified in nine samples, four samples from Context 201 (Samples 5a, 5b, 6a, and 6b) and five samples from Context 250 (1a, 2a, 2b, 3a, and 6a). Several types of alder grow naturally in the region (Britton and Brown 1896:511-512). It is a fast-growing species at distressed sites (Tilman 1988:214) and is widespread along streams and in swamps (Harlow 1957:129). Its presence in the pollen record perhaps indicates a moist immediate area.

Betula: Birch pollen was present in 11 samples with larger amounts recovered from the samples suitable for environmental reconstruction. Several species grow in the area with many preferring moist soils (Britton and Brown 1896:508-511; Harlow 1957:118-126). The presence of birch pollen in most samples indicates a moist environment nearby.

Carpinus: A small amount of hornbeam pollen was recovered in the Context 201, sample (6a) in closest to the current ground surface. Hornbeams are trees or shrubs that prefer to grow along streams or in moist woods (Britton and Brown 1896:506) perhaps indicating a moist immediate environment.

Carya: Hickory pollen was recovered in 12 samples. This genus is native to eastern North America (Britton and Brown 1896:485-487). Although hickory is wind-pollinated, its pollen is heavy and tends to fall close to its source. As its presence in the samples indicates local vegetation, hickory grew in the immediate vicinity from the time that Seneca Village was occupied until the land was transformed into Central Park.

Castanea dentata: Chestnut pollen was identified in 18 samples. American chestnut (*Castanea dentata*) was native to the area (Britton and Brown 1896:515) but it was decimated by a blight in the early 1900s (Brugam 1978:350; Paillet 2002:1520; Tindall et al. 2004:2554). Generally, greater amounts of chestnut pollen were recovered in the deeper levels of both pollen columns. These reflect the trees that grew in the area when the Village was occupied through the construction and use of the park.

Celtis: Hackberry (*Celtis occidentalis*) is native to the Northeast and prefers dryer soils (Britton and Brown 1896:526). Small amounts of hackberry pollen were identified in three samples (Context 250, 1a and Context 201, 5a and 6b), located near the modern ground surface.

Cornus : Dogwood pollen was recovered in three samples (Context 201, Samples 6a and 6b; Context 250, Sample 2b) which are located near the modern ground surface. Several species are found throughout the eastern United States (http://plants.usda.gov). It is predominantly an understory tree that thrives in moist soils (Harlow 1957:262). Since dogwood is insect-pollinated, pollen grains from this genus generally denote local vegetation and most likely indicate a moist environment.

Corylus: A small amount of hazelnut pollen appeared in one sample (Context 250, 3a) from a layer just above the buried former Seneca Village ground surface. Hazelnuts are shrubs or small trees that prefer to grow in thickets (Britton and Brown 1896:507-508). Hazelnut trees were also cultivated and the nut consumed (Sumner 2004:152).

Daphne: Small amounts of daphne pollen were recovered in four samples (Context 201, 1a and 2a; Context 250, 3a and 4b). Daphne is an "erect or spreading shrub" (www.plants.udsda.gov; Britton and Brown 1897:465).

Fabaceae, Tree and Shrub Types: Honey locust (*Gleditsia*) and black locust (*Robinia*) are native to the eastern United States (Harlow 1957:217). Honey locust pollen was recovered from three samples (Context 201, Sample 5b; Context 250, Samples 3b and 4b). Small amounts of black locust pollen were recovered in four samples (Context 201, Samples 5a and 5 b; Context 250, Samples 2a and 3a). Since all of these species are insect-pollinated, their presence in the pollen spectrum denotes local vegetation.

Fagus: American beech (*Fagus americana*) grows naturally in eastern Canada and the United States (Britton and Brown 1896:514; Harlow 1957:135). Beech pollen was recovered in eight samples. The highest percentages of beech pollen were recovered from samples closest to the modern ground surface (Context 201, Sample 6b; Context 250, Sample 1a).

Fraxinus: Several species of ash are native to the area (Britton and Brown 1897:600-602). Ash pollen was recovered from Samples 6a and 6b from Context 201 and Sample 3b from Context 250.

Juglandaceae: The Walnut family consists of about 35 species of trees. Pollen grains appeared in six samples.

Juglans cinerea: Butternut pollen was recovered in seven samples (Context 201, 2b, 5a and 6a; Context 250, 1a, 2a, 2b, and 3b). Butternut favors moist, rich soils (Harlow 1957:100-101) and is native to the eastern United States (http://plants.usda.gov).

Juglans nigra: Black walnut pollen was identified in five samples (Context 201, 5b and 6b; Context 250, 1a, 2a, and 2b) closest to the modern ground surface. Black walnut is a large tree that grows in woodland habitats in the eastern United States (Britton and Brown 1896:483; http://plants.usda.gov).

Juniperus: Junipers are shrubs or evergreen trees with a couple of species indigenous to the area (Britton and Brown 1986:59-60). Juniper pollen was only recovered in two samples (Context 201, 5b; Context 250, 3a).

Larix: Larch is wind-pollinated, prefers moist habitats and is naturally found in woodland swamps from Labrador to northeastern United States (Britton and Brown 1896:54; Harlow 1957: 52). Small amounts of pollen were recovered in five samples (Context 201, 1b and 5a; Context 250, 2a, 3a, and 3b). The recovery of larch pollen is probably indicative of regional pollen rain.

Moraceae, *Morus*-Type: Mulberry-type pollen was identified in 15 samples (Context 201, 1b, 2a, 3a, 3b, 4a, 4b, 5a, and 6b; Context 250, 1a, 2a, 2b, 4b, 5a, 6a, and 6b). Since most species belonging to this genus are insect-pollinated, its presence in the pollen assemblage at Seneca Village indicates local vegetation. Mulberries are trees or shrubs and were popular ornamental trees in the late sixteenth and early seventeenth centuries (Leighton 1986:457); however, red mulberry (*Morus rubra*) is native to the area (http://plants.usda.gov).

Myricaceae: Pollen grains produced by shrubby species of the Bayberry family which includes sweet gale (*Myrica* sp.) and sweet fern (*Comptonia* sp.) were recovered in 10 samples (Context 201, Samples 2a, 5a, 5b, 6a, 6b; Context 250, Samples 1a, 2a, 2b, 3b, 3b, and 6b). Relatively large amounts were recovered in the samples closest to the modern ground surface. Both sweet gale and sweet fern are native to northeastern North America (Brooks 1980:50; http://plants.usda.gov) with sweet gale preferring moist habitats and sweet fern favoring drier ones (Britton and Brown 1896:487-489). A few species of *Myric*a were planted as aromatic shrubs and utilized to make candles and soap (Sumner 2004:315-316).

Nyssa: Black gum prefers moist soils and grows in swamps and along ponds (Britton and Brown 1897: 547). A small amount of black gum pollen was recovered in three samples (Context 201, 5b and 6a; Context 250, 2b). The appearance of black gum pollen is probably an indicator of moist environmental conditions.

Pinaceae, *Picea* and *Pinus*: Pollen grouped into the Pinaceae or Pine family category were highly deteriorated or ripped pollen grains for which an identification to either pine or spruce could not be made. Eleven Seneca Village samples contained pollen so identified (Context 201, 5a, 5b, 6a, 6b; Context 250, 1a, 2a, 2b, 3a, 3b, 4a, and 4b). Pollen identified as *Pinus* (pine) appeared in 12 samples while pollen identified as *Picea* (spruce) were recovered in 7. Several species of spruce and pine grow in the northeastern United States and Canada (Britton and Brown 1896:54-55; Harlow 1957:37-50, 58-63); however, spruce trees were popular for decorating ornamental grounds (Adams 2004:89-90).

Populus: Cottonwood pollen was recovered in sixteen samples (Context 201, 1b, 3a, 3b, 4b, 5a, 6a, and 6b; Context 250, 1a, 2a, 2b, 3a, 3b, 4b, 5a, 5b, and 6b). Several species grow in the area (Britton and Brown 1896:490-493).

Ptelea: Common hoptree (*Ptelea trifoliata*), a small tree or shrub indigenous to the eastern United States (http://plants.usda.gov), prefers to grow in the woods (Britton and Brown 1897: 354). A small amount of hoptree pollen was recovered in five samples (Context 201, 2a and 5a; Context 250, 1a, 2a, and 6b).

Quercus: Oak was present in 15 samples. The pollen represented from approximately 0% to approximately 15% of the total for samples with adequate pollen densities. Several species are native to the area (Kapp 2000:126), and because this species is wind-pollinated, its presence in the pollen spectrum most likely denotes background vegetation. However, the greatest percentages of oak pollen were identified in samples from both contexts that were closest to the modern ground surface (Context 201, Sample 6b; Context 250, Sample 1a). This is probably from the trees growing in the Park.

Rhamnus: Buckthorns are shrubs or small trees; several species prefer moist soils (Britton and Brown 1897:405-406). A small amount of buckthorn pollen was recovered in one sample (Context 201, Sample 5b).

Rhus: Several species of sumac grow in the region and inhabit dry and or rocky soils (Britton and Brown 1897:385-388). Staghorn sumac (*Rhus typhina*) grows well on open, disturbed ground in urban areas (Page and Weaver 1974:228). Sumac fruits are edible, and Native Americans made them into a lemonade-like drink. Sumac pollen was primarily found in the upper layers of the profiles: Context 201, Samples 6a and 5 b and Context 250 Sample 2b.

Salix: Willow pollen was recovered in seven samples. Several species of willow are native to the region and inhabit wetland areas such as marshes and along the margins of streams and lakes (Britton and Brown 1896:494-505; Harlow 1957:81). In addition to being valued for their ornamental quality, willow branches were used in basketry (Sumner 2004:279). Willows are moderate producers of pollen and are both wind and insect-pollinated (http://www.geo.arizona.edu/palynology/pid00033.html); therefore, it is difficult to say whether the recovered pollen is from local or regional vegetation.

Shepherdia: Buffaloberry is a shrub that grows along the banks of streams (Britton and Brown 1897:467). A small amount of pollen was recovered in one sample (Context 250, Sample 2b).

Staphylea: Bladdernuts are shrubs that prefer moist soils (Britton and Brown 1897:396). A small amount of pollen was recovered in one sample (Context 250, Sample 4b) from the buried Seneca Village surface.

Symphoricarpos: A very small amount of snowberry pollen was recovered from one sample (Context 201, Sample 6b). Snowberries are shrubs that prefer to grow along the banks of streams and rocky places (Britton and Brown 1898:235-236).

Thuja: Arborvitae is native to southern Canada and northeastern United States along the coast (Harlow 1957:71; Kapp 2000:76) and inhabits wet soils (Britton and Brown 1896:58). A small amount of pollen was recovered in two samples (Context 250, 3b and 4b).

Tilia: Basswood is native to the area and grows in all soil types but prefers moist deep soils (Harlow 1957:255). A small amount of basswood pollen was recovered in two samples (Context 201, Sample 6a; Context 250, Sample 2b) located near the modern surface. Since basswood is a low producer and disperser of pollen (http://www.geo.arizona.edu/palynology/pid00026.html) and is predominantly insect-pollinated, the appearance of this pollen type may indicate local vegetation probably associated with the created parkland.

Tsuga: Small amounts of hemlock pollen were found in two samples (Context 201, Sample 5b; Context 250, Sample 1a). Several species are native to eastern North America (Britton and Brown 1896:55). Since hemlock is wind-pollinated, the recovery of this species probably denotes regional vegetation.

Ulmus: Elm pollen was recovered in five samples (Context 201, Samples 6b, 6a, and 5b; Context 250, Samples 2b and 4b) with the greatest amount in a sample (Context 201, Sample 6b). Several types of elm are native to the region (http://plants.usda.gov), with species such as American elm (*Ulmus americana*) preferring moist soils (Britton and Brown 1896:524).

Vaccinium: A small amount of blueberry or cranberry pollen was identified in one sample (Context 201, Sample 5b). This shrub prefers moist soils.

Xanthoxylum: A very small amount of prickly ash pollen was recovered in one sample (5a) from Context 201. They are small trees or shrubs that grow in woods and thickets (Britton and Brown 1897:353).

Arboreal & Non-Arboreal Vegetation Categories

Fabaceae and Rosaceae families include taxa that are trees, shrubs and herbs. Roses, strawberries, and apple trees are all members of the Rosaceae family, and Kentucky coffee tree (*Gymnoclaudus dioicus*) and clover (*Trifolium*) belong to the Fabaceae family. For this analysis, pollen grains that could only be identified to these family levels were not grouped in either arboreal or non-arboreal categories.

Fabaceae: Besides the trees, which have been discussed, there are economic and weedy taxa, such as beans (*Phaseolus*) and birdsfoot trefoil (*Lotus corniculatus*), which also belong to the Bean family. Pollen identified to the bean family was present in eight samples. This type of pollen did not represent more than 2% of the total for any of the samples with adequate pollen densities. Since most Bean family members are insect-pollinated, the recovery of this pollen type represents local vegetation; however, not enough pollen was recovered that would signify intentional cultivation.

Rosaceae: Pollen identified to the Rose family was recovered in 11 samples (Context 201, Samples 6b, 6a, 5b, 5a, 2b, and 1b; Context 250, Samples 1a, 2a, 2b, 3a, and 3b). Greater percentages of Rose family pollen were recovered from samples closer to the modern ground surface, with the greatest amounts representing approximately 5.33% to 8% of the total for these samples (Context 250, Samples 1a, 2a, and 2b). The Rose family comprises roughly 1200 species (Britton and Brown 1897:194-254) some of which are weedy (*Potentilla*) and others are useful as ornamentals (roses) or edible (apples, strawberries, raspberries, and peaches). Because many Rose family members are insect-pollinated and the pollen is poorly dispersed, their presence in the assemblage may indicate that these species grew in the immediate area.

Non-Arboreal Vegetation

Actaea: A few types of baneberry grow in in the Northeast (http://plants.usda.gov) and prefer wooded areas (Britton and Brown 1897:55-56). A small amount of baneberry pollen was identified in one sample (4b) from Context 250.

Ambrosia and *Xanthium*: Ragweed and cocklebur were recovered in 19 samples. For samples with adequate pollen densities, the percentage of these pollen types was between than 5% and 17% of the total. These are invader species, readily colonizing disturbed habitats, and are common among cultivated fields, open soils, meadows, and pastures (Britton and Brown 1898:297-298; Brown 1976:182, 186; Page and Weaver 1974:206). In palynological analyses, they considered markers of cultivation (Elzinga 1988:374-375; Faegri et al. 1989:182-184; Kelso and Beaudry 1990:68). Because they are wind-pollinated, their presence in the pollen assemblage may relate more to regional rather than local vegetation. The highest percentage of ragweed and cocklebur pollen was identified in Context 250, Sample 3a from the demolition layer, which could indicate the disturbed nature of the area during this period.

Apiaceae: Weedy and economic taxa, such as Queen Anne's lace (*Daucus carota*), wild parsnip (*Pastinaca*), celery (*Apium graveolens*), and carrots (*Daucus carota sativus*) are included in the carrot family. Many species in this family are insect-pollinated and indicate local vegetation, but it is common for a few pollen grains identified to the carrot family to appear in pollen profiles because the plants are common (http://www.geo.arizona.edu/palynology/pid00043.html). Carrot family pollen, representing honewart-type (*Cryptotaenia*) and wild carrot-type (*Daucus*), was recovered in 11 samples. Wild carrot grows in fields and waste places (Britton and Brown 1897:510, 532), while honewart prefers shaded areas such as woodland borders (http://www.illinoiswildflowers.info/woodland/plants/honewort.htm). The pollen recovered from Seneca Village was probably produced by weeds that grew in the immediate area; however, approximately 7% of the total counted pollen from Context 250, Sample 2b was composed of honewart-type pollen and indicating a shaded area.

Artemisia: Wormwood and sagebrush are "odorous herbs and shrubs" that grow in dry, rocky soils and waste places (Britton and Brown 1898: 461- 468). Pollen was identified in six samples (Context 201, Samples 6a and 5a; Context 250, Samples 1a, 2a, 2b, and 3a). Pollen production is moderate and dispersal. good (http://www.geo.arizona.edu/palynology/pid00002.html), so the recovery of this pollen in the Seneca Village samples probably represents natural pollen rain.

Asteraceae, Liguliflorae: The majority of Liguliflorae are native to Europe, but there are several species indigenous to North America (Britton and Brown 1898:262-282). Many such taxa are weedy and include dandelions (*Taraxacum*), but lettuce (*Lactuca*) and chicory (*Cichorium*) have cultivated species. This type of pollen was recovered in 16 samples; of the 9 with adequate pollen densities, Sample 5a from Context 201 contained the greatest percentage of Liguliflorae pollen (9.33%).

Asteraceae, Tubuliflorae: Pollen identified to this taxon, which includes asters (*Aster*) and goldenrods (*Solidago*), were recovered in 17 samples. The greatest quantity of aster pollen (approximately 6% of the total counted pollen) was recovered in Context 250, Samples 3b and 4b. The greatest proportion of goldenrod (4%) was recovered in Context 250, Sample 4b. There are approximately 85 species of goldenrod most of which are native to North America (Britton and Brown 1898:331-347). Goldenrods and asters inhabit a variety of landscapes, which includes woods, meadows, and abandoned fields (Kricher and Morrison 1988:222-223). Numerous asters are native perennials and grow in a variety of habitats (Britton and Brown 1898:356-382; Page and Weaver 1974:164). Although some asters are considered weeds (Leighton 1986:396), several species are attractive enough to be grown in gardens, but this practice was more common in England than it was in the United States (Page and Weaver 1974:164), and not enough aster pollen was recovered from any sample to indicate intentional cultivation. Thus, it is likely that the Tubuliflorae pollen recovered in this examination was produced by weedy plants.

Brassicaceae: The Mustard family comprises many weedy and economic taxa (Britton and Brown 1897:118) such as pepperweed (*Lepidium*), a naturally occurring weed in North America (Britton and Brown 1897:110-112) and broccoli (*Brassica*). Small amounts of pollen identified to this family were recovered in six samples (Context 201, sample 6b; Context 250, Samples 1a, 2b, 3a, 3b, and 4b). Since many Mustard family species are insect-pollinated, their presence in the pollen spectrum probably indicates local vegetation.

Carex: Many species of sedge are commonly found in swamps, bogs, marshes, ponds, streams, wet woods, and along shores; however, some species prefer woody areas, thickets, and dry soils (Britton and Brown 1896:248-256, 292-360). Sedge pollen was recovered in seven samples (Context 201, Samples 6b, 6a, 5b, and 4b; Context 250, Samples 1a, 2a, and 3a).

Caryophyllaceae: Carnations, pinks, and sweet William belong to the Pink family and were grown in colonial American gardens (Sumner 2004:190). Weedy taxa such as white campion (*Lychnis alba*) also belong to this family and frequently inhabit meadows and waste places (Britton and Brown 1897:13-15) including "grassy lots" (Page and Weaver 1974:161). Pollen was recovered in five samples (Context 201, Samples 6b, 6a, and 5b; Context 250, Samples 5b and 6a). It is likely that this pollen was produced by weedy plants that grew in the immediate area.

Chenopodiaceae/Amaranthaceae (Cheno/Am): Goosefoot or pigweed pollen was found in 11 samples, with 10 of them suitable for environmental reconstruction. Generally small amounts of Cheno/Am pollen were recovered from these samples. The highest percentages, approximately 6%, were recovered from Context 250, Samples 3b and 4b, which are from the demolition layer and buried surface of Seneca Village. These taxa are predominately wind-pollinated weedy taxa that thrive in open spaces, cultivated soils, dry soils, and wastelands and can also be found in woods and thickets (Britton and Brown 1896:569-593; Page and Weaver 1974:209; Wodehouse 1965:410-421). Perhaps greater percentages of pollen for these taxa were recovered in these layers due to the intensely occupied and ultimately demolished landscape.

Equisetum: Spores identified to this genus were recovered in 12 samples. Members of this genus inhabit a variety of environments. Field horsetail (*Equisetum arvense*), for example, grows in sandy soils (Britton and Brown 1896:36) while scouring-rush (*Equisetum hymale*) grows in wet environments along the shores of rivers and lakes (Britton and Brown 1896:38). The presence of these spores throughout samples for both soil columns suggests a former wetland environment in the area of the village.

Euphorbia: Spurge grows in waste places and prefers sandy soils (Britton and Brown 1897:369-381). This pollen was identified in four samples (1a, 2a, 2b, and 4b) from Context 250.

Fabaceae-*Lathyrus*: Sweet peas or vetchlings grow in wet and moist soils, river banks, and along sea-beaches (Britton and Brown 1897:329-332). A small amount of sweet pea pollen was recovered from one sample (6b) from Context 201.

Gentiana: Several species of gentian are native to the area (Britton and Brown 1897:612-618) and were considered medicinal (Leighton 1986:423). A small amount of gentian pollen was recovered in one sample (6a) from Context 201.

Glandularia-Type*:* Mock vervain is a flowering perennial which grows in the area (www.plants.usda.gov). A small amount of this pollen was recovered in one sample (6a) from Context 201.

Hepatica-Type*:* Hepatica grows in wooded areas (Britton and Brown 1897:65). A small amount of this pollen was recovered in one sample (2b) from Context 250.

Impatiens: Impatiens (jewelweed) grows in moist areas (Britton and Brown 1897:403-404). A small amount was identified in two samples (Context 201, Sample 5b; Context 250, Sample 4b).

Iridaceae: Iris family pollen was recovered in nine samples. Some types of iris grow naturally in North America and prefer wet soils in swamps, marshes, river shores, and along streams (Britton and Brown 1896:448-452). Several species are considered ornamentals and are cultivated, such as yellow flag (*Iris pseudoacorus*). Since irises are insect-pollinated, the pollen recovered here indicates they probably grew nearby.

Jeffersonia: Twinleaf grows in wooded areas (Britton and Brown 1897:92). A small amount of twinleaf pollen was recovered in Context 201, Sample 6a perhaps attesting to parklands.

Juncus: Rushes prefer various habitats depending on the species; some prefer wet, marsh brackish soils while others prefer dry soils (Britton and Brown 1896:382-396). Rush pollen was recovered in one sample Context 250, Sample 2a.

Lamiaceae: A small amount of Mint family pollen was recovered in one sample Context 201, Sample 6b. Many taxa in this family are insect-pollinated, thus the pollen recovered here indicates local vegetation.

Liliaceae: Lily family pollen was recovered in five samples. Lilies are insect-pollinated, and both vegetables and ornamental flowers are included in this family. Several species are native to the region and inhabit dry woods as well as meadows and marshes (Britton and Brown 1896:416-418). Lilies are also cultivated; however, not enough pollen was recovered to suggest intentional planting.

Lysimachia Type: Loosestrifes are flowering perennials that inhabit fields, swamps, moist thickets, and wastelands (Britton and Brown 1897:587-589). A small amount of loosestrife pollen was recovered in one sample Context 201, Sample 6a.

Malvaceae: A small amount of mallow family pollen was recovered in two samples (Context 201, Samples 3b and 1a). Several species of mallow (*Malva*) inhabit waste places and grow along roadsides (Britton and Brown 1897:416-417). Pollen grains identified here as mallow family are small and are therefore probably not *Hibiscus* or *Althaea* which produce pollen around 100 µm in size. Because of the small amount of pollen, it is likely it was produced by weedy plants that grew in the immediate vicinity of the site.

Melilotus: Sweet clover pollen was recovered from three samples (6a, 5b, and 5a) from Context 201. Sweet clover grows throughout North America and was naturalized from Europe (Kapp 2000:165).

Menyanthes: Small amounts of buckbean pollen were recovered in four samples (Context 201, Samples 6b and 4a; Context 250, Samples 3b and 4b). Buckbean is native to the area and grows in bogs (Britton and Brown 1897:622). Native Americans utilized it as a medicine and food (Moerman 1998:342-343). The presence of buckbean pollen suggests moist soil conditions.

Oxalis: Wood sorrel pollen was recovered in four samples (Context 201, Sample 5b; Context 250, Samples 1a, 3a, and 4b). It is a weedy herb, inhabiting woods and fields and disturbed places. Several species grow in the area (Britton and Brown 1897:344-347).

Panax: Several species of ginseng are native to the area (Britton and Brown 1897:507). American ginseng (*Panax quinquefolius*) was once plentiful before it was over exploited by European Americans who valued it as a medicine (Sumner 2000:64-65). Native Americans also utilized ginseng as a drug to relieve pain and as a ceremonial medicine plant (Moerman 1998:376-377). A small amount of ginseng pollen was recovered from of Context 201, Sample 6b. Since ginseng is insect-pollinated perhaps it presence in the pollen spectrum suggests that it grew nearby.

Pedicularis: Louseworts are herbs that grow in wet soils and swamps (Britton and Brown 1898: 184-187). A small amount of lousewort was recovered in Context 201, Sample 5b.

Plantago: Plantain is associated with paths and roadways (Page and Weaver 1974:212) and grassed surfaces (Behre 1981:229). Plantain pollen was recovered in small amounts in Context 250, Samples 1a, 2b, and 3b and in Context 201 only in Sample 6b.

Poaceae, wild: Grass pollen was recovered in most samples with good preservation, with the highest proportions coming from the upper layers (Context 201, Samples 6b, 6a, 5b, and 5a; and Context 250, Samples 1a, 2b, and 2a). The higher levels of grass pollen in the upper layers probably reflect the increase in open grassy areas associated with the Park.

Poaceae, Old World cereal: The presence of European-introduced cereals in the palynological record has implications for diet, commerce and indicate settlement. Genera grouped in this category include wheat (*Triticum*), barley (*Hordeum*), oats (*Avena*) and rye (*Secale*). Most Old World cereals except rye are self-pollinated; therefore, their pollen grains do not travel far (Davis 1969:420; van der Veen1992:8), and only a small quantity of pollen is released until the plants are threshed (Kelso 2000:17). Cereal pollen is found on respective grain, chaff, straw, and grain products and "it survives both baking and gastrointestinal processes" (Kelso 1998a:54; see also Grieg 1982:59). The recovery of substantial quantities of pollen from these cereals indicates "local human activities involving grain, grain products or grain waste" (Kelso 1998a:54; see also Bradley et al. 1983:75). Old World cereals were recovered in relatively large numbers in Context 201, Sample 5a and Context 250, Samples 2b and 2a, and in smaller amounts in Context 201, Sample 6b, 6a, 5b, 4a and 3b and Context 250 Samples 1a, 3b, 3a, 4b and 5a.

Podophyllum: Mayapple prefers to grow in low woods (Britton and Brown 1897:92). The fruits are edible and have been made into preserves. Mayapple pollen was found in relatively large quantities in Context 201, Samples 6b, 6a, and 5b and Context 250 Sample 1a. Mayapple produces large amounts of pollen, but it is insect pollinated so dispersal is generally very limited. Thus the surprisingly large proportions suggest that the plants grew in the immediate area during the later occupation of the site.

Polygonum: Both naturalized and indigenous herbs are included in this genus with some species preferring wet soils, while others flourish within waste places (Britton and Brown 1896:554-567; Wodehouse 1965:404). *Polygonum* pollen was recovered in small quantities throughout both profiles. It is commonly recovered in the palynological record especially from context associated with agriculture or disturbance.

Potamogeton: Several types of pondweed grow in the Northeast and inhabit ponds and streams (Britton and Brown 1896:66-78). This aquatic was very rarely represented in the pollen assemblage.

Proserpinaca: Mermaidweed is an aquatic plant. It was recovered only in small quantities in several samples in Context 250.

Prunella: Selfheal was naturalized from Europe and occupies fields, woods, and waste places (Britton and Brown 1898:88-89). It is insect pollinated, and was only rarely recovered in the samples. Only in Context 201, Sample 6a was more than a single grain found.

Ranunculus: There are several species of buttercup indigenous to the area with some preferring wetland environments (Britton and Brown 1897:72-83). Buttercups were recovered infrequently, but both in the bottom and the top of Context 201 and Context 205. Buttercups are insect pollinated so their pollen is not dispersed widely, and their presence in the assemblage here probably reflects the overall moist, wooded area nearby.

