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Bowne House Stabilization Project

Archaeological Assessment Proposal

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119

Table of Contents

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1. Introduction

This document outlines the archaeological assessment plans for the Bowne House Stabilization Project. The historic context of the Bowne house is reviewed. The conservation problems and stabilization plans are discussed to establish the potential character of the archaeological impacts. Recent archaeological research at the Bowne House that establishes the historical and anthropological character of the deposits is evaluated. The archaeological assessment plan is then proposed to address the historic and archaeological sensitive aspects of the conservation plan

There are intact archaeological deposits and subsurface features present on the Bowne House property. These deposits and features are culturally, historically and archaeologically significant. Subsurface archaeological testing of all parts of the yard to be disturbed by the conservation and restoration program is required.

Early Flushing

The 1792 Flushing Slave Rebellion was a relatively minor event. Its human toll was the execution of two female slaves. Their crime was arson. They torched the house of a town official. As a result of the fire, the early history of Flushing is known only in broad brushstrokes. The stuff of 17th- and 18th-century history, town records, maps and records of court cases and land transfers were consumed in the flames. The few diaries and journals that we have exist outside the usual historical scaffolding constructed by historians.

The Flushing that emerges into the light of history in the 1790's is a Flushing in transition. The Flushing sketched out in the 1790 Federal census is unfamiliar to most of us. It is a village that is still distant socially and economically from the metropolis. The center of the village was located largely along today's Northern Boulevard near Flushing Creek, west of Main Street. With no easy way to cross the meadows, the land route followed the Meadow down to Jamaica and then followed the main Long Island road to the Brooklyn ferries. Economically, it was a dairy farming community with some grander claims to orchards and horticultural nurseries.

This small farming community is most foreign to us in its social dimensions. The familiar model of New England small towns has misled researchers. The village and farms of Flushing incorporated a far larger number of slaves than what is generally expected. One hundred and four Flushing families owned 340 slaves in 1790. There was 55 free Black families. In the 1790 census, John Bowne is reported to have 2 slaves. We have little understanding of the household economy of Flushing at this time. While a third of the families of Flushing held slaves, most of these households held but one or two slaves

While it is clear that we know little of the Flushing in the 1790's, what is far more disturbing is that we know even less of the period from the founding of Flushing in the late 1640's until the eve of the American Revolution. Several events provide mileposts for this history, but the daily life of the inhabitants is poorly grasped Unable to attract Dutch settlers from the prosperity of mid-17th-century Netherlands, the Dutch sought to plant settlements using whoever they could attract with offers of land. At its founding, Flushing was largely a settlement of Englishmen in a Dutch colony. Historians and archaeologists do not yet know how much acculturation took place. In terms of material culture, was Flushing a largely

English village in the midst of the Dutch political structure? Or did these English settlers pick up Dutch architecture, Dutch possessions, and a Dutch way of life?

The little we do know only serves to frame larger questions. The small hamlet of 1660's Flushing was a rural farming settlement, and the John Bowne House sat beyond the edge of the hamlet nearly a half mile from the early cluster of houses. It was a farmhouse with outbuildings for its crops and livestock. As the population of Flushing grew, settlement expanded toward the Bowne farm. By the end of the 18th- century, village settlement was approaching the Bowne property. With property holdings of over 400 acres, the Bowne's could look across the avenue to see the encroachment of house plots. In the early 18th-century, the Bowne's changed their house and their economy. The farmhouse was renovated A new and more stylish North façade was constructed, and the North Hall became the formal entrance. The Parsons Nursery was established as farming activities passed out of the household economy. The village expansion continued, and development likely created pressure to sell off the property as the town came to surround the Bowne family holdings. Starting in the mid-18th- century, the land was sold off for house lots, and Bowne property shrank With the establishment of the railroad connection to Manhattan, the urban development of Flushing began in earnest.

This brief outline of the development of Flushing emphasizes that the Bowne House existed in several different social and economic contexts over its history. In a sense it may be best to imagine that there were many Bowne Houses, all of which are overlaid on the present property. In each of these houses, generations of the Bowne Family lived different sorts of lives, with different sorts of possessions and different activities in the house and in the yard. Any conservation or restoration project at the Bowne House needs to be sensitive to these many different aspects of the property.