Sanguisorba: Burnet is an herb or small shrub. Some members of this genus were cultivated (salad burnet) for greens or as a medicine. The pollen was recovered in several samples, primarily, although not exclusively in the upper levels of both profiles.

Saxifraga: Several species of saxifrage grow in the Northeast with some preferring swamps and wet banks and others inhabiting dry or rocky woodlands (Britton and Brown 1897:173-174). Saxifrage pollen was found in low numbers primarily in the upper layers of both pollen columns.

Scilla: Squill is an insect pollinated herb that inhabits moist meadows, woodlands, and yards. It is a common perennial herb that flowers in early spring. It is naturalized from Europe. *Scilla* was extremely rare in the pollen assemblage at Seneca Village.

Solanaceae, *Physalis*-type: Species belonging to the Nightshade family are predominantly insect-pollinated. Ground cherry (*Physalis*) pollen was recovered primarily in the uppermost levels of both pollen profiles. This plant grows wild and its fruits were consumed as food and used as a medicinal remedy by Native Americans and American colonists (Heiser 1969:108-109; Moerman 1998:395-396).

Stratiotes, cf: Identification of this pollen is tentative. It was only recovered in one sample (Context 250, Sample 4b). *Stratiotes* is an aquatic plant.

Thalictrum: Some species of meadow-rue prefer open places and sunny swamps, mountains and woods (Britton and Brown 1897:86-88). Meadow-rue pollen was rare and found only in Context 201 and only in the upper levels of the profile.

Trifolium: White clover (*Trifolium repens*) and red clover (*Trifolium pretense*) can grow in poor soil and today are common in old building lots in the Northeast (Page and Weaver 1974:157, 173). Red clover was commonly grown for fodder as early as the seventeenth century (Britton and Brown 1897:276; Romani 1996:33). Clover pollen was found primarily in the upper layers of both profiles.

Utricularia: Some species of bladderwort prefer moist terrestrial environments while others are aquatic. In the samples, the pollen was fairly rare, being recovered only in Context 201, Samples 5b, 5a and Context 250 Sample 4b.

Vernonia: Ironweed is a medium-sized weedy herb, which grows in old fields and grasslands. In the pollen assemblage, ironweed was very rare; it was only found in one sample.

Vitis: Several types of grapes grow naturally in the northeast and inhabit thickets and along streams (Britton and Brown 1897:408-410). Grape pollen was very rare in the assemblage; it was only found in one sample.

Mosses and Ferns

Several types of mosses and ferns were identified in this examination. A number of them come from ferns that prefer moist environments and grow in swamps and marshes as well as grassy woods and meadows. Moss and fern spores were recovered throughout both pollen profiles. Wood fern (*Dryopteris*) was the most common taxon recovered, and it was more prevalent in Context 250 than Context 201.

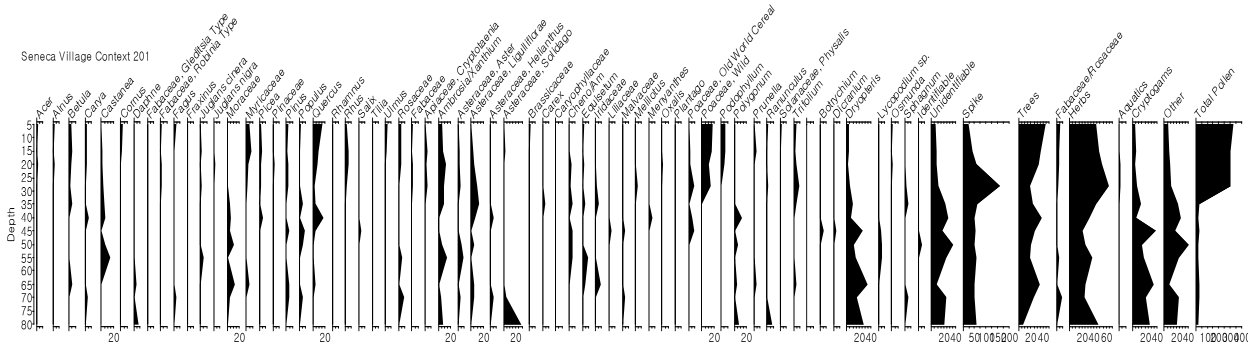
Interpretation

In this section, we detail the environmental and cultural reconstructions of the two profiles (Figures 1 and 3). Where appropriate we discuss vegetation, but the pollen curves are misleading for those samples with poor preservation. Samples and strata are discussed from the top of the profile to the bottom.

Context 201 (Figure 1)

Level 6: There was excellent pollen preservation in this level, so these samples can be used for environmental reconstruction. When compared to strata below, the pollen here reflects the modern ground with increased proportions of oak, dogwood, elms and beech, lower proportions of chestnut weeds of cultivation and domestic cereals. It is within the upper part of this layer that we seen the complete loss of chestnut trees due to the blight. The pollen illustrates the vegetation with its high value and ornamental trees such as beech, dogwood, willow and oak and grasses. There were woodland herbs such as mayapple, gentian, iris family and twinleaf, and many of these prefer moist environments. Weed pollen is present, but the weeds are associated with lawns such as plantain and some Caryophyllaceae. Some pollen perhaps attests to a very wet or aquatic area that supported loosestrife near this context. The pollen of this layer reflects the vegetation of modern Central Park.

Figure 1. Pollen Profile Seneca Village Context 201



Level 5: This level also had excellent pollen preservation. The pollen was from many trees such as chestnut, oaks, and birch. In comparison with the level below, this stratum saw proportions of beech, ash, spruce, elm, and locust increasing. There were also decreasing proportions of weeds associated with agriculture or human disturbance such as ragweed and members of the sunflower family especially the Liguliflorae. There were increases in the proportions of in very small weedy herbs – those associated with walkways and flower beds such as wood sorrel. The herb pollen also reflects a wooded area and in particular a very moist location or wetlands. The vegetation illustrated here possibly relates to the creation of Central Park with its mix of large trees, reduction in weeds associated with agriculture and increased areas of grass.

Level 4: In Level 4 there was a distinct change in the preservation of pollen from the layers above, suggesting a very different depositional history. Pollen densities go from over 5,500 grains/gram in Level 5 to 700 grains/gram in Level 4, and the lower densities are mirrored by lower number of taxa identified. It is possible that these patterns could be from the very rapid deposition of the level, but it is more likely that they stem from destruction of pollen, something that is common in open soil deposits. There is insufficient density for environmental reconstruction, but the pollen does provide some indication of the vegetation in the area. We identified pollen from trees such as chestnut and oak, and we are finding weeds, particularly those with durable exines which very recognizable even when damaged such as the Liguliflorae, which also is typical of a highly deteriorated pollen assemblage. We identified no wild grasses suggesting a highly utilized environment, and one Old World cereal. While cereal pollen is rare unless cereals are being grown or processed, we feel that it is more likely in this urban environment that the pollen reflects the presence of grain-eating livestock such as horses (or their dung) rather than human activities or food.

Level 3: Level 3 is identified on profile drawings as a past surface. Pollen densities in samples from this level are low, well below levels appropriate for environmental reconstruction. The very low densities and very high proportion of unidentifiable grains indicate a very poorly preserved pollen assemblage. Notable taxa recovered include chestnut and mulberry pollen, weeds of disturbance, and ferns. Old World cereal pollen was recovered, and as in the level above, it was probably from horses used for transportation rather than the production or processing of cereals for human consumption (Figure 2).

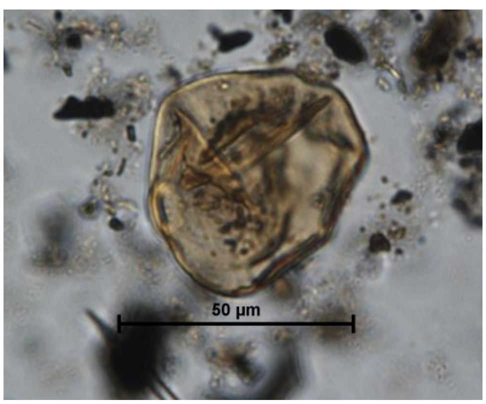


Figure 2. Cereal pollen from Context 301 Level 3.

Level 2: Samples taken from the layer below past surface also had poorly preserved pollen. There were few taxa recovered and the trees identified include oaks and chestnuts, mulberry, and walnut – the most common trees in this profile – and shrubs such as daphne and Myricaceae. Pollen from weeds associated with human disturbance and herbs from wetlands such as horsetails suggest an active, but also wet landscape.

Level 1: Pollen preservation in this level was also poor. In this level we recovered hickory, no oak, and a little Rose family. The lack of oak in the assemblage probably does not reflect changes in vegetation. Rather it is due to the small quantity of pollen recovered. While we recovered few herbs, the majority were sunflower members – weedy plants associated with human activities. These are easily recognized even in deteriorated assemblages, so their presence reflects human activities, but does not necessarily indicate more disturbance than in the layers above. We recovered spores from ferns, indicating that while the landscape was disturbed, shaded or forested areas were nearby.

Context 250 (Figure 3)

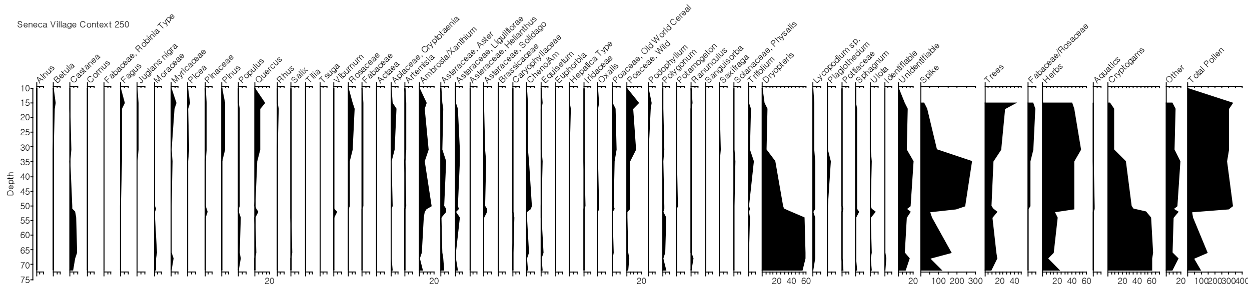
Stratum I (Samples 1a and 1b): Sample 1b, the topmost sample, lacked pollen entirely. Sample 1a had the highest pollen density of any sample analyzed here. There was a high proportion of tree pollen including a good deal of the trees that are common in other samples (oak, pine, and beech), but there were more wetland species such as alder and birch. The wide variety of pollen types is dominated by oak, but there is a high proportion of Myricaceae. These shrubs are heavy pollen producers so the shrubs probably nearby, but they were not necessarily the dominant vegetation type. There were of weeds of cultivation such as ragweed, sunflower family, and cheno/ams, as well as low growing weeds that inhabit yards and flower beds. There were also grass and woodland plants. In contrast to other samples there is little Old World cereal pollen. Tree pollen in Sample 1a included a little chestnut suggesting that this layer was deposited prior to 1940s when most chestnuts had died from the blight.

Stratum II (Samples 2a and 2b): Samples 2a and 2b had well preserved pollen assemblages; this is evident in the high pollen densities as well as the large number of taxa represented. There were low levels of most trees (generally lower than the stratum above), but a wide variety of them: maples, conifers, nut trees, and those inhabiting moist environments. Similarly, the herb spectrum reflects woodland and wetlands, but also weeds associated with human activities. This spectrum looks very similar to Stratum I, Sample 1a, except we recovered a relatively high proportion of Old World cereal in this layer, the highest proportion of any layer examined. There are also a high proportion of grasses and cryptogams (ferns and mosses).

Stratum III (Samples 3a and 3b): Identified as the demolition layer, this stratum had good pollen density. Pollen in Sample 3b was similar to that in the stratum above – with respect to the number and types of trees identified. Sample 3a (the lower of the two) had slightly lower tree taxa richness, but still a broad spectrum of types – conifers, maples, and nut trees. The herb spectrum is similar to the layers above, but lower proportions of grasses and perhaps more weeds (some Asteraceae, especially *Ambrosia* (ragweed)) in Sample 3a, and a sharp increase in the number of cryptogams.

Stratum IV (Samples 4a and 4b): The upper part of the buried surface has good preservation, and lower richness (diversity) of types. The sample (4a) from the lower part of the stratum had a much lower density and lower richness of taxa. The top of the layer was similar to the strata above (I, II, and III) in the density, richness, and types of pollen found. This may be from the percolation of pollen from upper strata into 4b, but this phenomenon is not seen in Context 201. The differences between Samples 4a and 4b are somewhat surprising since this layer is so thin. Sample 4a had small amount of sunflower family pollen; small amount of (widespread) weed pollen (ambrosia; some ferns and mosses; few trees primarily chestnut, oak, and pine - taxa that are nearly ubiquitous and probably represent background vegetation.

Figure 3. Pollen Profile Seneca Village Context 250



Stratum V (Samples 5a and 5b): Sample 5b had low pollen densities and few of the most common, ubiquitous tree taxa (pine and oak). Sample 5a had a bit higher density and greater species richness – nearly enough for environmental reconstruction. In addition to the ubiquitous oak and pine pollen there were small amounts of maple, birch, and mulberry. There were few herbs and grasses, but the ferns were the predominant type of pollen, especially in Sample 5a. Sample 5a had a single cereal pollen grain.

Stratum VI (Samples 6a and 6b): There was poor pollen preservation in this sample. Plants represented included weeds such as ragweed and cheno/ams, but also sunflower family, which are often identifiable even when somewhat deteriorated. Trees represented here are the most ubiquitous types with ferns being among the most common taxa identified.

Top levels of both profiles are consistent in the types of plants and plant communities we would associate with Central Park. The lower layers associated with Seneca Village were, unfortunately, poor in pollen. This may indicate that the surfaces in the Village were open and highly weathered.

The Macrobotanical Analysis

Laboratory Methods

We received nine soil samples varying in size from .5 l to 3.5 l (Table 4). Each sample was floated with the Fiske Center's Dausman Flote Tech A1. The light fractions were then scanned using a dissecting microscope at magnifications ranging from 10x to 40x. Following Toll's (1989) methodology, we quickly scanned most samples to assess their potentials. Both uncharred and charred seeds were noted, but since the seeds did not come from a protective preservation environment, such as a waterlogged deposit, inside a structure, or a privy, we were skeptical that the uncharred seeds were associated with the archaeological deposits. We examined most sample fully. Seeds were identified by comparison with the comparative collection of the University of Massachusetts Boston Paleoethnobotany Laboratory, and seed identification books such as Montgomery's *Seeds and Fruits of Plants of Eastern Canada and Northeastern United States,* Martin and Barkley's *Seed Identification Manual*.

Table 4

Soil Samples from Seneca Village Examined for Macrobotanical Materials

Test Cut	Context	Context Description	Fully Analyzed
TC B	126	Under roasting pan combining B and B west	Yes
TC B	126	Under roasting pan (B and B west)	No
TC D	92	East extension A Horizon, Strat VIIa	Quick Scan
TC M	192	North extension Strat IV A	Quick Scan
TC M	198	North extension under metal roofing sheets	Yes
TC M	204	North extension under metal sheet	Yes
TC P	202	Ground surface N and S walls	Quick Scan
TC R	248	North extension; Strat VIIIA	Yes
TC U	250	SW Quad, N, W, E, S, walls Ground surface	Yes

Results

In our examination of the soil samples, we recovered a number of seeds (Tables 5 and 6). These seeds are primarily from wild "fruits" such as raspberry and weeds; all are relatively small. There were no nutshells, cereals, or domestic fruit pits, such as apples or cherries. The vast majority were uncharred; only 2 (1 *Rumex acetosella* and 1 possible *Galium*) were charred. The interpretation of uncharred seeds at open-air sites presents some difficulties (Miller 1989). In ancient, open sites, paleoethnobotanists typically consider uncharred seeds to be recent intrusives, and they only interpret charred seeds for two reasons. Charred seeds do not decay, but uncharred seeds do decay if they are not in a protective environment such as within a closed structure or waterlogged; and charred seeds provide some evidence (burning) of human activity. Seneca Village did not provide a protective preservational context, but given that the site is relatively recent, some seeds with more durable seed coats may be archaeological. In interpreting the uncharred seeds recovered from the Seneca Village deposits, we first must determine whether the seeds relate to the archaeological deposits or are intrusive, from natural seed rain or the result of animal caches, burrows, or nests.

Some seeds are common weeds of disturbed areas – these include goosefoot, purslane, sorrel, and copperleaf. These have relatively thin seed coats and are considered fragile. Many of these plants are somewhat low growing. In particular, copperleaf, purslane, and sorrel, and their seeds are small can be moved through soil columns by animals and plant roots. These seeds are very common in archaeobotanical samples from historic contexts, especially from intensively used urban yards. While some of these taxa are consumed for food, such as goosefoot and purslane, it is likely that the seeds recovered here represent modern background seed rain from the urban environment and do not relate in a direct way to the Seneca Village deposits or the inhabitants' activities.

Other seeds found at Seneca Village have slightly more durable seed coats – these include raspberry, elderberry and sumac seeds. Fruits of these plants are edible and widely consumed, and could relate to food gathering or food processing activities at Seneca Village. However, these fruits are commonly eaten by birds and small mammals, and they are often present in soils as a consequence of natural seed rain. Some of the seeds (raspberry and pokeweed) recovered from Context 198, between the metal roofing sheets. were animal-chewed (Figure 4), and rodent feces were present in the sample. It is also noteworthy that this sample had the greatest number of taxa. We feel that the seeds recovered from this context and sample are due to more recent rodent or other animal activity rather than reflecting either human activities or the environment surrounding Seneca Village.

The sample from Context 248 (TC R north extension, Strat VIII, Level A) contained what looked like some cooking debris: burnt bone, fish scales, and lots of coal, but there were only two seeds recovered from the sample and neither was charred. The small number of seeds in the potentially promising context suggests to us that the seeds we recovered are also unrelated to the archaeological activities.

Table 5

Seed Taxa Recovered

Scientific Name	Family	Common Name
Eleusine	Poaceae	Grass
Portulaca	Portulaceae	Purslane
Rumex acetosella	Polygonaceae	Sheep sorrel
Acalypha	Euphorbiaceae	Copperleaf
Galium	Rubiaceae	Bedstraw
Trifolium	Fabaceae	Clover
Phytolacca	Phytolaccaceae	Pokeweed
Sambucus	Caprifoliaceae	Elderberry
Rubus	Rosaceae	Raspberry
Rhus	Anacardiaceae	Sumac
Morus	Moraceae	Mulberry

Table 6

Macrobotanical Identifications

Unit	Context	Volume	*Chenopodium*	*Portulaca*	*Rumex acetosella*	*Acalypha*	*Eleusine*	*Galium*	*Trifolium*
TC B	126	0.5	0	0	0	0	0	0	1
TC D	92	2.75	0	0	0	0	0	0	0
TC M	204	3.0	2	0	0	0	0	1*	0
TC M	198	3.5	8	3	1**	4	5	0	0
TC M	192	3.0	0	0	0	0	0	0	0
TC P	202	3.0	0	0	0	0	0	0	0
TC R	248	3.0	0	0	0	0	0	0	0
TC U	250	2.0	1	2	0	0	0	0	0

* Galium is charred; identification is tentative.
** Rumex is charred.

Unit	Context	Volume	*Phytolacca*	*Morus*	*Sambucus*	*Rubus*	*Rhus*	Unidentified
TC B	126	0.5	0	0	0	0	0	0
TC D	92	2.75	0	2	27	0	0	0
TC M	204	3	2	0	0	0	0	2
TC M	198	3.5	5	0	1	7	0	1
TC M	192	3.0	5	0	0	0	0	0
TC P	202	3.0	0	0	1	0	0	2
TC R	248	3	0	0	0	0	1	1
TC U	250	2	0	0	40	4	0	0

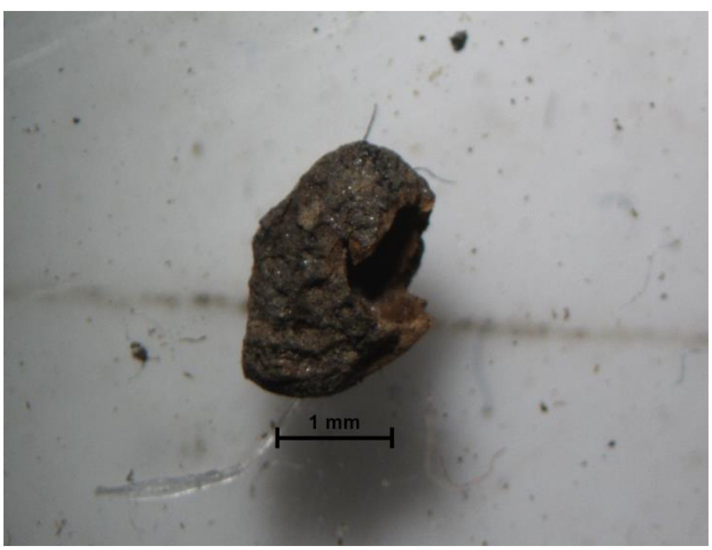


Figure 4. Animal chewed raspberry (*Rubus* sp.) seed from Seneca Village deposits.

Given the poor recovery of seeds in other samples we examined, and the likelihood that the seeds in the samples described above are not archaeological, we felt that a full analysis of the remaining samples would be unproductive. We conclude from our analysis that archaeological seeds did not preserve, and those we have found are not useful for understanding either the environment surrounding the village or the inhabitants' activities.

Conclusions

Both profiles had variable pollen densities. The lower layers had very poor preservation, as shown in their low pollen densities, low taxonomic richness, and high proportion of unidentifiable pollen grains. The sharp change in preservation, occurring in Context 250 at the buried surface layer (Stratum IV) and in Context 201 in Layer 4 indicates a dramatic change in land use. The pollen profiles suggest that these two layers represent the same event and are thus probably contemporaneous. The taxa recovered in the upper layers clearly indicate the creation of Central Park and a managed landscape: the large proportion of arboreal pollen shows the high value trees planted or curated, the greensward is shown in the dramatic increase in grass pollen in levels 5 and 6 of Context 201, but the pollen spectrum also shows woodland and wetland plant communities. Chestnut pollen was recovered into Context 201 Sample 6a and Context 250 Sample 1a dating these layers to no later than 1940, and suggesting the layers above 201, 6b and 250 1b, post-date this time. The pollen provides good temporal indications of major events at the Park.

Unfortunately the pollen had little to say about the activities of the people at Seneca Village. Old World cereals were recovered in good quantities in some samples, but these probably relate to the presence of horses as draft animals rather than the production or processing of cereals for human food. The low pollen densities of the Seneca Village layers probably attest to their slow deposition, heavy use of the landscape, or significant weathering. Pollen densities are too low to provide an indication of the nature of the vegetation during the occupation of the Village.

The macrobotanical analysis was disappointing. While we did recover seeds in the flotation samples, most are from very small seeded, low growing herbs associated with heavily used areas and pathways, probably related to today's Central Park. Few seeds showed the charring typically interpreted as an indication of human activities. Some seeds were animal chewed, and we found animal dung in some samples. We conclude from our analysis that archaeological seeds did not preserve, and those we have found are not useful for understanding either the environment surrounding the village or the inhabitants' activities.

References

Adams, D. W.
2004 *Restoring American Gardens: An Encyclopedia of Heirloom Ornamental Plants, 1640-1940*. Portland Oregon: Timber Press, Inc.

Anderson, R. S. and R. Brunner-Jass
2000 Pollen Analysis of Historic Features at Thomas Jefferson's Poplar forest Estate, Bedford County, Virginia. In *Jefferson's Villa in the Garden: A Report on the Landscape Archaeology Project at Thomas Jefferson's Poplar Forest, 1998-1999*, ed. T. Trussell, Appendix II, pp. 2-15. Ms. On file, Thomas Jefferson's Poplar Forest, Forest, VA.

Behre, K. E.
1981 The Interpretation of Anthropogenic Indicators in Pollen Diagrams. *Pollen et Spores* 23(2):225-245.

Brooks, K. L.
1980 *A Catskill Flora and Economic Botany, III. Apetale, Including the Poplars, Willows, Hickories, Birches, Beech, Oaks, Elms, Nettles, Sorrels, Docks, and Smartweeds*, Bulletin No. 443. Albany, New York: The University of the State of New York.

Britton, N. L. and Hon. A. Brown
1896 *An Illustrated Flora of the Northern United States, Canada and the British Possessions: From Newfoundland to the Parallel of the Southern boundary of Virginia and from the Atlantic Ocean Westward to the 102D Meridian,* Vol. I, Ophioglossaceae to Aizoaceae, Ferns to Carpet-Weed. New York: Charles Scribner's Sons.

1897 *An Illustrated Flora of the Northern United States, Canada and the British Possessions: From Newfoundland to the Parallel of the Southern boundary of Virginia, and from the Atlantic Ocean Westward to the 102D Meridian,* Vol. II, Portulacaceae to Menyanthaceae, Portulaca to Buckbean. New York: Charles Scribner's Sons.

1898 *An Illustrated Flora of the Northern United States, Canada and the British Possessions: From Newfoundland to the Parallel of the Southern boundary of Virginia, and from the Atlantic Ocean Westward to the 102D Meridian,* Vol. III, Apocynaceae to Compositae, Dogbane to Thistle. New York: Charles Scribner's Sons.

Brown, L.
1976 *Weeds in Winter*. New York: W. W. Norton & Company.

Brugam, R. B.
1978 Pollen Indicators of Land-Use in Southern Connecticut. *Quaternary Research* 9:349-362.

Bryant Jr., V. and S. A. Hall
1993 Archaeological Palynology in the United States: A Critique. *American Antiquity* 58(2):277-284.

Burden, E. T., J. H. McAndrews, and G. Norris
1986 Palynology of Indian and European Forest Clearance and Farming in Lake Sediment Cores from Awenda Provincial Park, Ontario. *Canadian Journal of Earth Science* 23:47-54.

Cronon, W.
1983 *Changes in the Land: Indians, Colonists, and the Ecology of New England*. New York: Hill and Wang, A Division of Farrar, Straus & Giroux.

Davis, M. B.
1969 Climatic Changes in Southern Connecticut Recorded by Pollen Deposition at Rogers Lake. *Ecology* 50(3):409-422.

Dincauze, D. F.
2000 *Environmental Archaeology: Principles and Practice*. Cambridge: Cambridge University Press.

Elzinga, W. J.
1988 Short-term Vegetation Changes on an Abandoned Mining Site as Determined by Pollen Analysis. *American Midland Naturalist* 120(2):371-379.

Erdtman, G.
1943 *An Introduction to Pollen Analysis*. New York: The Ronald Press Company.

Eubanks, M.
1997 Reevaluation of the Identification of Ancient Maize Pollen from Alabama. *American Antiquity* 62(1):139-145.

Faegri, K., J. Iversen, P. E. Kaland, and K. Krzywinski
1989 *Textbook of Pollen Analysis*, 4th ed., Caldwell, NJ: The Blackburn Press.

Gleason, H. A. and A. Cronquist
1964 *The Natural Geography of Plants*. New York & London: Columbia University Press.

Grieg, James
1981 The Interpretation of Pollen Spectra from Urban Archaeological Deposits. In *Environmental Archaeology in the Urban Context*, ed. A. R. Hall and H. K. Kenward, Research Report No. 43, London: Council for British Archaeology.

Hall, S.
1981 Deteriorated Pollen Grains and the Interpretation of Quaternary Pollen Diagrams. *Review of Paleobotany and Palynology* 32:193-206.

Harlow, W. M.
1957 *Trees of Eastern and Central United States and Canada*. New York: Dover Publications, Inc.

Heiser Jr., C. B.
1969 *Nightshades: The Paradoxical Plants*, San Francisco: W. H. Freeman and Company.

Hevley, R. H., Kelly, R. E., Anderson, G. A., and S. J. Olsen
1979 Comparative effects of Climate Change, Cultural Impact and Volcanism in the Palaeoecology of Flagstaff, Arizona, A. D. 900-1300. In *Volcanic Activity and Human Ecology* ed. By P. D. Sheets and D. K. Grayson, pp. 487-523. New York: Academic

Jacobucci, S. A.
2007 A Pollen Analysis of Selected Contexts Associated with the African Meeting House. In *Investigating the Heart of a Community: Archaeological Investigations at the African Meeting House, Boston, Massachusetts*, Andrew

Fiske Memorial Center for Archaeological Research Culture Resource Management Study No. 22, ed. David B. Landon, pp. 129-146. University of Massachusetts Boston: Boston, MA.

Jacobucci, S. A., H. B. Trigg, and S. W. Silliman
2007 Vegetation and Culture on the Eastern Pequot Reservation: Interpreting Millennia of Pollen and Charcoal in Southeastern Connecticut. *Northeast Anthropology*, 74:13-39 (Printed in 2010).

Kapp, R. O.
1969 *Pollen and Spores*. Dubuque, Iowa: William C. Brown Company.

Kapp, R. O., O. K. Davis and J. E. King
2000 *Pollen and Spores*, 2nd ed., Illustrated by Richard C. Hall, College Station, TX: The American Association of Stratigraphic Palynologists Foundation.

Kelso, G. K.
1990 Exploratory Pollen Analysis of Historical Matrices at the David Brown Homestead, Chapter 5. In *Archaeological Investigations of Minute Man National Historical Park, Volume I: Farmers and Artisans of the Historical Period*, Cultural Resources Management Study No. 22, ed A. T. Syneki, pp. 85-105. Boston, Ma: National Park Service, Division of Cultural Resources Management North Atlantic Regional Office.

1994 Palynology in Historical Rural-Landscape Studies: Great Meadows, Pennsylvania. *American Antiquity* 59(2):359-372.

1998a Pollen Analysis of the Feature 4 Privy at the Cross Street Back Lot Site, Boston, Massachusetts. *Historical Archaeology* 32(3):49-62.

1998b Pollen Analysis of the Feature 4 Privy at the Cross Street Back Lot Site, Boston, Massachusetts, in Volume III, Appendices E-I, *Archaeological Data Recovery: The Paddy's Alley and Cross Street Back Lot Sites (Bos-HA-12/13) Boston, Massachusetts*, prepared by Lauren J. Cook and Joseph Balicki, October 1998. West Chester, PA: John Milner Associates, Inc.

2000 Pollen Analysis of the Feature 4 Privy at the Cross Street Back Lot Site, Boston, Massachusetts, in Volume III, Appendices E-I, *Archaeological Data Recovery: The Paddy's Alley and Cross Street Back Lot Sites (Bos-HA-12/13) Boston, Massachusetts*, prepared by Lauren J. Cook and Joseph Balicki, October 1998. West Chester, PA: John Milner Associates, Inc.

Kelso, G. K. and M. C. Beaudry
1990 Pollen Analysis and Urban Land Use: The Environs of Scottow's Dock in 17th, 18th, and Early 19th Century Boston. *Historical Archaeology* 29:61-81.

Kelso, G. K., F. R. Dimmick, D. H. Dimmick, and T. B. Largy
2006 An Ethnopalynological Test of Task-specific Area Analysis: Bay View Stable, Cataument, Massachusetts. *Journal of Archaeological Science* 33:953-960.

King, J. E., W. E. Klippel, and R. Duffield

1975 Pollen Preservation and Archaeology in Eastern North America. *American Antiquity* 40(2):180-190.

Kricher, J. C. and G. Morrison
1988 *A Field Guide to Eastern Forests North America*, The Peterson Field Guide Series. Boston: Houghton Mifflin Company.

Leighton, A.
1986 *American Gardens in the Eighteenth Century, "For Use or for Delight."* Amherst: The University of Massachusetts Press.

M'Mahon, B.
1806 *The American Gardener's Calendar; Adapted to the Climates and Seasons of the United States*. Philadelphia: B. Graves.

Marshall, D. M.
2008 *Ethnopalynology: Pollen Analysis in Land and Underwater Archaeology*. Saarbrücken, Germany: VDM Verlag Dr. Müller Aktiengesellschaft & Co. KG.

McAndrews, J. H., A. A. Berti, and G. Norris
1973 *Key to the Quaternary Pollen and Spores of the Great Lakes Region*, Royal Ontario Museum Life Sciences Miscellaneous Publication. Toronto: The Royal Ontario Museum.

McAndrews, J. H. and C. L. Turton
2007 Canada Geese Dispersed Cultigen Pollen Grains from Prehistoric Iroquoian Fields to Crawford Lake, Ontario, Canada. *Palynology* 31:9-18.

Moerman, D. E.
1998 *Native American Ethnobotany*. Portland, Oregon: Timber Press.

Moore, P. D. and J. A. Webb
1978 *An Illustrated Guide to Pollen Analysis*. Halsted Press, a Division of John Wiley & Sons Inc., New York.

Moore, P. D., J. A. Webb, and M. E. Collinson
1991 *Pollen Analysis*, Second Edition. Oxford: Blackwell Scientific Publications

Mrozowski, Stephen A.
1987 Exploring New England's Evolving Urban Landscape. In *Living in Cities: Current Research in Urban Archaeology*, ed. Edward Staski, Special Publication Series, Number 5. Pleasant Hill, CA: Society for Historical Archaeology.

Mrozowski, S. A., E. L. Bell, M. C. Beaudry, D. B. Landon, and G. K. Kelso
1989 Living on the Boot: Health and Well Being in a Boardinghouse Population. *World Archaeology* 21(2):298-319.

Oldfield, F.
1978 Pollen Analysis of Recent Sediments from Two Lakes Near Halifax, Nova Scotia. *Pollen et Spores* 20:1517-1530.

Page, N. M. and R. E. Weaver Jr.

1974 *Wild Plants in the City*. Reprinted from Arnoldia Vol. 34, No. 4. Jamaica Plain, Massachusetts: Arnold Arboretum of Harvard University.

Paillet, F. L.
2002 Chestnut: History and Ecology of a Transformed Species. *Journal of Biogeography* 29:1517-1530.

Pearsall, D. M.
2000 *Paleoethnobotany: A Handbook of Procedures*, 2nd ed. San Diego, CA: Academic Press.

Reinhard, K. J., V. M. Bryant, and S. D. Vinton
2007 Reinterpreting the Pollen Data from Dos Cabezas. International Journal of Osteoarchaeology, published online, www.interscience.wiley.com.

Reinhard, K. J., S. A. Mrozowski, and K. A. Orloski
1986 Privies, Pollen, Parasites and Seeds: A Biological Nexus in Historic Archaeology. *MASCA Journal*, 4(1):31-36.

Romani, Jr., D. A.
1996 "Our English Clover-grass Sowen Thrives Very Well": The Importation of English Grasses and Forages into Seventeenth-Century New England. In *Plants and People*, the Dublin Seminar for New England Folklife Annual Proceedings 1995, ed. Peter Benes, Boston, Boston University.

Sumner, J.
2004 *American Household Botany: A History of Useful Plants, 1620-1900*. Portland, Oregon: Timber Press.

Tilman, D.
1988 *Plant Strategies and the Dynamics and Structure of Plant Communities*. Princeton, NJ: Princeton University Press.

Tindall, J. R., J. A. Gerrath, M. Meizer, K. McKendry, B. C. Husband, and G. J. Boland
2004 Ecological Status of American Chestnut (*Castanea dentata*) in its Native Range in Canada. *Canadian Journal Forest Research* 34:2554-2563.

Toll, Mollie
1989 Flotation Samplings: Problems and Some Solutions, with Examples from the American Southwest. In *Current Paleoethnobotany: Analytical Methods and Cultural Interpretations of Archaeological Plant Remains*, eds. C. Hastorf and V. Popper, pp. University of Chicago Press, Chicago.

Trigg, H. B., D. Landon, E. Newman, and A. Hancock
2003 Archaeobiological Materials Analyses. In *Supplementary Excavations at the Kirk Street Agents' House, Lowell National Historical Park, Lowell, Massachusetts*, ed. William A. Griswold, Occasional Publications in Field Archaeology, Number 2, pp. 27-41. Lowell, MA: National Park Service.

Van der Veen, M.

1984 *Crop Husbandry Regimes: An Archaeobotanical Study of Farming in Northern England, 100 BC – AD 500,* Sheffield Archaeological Monographs 3, Sheffield: J. R. Collis Publications, University of Sheffield, Department of Archaeology and Prehistory.

Wodehouse, R. P.
1965 *Pollen Grains: Their Structure, Identification and Significance in Science and Medicine*, New York and London: Hafner Publishing Company.

Wood, William
1977 *New England's Prospect*, ed. Alden T. Vaughan, reprint 1634. Amherst: University of Massachusetts Press.

Wright, H. A. and A. W. Bailey
1982 *Fire Ecology, United States and Southern Canada*, Wiley Classics in Ecology and Environmental Science. Hoboken, NJ: John Wiley & Sons Inc.

Yahner, R. H.
1995 *Eastern Deciduous Forests: Ecology and Wildlife Conservation*. Minneapolis, MN: University of Minnesota Press.

Websites

http://plants.usda.gov. Accessed: Throughout 2011.

http://striweb.si.edu/roubik/. Accessed June 2011.

http://www.bostonfirehistory.org/historybostonbefore1859.html, Boston Fire Historical Society, Boston History Before 1859. Accessed: August 2011.

http://www.geo.arizona.edu/palynology/pid00002.html, Artemisia, Asteraceae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00006.html, Picea, Pinaceae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00021.html, Acer (Aceraceae). Accessed: August 2011.
http://www.geo.arizona.edu/palynology/pid00024.html, Fagus, Fagaceae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00026.html, Tilia, Tiliaceae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00029.html, Liguliflorae, Compositae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00033.html, Salix. Accessed: August 2011.

http://www.geo.arizona.edu/palynology/pid00043.html, Apiaceae, Umbelliferae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/pid00045.html, Aquifoliaceae. Accessed: June 2011.

http://www.geo.arizona.edu/palynology/polonweb.html, University of Arizona Catalogue of Internet Pollen and Spore Images. Accessed throughout 2011.

http://www.thefreedomtrail.org/visitor/faneuil-hall.html, The Freedom Trail. Accessed: August 2011.

http://www.illinoiswildflowers.info/woodland/plants/honewort.htm, Honewart, *Cryptotaenia Canadensis*, Carrot family (Apiaceae), Accessed: October 2012.

Appendix A
Pollen Counts by Sample

Context 201

Taxa	6B	6A	5B	5A	4B	4A	3B	3A	2B	2A	1B	1A
Acer	3		2	1								
Alnus	4	1	5	2								
Betula	7	11	8	4	1					1		
Carpinus			1									
Carya	4	3	3	2		1					1	
Castanea		2	3	8	1	1		1	3			
Celtis	1		1									
Cornus	7	1										
Daphne										1		1
Fabaceae, *Gleditsia* Type			1									
Fabaceae, *Robinia* Type	1		2	1								
Fagus	12	2		1							1	
Fraxinus	3	3										
Juglandaceae	1			1								
Juglans cinerea		2		3					1			
Juglans nigra	1		3									
Juniperus			2									
Larix				1							1	
Moraceae	3			2	1	1	1	2		3	1	
Myricaceae	15	20	7	3						1		
Nyssa		1	1									
Picea	5	8	4	3		1						
Pinaceae	3	3	6	3								
Pinus	7	1	8	6			1			1	1	
Populus	3	2		2	1		2	1			1	
Ptelea				1						1		
Quercus	49	24	20	4	1	3	1			1		
Rhamnus			1									
Rhus	4	14	15	2								
Salix	2	2	2				1					
Symphoricarpos	1											
Tilia		2										
Tsuga			1									
Ulmus	7	4	1									
Vaccinium			1									
Zanthoxylum				1								

Totals	139	92	83	49	5	7	6	4	4	9	6	1
	6B	6A	5B	5A	4B	4A	3B	3A	2B	2A	1B	1A
Rosaceae	11	10	10	3					1		2	
Fabaceae	5		1	2								
Totals	16	10	11	5				1	1		2	0
Ambrosia/Xanthium	18	21	36	26	2			1	3		1	1
Apiaceae, *Cryptotaenia*	1	7	4	7								
Apiaceae, *Daucus*	1		1									
Artemisia		1		1								
Aster	2	5	8	11				1	2		1	
Liguliflorae		6	14	28	3	1		1		1	1	
Helianthus	1		1	1		1					1	
Solidago		6	1	2							1	4
Brassicaceae	4											
Carex	4	1	4		1							
Caryophyllaceae	1	1	1									
Cheno/Am	2	2	10	7	1		1	1	1			
Equisetum	6		6	1	1				2	1		
Fabaceae-*Lathyrus*	1											
Gentiana		1										
Glandularia Type		1										
Impatiens			1									
Iridaceae	1		1	2	1					2		
Jeffersonia		1										
Lamiaceae	1											
Liliaceae			1				1					
Lysimachia Type		1										
Malvaceae							1				1	
Melilotus		1	1	7								
Menyanthes	1					1						
Oxalis			1									
Panax	3											
Pedicularis			1									
Plantago	1											
Poaceae, OW Cereal	2	8	5	25		1	2					
Poaceae, Wild	54	46	31	40								
Podophyllum	19	16	14									
Polygonum	1	1		2		2		1		1		1
Prunella		8		1						1		
Ranunculus	2			1								1

Sanguisorba			2	1								
	6B	6A	5B	5A	4B	4A	3B	3A	2B	2A	1B	1A
Saxifraga	1	1		1								
Solanaceae, *Physalis*	3		1	1								
Thalictrum	1		2									
Trifolium	11	8	10	24	1					1		
Utricularia			2	2								
Totals	146	157	174	194	10	6	5	5	8	7	6	7
Botrychium							1					
Dicranium	2		1				1					
Dryopteris	8	9	5	12	2	1	6	2	3	9	4	4
Lycopodium sp.		3	2	3			1	1	1			
Osmunda	1		1									
Pottiaceae		3										
Sphagnum		1	1	3	1						1	
Totals	11	16	10	18	3	1	9	3	4	9	5	4
Identifiable		1	1					1				
Unidentifiable	17	24	24	34	5	5	4	7	5	2	6	3
Totals	329	300	303	300	23	19	24	21	22	27	25	15
Spike	21	41	56	161	100	100	100	100	100	100	100	57

Context 250

Taxa	1B	1A	2B	2A	3B	3A	4B	4A	5B	5A	6B	6A
Abies			1		1							
Acer		3		4	2	4	1			1		1
Acer negundo Type				1								
Alnus		2	2	2		1						1
Betula		8	4	2	1					1		
Carpinus												
Carya		4	5	1	1	1	4					
Castanea		1	1	2	1	6	9	2	3	12	3	3
Celtis		1										
Cornus			1									
Corylus						1						
Daphne						1	1					
Fabaceae, *Acacia* Type								1				
Fabaceae, *Gleditsia* Type					2		1					
Fabaceae, *Robinia* Type				1		1						
Fagus		16	3	2	2							
Fraxinus					1							
Juglandaceae					1	1	3					1
Juglans cinera		5	1	2	1							
Juglans nigra		2	2	1								
Juniperus						1						
Larix				1	1	2						
Moraceae		1	1	1			4			4	1	2
Myricaceae		22	14	1	4						1	
Nyssa				1								
Picea		8		3								
Pinaceae		5	4	4	2	3	5	1				
Pinus		13	11	12	6	3						
Populus		1	2	5	3	2	1		1	1	1	
Ptelea		1		1							1	
Quercus		40	19	18	5		2	1		2		
Salix		1			1					1		
Shepherdia			1									
Staphylea							1					
Thuja					1		1					
Tilia			2									
Tsuga		1										
Ulmus			1				1					
Viburnum								1				

	1B	1A	2B	2A	3B	3A	4B	4A	5B	5A	6B	6A
Totals		135	75	65	36	27	34	6	4	22	7	8
Rosaceae		19	24	16	4	4						
Fabaceae		1	2	4	3	2						
Totals		20	26	20	7	6	0	0	0	0	0	0
Actaea							1					
Ambrosia/Xanthium		28	18	36	17	53	26	2	2	3		3
Apiaceae, *Cryptotaenia*		4	22	13	2	5	2					1
Apiaceae, *Daucus*			2	1	1	1						
Artemisia		2	2	3		1						
Asteraceae, *Aster*		2	7	4	17	11	18	2		2	1	3
Asteraceae, Ligulliflorae		2	7	15	16	8	13		2			2
Asteraceae, *Helianthus*		1	1	3								
Asteraceae, *Solidago*			1	3	8	4	11	1				
Brassicaceae		2	1		1	1	2					
Carex		1		1		1						
Caryophyllaceae									1			1
Cheno/Am		4	2	2	8	19	16			3		1
Equisetum		3	2		3		1			4		1
Euphorbia		1	2	2			1					
Hepatica Type			2									
Impatiens							1					
Iridaceae			2	1		4	2					
Jeffersonia												
Juncus				1								
Liliaceae					2		1			1		
Lysimachia Type												
Menyanthes					2		1					
Oxalis		2				1	2					
Plantago		1	1		1							
Poaceae, OW Cereal		1	10	16	6	3	6			1		
Poaceae, Wild		51	25	37	13	15	12			2	1	1
Podophyllum		15	7	1	1	1	1					
Polygonum		1		4	11	8	5		2	4		4
Potamogeton						1						
Proserpinaca				1	1							1
Prunella		1		1								
Ranunculus		3	2								1	
Rhus		3	7	1								
Sanguisorba		2	1							1		
Saxifraga		1		3		1						

Taxa	1B	1A	2B	2A	3B	3A	4B	4A	5B	5A	6B	6A
Scilla												1
Solanaceae, *Physalis*		1		1	4							
Stratiotes ID							3					
Trifolium		3	11	6	21		4		1			1
Utricularia							1					
Veronia					1							
Totals		135	135	156	136	138	130	5	8	21	3	20
Dicranium							2					1
Didymodon			2	2		2		1				
Dryopteris		8	18	17	50	90	86	12	22	82	25	49
Lycopodium sp.		2	2	4	5	6	7		1	3	1	
Osmunda		1			4	2	2					1
Plagiothecium					2							
Pottiaceae			1				4					2
Sphagnum			1	3	2	4	2	1				1
Ulota					2		3	2		2		1
Totals		11	24	26	65	104	106	16	23	87	26	55
Identifiable		1	3	2	1		1				1	
Unidentifiable		25	37	31	55	50	29	5	4	11	6	8
Totals		26	40	32	56	50	30	5	4	11	7	8
Totals	0	327	300	300	300	325	300	32	39	141	43	91
Spike	50	19	33	87	280	244	192	100	100	300	100	250

Observations. Three flotation-recovered samples from Seneca Village.
Justine McKnight. May 16, 2014

Context	126	126	192
Bag	1	2	
Description	under roasting pan	under roasting pan	
Soil Volume (liters)	0.5	0.5	3
bone fragments present		x	?
degraded ferrous metal present	x	x	
root material (unburned) present)	x	x	x
gravel present	x		x
mica present	x		x
land snails present		x	
glass fragments present			x
brick fragments present			x
probable insect fras present			x
coal present	x		x
sclerotia present	x	x	x
insect eggs present		x	
red paint or glaze			x
insect body parts present	x	x	x
WOOD PRESENT	x	x	x
wood charcoal present	x	x	x
MISCELLANEOUS PRESENT			x
unidentifiable structure, possible peduncle fragment (burned) present			x
SEEDS PRESENT	x	x	x
Acalypha sp. (copperleaves) (unburned) present			x
Chenopodium/Amaranthus sp. (goosefoot/pigweed) (unburned) present		x	
Eleusine indica (goose grass) (unburned) present			x
poss. Liriodendron tulipifera (yellow poplar) achene fragment (unburned) present		x	
Phytolacca americana (poke) (unburned) present	x		x
Portulaca oleracea (purselane) (unburned) present			x
Rubus sp. (raspberry/blackberry) (unburned) present	x		
FABACEAE (bean) (unburned) present (possibly immature Trifolium)		x	
unidentifiable seed fragments (unburned) present			x

SUMMARY AND RECONSIDERATION OF BOTANICAL ANALYSES

Meredith Linn, Nan Rothschild, and Diana diZerega Wall

Analyses of Botanical Samples: Pollen and Flotation Samples

As summarized in Chapter 3, we collected soil samples for pollen analysis and macroplant flotation from the buried A Horizon (SC 6A) in TR 3 (TCs P [cx. 201, 202] and U [cx. 250]) as well as samples for macroplant flotation from the buried A Horizon in TC D (cx. 92). Additionally, we sampled several test cuts in All Angels' (TC B [cx. 126- SC 6C], M [cx. 192- SC 6B, 198- SC 6C, 204- SC 6D], and R [cx. 248- SC 6D]), in contexts associated with the occupation and the demolition of the Wilson house.

Most of the samples were examined by Susan A. Jacobucci and Heather B. Trigg of Andrew Fiske Memorial Center for Archaeological Research at U Mass Boston (2012), while a few additional macrobotanical flotation samples from TCs B (cx. 126) and M (cx. 192) were studied by Justine McKnight (2014), Archaeobotanical Consultant. Unfortunately, the analysts discovered that poor preservation caused the samples to yield low potential for revealing new insights about the village residents' activities. The pollen and macroplant remains do, however, support some important interpretations about the general environment of the village, especially when combined with other archaeological findings. The following discussion attempts to distill key findings from both reports, personal correspondence with Trigg and McKnight, and other archaeological discoveries at the site and expands on the brief summary discussion of these remains in Chapter 3.

Information from Analysis of Pollen- TR 3:

Although the preservation of pollen was poor in layers associated with Seneca Village, the pollen remains (and lack thereof) appear to support three interpretations about the village. The first is that the yard area near the Moore/Webster and Philips homes was heavily used. The second is that there was a wet habitat in close proximity to the Moore/Webster and the Philips homes. The third is that the environment in or near the village contained a variety of trees and plants characteristic of a moist woodland that could have provided villagers with important resources. Each will be considered in more detail here.

As mentioned previously, the small size of ceramic and glass fragments found in the lower portion of the buried A Horizon layer in TR 3 appears to indicate that the villagers (and perhaps domesticated animals) regularly trod upon the surface. Jacobucci and Trigg's (2012) assessment that pollen preservation was very poor in samples taken from the buried A Horizon and below in TCs P and U because the "surfaces in the village were open and highly weathered" (2012:22) supports this interpretation.[1] Constant heavy use would prevent growth of plant cover, exposing the surface to weathering. Unfortunately, this use and weathering destroyed much of the botanical evidence that might help us to pinpoint the particular activities in which the villagers were engaged in this area.

Although preservation was poor, Jacobucci and Trigg (2012:19-22) did find a very small amount of pollen in and below the buried A Horizon layer that is consistent with the village's expected background environment as a moist woodland. Pollen from chestnut, mulberry, oak, pine and walnut trees, weeds, like those in the goosefoot family common to human-disturbed areas, and ferns and mosses were present. Pollen can travel quite a distance, so these remains cannot establish with certainty that these particular plants were located within the village itself versus within the general region, but the presence of weed pollen is not inconsistent with the interpretation that the general vicinity was heavily used.

The presence of moss and fern pollen suggests shaded and wet areas nearby. A hundred or so yards to the southwest of TR 3 is a natural spring that was likely an important water source for the village and might have harbored some of these water-loving plants. About the same distance directly to the east was a reservoir that was part of the Croton aqueduct system, which also might have provided a hospitable environment for these moisture-loving plants. In two test cuts (F and W) ranging from a few to a dozen meters away from TCs P and U, the excavation crew unearthed two intact terracotta drainage pipes that had been installed during the construction of the park, suggesting Olmsted had determined this area needed better drainage, otherwise it would be too wet for the lawn he planned there. We also observed that even with the operating drainage pipes, water continued to pool in that general area after a rain. Wet areas like this could have been an important resource to support domesticated animals, for example, which faunal evidence suggests was a possibility, and/or for growing crops/ gardening. Viele's 1856 topographical map **(Fig. 1.2 – Appendix A)** of the area that was to become Central Park shows planted fields in this very location.

Although all of the trees and plants indicated by pollen remains in the samples might not have been in the village proper, they were still likely in close enough proximity to be resources for the villagers. Chestnut, mulberry, oak, pine, and walnut trees could have supplied wood for building houses and furniture as well as fuel. Some of these trees as well as weeds and ferns would have been sources of gatherable foods, such as nuts (chestnuts and walnuts), berries (mulberries), greens and seeds (goosefoot), and fiddleheads (ferns). Many of these plants also had medicinal uses. For example, a plant in the goosefoot family (*Chenopodium ambrosioides*) had long been used by Native Americans and African Americans to treat intestinal worms (Covey 2007:100). Oral histories of formerly enslaved Africans reveal that some used mulberry for "kidney trouble" (Covey 2007: 119).[2] They might have learned this from Native Americans, such as the Cherokee, who made a tea of mulberry leaves to treat dysentery, weakness, and trouble urinating (Hamel and Chiltoskey 1975:45).[3] Moss would have been useful for a number of purposes, particularly soothing burns and chilblains and staunching bleeding (as well as drafts in houses).[4]

An additional palynological finding of interest was the presence of Old World cereal pollen in the upper layer of the buried A Horizon and village demolition and fill layers in TC P, as well as in layers of TC U associated with the late 19th and early 20th century. Jacobucci and Trigg (2012:20) believe this pollen "reflects the presence of grain-eating livestock such as horses (or their dung) rather than human activities." This cereal pollen provides evidence that Seneca Villagers kept livestock. The discovery of a curry comb in the Wilson House assemblage suggests that some of the villagers had horses, in particular, in their care. The cereal pollen in later levels supports historical records indicating horses were used in the park's construction and maintenance (Rosenzweig and Blackmar 1992:166-168).

Information from Analysis of Macroplant Remains- Transect 3 and All Angels'

Information yielded by the macroplant remains was, unfortunately, even more tenuous, but it also suggests the villagers had access to a number of plants that could have provided them with food and medicine.

All of the soil samples from village-associated layers in both TR 3 and All Angels' contained a low number of seeds overall, a noticeable lack of more durable seeds from edible fruits and garden plants (which would be expected at a domestic site), very few charred seeds (charring inhibits decomposition and thus charred seeds are considered more reliable archaeological evidence than uncharred seeds), as well as seeds that are common contaminants (like *Chenopodium* [goosefoot] and *Portulaca* [purslane], seeds that typically do not persist for very long and that easily work their way down into lower layers of soils). These factors suggested to Jacobucci and Trigg (2012), as well as to McKnight, that preservation of macrobotanicals was poor, as might be expected in exposed sites in a Northeastern climate, where uncharred seeds rarely survive in the soil for more than 100 years (Minnis 1981; Trigg pers. comm.; McKnight pers. comm.).

These factors suggest that most of the macrobotanical finds in samples from exposed areas of the site, like the heavily used and weathered buried A Horizon in TR 3, are, unfortunately, not reliable indicators of residents' activities. Jacobucci and Trigg (2012: 25) uncovered 1 goosefoot, 2 purslane, 40 elderberry, and 4 raspberry seeds in the sample from TC U (cx. 250) and 1 elderberry seed in TC P (cx. 202) and 2 mulberry and 22 elder seeds from the sample of the buried A Horizon in TC D, located in close proximity to the Moore/Webster house. Because of the reasons mentioned above, the goosefoot and purslane are likely to be contaminants, but it is Jacobucci and Trigg's (2012:23) opinion that the more durable seeds of edible elderberry and raspberry could relate to food gathering or processing near the Moore/Webster and Philips houses. This is not definitive, however, because these fruits are also commonly eaten by birds and mammals and often appear in soil as a result of natural seed rain. Any of these scenarios would, nevertheless, still confirm the presence of these berries in the region as a potential food source for villagers. Elderberries and raspberries also have medicinal uses, which will be discussed later in this section.