Anthropological Perspective

The Bowne House offers an almost unique opportunity to examine a number of issues related to social change over the past 350 years in Metropolitan New York. The historic archaeology of New York has focused on Manhattan. The character of the development outside of Manhattan is not well understood There are a series of anthropological issues which research at the Bowne House can help resolve

The development of the rural cultural landscape of western Long Island in the 17th- and 18th-century is presently an active area of research. The structure of the rural economy with its mixture of dairy and grain agriculture is just beginning to emerge The mix of salt marsh and fresh meadows for pasture and silage, and fertile ploughed fields for grain production lead to extensive landholdings often dispersed over several parcels of property Small seasonal mills dotted the North Shore inlets to process grain. It is likely that the dispersed parcels with their multiple concurrent subsistence activities meant that large households were required to meet the labor demands. The holding of slaves in the 17th- and 18th centuries was likely a way to meet the labor demands of this productive but demanding system.

The above sketch is more hypothesized than tested. The material infrastructure requirements of this farming system are not established. The number, size and function of the farm outbuildings; the mix of cattle, sheep, pigs, horse and oxen; living arrangements of the farm family, their servants and slaves: these are questions that are presently without answers.

2. Stabilization and Restoration Project Plans

In the nearly 350 years since its original construction, the Bowne House has undergone numerous modifications, restorations, and renovations. Unfortunately many of these projects have weakened the house's structure and/or created moisture and drainage problems. The long-term goal of the Bowne House Historical Society is to stabilize the house's condition and put into place a conservation and restoration program.

Bowne House Restoration Phase I – Structural Stabilization, Component 1(North Elevation)

The first component of Phase I of this ambitious program centers on the house's north elevation. Moisture problems have created a combination of rot and insect infestation that has severely damaged the structural elements of the first and second floors. The moisture problem is the result of a series of ill-conceived projects: the expansion of the house cellar, the poor placement of numerous drywells for roof run-off, the modification of the surface contours which now leads run-off toward the house, an early conservation effort which encased the cellar walls and wooden sills (and unfortunately, moisture) between interior brick and exterior concrete coverings.

Foundation Stabilization

A previous 1930s effort at conservation has encased the rubble foundation of the 1680, 1690, and 1830 sections of the house. It has been impossible to assess the present condition of the foundation within the present brick and concrete sheathing. It is clear that the wooden sill has rotted away in many areas. It is likely that the removal of the covering will reveal the foundation that requires repair as well. Excavation along the external foundation wall will be required. A test excavation in April 1999 by the architects reached a depth of approximately 1.9 meters and extended 2 meters from the foundation. This test probe gives a likely example of the scale of the foundation trench disturbance. A large section of the northern side of the structure will be excavated and the insect-infested soil and sediments removed

Drainage Improvements

Cowley and Prudon Architects have proposed a series of French drains running parallel to the foundation trenches. At this time the exact number and location of the drainage trenches has not been determined. These drainage trenches, excavated to the level of the Bowne House cellar, would intercept groundwater infiltration and carry it off to the storm water drainage system. The house's north elevation downspouts will also be connected to this system. With the roof run-off redirected to the city storm system, the problematic drywells will be disconnected and a major source of groundwater infiltration removed. The proposed system consists of two parallel trenches. One trench would be excavated adjacent to the rubble-filled foundation trench. The second trench would be offset approximately two meters from the foundation trench. These hand-excavated trenches would be approximately two meters deep and one to two meters in width.

Area of Potential Archaeological Impacts

The Initial Stabilization Project entails a large-scale excavation at the northern area of the Bowne House yard. The trenching will destroy any intact archaeological deposits and subsurface features in the path of the drainage improvements.

The additional structural stabilization on the north elevation would have minimal archaeological impacts. The restoration of the rubble foundation and the replacement of damaged wooden beams, plates and studs do not involve the disturbance of any additional parts of the yard.

3. Background Research

US Census Research

The Federal Census records for Flushing from 1790 through 1880 were examined. The 1890 census was destroyed in a fire. The analysis was done to recover information on the changing household patterns through the 19th century. Clues for economic activities were sought in the landholdings and economic indicators included in the census. There are no intact New York State census records for the period of 1801-1905. A fire destroyed the state census material in 1911.

1790-- John Bowne: 2 white males, age 16 or upwards,
7 free white females
2 slaves

1800-- no recognizable Bowne or Parsons is listed. Willet Bowne is listed, but he is never listed as a Bowne House resident in other sources.

1810-- no Bowne's or Parsons' are listed.