The archaeological context of the soil samples from the All Angels' area differed significantly from the samples from TR 3. All of the All Angels' samples were taken from relatively sheltered contexts within the Wilson house rather than from outdoor exposed contexts. In addition to being located within the ruins of the house, samples from TC B (cx. 126) came from underneath the "roasting pan," which itself was located underneath layers of protective iron roofing. Samples from two contexts in TC M (cx. 198 and cx. 204) were also taken underneath this metal roofing, while one sample was taken from just above the metal (cx. 192). Finally, samples from TC R (cx. 248) came from the lowest layer associated with the Wilson house, a layer we have interpreted as being part of a crawl space and containing objects that fell through the house's floorboards. Within each of these contexts we found fragile artifacts that typically do not survive archaeologically in exposed sites. Artifacts included fish bones, fish scales, a fabric and leather shoe, leather shoe soles, iron tools (including a curry comb) and the iron roasting pan and kettle and a short plank of wood. The presence of these artifacts suggested to us that the metal roofing provided an unusual level of protection and that preservation of botanicals within these contexts might be good as well.

Unfortunately, these samples suffered from the same issues as those taken from TR 3. There was, however, a greater variety of seed types (all represented by between only 1 to 8 seeds), including grass, sheep sorrel, copperleaf, bedstraw, clover, pokeweed, and sumac, in addition to most of the seed types also found in TR 3, goosefoot, purslane, elderberry, and raspberry. No mulberry seeds were present in the All Angels' samples (Jacobucci and Trigg 2012:25- see Table 6).

The very small numbers of seeds in the samples from the "below the floorboards" layer in TC R and under the roasting pan in TC B was particularly disappointing, with only one sumac seed and one unidentifiable seed found in the former and one clover seed in the latter (Jacobucci and Trigg 2012:25). Why so few seeds were in the sample from TC R is not clear, especially since other fragile artifacts and cooking debris (including burnt bone, fish scales, and coal) were found within that context. The samples from TC B might have been disturbed by our backfilling and re-excavation of the test cut to remove the roasting pan, despite our efforts to prevent disturbance. McKnight (2014) analyzed two additional samples from the same TC B context and found it also to contain only a few seeds, but a greater variety, including pokeweed, raspberry, and goosefoot.

The samples from TC M initially appeared to be the most promising, because they contained the greatest number and variety of seeds (especially cx. 198) and two charred seeds, which suggests they were contemporaneous with the village, one possible bedstraw (cx. 204) and one sheep sorrel (cx. 198) (Jacobucci and Trigg 2012:25). Unfortunately, Jacobucci and Trigg (2012:24) also found that some of the seeds in cx. 198 appeared to have been chewed by animals (pokeweed and raspberry). They also found rodent feces in the same sample. They thus interpreted this sample as highly disturbed by animal activity and therefore unreliable evidence of plants used by the Wilson family. Given the presence of a charred seed in this context, lack of evidence of recent rodent disturbance, and that a recently empty or demolished house complete with food refuse would be an attractive abode for rodents, it is reasonable to assume that the rodent disturbance happened soon after the Wilsons had left and/or soon after the house was demolished by the crew building the park. Excavators encountered pockets of space created when workers placed the metal roofing atop stones from the stem wall that they had thrown into the cavity of the house (after the floorboards had been removed), before covering the ruin with fill. These pockets of space shielded many of the fragile items mentioned above (including the fabric and leather shoe and animal bones) and could have been accessed by rodents tunneling into the ruins in search of food. Even if rodents were responsible for bringing in most of the seeds found in this context, rather than nibbling foods left behind by the Wilsons, the seeds would still likely reflect the types of plants found near or within the village.

Thus, if we adopt an optimistic view that the unique contexts of most of the soil samples from All Angels' offered enough protection to allow preservation of some seeds dating to the time of the Wilson house's demolition (or perhaps even the Wilson's occupation of the house), then we can read these seeds as evidence of the kinds of plants available in the vicinity of the house and to the residents of Seneca Village.

In other contexts, these plants are known to have been used for food (e.g., the berries, including elderberry, raspberry; greens, including goosefoot, purslane, sheep sorrel, and pokeweed [with proper preparation, otherwise it is poisonous]), drinks (elderberry wine, sumac "lemonade"), spice (sumac), dye (sumac, pokeweed), a leather tanning agent (sumac), mattress stuffing (bedstraw), animal feed (clover, grass). Most of these plants also had folk medicinal applications, including the following few examples.

Workers's Project Administration (WPA) ex-slave narratives from Louisiana specify that elderberry leaf tea was used for rheumatism, fevers, and to wash sores and the leaves were applied as a poultice for body aches, fever, and headache and tied around a child's neck to decrease teething pain (Wilkie 1996:122; Covey 2007:90). Elderberries were also used in Native American medicine (Covey 2007:90) and English and Irish folk medicine for most of these purposes and more.[5] Pokeweed was used by Native Americans as a poultice for skin diseases, sores, ulcers, and tumors. By the 19th century, it had become a popular folk medicine in Appalachia among both African Americans and Whites for these purposes and as a fever tonic (Covey 2007:106).

Oral histories of formerly enslaved Africans also indicate raspberry leaves were used as a medicine (Covey 2007:74). The source does not specify a particular use or preparation, but teas were reported as the most common preparation of medicinal plants in African American folk medicine (Wilkie 1996:122). Raspberry tea has long been (and still is) used by many cultures to strengthen mothers in pregnancy, aid in childbirth, and treat diarrhea (Allen and Hatfield 2004:141-142).

In conclusion, the pollen and macroplant remains recovered from the soil samples are disappointing in that they are unreliable as evidence of specific activities performed by the Moores, Websters, Philips, or Wilsons. Nevertheless, they do provide some indication of available botanical resources in the area, and they make life in the village a bit more accessible to the imagination. Perhaps Eliza Webster collected elderberries to make a fever tonic for one of her children or to make elderberry wine that she and her husband George offered to guests as they spent a pleasant late summer evening smoking pipes and conversing in the yard. Some of the Wilsons' children were the same age as some of hers. Maybe the Wilson and Webster children gathered red raspberries together, delivering them via stained hands to their mothers, Charlotte and Eliza, to make pies. Maybe Charlotte herself gathered leaves from the same raspberry bushes to aid the birth of her ninth child, Morris, in June of 1856. Not long after, the Wilsons (USBC 1860) and their neighbors would be forced to leave their homes. It is tempting to imagine how Seneca Village's residents might have exploited these resources, but, for now, these are only imaginative speculations.

References Cited:

Allen, David E., and Gabrielle Hatfield. 2004. *Medicinal Plants in Folk Tradition: An Ethnobotany of Britain and Ireland*. Timber Press, Portland, OR.

Carney, Judith Ann and Richard Nicholas Rosomoff. 2009. *In the Shadow of Slavery: Africa's Botanical Legacy in the Atlantic World*. University of California Press, Berkeley, CA.

Covey, Herbert C. 2007. *African American Slave Medicine*. Lexington Books, Lanham, MD.

Jacobucci, Susan A., and Heather B. Trigg. 2012. Pollen and Macrobotanical Analyses of Soils from Seneca Village, New York. *Cultural Resources Management Study 57*. Andrew Fiske Memorial Center for Archaeological Research,University of Massachusetts, Boston, MA.

Hamel, Paul B., and Mary Ulmer Chiltoskey. 1975. *Cherokee Plants and their Uses: A 400 Year History*. Herald Publishing Co., Sylva, NC.

McKnight, Justine. 2014. "Observations. Three flotation- recovered samples from Seneca Village." Report. Institute for the Exploration of Seneca Village History.

Minnis, Paul E. 1981. Seeds in Archaeological Sites: Sources and Some Interpretive Problems. *American Antiquity* 46(1):143-152.

Skinner, Alanson. 1909. “The Lenapé Indians of Staten Island” in *The Indians of Greater New York and the Lower Hudson*, edited by Clark Wissler. American Museum of Natural History, New York, NY.

United States Bureau of the Census (USBC). 1860. *Population Schedules of the Eighth Census of the United States, 1860*. Research Division, New York Public Library, New York, NY.

Verling, Martin, ed. 2003. *Beara Women Talking: Folklore from the Beara Peninsula*. Mercer Press, Douglas Village, Ireland.

Wilkie, Laurie. 1996. Medicinal Teas and Patent Medicines: African-American Women's Consumer Choices and Ethnomedical Traditions at a Louisiana Plantation. *Southeastern Archaeology* 15(2):119-31.

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[1] In contrast, Jacobucci and Trigg (2012) found good pollen preservation in the Central Park-era layers. They contained the kinds of plants present within the park today, including more ornamental trees (“such as beech, dogwood, willow and oak and grasses”) and weeds often associated with lawns (such as plantain) and walkways and flowerbeds (such as wood sorrel) than in the layers associated with the occupation and demolition of the village (Jacobucci and Trigg 2012:18,19,21).

[2] Medicinal practices of enslaved people in the South might not appear to be reliable indicators of the medicinal practices of the free people of African descent who resided in Seneca Village. Nevertheless, many medicines used by enslaved people were also used by free people, Black, White, and Native American (see the next note). Additionally, some of the residents of the village, George Webster, for example, had been born in South where people were still enslaved during the occupation of Seneca Village, and likely brought some Southern traditions with them.

[3] While African Americans certainly could have discovered these uses on their own, there is a long history of the sharing of medicinal knowledge between Native Americans, African Americans, European Americans, and all other groups who have migrated voluntarily or involuntarily to the Americas. Native Americans often provided newcomers with information about many plants native to the Western hemisphere. Judith A. Carney and Richard Nicholas Rosomoff (2009:112) argue that African Americans even became the custodians of Native American heritage, including medicinal knowledge, in areas where Native Americans were wiped out, like some of the Caribbean islands. There are many places on the North American continent, including on the Eastern seaboard, where people of African and Native American heritage lived in close proximity or together and shared knowledge. Several families of Sandy Ground on Staten Island, one of the country's oldest free Black settlements, for example, reported to archaeologist Alanson B. Skinner (1909:37) that they had Native American ancestry, and he observed residents practicing traditional Native American methods of grinding corn.

[4] These are popular Irish uses of moss indicated by Irish folklore sources (such as Verling 2003:69), but they are uses widely known by many groups. Irish neighbors in Seneca Village could have passed along these applications to African American village residents if they were previously unfamiliar with them.

[5] In both England and Ireland, elderberries (which are high in vitamin C) were used for colds, respiratory trouble, boils, cuts, dropsy, erysipelas, eye trouble, gout, jaundice, kidney trouble, rheumatism, ringworm, toothache, and warts. Elder wine was considered a cure-all. In some parts of Ireland only, elderberries were also used to treat epilepsy (Cavan and Cork) and indigestion (Sligo and Carlow) (Allen and Hatfield 2004:271-272).

Appendix G:
Conservation Reports

Appendix G: Conservation Reports

Introduction

There were four separate conservation projects associated with different components of the Seneca Village collection. There were two sets of artifacts associated with the Wilson house in the All Angels' area; they were worked on by two different conservators from the Metropolitan Museum of Art who worked on the project as independent consultants. Jennifer Dennis stabilized the roasting pan and kettle found in TC B **(Report 1: Treatment of Metal Artifacts, Jennifer Dennis 2011)** and Emilia Cortes stabilized the cloth and leather shoe from TC M **(Report 2: Treatment of Shoe, etc., Emilia Cortes, 2018).** They both began their conservation while we were still in the field in 2011 and were especially important in advising us on how to remove the roasting pan and kettle and supervising their removal on site.

The other two conservation projects were conducted by students from the NYU Conservation Center of the Institute of Fine Arts who performed the work at the institute. Linsly Boyer and Julia Sybalsky treated a group of metal objects that we felt were important and needed attention **(Report 3: Treatment of Metal Artifacts, NYU IFA 2011).** Also at the Institute, Brian Castriota and Jessica Walthew worked on a collection of artifacts from All Angels' and Transect 3 to prepare them for being mounted in an exhibition on the project at City College, which took place in 2013 **(Report 4: Treatment of Artifacts in CCNY Exhibit, NYU IFA 2012).** These artifacts were for the most part cleaned and mended.

Report 1: Treatment of Metal Artifacts, Jennifer Dennis 2011

JENNIFER DENNIS OBJECTS CONSERVATION, LLC
677 WEST END AVE. • NYC, NEW YORK 10025 • 718-383-2949 • JELEMEDE@GMAIL.COM

OBJECT TREATMENT REPORT **Acc. #: 28:AA:B:V:C**

Object: Archeological Iron "Tea Kettle and Baking Pan" (stored in container labeled 'E') and additional fragments from unit B (stored in containers labeled 'A'-'D')
Accession #: Cx. No.: 28; **Site:** AA; **Excavation unit:** B; **Stratum:** V; **Level:** C
Medium: Archaeological iron
Dimensions: Baking pan: L: 44 cm X W: 28 cm

Width of handles: 9 cm

Kettle diameter: 23 cm
Provenance: American, 1825-1857
Owner: Seneca Village Project
Conservator: Jennifer Dennis
Date: 6/4/12

WORK PERFORMED

1. Assisted with excavation of unit B, offering suggestions, providing excavation materials, and performing photographic documentation.
2. Provided a general conservation plan for archeological finds.
3. Digital photographs were taken of before, during, and after excavation and treatment stages.
4. X-radiographic analysis was performed to understand the structure and condition of the finds.
5. A written examination report, treatment proposal and treatment report have been provided.
6. Treatment:
    a. Excavated fragments were dried by frequent changes of desiccated silica gel to bring the relative humidity below 15%.
    b. Residual plastic wrap, plaster/gauze and fiberglass/polyurethane casting materials that were used as support materials during excavation for the finds in storage container "E" were reduced. It was necessary to leave a small amount of the plastic wrap and fiberglass/polyurethane casting tape as a support of one section of the delicate iron. All plaster casting materials were removed.
    c. Support materials used during excavation of finds stored in bin 'E' were replaced with clean tissue-covered polyethylene foam, Volara, and cotton twill tape (to aid lifting the finds out of the polystyrene container).
    d. Excavation soils were reduced from finds stored in bin 'E' in order to make the finds easier to view and to decrease stress on the objects from weight.
    e. Several desiccated silica gel packs have been carefully placed in all of the five storage containers in order to keep the relative humidity low.

f. A paper humidity card indicating humidity levels between 10-80% has been placed along the interior side of the five polystyrene containers, visible from the exterior for future monitoring.

g. The polystyrene containers were sealed with a aluminum tape to prevent moisture and any potentially harmful gases from entering.

ANALYSIS

X-radiography

The "teakettle and baking pan" stored in container 'E were x-rayed on September 26th, 2011 by conservators Jennifer Dennis and Melanie Brussat at the Metropolitan Museum of Art in order to learn more about the structural condition and manufacture of the objects.
Due to the size limitation of the scanning sheets, two radiographs were taken from a bird's eye view of the baking pan/side view of the kettle, each radiograph including a little more than half of the objects. The images were then overlaid in Adobe Photoshop for a continuous full image.

Conclusions

The radiograph shows the basic structure of the objects and also that the metal is heavily corroded throughout.

HANDLING AND ENVIRONMENT

The objects should be maintained at a relative humidity below 15% by exchanging the silica gel packs with new thoroughly desiccated packs. The relative humidity indicator cards should monitored frequently in order to know when the silica gel should be exchanged. Also, the objects are extremely friable and fragmentary and should therefore be handled with extreme care and not touched if possible.

EXHIBITION AND MOUNTING

A custom airtight storage/exhibition vitrine with a separate accessible chamber for periodic exchanges of silica gel is recommended. This would enable the objects to be stored and exhibited without disturbance. Also, the silica gel could be exchanged without disturbing the objects or being visible during exhibition.

MATERIALS

CW COLD WEATHER FORMULA VENTURE TAPE- An aluminized tape with acrylic adhesive that resists the passage of vapors together with other atmospheric gases and pollutants
Distributor: Home Depot, 40 West 23rd Street, New York, (212) 929-9571

3M SCOTCHCAST PLUS CASTING TAPE- a knitted fiberglass fabric impregnated with polyurethane resin.
Manufacturer: 3M Corporate Headquarters/3M Center/St. Paul, MN/55144-1000

POLYSTYRENE BOXES
Distributor: The Container Store, 629 6th Avenue, New York (212) 366-4200

SILICA GEL Rhapid pack/catalog #: 41760

Supplier: Art Preservation Services/ www.apsnyc.com/347-612-4584/ 44-45 Vernon Boulevard/Long Island City, NY 11101

HUMIDITY CARD

Supplier: Talas, 330 Morgan Ave., Brooklyn, NY 11211, 212-219-0770

TISSUE PAPER
Supplier: Talas, 330 Morgan Ave., Brooklyn, NY 11211, 212-219-0770
ETHAFOAM
Supplier: Talas, 330 Morgan Ave., Brooklyn, NY 11211, 212-219-0770
VOLARA FOAM
Supplier: Talas, 330 Morgan Ave., Brooklyn, NY 11211, 212-219-0770

Fig. 1 "roasting pan" in situ, partially excavated

Fig. 2 "roasting pan" in situ, with fiberglass/polyurethane wrappings for support and Saran-Wrap barrier layer

Fig. 3 In situ, with fiberglass/polyurethane wrappings for support and Saran-wrap barrier layer, followed by plaster/gauze wrappings

Fig. 4 Transferred to a polystyrene container

Fig. 5 During removal of wrappings

Fig. 6 Wrappings and excess soils removed; new supports added

Fig. 7 Returned to polystyrene container, with wrappings and excess soils removed and new supports, in container

Fig. 8 Returned to polystyrene container, with wrappings and excess soils removed

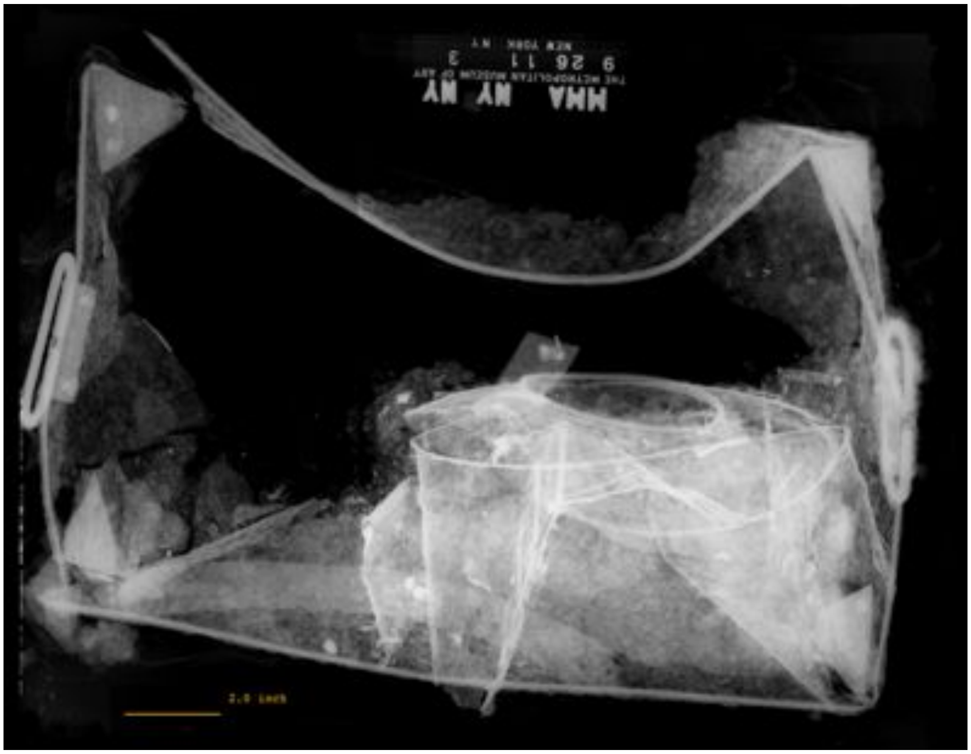

Fig. 9 Radiograph showing the basic structure of the objects and the highly deteriorated state of the metal

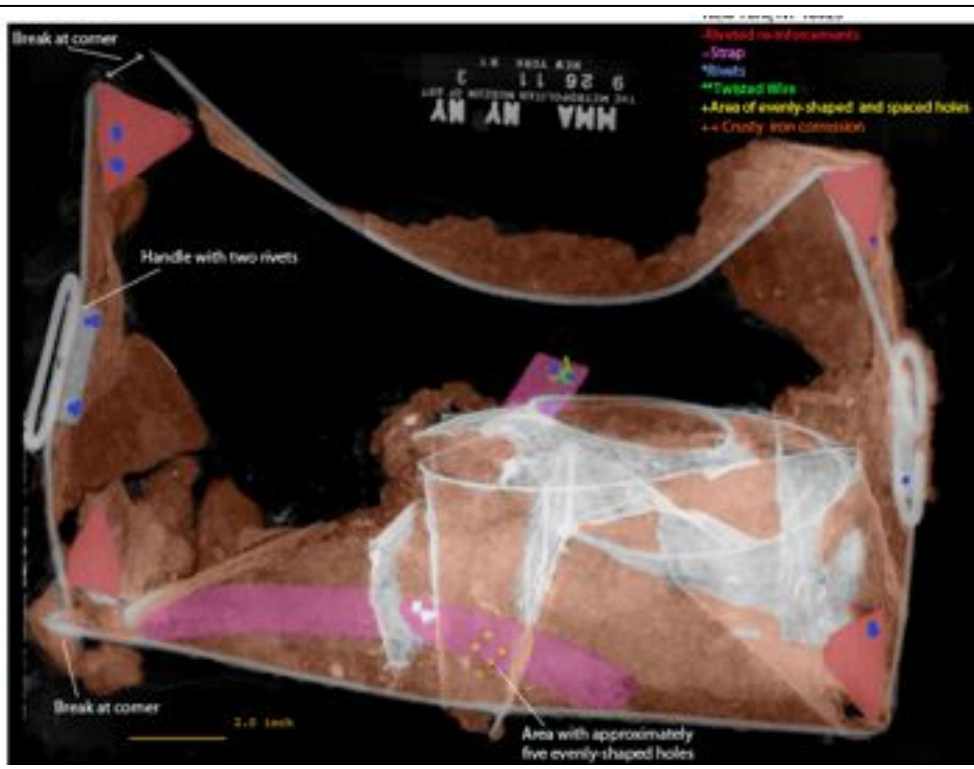

Fig. 10 Radiograph image with colored areas to highlight noted observations

The following is a brief list with photos of the contents of the five polystyrene containers, 'A'-'E', of finds from the Seneca Village Project Summer 2011 excavation in Central Park (Cx. No.: 28; Site: AA; Excavation unit: B; Stratum: V; Level: C):

Bin A contents: 2 fragments. A yellow paper inside bin was placed in the bin on excavation day and reads: "Strap and handle".

Bin B contents:

1) 14 very small fragments individually wrapped in white tissue paper.

2) One long thin fragment.

3) A yellow paper inside bin was placed in the bin on excavation day and reads: “Kettle?”.

Bin C contents: 15 rectangular fragments. A yellow paper inside bin was placed in the bin on excavation day and reads: “Hoop and ban overlying roasting pan” and a separate paper reads ”AA TCB”.

OBJECT TREATMENT REPORT **Acc. #: 28:AA:B:V:C**

Bin D contents: 10 fragments, measuring ~1 x 1 – 2 x 5 inches, are individually wrapped in white tissue paper. A yellow paper inside bin was placed in the bin on excavation day and reads: “Roasting Pan (1)”.

Bin E contents: numerous archeological iron fragments comprising possibly a roasting pan and teakettle.

Report 2: Treatment of Shoe, etc.
Emilia Cortes 2018

**Please note that additional materials related to this report, including high resolution photographs, are on file at the NYC Archaeological Repository.*

New York, April 12 2018

Seneca Village Project, Central Park, New York

Conservation Report of Textile, Metal and Leather Related Objects

Overview

The following objects were given on October 24th 2011 into the care of Emilia Cortes Textile Conservator at The Metropolitan Museum of Art by Julia Sybalsky, conservation student at the Conservation Center, Institute of Fine Arts, New York University.[1]

- 1 - Cx 194 - Iron with Fabric[2] Possibly from Shoe

- 2 - Cx 194 - Shoe and Fabric[2] Upper TCM N. ext.
  Str. Va

- 3 - Cx 194 - Shoe Leather

- 4 - Cx 168 - Leather TCM
  Str. V
  Lula
  4 July 2011
  VL RH
  AD JA

Conservation Process

All original packing from the excavation site where the objects came in for conservation was kept as reference material and will be returned with the objects.

All dirt removed from some of the objects: Cx194 - Shoe Leather fragments and Cx-168 Leather, was packed and kept in individual plastic bags since it may be useful for future analysis and it will be returned with the objects.

All examination and analysis for preservation purposes, before and after cleaning stages were photographed, documented and stored in a digital file created for each object containing:

- Objects packed as they arrived in original packing from the excavation
- Objects as unpacked
- Examination Record and Condition Report

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[1] See attached delivery document signed by Julia Sybalsky and Emilia Cortes dated October 24th 2011.
[2] The word "fabric" is replaced from now on with "textile" for more accurate terminology.

- Before and after cleaning where excavation dirt was removed with air from the objects.
- Objects were studied and analyzed with stereo microscope under different magnifications: 8x to 100x, photomicrography was done, see Microscopy file for each object photomicrographs are in Tiff Format and can be open with Adobe PhotoShop Program.
- Cx-194 Shoe and Textile and Cx -194 Iron with textile; the textile fiber was identified as wool under polarized microscope.

Exhibition and Storage

- Cx-194 Iron and Textile and Cx-194 Shoe and Textile were placed in the same plexi box after examination because it was determined that the textile fragment on the shoe and on the iron probably belongs to the same object.

- For exhibition and storage purposes objects were placed inside plexiglass boxes with ultraviolet protection, specifically designed for each object and following their individual bottom shape, with the purpose of reducing object movement and protecting them long term. The plexi boxes allow objects to be viewed from all angles, reducing all direct manipulation. On top of the plexiglass underneath each object a piece of silicone[3] was placed to avoid the sliding of the objects on the plexi.

- For long term storage acid free blue board boxes were designed for each plexi box. When the objects in the plexi boxes are inside the acid free clue board boxes, they are protected from all light levels.

- When objects are to be moved in between nearby locations, or in or out from the acid free blue board boxes it is very important to use gloves to place objects to avoid making the plexi dirty.

- Plexiglass can be cleaned with any plexi glass cleaner.

- **Do not tilt** the objects at any time. When handling, **objects must be kept horizontal at all times**.

Environmental Recommendations for Storage and Exhibition

- Light Levels: for temporary exhibition no more than 3 months : 45-50 luxes equal to 4-5 foot candles, and 30 luxes equal to 3 foot candles for permanent exhibition.
- Temperature: 70 ^{o}F, lower better than higher.
- Relative Humidity RH% has arrange of + or - 5%, because of the iron oxidation RH% should be kept at 40% RH and not higher than 60% RH.

[3] Silicone was Oddy tested and approved by Scientific Research at MMA for long term use ruling out the possibility of any off-gassing or future deterioration caused by interaction of the silicone with the object.

On Loans

I do not recommend traveling or lending these objects to other institutions due to their fragility. Traveling is difficult and packing is complicated. If a loan is absolutely necessary we can discuss this point after evaluating the trip form The Metropolitan Museum, 100 Fifth Avenue to the Archaeology Repository 114 W 47th street.

Please call me if you have any questions or if you see any changes in the objects.

Emilia Cortes M

Emilia Cortes
Conservator
Textile Conservation
The Metropolitan Museum of Art
1000 Fifth Avenue
New York N.Y. 10028
Tel. 212 396 5138
Cell. 646 3317827
E-mail: emilia.cortes@metmuseum.org

The Metropolitan Museum of Art
Textile Conservation

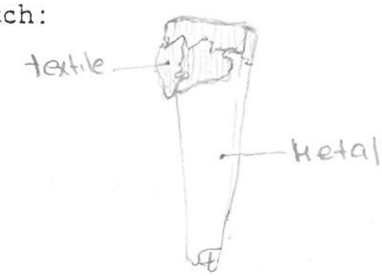
Textile Examination Record

Accession No. Cx 194
Department:
Object: iRon with textile fragment possibly from Shoe Socks
Provenance: Central Park - Seneca Village
Date/Attribution:

Dimensions:

	Height	Width	Thickness
Untreated	6 3/8 "	2 1/2 "	1 "
	17 cm	6.5 cm	2.5 cm
After cons.	"	"	"
	cm	cm	cm
Mount size	"	"	"

Sketch:



Previous Treatment:
No treatment no
Backed no
Patched no
Framed no
Glued no

Condition: fragile for archaeological textile pseudomorph transformation at at initial state caused by metal contac

Fabrication:
Structure knitting

Storage Reccomendations

Surface technique none

Material Information:

	Function	Color	Fiber	Make-up	Count/cm/"	Comment
Warp	Knitting	Light brown	wool	slightly \		wool scales hard to
n/a			probably			see under polarized
						microscope due to fiber
						deterioration
						other characteristics
						match with wool
Weft						
n/A						

Selvages/Headings/Finishes:
no no no

Examination by Emilia Cortes Date 7/28/2015

3/93

The Metropolitan Museum of Art
Textile Conservation

Textile Examination Record

CX 194 ←
TCM
N' ext
StR Va

Accession No. CX 194

Department:

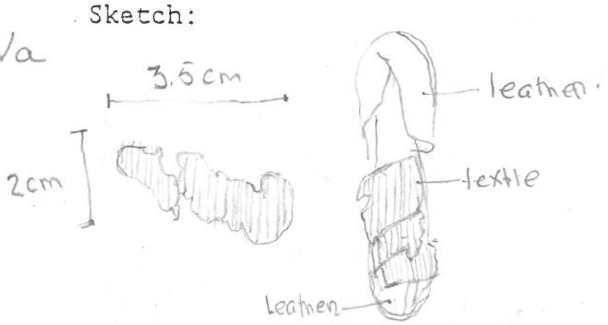
Object: Shoe and Textile Fragment, Possibly socks

Provenance: Central Park - Seneca Village

Date/Attribution:

Dimensions:	Height	Width	Thickness
Untreated	7 1/8 "	3" "	1 3/4 "
	18 cm	7.5 cm	4.5 cm
After cons.	7 1/8 "	3 "	1 3/4 "
	18 cm	7.5 cm	4.5 cm
Mount size	"	"	"

Sketch:



Previous Treatment:
No treatment no
Backed no
Patched no
Framed no
Glued no

Condition: Very Fragile Fragment: textile pseudomorph transformation at initial stages caused by metal contact

Fabrication:
Structure Knitting

Storage Recomendations
RH% 40-45% due to Pseudomorphs

Surface technique no

Material Information:

	Function	Color	Fiber	Make-up	Count/cm/"	Comment
Warp	Knitting	Light brown	wool	Slightly \		wool scales hard to see
n/A			Probably			under polarized
						microscope - due to
						Fiber deterioration
						other characteristics
						match with wool
Weft						
n/A						

Selvages/Headings/Finishes:
no no no

Examination by Emilia Cortes Date 7/28/2015

3/93

The Metropolitan Museum of Art
Textile Conservation

Textile Examination Record

Accession No. CX. 194

Department:

Object: Shoe Leather Fragments heel + small + Metal Fragment

Provenance: Central Park - Seneca Village

Date/Attribution:

Dimensions: all Fragments

	Height	Width	Thickness
Untreated	"	"	"
	cm	cm	cm
After cons.	"	"	"
	17 cm	15.5 cm	3 cm
Mount size	6 3/4 "	6 1/8 "	1 1/4 "

Sketch:

Previous Treatment:
No treatment no
Backed no
Patched no
Framed no
Glued no

Condition: Fragile

Fabrication:
Structure n/A

Storage Recomendations

Surface technique n/A

Material Information:

	Function	Color	Fiber	Make-up	Count/cm/"	Comment
Warp	n/A	brown	n/A	n/A	n/A	Several Fragments
Weft	n/A	brown	n/A	n/A	n/A	n/A

Selvages/Headings/Finishes:
n/A n/A n/A

Examination by Emilia Cortes Date

3/93

The Metropolitan Museum of Art
Textile Conservation

Textile Examination Record

TCM
Ste V
LULA
11 JUL 2011
VL RA
AD JA

Accession No. CX168
Department:
Object: Leather Fragments
Possibly Leather heels?
Provenance: Central Park - Seneca Village
Date/Attribution:

Dimensions:	Height	Width	Thickness
Untreated	2 3/4 "	4 1/2 "	3/4 "
	7 cm	11.5 cm	2 cm
After cons.	2 3/4 "	4 1/2 "	3/4 "
	7 cm	11.5 cm	2 cm
Mount size	"	"	"

Sketch:

Previous Treatment:
No treatment no
Backed no
Patched no
Framed no
Glued no

Condition: very Fragile for arcreological

Fabrication:
Structure n/A

Surface technique n/A

Storage Recomendations.

Material Information:

	Function	Color	Fiber	Make-up	Count/cm/"	Comment
Warp n/A						
Weft n/A						

Selvages/Headings/Finishes:
no no no

Examination by Emilia Cortes Date 7/28/2015

3/93

Report 3: Treatment of Metal Artifacts,
Linsly Boyer and Julia Sybalsky
New York University, The Institute of Fine Arts 2011

New Object | Search

Object ID	OID52
Cat. / Acc. #	L11. 08.39
Title / Name	button
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

circular button pierced by four holes

Additional Identification Information

Cx 248, Box 1

Report ID ORID58

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is slightly dirty and uncoated.

Condition Assessment

The object is in good condition with minor burial accretions and corrosion products present on the surface.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID52
Cat. / Acc. #	L11. 08.39
Title / Name	button
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

circular button pierced by four holes

Additional Identification Information

Cx 248, Box 1

Treatment Record

1. The button was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand).

2. The button was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The button was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The button was allowed to soak in the BTA solution for approximately 48 hours.

4. The button was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The button was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Ethanol
Acetone
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/11/2012

Page 2 of 2

Object ID OID28
Cat. / Acc. # L11.08.30

New Object | Search

Title / Name three-cent coin
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium silver-copper alloy
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

Description
round, thin flat coin

Additional Identification Information
Cx 174, Box 1

Report ID ORID34
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is slightly mineralized and dirty.

Condition Assessment
The object is slightly mineralized, and its surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Object ID	OID28
Cat. / Acc. #	L11.08.30
Title / Name	three-cent coin
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	silver-copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

round, thin flat coin

Additional Identification Information

Cx 174, Box 1

Treatment Record

1. The coin was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The coin was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The coin was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The coin was allowed to soak in the BTA solution for approximately 48 hours.

4. The coin was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The coin was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Ethafoam
Tyvek

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

New Object | Search

Object ID	OID29
Cat. / Acc. #	L11.08.31a
Title / Name	weight
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	lead and iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

roughly contoured lead weight in the form of a short obelisk with a crude loop on top of the apex

Additional Identification Information

Cx 181, Box 1

Report ID ORID35

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

The weight is slightly mineralized and dirty.

Condition Assessment

The surface of the weight is mineralized, and it is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID29
Cat. / Acc. #	L11.08.31a
Title / Name	weight
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	lead and iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

roughly contoured lead weight in the form of a short obelisk with a crude loop on top of the apex

Additional Identification Information

Cx 181, Box 1

Treatment Record

1. The weight was analyzed using XRF. The loop is composed of ferrous metal (iron) and the body of lead.

2. The weight was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a brush and scalpel.

3. The weight was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

4. While still warm, the weight was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The weight was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Paraloid B-48N
Ethanol
Ethafoam
Tyvek

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Page 2 of 2

Object ID	OID30
Cat. / Acc. #	L11.08.31b
Title / Name	hinge fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

flat, thick middle fragment of a hinge, roughly triangular in plan

Additional Identification Information

Cx 181, Box 1

Report ID ORID36
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

The hinge is highly mineralized and dirty.

Condition Assessment

The hinge is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID30
Cat. / Acc. #	L11.08.31b
Title / Name	hinge fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

flat, thick middle fragment of a hinge, roughly triangular in plan

Additional Identification Information

Cx 181, Box 1

Treatment Record

1. The hinge fragment was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The hinge fragment was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the hinge fragment was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The hinge fragment was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Page 2 of 2

Object ID OID43
Cat. / Acc. # L11.08.32a
Title / Name washer
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
small, flat, circular disc with center hole, probably a washer

Additional Identification Information
Cx 207, Box 1

Report ID ORID49
Project ID PID1
Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is mineralized and dirty.

Condition Assessment
The washer is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Object ID	OID43
Cat. / Acc. #	L11.08.32a
Title / Name	washer
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

small, flat, circular disc with center hole, probably a washer

Additional Identification Information

Cx 207, Box 1

Treatment Record

1. The washer was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The washer link was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The washer link was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The washer was allowed to soak in the BTA solution for approximately 48 hours.

4. The washer link was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The washer link was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

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Object ID	OID44
Cat. / Acc. #	L11.08.32b
Title / Name	screw
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

short screw with flat head

Additional Identification Information

Cx 207, Box 1

Report ID ORID50

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is heavily mineralized and dirty.

Condition Assessment

The screw is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID OID44

Cat. / Acc. # L11.08.32b

Title / Name screw

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium iron

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

short screw with flat head

Additional Identification Information

Cx 207, Box 1

Treatment Record

1. The screw was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The screw was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the screw was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The screw was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID OID24
Cat. / Acc. # L11.08.35
Title / Name bands
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

elongated object composed of several metal bands or strips attached to one another at either end, one band with small teeth visible along its edge

Additional Identification Information

Cx 129, Box 1

Report ID ORID30
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

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Object ID	OID24
Cat. / Acc. #	L11.08.35
Title / Name	bands
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

elongated object composed of several metal bands or strips attached to one another at either end, one band with small teeth visible along its edge

Additional Identification Information

Cx 129, Box 1

Treatment Record

1. The object was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The object was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the object was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The object was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/12/2012

Object ID OID47
Cat. / Acc. # L11.08.36

New Object | Search

Title / Name hook
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

Description
small blunt hook made from bent and coiled wire

Additional Identification Information
Cx 240, Box 1

Report ID ORID53
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This hook is slightly mineralized and dirty.

Condition Assessment
The hook is slightly mineralized. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID OID47
Cat. / Acc. # L11.08.36
Title / Name hook
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

small blunt hook made from bent and coiled wire

Additional Identification Information

Cx 240, Box 1

Treatment Record

1. The hook was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The hook was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The hook was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The hook was allowed to soak in the BTA solution for approximately 48 hours.

4. The hook was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The hook was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 11/6/2012

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Object ID OID45
Cat. / Acc. # L11.08.37

New Object | Search

Title / Name tacks
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

Description
pair or short tacks or nails with flat heads

Additional Identification Information
Cx 225, Box 1

Report ID ORID51
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is heavily mineralized and dirty.

Condition Assessment
The tacks are highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Time Log

Total Hours

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID45
Cat. / Acc. #	L11.08.37
Title / Name	tacks
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

pair or short tacks or nails with flat heads

Additional Identification Information

Cx 225, Box 1

Treatment Record

1. The tacks were mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The tacks were rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the tacks were immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The tacks were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID	OID33
Cat. / Acc. #	L11.08.38
Title / Name	chain link
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

single oval wire chain link threaded through two short lengths of bent wire

Additional Identification Information

Cx 192, Box 1

Report ID ORID39
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is moderately mineralized and dirty.

Condition Assessment

The chain link is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID33
Cat. / Acc. #	L11.08.38
Title / Name	chain link
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

single oval wire chain link threaded through two short lengths of bent wire

Additional Identification Information

Cx 192, Box 1

Treatment Record

1. The chain link was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The chain link was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The chain link was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The chain link was allowed to soak in the BTA solution for approximately 48 hours.

4. The chain link was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The chain link was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Ethanol
Acetone
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Object ID	OID46
Cat. / Acc. #	L11.08.40
Title / Name	button
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

button with embossed surface ornament, loop on reverse

Additional Identification Information

Cx 229.6, Box 1

Report ID ORID52
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This button is slightly mineralized with little surface dirt.

Condition Assessment

The button is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

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Object ID OID46

Cat. / Acc. # L11.08.40

Title / Name button

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium copper alloy

Dimensions H: W: D: Dia:

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

button with embossed surface ornament, loop on reverse

Additional Identification Information

Cx 229.6, Box 1

Treatment Record

1. The button was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The button was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The button was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The hook was allowed to soak in the BTA solution for approximately 48 hours.

4. The button was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The button was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

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Object ID OID53
Cat. / Acc. # L11.08.41
Title / Name cylindrical fragment
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
thin-walled, hollow, cylindrical fragment that has collapsed, with two detached fragments

Additional Identification Information
Cx 248, Box 1

Report ID ORID59
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is highly mineralized and dirty.

Condition Assessment
The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID	OID53
Cat. / Acc. #	L11.08.41
Title / Name	cylindrical fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

thin-walled, hollow, cylindrical fragment that has collapsed, with two detached fragments

Additional Identification Information

Cx 248, Box 1

Treatment Record

1. The cylinder was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand).

2. The cylinder was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The bcylinder was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The cylinder was allowed to soak in the BTA solution for approximately 48 hours.

4. The cylinder was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. Detached fragments were reattached with additional concentrated adhesive (30% is acetone).

6. The cylinder was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/12/2012

Object ID	OID54
Cat. / Acc. #	L11.08.42a
Title / Name	spoon fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	lead-tin alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

concave-convex fragment, possibly the bowl of a miniature spoon

Additional Identification Information

Cx 249, Box 1

Report ID ORID60

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is highly mineralized and dirty.

Condition Assessment

The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

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Object ID OID54

Cat. / Acc. # L11.08.42a

New Object | Search

Title / Name	spoon fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	lead-tin alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

concave-convex fragment, possibly the bowl of a miniature spoon

Additional Identification Information

Cx 249, Box 1

Treatment Record

1. The object was analyzed using XRF and found to be composed of an alloy containing lead and tin.

2. The tfragment was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

3. The fragment was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

4. While still warm, the fragment was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The fragment was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

Object ID OID55
Cat. / Acc. # L11.08.42b
Title / Name fragment
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium tin alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
Fragment from the back of a utensil handle.

Additional Identification Information
Cx 249, Box 1

Report ID ORID61
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is slightly mineralized with little surface dirt.

Condition Assessment
The object is slightly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID OID55

Cat. / Acc. # L11.08.42b

Title / Name fragment

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium tin alloy

Dimensions H: W: D: Dia:

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Fragment from the back of a utensil handle.

Additional Identification Information

Cx 249, Box 1

Treatment Record

1. The object was analyzed using XRF and found to be composed of a high-tin alloy. Significant iron was also present in the spectrum, and may reflect the influence of the burial environment rather that a constituent of the alloy.

2. The tfragment was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

3. The fragment was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

4. While still warm, the fragment was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The fragment was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Ethanol
Acetone
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

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Object ID OID17
Cat. / Acc. # L11.08.43

New Object | Search

Title / Name furniture appliqué
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

Description

cut and chased thin sheet of copper alloy in the form of an "{"

Additional Identification Information

Cx 70, Box 1

Report ID ORID23
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The object is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID17
Cat. / Acc. #	L11.08.43
Title / Name	furniture appliqué
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

cut and chased thin sheet of copper alloy in the form of an "{"

Additional Identification Information

Cx 70, Box 1

Treatment Record

1. The applique was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The applique was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The applique was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The applique was allowed to soak in the BTA solution for approximately 48 hours.

4. The applique was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The applique was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

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Object ID OID35
Cat. / Acc. # L11.08.44
Title / Name buckle
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

rectangular iron buckle, with no prong(s)

Additional Identification Information

Cx 198, Box 1

Report ID ORID41
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

The buckle is heavily mineralized and dirty.

Condition Assessment

The buckle is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID35
Cat. / Acc. #	L11.08.44
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

rectangular iron buckle, with no prong(s)

Additional Identification Information

Cx 198, Box 1

Treatment Record

1. The buckle was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The buckle was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the buckle was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The buckle was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID OID22
Cat. / Acc. # L11.08.45
Title / Name spoon fragment
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

fragment of a spoon including the bowl and a portion of the handle

Additional Identification Information

Cx 82, Box 1

Report ID ORID28
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The spoon is highly mineralized and vulnerable to fracture during handling, particularly at the junction between the bowl of the spoon and the neck of the handle. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID OID22
Cat. / Acc. # L11.08.45
Title / Name spoon fragment
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

fragment of a spoon including the bowl and a portion of the handle

Additional Identification Information

Cx 82, Box 1

Treatment Record

1. The spoon fragment was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The spoon fragment was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The spoon fragment was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The spoon was allowed to soak in the BTA solution for approximately 48 hours.

4. The spoon fragment was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The spoon fragment was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator

Conservator

Date 11/6/2012

Object ID	OID19
Cat. / Acc. #	L11.08.46a
Title / Name	tack
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

short tack with convex head

Additional Identification Information

Cx 77, Box 1

Report ID ORID25
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The tack is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID19
Cat. / Acc. #	L11.08.46a
Title / Name	tack
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

short tack with convex head

Additional Identification Information

Cx 77, Box 1

Treatment Record

1. The tack was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The tack was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The tack was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The tack was allowed to soak in the BTA solution for approximately 48 hours.

4. The tack was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The tack was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID	OID20
Cat. / Acc. #	L11.08.46b
Title / Name	suspender clip
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

T-shaped clip with wide open-centered oval at top and round tab below

Additional Identification Information

Cx 77, Box 1
Numbered: 4531 / 77

Report ID ORID26
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

The object is slightly mineralized with a clean surface.

Condition Assessment

This clip appears to have been previously cleaned down to the cuprite layer. It is slightly mineralized and therefore vulnerable to damage in handling. The surface has not been coated, leaving it vulnerable to further deterioration stimulated by moisture and oxygen in the immediate environment. The object is numbered 4531 / 77 on the reverse.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID20
Cat. / Acc. #	L11.08.46b
Title / Name	suspender clip
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

T-shaped clip with wide open-centered oval at top and round tab below

Additional Identification Information

Cx 77, Box 1
Numbered: 4531 / 77

Treatment Record

1. The clip was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

2. The clip was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The clip was allowed to soak in the BTA solution for approximately 48 hours. This treatment step removed the previous numbering noted in the condition assessment above.

3. The clip was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The clip was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Object ID	OID21
Cat. / Acc. #	L11.08.46c
Title / Name	utensil
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	pewter
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

middle fragment from the handle of a utensil or tool

Additional Identification Information

Cx 77, Box 1

Report ID ORID27

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The fragment is slightly mineralized and vulnerable to fracture during handling. The surface is lightly covered in burial accretions and corrosion products. The surface has not been coated, leaving it vulnerable to further deterioration stimulated by moisture and oxygen in the immediate environment. The object is numbered 9531/77.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID21
Cat. / Acc. #	L11.08.46c
Title / Name	utensil
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	pewter
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object   Search

Description

middle fragment from the handle of a utensil or tool

Additional Identification Information

Cx 77, Box 1

Treatment Record

1. The fragment was analyzed using XRF and found to contain significant amounts of tin, copper, and lead (i.e pewter).

2. The fragment was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

3. The utensil was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air. This treatment step removed the previous numbering noted in the condition assessment above.

4. While still warm, the utensil was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The utensil was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Paraloid B-48N
Ethanol
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Object ID	OID18
Cat. / Acc. #	L11.08.47
Title / Name	utensil
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron, bone
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

fork with iron tines and bone handle

Additional Identification Information

Cx 70, Box 1

Report ID ORID24

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is dirty mineralized, and requires treatment and rehousing.

Condition Assessment

Iron portions of the fork are heavily mineralized and vulnerable to fracture during handling. The bone handle is soft and friable, with a crushed area toward the center. The surface is thickly covered in tenacious burial accretions and corrosion products intermingled with chunks of amorphous material, possible slag.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-consolidate bone handle using a stable acrylic resin
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

New Object | Search

Object ID	OID18
Cat. / Acc. #	L11.08.47
Title / Name	utensil
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron, bone
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

fork with iron tines and bone handle

Additional Identification Information

Cx 70, Box 1

Treatment Record

1. The fork was mechanically cleaned to remove burial accretions (soil and sand). Where appropriate, corrosion was reduced on iron portions (tines) using a scalpel. Pieces of the amorphous material found among accretions on the fork were retained. Clumps of additional amorphous material remain adhered to the surface in some areas.

2. The iron portion of the fork was rinsed in ethanol by immersion to remove remaining loose debris and air-dried.

3. The fork was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate the friable bone handle and surface of the iron tines.

4. The fork and detached pieces of amorphous material were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/12/2012

Object ID OID48

Cat. / Acc. # L11.08.48

Title / Name buckle

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium iron

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

rectangular iron buckle, with two prongs

Additional Identification Information

Cx 242, Box 1

Report ID ORID54

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This buckle is highly mineralized and dirty.

Condition Assessment

The buckle is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID48
Cat. / Acc. #	L11.08.48
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

rectangular iron buckle, with two prongs

Additional Identification Information

Cx 242, Box 1

Treatment Record

1. The buckle was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The buckle was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the buckle was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The prongs of the buckle were stabilized against the frame and pivot with additional concentrated adhesive (30% is acetone).

5. The buckle was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID	OID9
Cat. / Acc. #	L11.08.49
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object   Search

Description

curved iron buckle with tongue

Additional Identification Information

Cx 27, Box 1

Report ID ORID15

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is mineralized and dirty.

Condition Assessment

The buckle is covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

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Object ID	OID9
Cat. / Acc. #	L11.08.49
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

curved iron buckle with tongue

Additional Identification Information

Cx 27, Box 1

Treatment Record

1. The buckle was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The buckle was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the buckle was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The prong of the buckle was stabilized against the pivot and the ring with additional concentrated adhesive (30% is acetone).

5. The buckle was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Object ID	OID27
Cat. / Acc. #	L11.08.52
Title / Name	hook
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

small blunt hook made from bent and coiled wire

Additional Identification Information

Cx 164, Box 1

Report ID ORID33
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

The hook is mineralized and dirty.

Condition Assessment

The object is slightly mineralized. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID OID27

Cat. / Acc. # L11.08.52

New Object | Search

Title / Name hook

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium copper alloy

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

small blunt hook made from bent and coiled wire

Additional Identification Information

Cx 164, Box 1

Treatment Record

1. The hook was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The hook was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The hook was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The hook was allowed to soak in the BTA solution for approximately 48 hours.

4. The hook was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The hook was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Ethafoam
Tyvek

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

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Object ID OID50
Cat. / Acc. # L11.08.53a
Title / Name thimble
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
the lower portion of a collapsed thimble with knurling

Additional Identification Information
Cx 246.6, Box 1

Report ID ORID56
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is highly mineralized and dirty.

Condition Assessment
The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Object ID	OID50
Cat. / Acc. #	L11.08.53a
Title / Name	thimble
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

the lower portion of a collapsed thimble with knurling

Additional Identification Information

Cx 246.6, Box 1

Treatment Record

1. The thimble was soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The thimble was desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The thimble was immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The thimble was allowed to soak in the BTA solution for approximately 48 hours.

4. The thimble was rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The thimble was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/11/2012

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Object ID OID51
Cat. / Acc. # L11.08.53b
Title / Name pair of discs
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

two circular discs with toothed circumference, perhaps gears or part of a spool or spindle

Additional Identification Information

Cx 246.6, Box 1

Report ID ORID57
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is highly mineralized and dirty.

Condition Assessment

The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID51
Cat. / Acc. #	L11.08.53b
Title / Name	pair of discs
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

two circular discs with toothed circumference, perhaps gears or part of a spool or spindle

Additional Identification Information

Cx 246.6, Box 1

Treatment Record

1. The discs were soaked in deionized water and gently washed using a soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The discs were desalinated in successive changes of deionized water. During this period, the conductivity of the water measured daily. Desalination was deemed complete when the conductivity was found not to exceed 50 microsiemens following a minimum 24 hour period soaking.

3. The discs were immediately rinsed with ethanol and immersed in a 3% solution of benzotriazole (BTA) in ethanol. The discs were allowed to soak in the BTA solution for approximately 48 hours.

4. The discs were rinsed with ethanol and immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. The discs were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Deionized Water
Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/11/2012

Object ID OID32
Cat. / Acc. # L11.08.54
Title / Name button
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
button with loop on reverse

Additional Identification Information
Cx 190., Box 1

Report ID ORID38
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
The button is mineralized and dirty.

Condition Assessment
The button is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID	OID32
Cat. / Acc. #	L11.08.54
Title / Name	button
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

button with loop on reverse

Additional Identification Information

Cx 190., Box 1

Treatment Record

1. The button was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The button was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the button was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The button was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

Object ID OID15
Cat. / Acc. # L11.08.55
Title / Name button
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium copper alloy
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
hemispherical button composed of a soft wooden core partially wrapped in copper alloy sheet

Additional Identification Information
Cx 52, Box 1

Report ID ORID21
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is mineralized and dirty.

Condition Assessment
The wooden core of the object is soft and friable. An iron pin at its center appears mineralized, imparting red-brown stains to the adjacent wood. The copper alloy sheet is moderately mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-consolidate wood using a stable acrylic resin
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID	OID15
Cat. / Acc. #	L11.08.55
Title / Name	button
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

hemispherical button composed of a soft wooden core partially wrapped in copper alloy sheet

Additional Identification Information

Cx 52, Box 1

Treatment Record

1. The button was brushed with a dry soft brush to remove burial accretions (soil and sand). Further tenacious accretions were mechanically reduced under magnification using a scalpel.

2. The button was treated locally with a 3% solution of benzotriazole (BTA) in ethanol applied by brush.

3. The button was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol, to consolidate the friable wood and coat the surface of the metal.

4. The button was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Object ID OID49
Cat. / Acc. # L11.08.56
Title / Name tube
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

short tapered tube with circular flange toward narrow end, and oval hole in wall of tube toward wide end

Additional Identification Information

Cx 245, Box 1

Report ID ORID55
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is highly mineralized and dirty.

Condition Assessment

The object is highly mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID49
Cat. / Acc. #	L11.08.56
Title / Name	tube
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

short tapered tube with circular flange toward narrow end, and oval hole in wall of tube toward wide end

Additional Identification Information

Cx 245, Box 1

Treatment Record

1. The tube was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The tube was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the tube was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The tube was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Ethanol
Acetone
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

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Object ID OID16
Cat. / Acc. # L11.08.57
Title / Name buckle
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
one and a half rotations of a spiraling coil of wire or rod

Additional Identification Information
Cx 60, Box 1

Report ID ORID22
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is mineralized and dirty.

Condition Assessment
The object is heavily mineralized and the surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

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Object ID	OID16
Cat. / Acc. #	L11.08.57
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

one and a half rotations of a spiraling coil of wire or rod

Additional Identification Information

Cx 60, Box 1

Treatment Record

1. The coil was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The coil was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the coil was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The coil was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Ethanol
Acetone
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012

Object ID OID10
Cat. / Acc. # L11.08.59
Title / Name sheet metal
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

five fragments of sheet metal

Additional Identification Information

Cx 28, Box 2

Report ID ORID16
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is fragmentary, mineralized, and dirty.

Condition Assessment

The sheet metal is covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID10
Cat. / Acc. #	L11.08.59
Title / Name	sheet metal
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

five fragments of sheet metal

Additional Identification Information

Cx 28, Box 2

Treatment Record

1. The metal sheets were mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The metal sheets were rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the metal sheets were immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The metal sheets were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Ethanol
Acetone
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

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Object ID	OID23
Cat. / Acc. #	L11.08.62
Title / Name	two band fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

two fragments (one long, one short) of a thick, wide iron band

Additional Identification Information

Cx 121, Box 2

Report ID ORID29

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is fragmentary, mineralized, and dirty.