1820-- Ann Bowne (sic):
3 free white females age 26-45
1 free white female over 45
1 person engaged in agriculture
1 free black male over 45
1 free black female under 14 years
1 free black female over 45

1830--Samuel Parsons
2 free white males 5-10 years
1 free white male 15-20 years
1 free white male 50-60 years
1 free white female under 5 years
1 free white female 15-20 years
1 free white female 20-30 years
1 free white female 40-50 years
1 free black male 39-55 years
1 free black female 10-24 years
1 free black female 36-55 years

1840--Samuel Parsons
2 free white males 15-20 years
1 free white male 20-30 years
1 free white male 60-70 years
1 free white females 10-15 years
1 free white females 20-30 years
2 free white females 50-60 years
2 free black females 10-24 years
1 free black female 36-55 years
4 persons engaged in agriculture

1850-- Robert B Parsons, age 29, male, horticulturist, real estate $30,000, New York
William B Parsons, age 27, male, horticulturist, New York
Mary B Parsons, age 36, female, New York
Jane Parsons, age 24, female, New York
Ann Bowne, age 64, female, New York
Eliza Bowne, age 62, female, New York
Sara Smith, age 37, female, mulatto, New York, cannot read or write
Fanny Hunter, age 17, female, mulatto, New York
Robert McKenney age 21, male, white, laborer, Ireland

1860-- Ann Bowne, age 72, female, real estate $50,000, New York
Mary B. Parsons, age 45, female, New York
Jane Parsons, age 40, female, New York
Sara Lukens, age 36, female, New York.
Catherine McCormick, age 25, female, servant, Ireland, cannot read or write

The Federal census research points to a rapid transformation of the Bowne Household from 1790 through 1860. The working farm is first transformed to a horticultural nursery, and then later the house proper and its immediate yard appear to be split off from the horticultural enterprise. The early farm household with 11 residents is transformed as slaves are replace by free black workers and then in mid-century, the free blacks are replaced by recent Irish immigrants. By 1860, the household population has dropped to 5 female residents with no obvious economic function.

Map Research

An effort to examine the existing maps of Queens with a focus on Flushing has been carried out over the past year. The following maps have been reviewed:

1841-- Queens County, L.I., surveyed by Elijah Smith.
1852-- Dripps map of Kings County and part of Queens County
1854-- Map of Bowne Estate -- development proposal
1859-- Queens County Map -- large scale
1873-- Beers Atlas
1897-- Sanborn Insurance Map
1904-- Belcher Hyde Atlas of Borough of Queens
1917-- Sanborn Insurance Map

The maps trace the late 19th century evolution of the Bowne House. There is a rapidly shifting constellation of outbuildings from the mid-19th century through the early 20th

century. It is unfortunate that the earliest map postdates the transformation of the property from the farm to the horticultural nursery.

The map research reveals several significant features that are important to point out.

1) the shed to the east end of the house is not present,
2) three outbuildings are present to the southeast of the house
3) a fence is present with creates an enclosed yard to the south of the house. The fence runs from the northwest corner of the house to the west property wall, south approximately to the present southern boundary of the yard, and east. Finally, it runs to the house. The fence meets the southern elevation of the house where the 1660 section abuts the 1680's section of the house. That is, the doors of the 1660 section of the house do not open to this enclosed yard. The three outbuildings to the southeast are outside the enclosure,
4) the is an addition large outbuilding to the west side of the present Bowne Street.

By the early 19th century the configuration of the yard has stabilized. The shed to the east has been added. The sheds to the southeast have been removed. The outbuilding to the west has been replaced by housing. And a new outbuilding, likely a carriage shed, has been added in the approximate location of the present Annex.

4. Previous Archaeological Research

There has been only a limited amount of archaeological research carried out at the Bowne House property.

Ceci 1984

Dr. Lynn Ceci of Queens College was asked by the Bowne House Historical Society to do a small archaeological investigation in fall 1984. A natural gas pipeline was to be installed between the Annex and the basement of the Bowne House, and the BHHS Board wished to be sure that the excavations for the pipeline would not disturb any significant archaeological deposits.