Condition Assessment

The object comprises two non-joining fragments that are mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID23
Cat. / Acc. #	L11.08.62
Title / Name	two band fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

two fragments (one long, one short) of a thick, wide iron band

Additional Identification Information

Cx 121, Box 2

Treatment Record

1. The fragments were mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The fragments were rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the fragments were immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The fragments were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Ethanol
Acetone
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/12/2012

Object ID	OID11
Cat. / Acc. #	I11.08.63a
Title / Name	tool
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron, copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

pointed arrow or spade tip with collar

Additional Identification Information

Cx 28, Box 2

Report ID ORID17

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is fragmentary, mineralized, and dirty.

Condition Assessment

The tool is covered in burial accretions and corrosion products. The iron is heavily mineralized, and vulnerable to fracture during handling. The copper alloy is moderately mineralized, with green corrosion products visible on the surface.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-desalinate object if necessary
-treat object with 3% solution of benzotriazole in order to inhibit future corrosion, particularly "bronze disease"
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation using appropriate materials
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID11
Cat. / Acc. #	I11.08.63a
Title / Name	tool
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron, copper alloy
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

pointed arrow or spade tip with collar

Additional Identification Information

Cx 28, Box 2

Treatment Record

1. The tool was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The tool was rinsed in ethanol by immersion to remove remaining loose debris and air-dried.

3. The collar was treated locally with a 3% solution of benzotriazole (BTA) in ethanol applied by brush.

3. The tool was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The tool was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Benzotriazole
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

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Object ID	OID12
Cat. / Acc. #	L11.08.63b
Title / Name	composite fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

a fragment composed of thick parallel bars sandwiched between thin sheets of metal

Additional Identification Information

Cx 28, Box 2

Report ID ORID18

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object isfragmentary, mineralized, and dirty.

Condition Assessment

The fragment is covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling. The bars are comparatively more robust, but the sheet metal is actively crumbling.

Time Log

Total Hours

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID12
Cat. / Acc. #	L11.08.63b
Title / Name	composite fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object   Search

Description

a fragment composed of thick parallel bars sandwiched between thin sheets of metal

Additional Identification Information

Cx 28, Box 2

Treatment Record

1. The fragment was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The fragment was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the fragment was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The fragment was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

Object ID	OID56
Cat. / Acc. #	L11.08.63c
Title / Name	iron fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

two fragments of sheet metal, one bent sheet and one with wire loop or handle

Additional Identification Information

Cx 28, Box 2

Report ID ORID75
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This objects are fragmentary, mineralized, and dirty.

Condition Assessment

The object comprises non-joining sheet metal fragments that are covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 11/12/2012

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Object ID	OID56
Cat. / Acc. #	L11.08.63c
Title / Name	iron fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

two fragments of sheet metal, one bent sheet and one with wire loop or handle

Additional Identification Information

Cx 28, Box 2

Treatment Record

1. The metal sheets were mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The metal sheets were rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the metal sheets were immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The metal sheets were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Conservator Julia Sybalsky

Date 11/12/2012

Conservator Linsly Boyer

Page 2 of 2

Object ID	OID25
Cat. / Acc. #	L11.08.64
Title / Name	band fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

four fragments (of varying length) of a thick, wide iron band; two are curved or bent

Additional Identification Information

Cx 129, Box 2

Report ID ORID31

Project ID PID1

Photography ☐ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is fragmentary, mineralized, and dirty.

Condition Assessment

The object comprises four fragments (two-joining) that are mineralized and vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 8/29/2011

Time Log

Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID25
Cat. / Acc. #	L11.08.64
Title / Name	band fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object   Search

Description

four fragments (of varying length) of a thick, wide iron band; two are curved or bent

Additional Identification Information

Cx 129, Box 2

Treatment Record

1. The fragments were mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The fragments were rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the fragments were immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. Fragments were adhered with additional concentrated adhesive (30% is acetone).

5. The fragments were packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Ethafoam
Tyvek

Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/12/2012

Object ID OID14
Cat. / Acc. # L11.08.65
Title / Name weight or plug
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
Thick round cap with a flat nub on the convex side

Additional Identification Information
Cx 50, Box 2

Report ID ORID20
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is mineralized and dirty.

Condition Assessment
The object is thickly covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling.

Conservator Linsly Boyer
Conservator Julia Sybalsky
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Object ID	OID14
Cat. / Acc. #	L11.08.65
Title / Name	weight or plug
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Thick round cap with a flat nub on the convex side

Additional Identification Information

Cx 50, Box 2

Treatment Record

1. The object was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The object was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the object was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The object was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

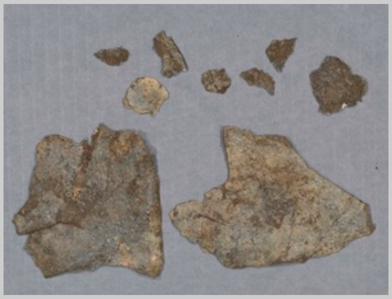
Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 11/6/2012



Object ID	OID31
Cat. / Acc. #	L11.08.67
Title / Name	sheet metal fragments
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	zinc
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

assemblage of eleven irregular thin flat body fragments, two large and nine small

Additional Identification Information

Cx 187, Box 1

Report ID ORID37

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

This object is fragmentary, highly mineralized, and dirty.

Condition Assessment

The object is broken into fragments which are cracked and brittle due to their extensive mineralization. They are very vulnerable to fracture during handling. The surface is covered in burial accretions and corrosion products.

Conservator Linsly Boyer

Conservator Julia Sybalsky

Date 8/29/2011

Time Log

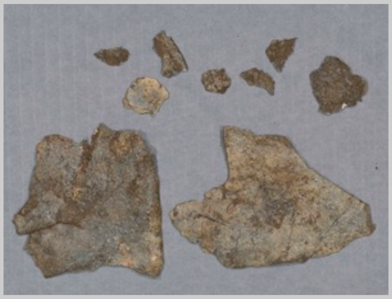
Total Hours

Treatment Proposed

-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director

Treatment Approved 9/2/2011



Object ID	OID31	New Object	Search
Cat. / Acc. #	L11.08.67		
Title / Name	sheet metal fragments		
Artist / Maker	unknown		
Culture / Region	American		
Date	1825-1857		
Material / Medium	zinc		
Dimensions	**H:** **W:** **D:** **Dia:**		
Owner	Seneca Village Project		
Provenance	Excavated in 2011 at Seneca Village in Central		

Description

assemblage of eleven irregular thin flat body fragments, two large and nine small

Additional Identification Information

Cx 187, Box 1

Treatment Record

1. The sheet metal was analyzed using XRF and found to be composed of zinc.

2. The sheet metal was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

3. The sheet metal was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

4. While still warm, the sheet metal was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

5. Where it was possible to do so, the sheet metal fragments were assembled and adhered with additional concentrated adhesive (30% is acetone).

6. The sheet metal was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

Conservator Linsly Boyer

Date 11/12/2012

Conservator Julia Sybalsky

Page 2 of 2

Object ID OID13
Cat. / Acc. # L11.08.xx
Title / Name buckle
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
thick, rectangular sheet with slight curve along the horizontal axis

Additional Identification Information
Cx 32, Box 1

Report ID ORID19
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
This object is mineralized and dirty.

Condition Assessment
The buckle is covered in burial accretions and corrosion products. It is heavily mineralized, and vulnerable to fracture during handling.

Conservator Julia Sybalsky
Conservator Linsly Boyer
Date 8/29/2011

Time Log

Total Hours

Treatment Proposed
-mechanically clean object to remove burial accretions (soil and sand) and reduce corrosion where appropriate
-coat with a stable acrylic resin to limit exposure to environmental influences that would promote corrosion, and to protect the surface of the object during handling
-perform any necessary repairs or loss compensation
-rehouse object in a low-humidity environment using suitable materials

Approver Nan Rothschild, Seneca Village Project Director
Treatment Approved 9/2/2011

Page 1 of 2

Object ID	OID13
Cat. / Acc. #	L11.08.xx
Title / Name	buckle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

thick, rectangular sheet with slight curve along the horizontal axis

Additional Identification Information

Cx 32, Box 1

Treatment Record

1. The buckle was mechanically cleaned to remove burial accretions (soil and sand), and reduce corrosion where appropriate, using a scalpel.

2. The buckle was rinsed in ethanol by immersion to remove remaining loose debris and dried with warm air.

3. While still warm, the buckle was immersed in a 7.5% solution of Paraloid B-48N, a stable acrylic copolymer resin, dissolved in an 80:20 mixture of acetone and ethanol to consolidate and coat the surface.

4. The buckle was packed in a polyethylene zip lock bag punctured to permit air flow and prevent condensation. It was then cavity-packed in Tyvek-lined Ethafoam and rehoused in an air-tight enclosure. Conditioned silica gel was inserted inside the housing (2 bags) in order to reduce relative humidity to a minimum. Humidity inside the housing should be monitored by means of an RH indicator strip, and the bags reconditioned as needed whenever the RH exceeds 30%.

Materials Used

Acetone
Ethanol
Paraloid B-48N
Tyvek
Ethafoam

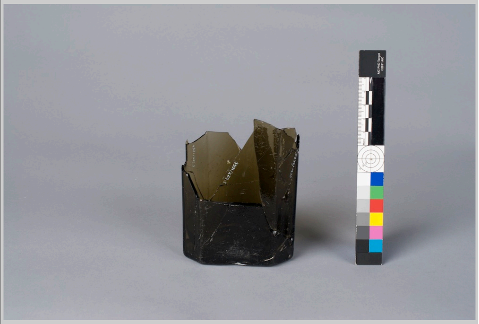
Conservator Julia Sybalsky

Conservator Linsly Boyer

Date 11/6/2012

Page 2 of 2

Report 4: Treatment of Artifacts in CCNY Exhibit,
Brian Castriota and Jessica Walthew
New York University, The Institute of Fine Arts 2012



Object ID	OID57
Cat. / Acc. #	SV GS 504
Title / Name	dark green octagonal bottle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** 11.4 **W:** 8.8 **D:** 6.2 **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Bottom section of a dark green glass bottle, octagonal.

Additional Identification Information

V 504, GV 229.5, CX9/229.5, SV TR3

Report ID ORID69

Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

Broken in twelve joining sherds.

Condition Assessment

In twelve sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Little to no visible weathering on glass surface. Some abbrasion/wear on base related to use.

Conservator Brian Castriota

Conservator

Date 11/11/2012

Time Log

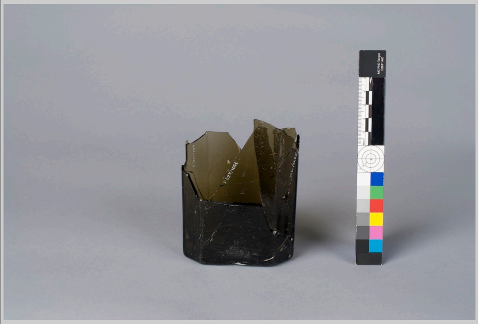
Total Hours 3

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved



Object ID	OID57
Cat. / Acc. #	SV GS 504
Title / Name	dark green octagonal bottle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** 11.4 **W:** 8.8 **D:** 6.2 **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Bottom section of a dark green glass bottle, octagonal.

Additional Identification Information

V 504, GV 229.5, CX9/229.5, SV TR3

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made using Ethafoam and Tyvek.

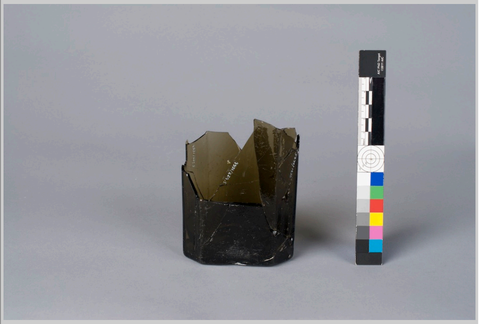
Materials Used

Acetone
Ethanol
Paraloid B-72
Ethafoam
Tyvek

Conservator Brian Castriota

Date 11/11/2012

Conservator



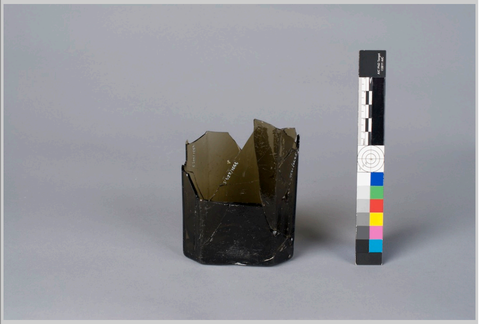
Object ID	OID57
Cat. / Acc. #	SV GS 504
Title / Name	dark green octagonal bottle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** 11.4 **W:** 8.8 **D:** 6.2 **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

Bottom section of a dark green glass bottle, octagonal.

Additional Identification Information

V 504, GV 229.5, CX9/229.5, SV TR3



Object ID	OID57
Cat. / Acc. #	SV GS 504
Title / Name	dark green octagonal bottle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** 11.4 **W:** 8.8 **D:** 6.2 **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Bottom section of a dark green glass bottle, octagonal.

Additional Identification Information

V 504, GV 229.5, CX9/229.5, SV TR3

New Object | Search

Object ID OID58
Cat. / Acc. # SV 514
Title / Name porter bottle
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium glass
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

Description
Blue-green glass bottle in seven joining sherds.

Additional Identification Information
GV 514, CX 57

Report ID ORID70
Project ID PID1

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
In sevenjoining sherds.

Condition Assessment
In seven sherds. Arrived in lab taped together into two sections with pressure sensitive tape. Washed previously, some soil remains on surface. Little to no visible weathering on glass surface. Some abrasion/wear on base related to use.

Conservator Brian Castriota
Conservator
Date

Time Log

Total Hours 3

Treatment Proposed
Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver
Treatment Approved

Object ID OID58

Cat. / Acc. # SV 514

Title / Name porter bottle

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium glass

Dimensions H: W: D: Dia:

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue-green glass bottle in seven joining sherds.

Additional Identification Information

GV 514, CX 57

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made using Ethafoam and Tyvek cloth.

Materials Used

Deionized Water
Ethanol
Acetone
Paraloid B-72
Ethafoam
Tyvek

Conservator Brian Castriota

Date 12/14/12

Conservator

Object ID	OID58
Cat. / Acc. #	SV 514
Title / Name	porter bottle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue-green glass bottle in seven joining sherds.

Additional Identification Information

GV 514, CX 57

Object ID	OID58						
Cat. / Acc. #	SV 514						
Title / Name	porter bottle						
Artist / Maker	unknown						
Culture / Region	American						
Date	1825-1857						
Material / Medium	glass						
Dimensions	**H:**		**W:**		**D:**		**Dia:**
Owner	Seneca Village Project						
Provenance	Excavated in 2011 at Seneca Village in Central						

New Object

Search

Description

Blue-green glass bottle in seven joining sherds.

Additional Identification Information

GV 514, CX 57

Object ID	OID59
Cat. / Acc. #	SV GS 80
Title / Name	Blue transfer-printed teapot
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue transfer-printed teapot in 36 sherds

Additional Identification Information

GS 80

Report ID ORID71

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In 36 joining sherds

Condition Assessment

In 36 joining sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Base and handle missing.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 12

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID	OID59
Cat. / Acc. #	SV GS 80
Title / Name	Blue transfer-printed teapot
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue transfer-printed teapot in 36 sherds

Additional Identification Information

GS 80

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID59
Cat. / Acc. #	SV GS 80
Title / Name	Blue transfer-printed teapot
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue transfer-printed teapot in 36 sherds

Additional Identification Information

GS 80

Object ID	OID59
Cat. / Acc. #	SV GS 80
Title / Name	Blue transfer-printed teapot
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

Blue transfer-printed teapot in 36 sherds

Additional Identification Information

GS 80

Object ID OID60
Cat. / Acc. # SV 24
Title / Name White ironstone handle
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium ceramic
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
White glazed ceramic handle

Additional Identification Information
WH 24

Report ID ORID72
Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
In three pieces

Condition Assessment
In three pieces, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew
Conservator
Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed
Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver
Treatment Approved

Object ID	OID60
Cat. / Acc. #	SV 24
Title / Name	White ironstone handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance Text	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

White glazed ceramic handle

Additional Identification Information

WH 24

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID60
Cat. / Acc. #	SV 24
Title / Name	White ironstone handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

White glazed ceramic handle

Additional Identification Information

WH 24

Object ID	OID60
Cat. / Acc. #	SV 24
Title / Name	White ironstone handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

White glazed ceramic handle

Additional Identification Information

WH 24

Object ID	OID61
Cat. / Acc. #	SV WH 1
Title / Name	Banded yellow ware pitcher
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Banded yellow ware pitcher in five sherds

Additional Identification Information

WH 1

Report ID ORID73

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

Three joining body sherds and two joining handle sherds

Condition Assessment

In five sherds, three joining body sherds, two joining handle sherds; body and handle do not join. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Some iron staining in loss on body.

Conservator Jessica Walthew

Conservator

Date

Time Log

Total Hours 2

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Reduce iron staining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID61

Cat. / Acc. # SV WH 1

New Object | Search

Title / Name Banded yellow ware pitcher

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium ceramic

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

Banded yellow ware pitcher in five sherds

Additional Identification Information

WH 1

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID61
Cat. / Acc. #	SV WH 1
Title / Name	Banded yellow ware pitcher
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Banded yellow ware pitcher in five sherds

Additional Identification Information

WH 1

Object ID	OID61
Cat. / Acc. #	SV WH 1
Title / Name	Banded yellow ware pitcher
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Banded yellow ware pitcher in five sherds

Additional Identification Information

WH 1

Object ID	OID62
Cat. / Acc. #	SV WH 7
Title / Name	1/4 grey stoneware crock with handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

1/4 grey stoneware crock with handle, in four joining sherds.

Additional Identification Information

WH 7

Report ID ORID74

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In four joining sherds.

Condition Assessment

In four sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID	OID62
Cat. / Acc. #	SV WH 7
Title / Name	1/4 grey stoneware crock with handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object   Search

Description

1/4 grey stoneware crock with handle, in four joining sherds.

Additional Identification Information

WH 7

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID62
Cat. / Acc. #	SV WH 7
Title / Name	1/4 grey stoneware crock with handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

1/4 grey stoneware crock with handle, in four joining sherds.

Additional Identification Information

WH 7

Object ID	OID62
Cat. / Acc. #	SV WH 7
Title / Name	1/4 grey stoneware crock with handle
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

1/4 grey stoneware crock with handle, in four joining sherds.

Additional Identification Information

WH 7

Object ID	OID63
Cat. / Acc. #	SV WH 84
Title / Name	Willow white ware plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Willow white ware plate in four joining sherds

Additional Identification Information

WH 84

Report ID ORID75

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In four joining sherds with iron staining.

Condition Assessment

In four sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Moderate iron staining in losses.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 2

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Reduce iron staining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID63

Cat. / Acc. # SV WH 84

New Object | Search

Title / Name Willow white ware plate

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium ceramic

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

Willow white ware plate in four joining sherds

Additional Identification Information

WH 84

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID63
Cat. / Acc. #	SV WH 84
Title / Name	Willow white ware plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Willow white ware plate in four joining sherds

Additional Identification Information

WH 84

Object ID	OID63
Cat. / Acc. #	SV WH 84
Title / Name	Willow white ware plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Willow white ware plate in four joining sherds

Additional Identification Information

WH 84

Object ID OID64
Cat. / Acc. # SV WH 13
Title / Name White ironstone saucer
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium ceramic
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
White ironstone saucer in two joining sherds

Additional Identification Information
WH 13

Report ID ORID76
Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
In two joining sherds with iron staining.

Condition Assessment
In two sherds, joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Light iron staining in loss.

Conservator Jessica Walthew
Conservator
Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed
Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Reduce iron staining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver | **Treatment Approved**

Object ID	OID64
Cat. / Acc. #	SV WH 13
Title / Name	White ironstone saucer
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

White ironstone saucer in two joining sherds

Additional Identification Information

WH 13

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID64
Cat. / Acc. #	SV WH 13
Title / Name	White ironstone saucer
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

White ironstone saucer in two joining sherds

Additional Identification Information

WH 13

Object ID	OID64
Cat. / Acc. #	SV WH 13
Title / Name	White ironstone saucer
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

White ironstone saucer in two joining sherds

Additional Identification Information

WH 13

Object ID	OID65
Cat. / Acc. #	SV WH 31
Title / Name	Brown stoneware beer bottle, "ORMSBY"
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Brown stoneware beer bottle, marked "ORMSBY" in three non-joining pieces.

Additional Identification Information

WH 31

Report ID ORID77

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In three non-joining pieces, covered in soil and iron staining.

Condition Assessment

In three pieces, not joining. Heavy soil and iron oxide accretions remain on surface.

Conservator Brian Castriota

Conservator

Date 12/18/2012

Time Log

Total Hours 2

Treatment Proposed

Soak and mechanically clean surfaces to reduce residual soil and accretions.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID65

Cat. / Acc. # SV WH 31

New Object | Search

Title / Name Brown stoneware beer bottle, "ORMSBY"

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium ceramic

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

Brown stoneware beer bottle, marked "ORMSBY" in three non-joining pieces.

Additional Identification Information

WH 31

Treatment Record

Fragments were soaked in deionized water and soil was redcued with bristle brush. Hard iron oxide accretions on glazed surface were reduced with scalpel. Fragments were air dried and protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Brian Castriota

Date 12/18/2012

Conservator

Object ID	OID65
Cat. / Acc. #	SV WH 31
Title / Name	Brown stoneware beer bottle, "ORMSBY"
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Brown stoneware beer bottle, marked "ORMSBY" in three non-joining pieces.

Additional Identification Information

WH 31

Object ID	OID65
Cat. / Acc. #	SV WH 31
Title / Name	Brown stoneware beer bottle, "ORMSBY"
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Brown stoneware beer bottle, marked "ORMSBY" in three non-joining pieces.

Additional Identification Information

WH 31

Object ID	OID66
Cat. / Acc. #	SV WH 82
Title / Name	Blue on white porcelain hollowware sherd
Artist / Maker	unknown
Culture / Region	Unknown
Date	1825-1857
Material / Medium	Porcelain
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue on white porcelain hollowware fragment, in two joining sherds.

Additional Identification Information

WH 82

Report ID ORID78

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In two joining sherds.

Condition Assessment

In two joining sherds. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID66

Cat. / Acc. # SV WH 82

New Object | Search

Title / Name Blue on white porcelain hollowware sherd

Artist / Maker unknown

Culture / Region Unknown

Date 1825-1857

Material / Medium Porcelain

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

Blue on white porcelain hollowware fragment, in two joining sherds.

Additional Identification Information

WH 82

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID66
Cat. / Acc. #	SV WH 82
Title / Name	Blue on white porcelain hollowware sherd
Artist / Maker	unknown
Culture / Region	Unknown
Date	1825-1857
Material / Medium	Porcelain
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue on white porcelain hollowware fragment, in two joining sherds.

Additional Identification Information

WH 82

Object ID	OID66
Cat. / Acc. #	SV WH 82
Title / Name	Blue on white porcelain hollowware sherd
Artist / Maker	unknown
Culture / Region	Unknown
Date	1825-1857
Material / Medium	Porcelain
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Blue on white porcelain hollowware fragment, in two joining sherds.

Additional Identification Information

WH 82

Object ID	OID67
Cat. / Acc. #	SV WH 501
Title / Name	Light green bottle base
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green bottle base with joining sherd.

Additional Identification Information

WH 501

Report ID ORID79

Project ID

Photography ☐ Before Treatment ☐ During Treatment ☐ After Treatment

Condition Summary

Base fragment wiht joining sherd.

Condition Assessment

Base fragment with joining sherd. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface. Little to no visible weathering on glass surface.

Conservator Brian Castriota

Conservator

Date 12/18/2012

Time Log

Total Hours 2

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID	OID67
Cat. / Acc. #	SV WH 501
Title / Name	Light green bottle base
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green bottle base with joining sherd.

Additional Identification Information

WH 501

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil was reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or using Ethafoam and Tyvek cloth.

Materials Used

Conservator Brian Castriota

Date 12/18/2012

Conservator

Object ID	OID67
Cat. / Acc. #	SV WH 501
Title / Name	Light green bottle base
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green bottle base with joining sherd.

Additional Identification Information

WH 501

Object ID	OID67
Cat. / Acc. #	SV WH 501
Title / Name	Light green bottle base
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

Light green bottle base with joining sherd.

Additional Identification Information

WH 501

Object ID	OID68	New Object	Search
Cat. / Acc. #	SV WH cx		
Title / Name	Iron roofing		
Artist / Maker	unknown		
Culture / Region	American		
Date	1825-1857		
Material / Medium	iron		
Dimensions	H: W: D: Dia:		
Owner	Seneca Village Project		
Provenance	Excavated in 2011 at Seneca Village in Central		

Description

Fragments of iron roofing

Additional Identification Information

WH cx 129

Report ID ORID80

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

Fragmentary and heavily mineralized

Condition Assessment

Iron is fragmentary and heavily mineralized, actively crumbling, in 8 fragments.

Time Log

Total Hours 3

Conservator Brian Castriota

Conservator

Date 12/18/2025

Treatment Proposed

Dessicate and coat with conservation grade acrylic resin to prevent further corrosion and disintegration.

Approver

Treatment Approved

Object ID	OID68
Cat. / Acc. #	SV WH cx
Title / Name	Iron roofing
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Fragments of iron roofing

Additional Identification Information

WH cx 129

Treatment Record

Fragments were dessicated by soaking in ethanol in polyethylene bag for 3 hours, and dried with heat gun. Immersed in solution of 15% Paraloid B -48N in 85:15 acetone:ethanol for one hour. Air dried and rehoused in polyethylene bags.

Materials Used

Conservator Brian Castriota

Date 12/18/2012

Conservator

Object ID	OID68
Cat. / Acc. #	SV WH cx
Title / Name	Iron roofing
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Fragments of iron roofing

Additional Identification Information

WH cx 129

Object ID	OID68
Cat. / Acc. #	SV WH cx
Title / Name	Iron roofing
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Fragments of iron roofing

Additional Identification Information

WH cx 129

Object ID OID69
Cat. / Acc. # SV WH cx
Title / Name Iron nails
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions **H:** **W:** **D:** **Dia:**
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
Fragments of iron nails

Additional Identification Information
Wh cx 181

Report ID ORID81
Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
Fragmentary andmineralized

Condition Assessment
Iron is fragmentary and mineralized. Nine nails/fragments.

Conservator Brian Castriota
Conservator
Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed
Dessicate and coat with conservation grade acrylic resin to prevent further corrosion and disintegration.

Approver
Treatment Approved

Object ID OID69
Cat. / Acc. # SV WH cx
Title / Name Iron nails
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium iron
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
Fragments of iron nails

Additional Identification Information
Wh cx 181

Treatment Record
Fragments were dessicated by soaking in ethanol in polyethylene bag for 3 hours, and dried with heat gun. Immersed in solution of 15% Paraloid B-48N in 85:15 acetone:ethanol for one hour. Air dried and rehoused in polyethylene bags.

Materials Used

Conservator Brian Castriota
Date 12/18/2012
Conservator

Object ID	OID69
Cat. / Acc. #	SV WH cx
Title / Name	Iron nails
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Fragments of iron nails

Additional Identification Information

Wh cx 181

Object ID	OID69
Cat. / Acc. #	SV WH cx
Title / Name	Iron nails
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

Fragments of iron nails

Additional Identification Information

Wh cx 181

Object ID	OID70
Cat. / Acc. #	SV GS 88
Title / Name	White ironstone plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Half of a white ironstone plate in seven sherds

Additional Identification Information

GS 88

Report ID ORID82

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In seven joining sherds

Condition Assessment

In seven sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 2

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver | **Treatment Approved**

Object ID	OID70
Cat. / Acc. #	SV GS 88
Title / Name	White ironstone plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Half of a white ironstone plate in seven sherds

Additional Identification Information

GS 88

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID70
Cat. / Acc. #	SV GS 88
Title / Name	White ironstone plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Half of a white ironstone plate in seven sherds

Additional Identification Information

GS 88

Object ID	OID70
Cat. / Acc. #	SV GS 88
Title / Name	White ironstone plate
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Half of a white ironstone plate in seven sherds

Additional Identification Information

GS 88

Object ID	OID71
Cat. / Acc. #	SV GS 136
Title / Name	Rockingham pitcher/vase rim
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Rockingham pitcher/vase rim with chipped rim

Additional Identification Information

GS 136

Report ID ORID83

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

One fragment, with joining chip

Condition Assessment

One fragment with chip from excavation. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed

Mechanically clean surfaces to reduce residual soil and faciliate joining.Mend using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID71

Cat. / Acc. # SV GS 136

New Object | Search

Title / Name Rockingham pitcher/vase rim

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium ceramic

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

Rockingham pitcher/vase rim with chipped rim

Additional Identification Information

GS 136

Treatment Record

Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Chip was joined to sherd using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.Brian Castriota

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID71
Cat. / Acc. #	SV GS 136
Title / Name	Rockingham pitcher/vase rim
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Rockingham pitcher/vase rim with chipped rim

Additional Identification Information

GS 136

Object ID	OID71
Cat. / Acc. #	SV GS 136
Title / Name	Rockingham pitcher/vase rim
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Rockingham pitcher/vase rim with chipped rim

Additional Identification Information

GS 136

Object ID	OID72
Cat. / Acc. #	SV GS 98
Title / Name	Finger-painted bowl
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

In three joining sherds.

Additional Identification Information

GS 98

Report ID ORID84

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In three joining sherds.

Condition Assessment

In three sherds, all joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID OID72

Cat. / Acc. # SV GS 98

New Object | Search

Title / Name Finger-painted bowl

Artist / Maker unknown

Culture / Region American

Date 1825-1857

Material / Medium ceramic

Dimensions **H:** **W:** **D:** **Dia:**

Owner Seneca Village Project

Provenance Excavated in 2011 at Seneca Village in Central

Description

In three joining sherds.

Additional Identification Information

GS 98

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID72
Cat. / Acc. #	SV GS 98
Title / Name	Finger-painted bowl
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object

Search

Description

In three joining sherds.

Additional Identification Information

GS 98

Object ID	OID72
Cat. / Acc. #	SV GS 98
Title / Name	Finger-painted bowl
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	ceramic
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

In three joining sherds.

Additional Identification Information

GS 98

Object ID	OID73
Cat. / Acc. #	SV GS 512
Title / Name	Pressed glass cup plate(?)
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Pressed glass cup plate(?), in three sherds.

Additional Identification Information

GS 512

Report ID ORID85

Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary

In three sherds, two joining.

Condition Assessment

In three sherds, two joining. Arrived in lab taped together with pressure sensitive tape. Washed previously, some soil remains on surface.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed

Remove tape and mechanically clean surfaces to reduce residual soil and faciliate joining.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID	OID73
Cat. / Acc. #	SV GS 512
Title / Name	Pressed glass cup plate(?)
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	H: W: D: Dia:
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Pressed glass cup plate(?), in three sherds.

Additional Identification Information

GS 512

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Residual soil and iron staining were reduced using a cotton swab moistened with 50:50 ethanol:deionized water. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID73
Cat. / Acc. #	SV GS 512
Title / Name	Pressed glass cup plate(?)
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Pressed glass cup plate(?), in three sherds.

Additional Identification Information

GS 512

Object ID	OID73						
Cat. / Acc. #	SV GS 512						
Title / Name	Pressed glass cup plate(?)						
Artist / Maker	unknown						
Culture / Region	American						
Date	1825-1857						
Material / Medium	glass						
Dimensions	**H:**		**W:**		**D:**		**Dia:**
Owner	Seneca Village Project						
Provenance	Excavated in 2011 at Seneca Village in Central						

New Object | Search

Description

Pressed glass cup plate(?), in three sherds.

Additional Identification Information

GS 512

Object ID OID74
Cat. / Acc. # SV GS 510
Title / Name Light green medicine bottle finish fragment
Artist / Maker unknown
Culture / Region American
Date 1825-1857
Material / Medium glass
Dimensions H: W: D: Dia:
Owner Seneca Village Project
Provenance Excavated in 2011 at Seneca Village in Central

New Object | Search

Description
Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information
GS 510

Report ID ORID86
Project ID

Photography ☒ Before Treatment ☐ During Treatment ☒ After Treatment

Condition Summary
In two joining pieces.

Condition Assessment
In two joining pieces. Arrived in lab taped together with pressure sensitive tape. Washed previously.

Conservator Jessica Walthew
Conservator
Date 12/18/2012

Time Log

Total Hours 1

Treatment Proposed
Remove tape.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver **Treatment Approved**

Object ID	OID74
Cat. / Acc. #	SV GS 510
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 510

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID74
Cat. / Acc. #	SV GS 510
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 510

Object ID	OID74
Cat. / Acc. #	SV GS 510
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 510

Object ID	OID75
Cat. / Acc. #	SV GS 508
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 508

Report ID ORID87

Project ID

Photography ☐ Before Treatment ☐ During Treatment ☐ After Treatment

Condition Summary

In two joining pieces.

Condition Assessment

In two joining pieces. Arrived in lab taped together with pressure sensitive tape. Washed previously.

Conservator Jessica Walthew

Conservator

Date 12/18/2012

Time Log

Total Hours

Treatment Proposed

Remove tape.
Join sherds using stable and reversible adhesive.
Create protective storage housing using conservation-grade materials.

Approver

Treatment Approved

Object ID	OID75
Cat. / Acc. #	SV GS 508
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 508

Treatment Record

Pressure sensitive tape was removed mechanically with a wooden skewer. Minor traces of adhesive residue were reduced with ethanol and cotton swab. Sherds were joined using 50% Paraloid B-72 in 85:15 acetone:ethanol. Excess adhesive removed mechanically and with acetone on a cotton swab. Protective storage housing was made with polyethylene bags and/or Ethafoam and Tyvek cloth.

Materials Used

Conservator Jessica Walthew

Date 12/18/2012

Conservator

Object ID	OID75
Cat. / Acc. #	SV GS 508
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 508

Object ID	OID75
Cat. / Acc. #	SV GS 508
Title / Name	Light green medicine bottle finish fragment
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	glass
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object Search

Description

Light green medicine bottle finish fragment, two joining pieces.

Additional Identification Information

GS 508

Object ID	OID76
Cat. / Acc. #	SV cx 194
Title / Name	Iron sheets
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Iron sheets

Additional Identification Information

cx 194

Report ID ORID88

Project ID

Photography ☐ Before Treatment ☐ During Treatment ☐ After Treatment

Condition Summary

Condition Assessment

Iron is fragmentary and heavily mineralized, actively crumbling.

Conservator Brian Castriota

Conservator

Date 12/18/2012

Time Log

Total Hours 2

Treatment Proposed

Dessicate and coat with conservation grade acrylic resin to prevent further corrosion and disintegration.

Approver

Treatment Approved

Object ID	OID76
Cat. / Acc. #	SV cx 194
Title / Name	Iron sheets
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Iron sheets

Additional Identification Information

cx 194

Treatment Record

Fragments were dessicated by soaking in ethanol in polyethylene bag for 3 hours, and dried with heat gun. Immersed in solution of 15% Paraloid B-48N in 85:15 acetone:ethanol for one hour. Air dried and rehoused in polyethylene bags.

Materials Used

Conservator Brian Castriota

Date 12/18/2012

Conservator

New Object | Search

Object ID	OID76
Cat. / Acc. #	SV cx 194
Title / Name	Iron sheets
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

Description

Iron sheets

Additional Identification Information

cx 194

Object ID	OID76
Cat. / Acc. #	SV cx 194
Title / Name	Iron sheets
Artist / Maker	unknown
Culture / Region	American
Date	1825-1857
Material / Medium	iron
Dimensions	**H:** **W:** **D:** **Dia:**
Owner	Seneca Village Project
Provenance	Excavated in 2011 at Seneca Village in Central

New Object | Search

Description

Iron sheets

Additional Identification Information

cx 194

Appendix H: Databases

Appendix H: Databases

Introduction

Appendix H contains two Excel files (submitted separately): **1. The General Artifact Inventory Database** (which includes information about all fragments collected, including those that were discarded in the field and in the lab) and **2. The Vessel/Object Database** (which contains information about ceramic, curved glass, and "small find" artifacts from the Wilson house [SCs 6B-D] and the buried A Horizon [SC 6A] that were considered singular objects/ vessels and assigned unique artifact numbers).

Also included in this appendix are two keys that provide more information about the databases, the **Key to the Seneca Village (9531) General Artifact Inventory Database** and the **Key to the Seneca Village (9531) Vessel/ Object Database**.

For more information about our methods of processing and cataloguing artifacts, please see Part I of Chapter 2.

Key to the Seneca Village (9531) General Artifact Inventory Database

This is the key to the General Artifact Inventory Database which contains information about all of the artifacts that were retrieved in the course of the 2011 excavations at Seneca Village. These artifacts were originally catalogued in ten separate files: ceramics, curved glass, "small finds," architectural, fauna, flora, pipes, fuel, unidentified objects, and objects that were discarded in the field. The files were then combined into the single database included with the report as presented here.

Column Headings

Location (of select artifact types only) – where the object is located. If it is with the collection, the kind of box it is stored in. If it is not with the collection, where it is (e.g., MCNY [Museum of the City of New York] for the objects currently on display at that museum).

History (some artifact types only) – information about the artifact's history (e.g., E 2013 CC refers to the fact that the artifact was exhibited in the City College exhibit in 2013).

Conserved? – records whether or not the object has been treated by conservators.

SITE – confirming that the artifact comes from the Seneca Village site; NY State allotted this number to the site: 9531.

Context – the number of the archaeological context (specific provenience) in which the object was found (e.g., 1-246).

Area – the area or transect on the site where the object was found

TC/ STP + Str. – the test cut or shovel test pit within the area, and within the test cut, the layer of soil – the stratum - where the artifact was found.

Object type – what the object is (e.g., plate, escutcheon). Unidentified objects are recorded as "unident."

Object subtype (Architectural only) – (e.g., for nail, "cut").

Object function ("Small Finds" and pipes only) – what the object may have been used for (e.g., toy, furniture, etc.).

Material type – the kind(s) of material from which the object is made (e.g., glass, ceramic)

Ware – for ceramics, the kind of ceramic ware from which the object is made (e.g., earthenware, porcelain).

Ware subtype – the kind of ware subtype from which the object is made (e.g. for ware type earthenware, creamware; for ware type porcelain, Chinese export).

Color – self-explanatory (e.g., brown, white, etc.).

Decoration – whether or not decoration was applied to the object, and if so, how it was done (e.g., plain, painted, transfer-printed).

Ves. Part – the part of the object represented by the fragment.

Genus (floral & faunal only) – the genus of the species that the specimen represents.

Species (floral & faunal only) – the species that the specimen represents.

Element/part (floral & faunal only) – part of the individual that the specimen represents.

Date range – the range of dates when the object was made, popular, etc.

Count – how many of that particular object exists.

Weight (some artifact types only) – how much the object weighs (in grams).

Comments – anything else that is relevant concerning the object.

Form part of a vessel/ small finds object – whether an object is an object or is a fragment of an object that is considered to be a "vessel" or "object" and is included in the Vessel/ Object data file. If so, its vessel/object number is listed here.

File – the data file in which the object was originally listed (e.g., ceramics, architectural, fuel, etc.) Note: these individual Excel files were merged into the single artifact inventory database.

Page Number – the page number of the paper worksheet on which the object was first recorded.

Line Number – the line number on the paper worksheet where the object was first recorded.

Missing – records an object that is missing from the collection.

Key to the Seneca Village (9531) Vessel/ Object Database

This is the key to the Master Vessel/ Object Database which contains information about ceramic, curved glass, and "small find" artifacts that were considered singular objects. They come from the select contexts of the Wilson house [SCs 6B, 6C, and 6D] and the buried A Horizon [SC 6A]. Each was assigned a unique artifact number and is a unique line entry in this database.

Column Headings

Location – where the object is located. If it is with the collection, the kind of box it is stored in. If it is not with the collection, where it is (e.g., MCNY [Museum of the City of New York] for the objects currently on display at that museum).

History – information about the artifact's history (e.g., E 2013 CC refers to the fact that the artifact was exhibited in the City College exhibit in 2013).

Conserved – records whether or not the object has been treated by conservators.

Site – confirming that the artifact comes from the Seneca Village site; NY State allotted this number to the site: 9531.

Vessel/Object # – the unique number assigned to that artifact and includes all of the sherds/pieces/ fragments that make up the artifact. There are three different sets of numbers, one for ceramic vessels (CV 1-), one for glass vessels (GV 500-), and one for all other artifacts, "small finds" (S 1-).

Area/Test Cut/Stratum/Level – where on the site the object was found: the area or transect, the test cut within the area, and within the test cut, the layer of soil – the stratum and level - where the artifact was found.

Activity – kind of activity in which the artifact might have been used (e.g., serving food, consumption)

Vessel/Object Form – what the object is (e.g., bottle, bowl, curry comb). Unidentified objects are recorded as "unident."

Material Type - the material from which the object is made (e.g., glass, ceramic)

Ware Type – for ceramics, the kind of ceramic ware that the object is made from (e.g., earthenware, porcelain).

Color – self-explanatory (e.g., brown, white, etc.).

Manufacturing Technique – for glass and "small finds" only – how the object was made.

Decoration Technique – whether or not decoration was applied to the object, and if so, how it was done (e.g., plain, painted, transfer-printed).

Interior Pattern – the pattern of decoration on the inside of object such as a ceramic bowl; applies particularly to ceramics (e.g., willow pattern on plate).

Exterior Pattern – the pattern of decoration on the outside of an object such as a teacup; applies particularly to ceramics (e.g., flowers on a teacup).

Pattern (for small finds only) – the pattern of decoration on, e.g., a tobacco pipe (e.g., rouletting).

Mark – mark on the artifact which might denote its manufacturer or decorator (e.g., Wedgwood).

Beginning Date - the earliest known date of manufacture for that particular kind of object (e.g., 1762, for creamware, a kind of ceramic).

End Date – when that particular kind of object was no longer made

Date Rationale – data or reasoning on which the date is based (e.g., the date stamped on a coin).

Date Reference – the authority on which the date(s) is(are) based (Note that we relied most upon the Maryland Archaeological Conservation Laboratory's website "Diagnostic Artifacts in Maryland" http://www.jefpat.org/diagnostic/index.htm).

Vessel/Object Size – the dimensions (diameter of rim, base, height, etc.) in centimeters (e.g., 23 cm rim diameter, 13 cm base diameter). In the case of diameters, this size refers to the estimated size of the complete object, based on the object fragment present. Width, length and height measurements refer to the fragment present, not the complete object.

% of Complete Vessel/Object present – what percentage of the whole object is present in the object excavated (e.g., 50%; 75 %, etc.).

Matches – other artifacts that this particular artifact matches, if it is part of a set (e.g., two plates in the willowware pattern might be said to "match").

Photos #s – the log numbers of the photos of this particular object (e.g., SV CV 21.1-3, for Seneca Village site, ceramic vessel 21, photos 1-3).

Context #s – the number of the archaeological context (specific provenience) in which the object was found (e.g., 1-246). If more than one number is listed, it means that different pieces of the object came from different layers of soil.

Comments – anything that the artifact analyst thought was important that is not included in the above (e.g., a note about the artifact's exhibit potential or condition).

Appendix I:
1855 New York State Census

This section contains a summary table of the families we believe were living in Seneca village in 1855, based on a comparison of the 1855 New York State Census, tax records, and the Sage map of 1856. Surnames are listed in the table as they appear in the 1855 census, followed by alternate spellings found in other documents in parentheses. The table is followed by the relevant pages from the 1855 New York State Census. Please note that some of the families listed on the census pages do not appear to have lived in the village. Their inclusion in between the villagers likely reflects the visitation route of the census taker both inside and outside of the village.

FAMILIES LIVING IN SENECA VILLAGE IN 1855

Family # in census	Surname of head of household	Family # in census	Surname of head of household
524	Smith	567	Jimmerson
525	Wilson	568	Henson (Hinson)
526	Benson	569	Dunn
527	Hamilton	570	Allen
528	Germond (Garmond)	571	McFarlane
529	Gallagher	572	Riley
530	Allen	573	Morgan
		574	White
549	Haff	575	Sisco (Cisco)
550	Williams	576	Hutchins
551	Butler	577	White
552	Landen	578	Davis
553	Jackson	579	Harrison
554	McCollin	580	Hicks
555	Casey	581	Thompson
556	Casey (or Carey?)	582	Scudder
557	Glynn	583	Webster
558	Renahan	584	Phillips (Philips)
559	Meyers	585	Wilson
560	Geary	586	Lane
561	Wallace	587	Pease
562	Mathews	588	Berry
563	Snowden	589	Foley
564	McClancy	590	Green
565	Garnet	591	Barlow
566	Silver (Sylvan)		

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of City of N York in the County of New York taken by me on the Ninth day of July, 1855.

Wm H. Aldis Marshal.

	Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	VOTERS. Native.	VOTERS. Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1					Bridget Cavanagh	49	F		Wife	Ireland	1	-	21		-	-	1	-	1	-	
2					Richard Cavanagh	18	M		Child	New York	-		17	Laborer	-	-	-	-	-	-	
3					Catharine Cavanagh	13	F		Child	New York			12		-	-	-	-	-	-	
4					John Cavanagh	12	M		Child	New York			11		-	-	-	-	-	-	
5					Patrick Cavanagh	9	M		Child	New York			8		-	-	-	-	-	-	
6					Marg^t Cavanagh	5	F		Child	New York			4		-	-	-	-	-	-	
7					Bridget Cavanagh	1	F		Child	New York			1		-	-	-	-	-	-	
8					Ann Halpin	61	F		Boarder	Ireland		1	5	Domestic	-	-	1	-	1	-	
9	399	Frame	1000	519	Henry Turbert	25	M			Germany	1		5	Gardener	-	-	1	-	1	-	
10					Cath. Turbert	21	F		Wife	Germany	1		2		-	-	1	-	1	-	
11					Jerard Turbert	17	M		Brother	Germany			1	Laborer	-	-	1	-	1	-	
12					Mary Koch	20	F		Boarder	Germany			1	Domestic	-	-	1	-	1	-	
13	400	Frame	500	520	Cath^e Restler	42	F			Germany		1	15	Chair Bottr	-	-	1	-	1	-	
14					Emma Restler	16	F		Child	Germany			15	Chair Bottr	-	-	1	-	1	-	
15				521	Jacob Hildebrandt	29	M			Germany			2	Pedlar	-	-	1	-	1	-	
16	401	Frame	800	522	Gerry Dryer	33	M			Germany	1		7	Milkman	-	1	-	-	1	1	
17					Annie Dryer	22	F		Wife	Germany	1		5		-	-	1	-	1	-	
18					Henry Dryer	2	M		Child	New York			2		-	-	-	-	-	-	
19					John Dryer	1/2	M		Child	New York			1/2		-	-	-	-	-	-	
20					John Wagler	9	M		Boarder	New York			9	Domestic	-	-	-	-	-	-	
21					Humphries Vesnot	23	M		Boarder	Germany			2	Servant	-	1	-	-	1	-	
22	402	Frame	1600	523	Bernard Van Gilluve	34	M			Germany	1		9	Grocer	-	1	-	-	-	1	
23					Ann Van Gilluve	40	F		Wife	Germany	1		11		-	-	1	-	1	-	
24					Louisa Van Gilluve	6	F		Child	New York			6		-	-	-	-	-	-	
25					Bernard Kremer	18	M		Boarder	Germany			1	Servant	-	-	1	-	1	-	
26					Peter Gilluve	60	M		Father	France			3	None	-	-	1	-	1	-	
27	403	Frame	400	524	Pleasant Smith	39	M	B		Virginia	1		8	Waiter	-	-	-	1	-	-	
28					Susan Smith	33	F	B	Wife	Virginia	1		8		-	-	-	1	1	-	
29					Sarah Smith	1	F	B	Child	New York			5		-	-	-	1	-	-	
30					Pleasant Smith	5	M	B	Child	New York			1		-	-	-	1	-	-	
31	404	Frame	900	525	Willm G. Wilson	41	M	B		New York	1		30	Porter	1	-	-	-	-	1	
32					Charlot Wilson	39	F	B	Wife	New York	1		30		-	-	-	1	R	-	
33					Wm H. Wilson	17	M	B	Child	New York			17	Waiter	-	-	-	1	-	-	
34					Joseph Wilson	15	M	B	Child	New York			15	None	-	-	-	1	-	-	
35					John Wilson	13	M	B	Child	New York			13		-	-	-	1	-	-	
36					Isaiah Wilson	11	M	B	Child	New York			11		-	-	-	1	-	-	
37					Charlotte Wilson	7	F	B	Child	New York			7		-	-	-	1	-	-	
38					James Wilson	5	M	B	Child	New York			5		-	-	-	1	-	-	
39					Mary Wilson	3	F	B	Child	New York			3		-	-	-	1	-	-	
40					David Wilson	4/12	M	B	Child	New York			4/12		-	-	-	1	-	-	
41	405	Frame	800	526	Willm Benson	52	M	B		Virginia	1		5	Laborer	-	-	-	1	R	-	
42					Sarah Benson	39	F	B	Wife	Maryland	1		5		-	-	-	1	R		
43					Willm H. Benson	3	M	B	Child	New York			3		-	-	-	1	-	-	
44				527	James Hamilton	36	M	B		Virginia	1		10	Driver	1	-	-	-	-	1	
45																					

Wm H. Aldis

Appendix I - 3

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of the City of N York in the County of New York taken by me on the Ninth day of July, 1855.

Wm H. Aldis Marshal.

Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	VOTERS. Native.	Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				Maria Hamilton	35	F	B	Wife	Virginia	1		10		-	-	-	1	-	-	
				George Miller	10	M	B	Adopt Child	New York	-	-	10		-	-	-	1	-	-	
406	Frame	500	528	Adam Germond	27	M			France	1		15	Laborer		1	-	-	-	-	
				Cath Germond	20	F		Wife	France	1		6		-	-	1	-	-	-	
				Cath Germond Jr	1	F		Child	New York	-	-	1		-	-	-	-	-	-	
				Frederick Retinger	19	M		Servant	Germany	-	-	2/12	Domestic	-	-	1	-	-		
407	Frame	700	529	John Gallagher	52	M			Ireland	1		15	Shoemaker	-	1	-	-	-	-	
				Ann Gallagher	42	F		Wife	Ireland	1		15		-	-	1	-	1	-	
				Eliza Gallagher	10	F		Child	New York	-	-	10		-	-	-	-	-	-	
				Edward Gallagher	6	M		Child	New York			6		-	-	-	-	-	-	
				Patrick Donahue	72	M		Father in law	Ireland		1	14	None	-	1	-	-	1	-	
408	Frame	700	530	Jane Allen	46	F			Ireland		1	5		-	-	1	-	1	-	Deaf
				Ann Allen	18	F		Child	Ireland	-	-	5	None	-	-	1	-	-	-	
				Frank A Parks	4	M		Boarder	Kings Co L.I.	-	-	2		-	-	-	-	-	-	
409	Frame	2000	531	Wheeler Hale	3[illegible]	M			Mass	1		13	Cartman	1	-	-	-	-	1	
				Marg t Hale	33	F		Wife	West Chest Co	1		20		-	-	-	-	-	-	
				Eugene Hale	12	M		Child	New York	-		12		-	-	-	-	-	-	
				Alonza Hale	9	M		Child	New York	-	-	9		-	-	-	-	-	-	
				Josephine Hale	4	F		Child	New York	-	-	4		-	-	-	-	-	-	
				Mary O'Donnell	24	M		Servant	Ireland			2	Domestic	-	-	1	-	1	-	
410	Frame	1200	532	Benedict Camp	55	M			Germany	1		15	Gardener	-	1	-	-	-	-	
				Annie Camp	55	F		Wife	Germany	1		15		-	-	1	-	1	-	
				Jacob Camp	15	M		Child	New York	-	-	15	Work in Garden	-	-	-	-	-	-	
411	Frame	700	533	John Hart	39	M			Ireland	1		5	Laborer	-	-	1	-	1	-	
				Mary A Hart	11	F		Child	Ireland			5		-	-	1	-	-	-	
412	Frame	700	534	Wm McGloin	24	M			Ireland	1		4	Laborer	-	-	1	-	1	-	
				Rosa McGloin	22	F		Wife	Ireland	1		9		-	-	1	-	1	-	
				Bartley McGloin	2	M		Child	New York	-		2		-	-	-	-	-	-	
				Charles McGloin	2/12	M		Child	New York			2/12		-	-	-	-	-		
				Terrance McGowen	25	M		Boarder	Ireland			3	Laborer	-	-	1	-	1	-	
413	Frame	400	535	John Stone	48	M	B		Alexandria Va	1		5	Sailor	-	-	-	1	1	-	
				Marg t Stone	44	F	B	Wife	New York	1		44	Domestic	-	-	-	1	1	-	
				Benjamin Stone	22	M	B	Child	New York			22	Sailor	-	-	-	1	1	-	
				Neptune Stone	18	M	B	Child	New York			18	Waiter	-	-	-	1	-	-	
				James Stone	14	M	B	Child	New York			14		-	-	-	1	-	-	
414	Frame	400	536	Mathew Lowley	32	M	B		Germany	1		4	Laborer	-	-	1	-	1	-	
				Mary Lowley	33	F		Wife	Germany	1		4		-	-	1	-	1	-	
415	Frame	600	537	Christina Sterling	49	F			Germany	1		11	None	-	-	1	-	1	-	
				Seaman Sterling	20	M		Child	Germany			11	Pedlar	-	-	1	-	-	-	
				John Sterling	15	M		Child	Germany			11		-	-	1	-	-	-	
				Elizabeth Sterling	10	F		Child	New York			10		-	-	1	-	-	-	
				Henry Rust	1	M		Gd Child	New York			1		-	-	-	-	-	-	
416	Frame	401	538	Jacob Miller	42	M			Germany	1		6	Rag Picker	-	-	1	-	1	-	Lame
				Silomia Miller	40	F		Wife	Germany	1		6				1	-	1	-	

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Wm H. Aldis

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of City of N York in the County of New York taken by me on the Tenth day of July, 1855.

Wm H. Aldis Marshal.

	Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, {Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	VOTERS. Native.	VOTERS. Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1					George Miller	18	M		Child	Germany	.	.	6	None	.	-	1	-	-	-	
2					Michel Miller	14	M		Child	Germany			6		-	.	1	.	-	.	
3					Daniel Miller	12	M		Child	Germany			6		-	.	1	.	-	.	
4					Silomia Miller	10	F		Child	Germany			6		-	.	1	.	-	.	
5					Adam Miller	8	M		Child	Germany			6		-	.	1	-	.	.	
6					John Miller	6	M		Child	Germany			6		-	-	1	-	-	-	
7					Jacob Miller	4	M		Child	New York			4		-	.	.	.	.	.	
8					Paulina Miller	2	F		Child	New York			2		.	.	.	.	.	.	
9	417	Frame	400	539	John Herman	38	M			Germany	1		10	Gardener	-	-	1	-	-	-	
10					Christina Herman	30	F		Wife	Germany	1		11		-	-	1	-	-	-	
11					Maria Herman	34	F		Sister	Germany			2	Domestic	-	-	1	-	-	-	
12					Louisa Herman	6	F		Child	New York			6		-	.	.	.	.	-	
13					William Herman	4	M		Child	New York			4		-	.	.	.	.	.	
14					Regina Herman	1	F		Child	New York			1		-	.	.	.	.	.	
15	418	Frame	400	540	Elizabeth Stone	32	F			Germany	1		3	Work in Garden	-	-	1	-	1	-	
16					Peter Stone	12	M		Child	Germany			3		-	-	1	-	-	.	
17					Conrad Stone	4	M		Child	Germany			3		-	-	1	-	-	-	
18	419	Frame	400	541	Frederick Miller	33	M			Germany	1		4	Shoemaker	-	-	1	-	1	-	
19					Catharine Miller	32	F		Wife	Germany	1		3		-	-	1	-	1	-	
20	420	Frame	2400	542	Hickson Sarles	54	M			West Ches Co NY	1		35	Boot maker	1	-	-	-	-	1	
21					Elizabeth M Sarles	52	F		Wife	Halifax N S.	1		35		-	-	-	-	-	-	
22					Hickson Sarles	21	M		Child	New York	-	-	21	Clerk	1	-	-	-	-	-	
23					Mary S. Sarles	19	F		Child	New York	-	.	19	None	-	-	-	-	-	-	
24					Elizabeth M Sarles	17	F		Child	New York	-		17	None	-	-	-	-	-	-	
25					Willm H Sarles	15	M		Child	New York			15	None	-	-	-	-	-	-	
26					Gilbert Sarles	12	M		Child	New York			12		-	-	-	-	-	-	
27					Mary S Andrews	60	F		Aunt	Halifax N S.			35	None	-	-	1	-	R	-	
28					Thomas Carrol	17	M		Servt	Ireland			6/12	Domestic	-	-	1	-	R	.	
29					Mary Talley	20	F		Servant	Ireland			3	Domestic	-	-	1	-	R	-	
30	421	Frame	2400	543	Adolphus Andreas	56	M			New York	1	-	55	Merchant	1	-	-	-	-	1	
31					Mary Andreas	52	F		Wife	New Jersey	1	-	52		-	-	-	-	-	1	
32				-	Louis Bugbee	23	M		Son in law	New York	1		8	Merchant	1	-	-	-	-	-	
33					Martha Bugbee	19	F		Child	New York	1		19		-	-	-	-	-	-	
34					Catharine Farrel	18	F		Servant	Ireland			4	Domestic	-	-	1	-	1	-	
35	422	Frame	2400	544	Rowland Johnson	39	M			Penn	1		5	Merchant	1	-	-	-	-	1	
36					Henrietta W Johnson	29	F		Wife	New Jersey	1		3	F Doctor	-	-	-	-	-	-	
37					Anna H Johnson	4/12	F		Child	New York	.	-	4/12		-	-	-	-	-	-	
38					Emma C Berry	42	F	B	Servant	New York	1	-	40	Domestic	-	-	-	1	-	-	
39					Maria Berry	12	F	B	Servant	New York			10		-	-	-	1	-	-	
40					Elizabeth Berry	5	F	B	Servant	New York			3		-	-	-	1	-	-	
41	423	Frame	2400	545	George W. Stevens	34	M			Saratoga Co NY	1		10	Lawyer	1	-	-	-	-	1	
42					Mary Stevens	27	F		Wife	New York	1		27		-	-	-	-	-	-	
43					Frank Stevens	5	M		Child	New York	-	-	5		-	-	-	-	-	-	
44					Mary E Stevens	4	F		Child	New York	-	-	4		-	.	-	.	-	-	
45																					

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Wm H Aldis

I. Population. CENSUS of the Inhabitants in the *Third* Election District of the *22nd Ward* of *the City of N York* in the County of *New York* taken by me on the *Tenth* day of July, 1855.

Wm H. Aldis Marshal.

Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	VOTERS. Native.	VOTERS. Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
				Ida Stevens	2	F		Child	New York	-	-	2		-	-	-	-	-	-		1
				Bridget O'Brien	22	F		Servant	Ireland			4	Domestic	-	-	1	-	-	-		2
424	Frame	2400	546	Ephraim Stevens	68	M			Ulster Co ny		1	5	Mercht	1	-	-	-	-	-		3
				John O. Stevens	38	M		Child	Dutches Co ny			15	Bookkeeper	1	-	-	-	-	-		4
				Mary Stevens	28	F		Child	Saratoga Co ny			5	None	-	-	-	-	-	-		5
				Mary Rochfort	19	F		Servant	Ireland			2	Domestic	-	-	1	-	R	-		6
425	Frame	3000	547	John W. Andreas	29	M			New York	1		29	Coal Merch	1	-	-	-		1		7
				Maria W. Andreas	22	F		Wife	New York	1		22		-	-	-	-	-	-		8
				Edmund Andreas	3	M		Child	New York			3		-	-	-	-	-	-		9
				Catharine Vaughn	18	F		Servant	Ireland			5	Domestic	-	-	1	-	R	-		10
426	Frame	5.500	548	John P. Paulison	32	M			New York	1		18	Ins. Co ny	1	-	-	-	-	1		11
				Marg't A. Paulison	32	F		Wife	New York	1		32		-	-	-	-	-	-		12
				Joseph L. Paulison	3	M		Child	New York			3		-	-	-	-	-	-		13
				Clara Paulison	1	F		Child	New York			1		-	-	-	-	-	-		14
				Daniel Comes	11	M		Adopt'do	Texas.			9		-	-	-	-	-	-		15
				Susan Winters	23	F		Servant	Ireland			9	Domestic	-	-	1	-	-	-		16
				Frances Murphy	17	F		Servant	Ireland			2	Domestic	-	-	1	-	-	-		17
				William Daley	21	M		Servant	Ireland			2	Domestic	-	-	1	-	-	-		18
				Ann Traphagen	65	F		Aunt	New York		1	20	None	-	-	-	-	-	-		19
427	Frame	1500	549	John P. Haff*	50	M			New York	1		13	Hotel Keeper	1	-	-	-	-	1		20
				Ann E. Haff	40	F		Wife	New York	1		13		-	-	-	-	-	-		21
				John P. Haff	17	M		Child	New York			13	Assist	-	-	-	-	-	-		22
				Delia Haff	15	F		Child	New York			13	None	-	-	-	-	-	-		23
				Robert Haff	13	M		Child	New York			13		-	-	-	-	-	-		24
				Charles Haff	9	M		Child	New York			9		-	-	-	-	-	-		25
				Edwards Haff	3	M		Child	New York			3		-	-	-	-	-	-		26
428	Frame	600	550	Andrew Williams	55	M	B		New Jersey	1		40	Cartman	1	-	-	-	R	1		27
				Elizabeth Williams	45	F	B	Wife	New Jersey	1		32		-	-	-	1	R	-		28
				Jeremiah Williams	22	M	B	Child	New York			22	Waiter	-	-	-	1	-			29
				Ann E. Williams	27	F	B	Dau in law	Conn.			20	None	-	-	-	1	1			30
				Elias Williams	9	M	B	Gd Child	New York			0		-	-	-	1	-			31
429	Frame	500	551	John F. Butler	29	M	B		New York	1		20	Laborer	-	-	-	1	-			32
				Ellen A. Butler	27	F	B	Wife	New York	1		27		-	-	-	1	-			33
430	Frame	600	552	Josiah Landen	50	M	B		Georgia	1		20	Laborer	-	-	-	1	1	-		34
				Dinah Landen	40	F	B	Wife	New York	1		40		-	-	-	1	1	-		35
				Lawrence Landen	18	M	B	Child	New York			18	None	-	-	-	1	-			36
				Martha Landen	16	F	B	Child	New York			16	None	-	-	-	1	-	-		37
				Maize Landen	11	F	B	Child	New York			11		-	-	-	1	-			38
				Josiah Peterson	2	M	B	Adopt Child	New York			2		-	-	-	1	-			39
				Daniel Peterson	1	M	B	Adopt do	New York			1		-	-	-	1				40
431	Frame	600	553	John Jackson	70	M	B		West Ches Co ny	1		43	None	-	-	-	1	1	-		41
				Mary Jackson	29	F	B	Child	West Ches Co ny			28		-	-	-	1	1	-		42
				John Jackson Jr	33	M	B	Child	West Ches Co ny			20	Laborer	-	-	-	1	1	-		43
				Annie Jackson	2	F	B	Gd Child	New York	-	-	2		-	-	-	1	-	-		44
																					45

44

* John P. Haff keeps an Inn out of my district, but lives in it.

Wm H. Aldis

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of City of N York in the County of New York taken by me on the Eleventh day of July, 1855.

Wm H. Aldis Marshal.

	Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	Voters. Native.	Voters. Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1					Sarah Maize	53	F	B	Boarder	New York			53	None	-	-	-	1	1	-	
2	432	Frame	4000	554	O. P. McCollin	63	M	B		West Ches. Co	1		40	Cook	1	-	-	-	R	1	
3					Elizabeth McCollin	51	F	B	Wife	New York	-		50		-	-	-	-	-	1	
4					Frederick Riddle	6	M	B	Boarder	New York			6		-	-	-	1	-	-	
5					Samuel Harding	94	M	B	Father in Law	Staten Island NY		1	60	None	-	-	-	1	1	-	
6	433	Frame	1500	555	Thomas Casey	35	M			Ireland	1		8	Laborer	-	-	1	-	R	-	
7					Mary Casey	40	F		Wife	Ireland	1		8		-	-	1	-	1	-	
8					Patrick Casey	8	M		Child	Ireland			8		-	-	1	-	-	-	
9					Ellen Casey	6	F		Child	New York			6		-	-	-	-	-	-	
10					Mary A Casey	4	F		Child	New York			4		-	-	-	-	-	-	
11				556	Thomas Carey	36	M			Ireland	1		10	Laborer	-	-	1	-	-	-	
12					Margt Carey	30	F		Wife	Ireland	1		18		-	-	1	-	1	-	
13					Rosanna Carey	5	F		Child	New York			5		-	-	-	-	-	-	
14					John Carey	3	M		Child	New York			3		-	-	-	-	-	-	
15				557	Patrick Glynn	37	M			Ireland	1		5	Laborer	-	-	1	-	1	-	
16					Mary Glynn	32	F		Wife	Ireland	1		2		-	-	1	-	R	-	
17					Mary A. Glynn	9	F		Child	Ireland	-	-	2		-	-	1	-	-	-	
18					James Glynn	5	M		Child	Ireland			2		-	-	1	-	-	-	
19				558	William Renahan	24	M			Ireland	1		6	Laborer	-	-	1	-	-	-	
20					Honorah Renahan	1	F		Child	New York	1	-	6		-	-	-	-	-	-	
21					Bridget Renahan	24	F		Wife	Ireland			1		-		1	-	1	-	
22	434	Frame	3500	559	Henry Meyer	28	M			Germany			4	Grocer	-	-	1	-	-	-	
23					John Herman	26	M		Boarder	Germany			1	Clerk	-	-	1	-	-	-	
24					Hannah Bakermeyer	23	F		Servant	Germany			1	Domestic	-	-	1	-	1	-	
25					Henry Finckestine	23	M		Servant	Germany			1/2	Domestic	-	-	1	-	1	-	
26	435	Frame	3500	561	John Geary	62	M			Ireland	1		57	Keeper of Reservoir	-	1	-	-	-	-	
27					Cathe Geary	50	F		Wife	New York	1		50		-	-	-	-	-	-	
28					Mary T Geary	25	F		Child	New York	-		25	None	-	-	-	-	-	-	
29					Cathe A Geary	26	F		Child	New York	-		20	W. S. Teacher	-	-	-	-	-	-	
30					Eleanor Geary	18	F		Child	New York			18	W. S. Teacher	-	-	-	-	-	-	
31					John Geary Jr	23	M		Child	New York			23	Stone Cutter	1	-	-	-	-	-	
32					Eliza Geary	17	F		Child	New York			17	Dress Maker	-	-	-	-	-	-	
33					Eleanor Geary	16	F		Child	New York			16	None	-	-	-	-	-	-	
34					Georgiana Geary	15	F		Child	New York			15	None	-	-	-	-	-	-	
35					Terrance Geary	12	M		Child	New York			12		-	-	-	-	-	-	
36					Charlotte Geary	8	F		Child	New York			8		-	-	-	-	-	-	
37					Daniel W. S. Geary	2	M		Child	New York			2		-	-	-	-	-	-	
38					Fanny Geary	46	F		Cousin	Ireland			13	Domestic	-	-	1	-	-	-	
39					Joseph Quinn	8	M		Boarder	New York			8		-	-	-	-	-	-	
40					Augustus Reiner	8	M		Boarder	New York			8		-	-	-	-	-	-	
41					Elizabeth Reiner	7	F		Boarder	New York			7		-	-	-	-	-	-	
42	436	Frame	600	561	John Wallace	31	M			Ireland	1		12	Laborer	-	-	1	-	-	-	
43					Ann Wallace	36	F		Wife	Ireland	1		11		-	-	1	-	R	-	
44					Mary Wallace	6	F		Child	Ireland			6		-	-	1	-	-	-	
45																					

Wm H. Aldis

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of the City of N York in the County of New York taken by me on the Eleventh day of July, 1855.

Wm H Aldis Marshal.

Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	Voters. Native.	Voters. Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
				Richard Wallace	4	M		Child	New York	-	-	4		-	-	-	-	-			1
				Ellen Wallace	2	F		Child	New York	-	-	2		-	-	-	-	-	-		2
437	Frame	1000	562	William M Mathews	43	M	B		Delaware	1		24	Laborer	1	-	-	-	-	1		3
				Ann Mathews	30	F	B	Wife	Delaware	1		10		-	-	-	1	-	-		4
			563	Darius Snowden	39	M	B		Maryland	1		3	Waiter	-	-	-	1	-	-		5
				Matilda Snowden	28	F	B	Wife	Maryland	1		3		-	-	-	1	-	-		6
				Georgianna Snowden	11	F	B	Child	Maryland	-		3		-	-	-	1	-			7
				Charlotte A Snowden	9	F	B	Child	Maryland	-	-	3		-	-	-	1	-	-		8
438	Frame	1000	564	Wm H McClaney	32	M	B		Maryland	1		11	Laborer	-	-	-	1	-	-		9
				Anna McClaney	21	F	B	Wife	Maryland	1		5		-	-	-	1	-	-		10
			565	Henry Garnett	88	M	B		Maryland	1		20	Work in Garden	-	-	-	1	1	-		11
				Eliza Garnett	61	F	B	Wife	Maryland	1		20		-	-	-	1	1	-		12
				Mary Harris	15	F	B	Niece	New York			2	Domestic	-	-	-	1	-	-		13
439	Frame	2000	566	Charles Silven	75	M	B		Hayti		1	55	None	1	-	-	-	1	1		14
				Peter Silven	22	M	B	Child	New York	1		22	Coachman	-	-	-	1	-	-		15
				Charlot Silven	30	F	B	Child	New York	-	-	30	Domestic	-	-	-	1	-	-		16
				Cathe Silven	25	F	B	Daugh in law	New York	1	-	25	Domestic	-	-	-	1	-	-		17
				George Silven	4	M	B	Gd Child	New York	-	-	4		-	-	-	1	-	-		18
			567	John Jimmerson	39	M	B		Virginia	1		4	Col Beach mill	1	-	-	-	R	1		19
				Mary Jimmerson	34	F	B	Wife	New York	1		34		-	-	-	1	-	-		20
				Isaiah Stevens	11	M	B	Step Child	New York	-	-	11		-	-	-	1	-	-		21
440	Frame	550	568	James Henson	50	M	B		New York	1		20	Cooper	1	-	-	-	-	1		22
				Elizabeth Henson	46	F	B	Wife	New York	1		20		-	-	-	1	R	-		23
				Elizabeth Henson	18	F	B	Child	New York	-	-	18	Domestic	-	-	-	1	-	-		24
				Isaac Henson	4	M	B	Child	New York	-	-	4		-	-	-	1	-	-		25
				Ephraim Henson	12	M	B	Child	New York			12		-	-	-	1	-	-		26
441	Frame	500	569	Philip Dunn	37	M			Ireland	1		16	Police Officer	-	1	-	-	-	1		27
				Mary Dunn	41	F		Wife	Ireland	1		16		-	-	1	-	-			28
				John McGauley	18	M		Boarder	Ireland	-	-	2	Laborer	-	-	1	-	R	-		29
442	Frame	500	570	Ishmael Allen	40	M	B		New York	1		20	Sexton of Ch	-	-	-	1	-	-		30
				Amy Allen	42	F	B	Wife	New York	1		20		-	-	-	1	-	-		31
				Ann E Allen	15	F	B	Child	New York			15	None	-	-	-	1	-	-		32
				Sophia E Allen	10	F	B	Child	New York			10		-	-	-	1	-			33
				Martha J Allen	8	F	B	Child	New York			8					1				34
				Thomas Allen	3	M	B	Child	New York			3		-	-	-	1	-	-		35
				Lydia A Jackson	45	F	B	Boarder	Dutch Co N Y		1	30	None	-	-	-	1	-	-		36
443	Frame	500	571	Peter McFarlane	30	M			Ireland	1		10	Laborer	-	1	-	-	1	-		37
				Ann McFarlane	26	F		Wife	Ireland	1		13		-	-	1	-	1	-		38
				Bridget McFarlane	4	F		Child	New York	-	-	4		-	-	-	-	-	-		39
				Michel McFarlane	3	F		Child	New York	-	-	3		-	-	-	-	-	-		40
				Mary A McFarlane	3/12	F		Child	New York			3/12		-	-	-	-	-	-		41
444	Frame	500	572	Peter Riley	30	M			Ireland	1		6	Laborer	-	1	-	-	-	-		42
				Bridget Riley	28	F		Wife	Ireland	1		12		-	-	1	-	R	-		43
445	Frame	500	573	James T. Morgan	45	M	B		Penn.	1		10	Laborer	1	-	-	-	R	1		44
																					45

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Wm H Aldis

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of City of N. York in the County of New York taken by me on the Twelfth day of July, 1855.

Wm. H. Aldis Marshal.

	Dwellings numbered in the order of visitation.	Of what material built.	Value.	Families numbered in the order of their visitation.	Name of every person whose usual place of abode on the first day of June was in this family.	Age.	Sex.	Color, {Whether black or mulatto.	Relation to the head of the family.	In what county of this State, or in what other State or Foreign Country born.	Married.	Widowed.	Years resident in this city or town.	Profession, Trade, or Occupation.	VOTERS. Native.	Naturalized.	Aliens.	Persons of color not taxed.	Persons over 21 years who cannot read and write.	Owners of land.	Deaf, Dumb, Blind, Insane, or Idiotic.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1					Hester A. Morgan	40	F	B	Wife	Dutch Co. N.Y.	1		24		-	-	-	1	R	-	
2					Willm H. W. Morgan	14	M	B	Child	New York	-	-	14		-	-	-	1	-	-	
3					Daniel W. Morgan	11	M	B	Child	New York	-	-	11		-	-	-	1	-		
4					Charles A. Morgan	14	M	B	Child	Penn.	-	-	14		-	-	-	1	-		
5					Rachel A. Morgan	10/12	F	B	Child	New York			10/12		-	-	-	1	-		
6	446	Frame	600	574	Francis White	38	M	B		New Jersey	1		5	Laborer	-	-	-	1	1	-	
7					Hester A. White	42	F	B	Wife	West Ches. Co. N.Y.	1		5		-	-	-	1	1	-	
8					Sarah A. White	11	F	B	Child	West Ches. Co. N.Y.	-	-	5		-	-	-	1	-	-	
9					James White	5	M	B	Child	New York	-	-	5		-	-	-	1	-	-	
10	447	Frame	500	575	Henry Sisco	35	M	B		New Jersey	1		6	Carpet Shaker	-	-	-	1	1	-	
11					Phebe A. Sisco	30	F	B	Wife	New York	1		20		-	-	-	1	1	-	
12					Willm H. Sisco	2	M	B	Child	New York	-	-	2		-	-	-	1	-	-	
13					Marie E. Sisco	4/12	F	B	Child	New York	-	-	4/12		-	-	-	1	-	-	
14	448	Frame	500	576	Salmon W. Hutchings	47	M	B		Maryland	1		10	Laborer	-	-	-	1	-	-	
15					Maria Hutchings	44	F	B	Wife	Maryland	1		19		-	-	-	1	1	-	
16					Sarah E. Hutchings	19	F	B	Child	Penn.	-	-	18	Domestic	-	-	-	1	-	-	
17					Jacob Hutchings	12	M	B	Child	New York			12		-	-	-	1	-	-	
18					Salmon W. Hutchings	10	M	B	Child	New York			10		-	-	-	1	-	-	
19					Anna M. Hutchings	4	F	B	Child	New Jersey	-	-	1		-	-	-	1	-	-	
20					James Hutchings	2	M	B	Child	New Jersey	-	-	1		-	-	-	1	-	-	
21	449	Frame	500	577	John White	62	M	B		Delaware	-	1	50	Sailor	-	-	-	1	1	-	
22					Emma White	15	F	B	Child	New York			15	None	-	-	-	1	-	-	
23					Marie E. White	8	F	B	Child	New York		-	8		-	-	-	1	-	-	
24					Robert H. White	9	M	B	Child	New York			9		-	-	-	1	-	-	
25					Rachel White	[illegible]	F	B	Child	New York			[illegible]		-	-	-	1	-	-	
26					Caroline White	9	F	B	Child	New York			9		-	-	-	1	-	-	
27					Francis White	2	M	B	Child	New York			2		-	-	-	1	-	-	
28	450	Frame	500	578	James Davis	41	M	B		Maryland	1		16	Sailor	-	-	-	1	1	-	
29					Sarah Davis	41	F	B	Wife	Penn.	1		18		-	-	-	1	R	-	
30					Willm Davis	9	M	B	Child	New York			9		-	-	-	1	-	-	
31					Mariah Williams	23	F	B	Boarder	New York			23	Domestic	-	-	-	1	-	-	
32				579	Mary Harrison	40	F	B		Maine		1	12	Domestic	-	-	-	1	-	-	
33					Emily Harrison	11	F	B	Child	New York			11		-	-	-	1	-	-	
34					Maria Harrison	4	F	B	Child	New York			4		-	-	-	1	-	-	
35	451	Frame	500	580	David H. Hicks	26	M	B		New York	1		11	Waiter	-	-	-	1	1	-	
36					Phebe Hicks	25	F	B	Wife	Rhode Island	1		11		-	-	-	1	R	-	
37					Mary E. Hicks	11	F	B	Child	New York			11		-	-	-	1	-	-	
38					David H. Hicks	6	M	B	Child	New York			6		-	-	-	1	-	-	
39					Betsey Hicks	4	F	B	Child	New York			4		-	-	-	1	-	-	
40	452	Frame	500	581	Ada Thompson	59	F	B		Virginia	-	1	23	Domestic	-	-	-	1	1	-	
41					Mary Thompson	26	F	B	Child	Virginia		-	23	Domestic	-	-	-	1	1	-	
42					Willm H. Thompson	6	M	B	Child	New York			6		-	-	-	1	-	-	
43					Annie Thompson	2	F	B	Child	New York			2		-	-	-	1	-	-	
44	453	Frame	500	582	Thomas Sandsdler	48	M	B		Penn.	1		30	White Washer	1	-	-	-	-	1	
45																					

Wm. H. Aldis

I. Population. CENSUS of the Inhabitants in the Third Election District of the 22nd Ward of the City of N York in the County of New York taken by me on the Twelfth day of July 1855.

Wm H. Aldis Marshal.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				Maria Scudder	42	F	B	Wife	Penn	1		30		-	-	-	1	R	-	
				Thomas Scudder	18	M	B	Child	New York			18	Laborer	-	-	-	1	-	-	
				Nathan Scudder	15	M	B	Child	New York			15	None	-	-	-	1	-	-	
				Charles Brown	6	M	B	Gd child	New York			6		-	-	-	1	-	-	
454	Frame	2000	583	George W. Webster	32	M	B		Virginia	1		12	Porter	1	-	-	-	-	1	
				Eliza Webster	35	F	B	Wife	New York	1		35		-	-	-	1	-	-	
				George Webster	3	M	B	Child	New York			3		-	-	-	1	-	-	
				Edward Hall	7	M	B	Step Child	New York	-		7		-	-	-	1	-	-	
				Benjamin Hall	13	M	B	Step Child	New York	-	-	13		-	-	-	1	-	-	
				John Hall	16	M	B	Step Child	New York	-		16	Porter	-	-	-	1	-	-	
				Malvina Hall	18	F	B	Step Child	New York	-	-	18	Domestic	-	-	-	1	1	-	
455	Frame	500	584	Willm Phillips	23	M	B		New York	1		21	Laborer	-	-	-	1	-	-	
				Matilda Phillips	19	F	B	Wife	New York	1		19		-	-	-	1	-	-	
456	Frame	500	585	Sarah Wilson	59	F	B		Virginia	1		30	Washing &c	-	-	-	-	1	1	
				Cathe Treadwell	6	F	B	Adopt Child	Staten Island NY			2		-	-	-	1	-	-	
457	Frame	500	586	John Lane	45	M			Ireland	1		7	Laborer	-	1	-	-	1	-	
				Margt Lane	35	F		Wife	Ireland	1		8		-	-	1	-	1	-	
				Dennis Lane	11	M		Child	New York	-		11		-	-	-	-	-	-	
				John Lane	9	M		Child	New York	-	-	9		-	-	-	-	-	-	
				Cathe Lane	7	F		Child	New York	-		7		-	-	-	-	-	-	
				James Lane	5	M		Child	New York	-	-	5		-	-	-	-	-	-	
				Henry Lane	1	M		Child	New York			1		-	-	-	-	-	-	
458	Frame	500	587	Willm Pease	56	M	B		New York	1		40	Grocer	1	-	-	-	R	1	
				Louisa Pease	58	F	B	Wife	Washington Co	1		30		-	-	-	1	1	-	
				Thomas Pease	21	M	B	Child	Oneida Co	-		21	Waiter	-	-	-	1	-	-	
459	Frame	500	588	Patrick Berry	30	M			Ireland	1		6	Laborer	-	-	1	-	1	-	
				Annie Berry	35	F		Wife	Ireland	1		5		-	-	1	-	1	-	
460	Frame	500	589	Francis Foley	43	M			Ireland	1		3	Laborer	-	-	1	-	-	-	
				Ann Foley	54	F		Wife	Ireland	1		1		-	-	1	-	-	-	
461	Frame	500	590	Robert Green	65	M	B		New Jersey	1		20	Laborer	-	-	-	1	R	-	
				Sarah Green	55	F	B	Wife	Staten Island NY	1		20		-	-	-	1	1	-	
				Hester Green	6	F	B	Child	New York	-	-	6		-	-	-	1	-	-	
462	Frame	500	591	Michel Barlow	45	M			Ireland	1		4	Laborer	-	-	1	-	1	1	
				Ann Barlow	40	F		Wife	Ireland	1		8		-	-	1	-	1	-	
463	Frame	10,000	592	Pelatiah Perit	60	M			Conn	1		30	Mercht	1	-	-	-	-	1	
				Maria Perit	62	F		Wife	Conn	1		30		-	-	-	-	-	-	
				Rebecca Perit	31	F		Niece	Penn	-	-	4	None	-	-	-	-	-	-	
				Harriet Perry	19	F		Niece	Ceylon Ind	-		14	None	-	-	-	-	-	-	
				Mary A Smart	35	F		Servant	Scotland	-	-	2	Domestic	-	-	1	-	-	-	
				Isabella Aitchison	21	F		Servant	Scotland	-		1	Domestic	-	-	1	-	-	-	
				Elizabeth Davis	18	F		Servant	Ireland	-		14	Domestic	-	-	1	-	-	-	
				William Clark	35	M		Servant	Ireland	-		2	Coachman	-	-	1	-	-	-	
				Herman Voelling	35	M		Servant	Germany	-	-	3	Laborer	-	-	1	-	-	-	
				Herman Moritz	42	M		Servant	Germany	-	-	7	Gardner	-	-	1	-	-	-	

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