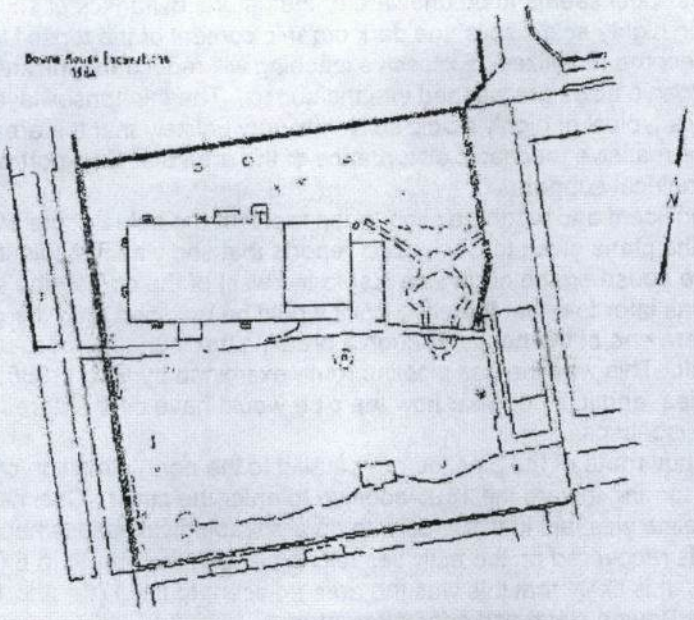

Figure 1 --Ceci 1984 Excavations

Ceci used the eastern most corner of the northern elevation of the Bowne House as her site datum. Her report indicates that the lowest edge of the wood siding at the corner was the horizontal site datum. Ceci used the house orientation to establish the site grid. "Site North" runs perpendicular to the north elevation of the house with the east-west baseline running along the house's northern side. The area excavated runs "site east" from the corner to the chain link fence on the east edge of the property. Ceci seems to be unaware that local magnetic anomalies in the area of the Bowne House make any magnetic referencing unreliable. Deviations of three to five degrees routinely take place within a space of 15 meters. Ceci's map establishes that the southern edge of the trench was four feet north of datum. The trench itself was two feet wide by 47 feet long. Accepting the contractor's request, Ceci excavated only to a depth of 24 inches, and halted excavation before sterile soil was reached.

The excavation recovered a wide range of artifacts. There are a number of unglazed redwares, lead glazed redwares, combed slipwares – all characteristic of 17th- and early 18th- century deposits. Shards of creamware, pearlware, whiteware and porcelain are also recovered. As could be expected the materials range from the 17th- through 20th-century. A single feature -- an ashy smear – is reported. There is no specific report on the contents that might have dated the feature.

Ceci's report concludes that while significant artifacts were recovered, the context was one of sheet deposition of material with recent disturbances. She concluded that there was no spatial patterning over the excavated area, and that it would be unlikely that any significant archaeological or architectural features would found. She goes on to claim that the thin topsoil horizon indicated that soil had been removed from the area. She speculates that soil may have been bulldozed from the Bowne House Yard to level and raise the elevation of the city park to the north of the property.

It is important to understand that Ceci undertook no analysis which would specifically establish these claims. Later research by Moore contradicts many of these claims. She reports that the soils were highly acidic, and unlike the soils she was familiar with at other

excavated sites. Ceci seems to be unaware of the natural dynamics of soil formation and modification. In highly acidic soils, the dark organic content of the topsoil tends to go into solution and become mobilized. Excessive leaching will reduce the thickness of the topsoil layer as the organic acids are washed into the subsoil. The thin topsoil layer found at the Bowne House is typical of highly acidic soils. It is very unlikely that the area had been bulldozed. The massive mechanic disturbance of the area that Ceci portrays is constructed without any empirical support.

It is significant and worth pointing to the fact that the actual route of the gas pipeline did not follow the plans given to Ceci. Ceci reports that she was first told that the pipeline would enter the house on the north side just to the west of the corner she selected as site datum. She was later told that the entry point would be modified, and the gas line would enter the eastern end of the house through a break in the foundation described as a ventilation shaft. This was the gas pipeline route examined by Ceci (1985). There is no cellar in this area, and it is not clear how the pipe would have ever entered the cellar from either of these locations.

The actual route of the pipeline ran parallel to the north elevation of the house for 7 meters before turning toward the 1695 addition to enter the cellar. Ceci never excavated this area. The pipeline was laid in this area with no archaeological assessment of its impact. No information was recovered on the activities taking place in the area 4 to 6 feet house running for twenty feet. It is likely that this was the area adjacent to the 17th- and 18th- century entrance to the Bowne slave and servant quarters.

Moore 1997

In spring 1997, the Bowne House Historical Society representative Henry Ludder contacted Dr. James Moore of Queens College Department of Anthropology. Mr. Ludder indicated that a large scale and long-term restoration program was being developed for the Bowne House. There were several immediate questions related to the conservation effort that could be addressed by archaeological research. Determining the level of the ground surface at the time of the first construction was important to the restoration work. Over the centuries the ground surface has been raised to the level of the wood sill. This had led to rot and insect infestations. Second, undocumented outbuildings in the existing yard, if located, could provide insight into yard activities. Finally, there was interest in documenting the location of the nursery plantings and gardens.

To address these questions, a preliminary investigation was designed. At the BHHS suggestion, the most public parts of the yard, the areas to the east and south of the house, were avoided. By default the research focused on issues that could be addressed in the northern area of the yard. Ceci's original datum point on the northeast corner of the house was used to lay out a series of seven two-meter trenches perpendicular to the house. The goal of this excavation strategy was to test Ceci's conclusions that there was not discernable spatial patterning at the site. The goal was to recover differences in the types, quantities and depositional pattern. Differences, if they could be recovered, would throw Ceci's conclusions into doubt, and indicate that there was an intact spatial pattern in the artifact distribution.

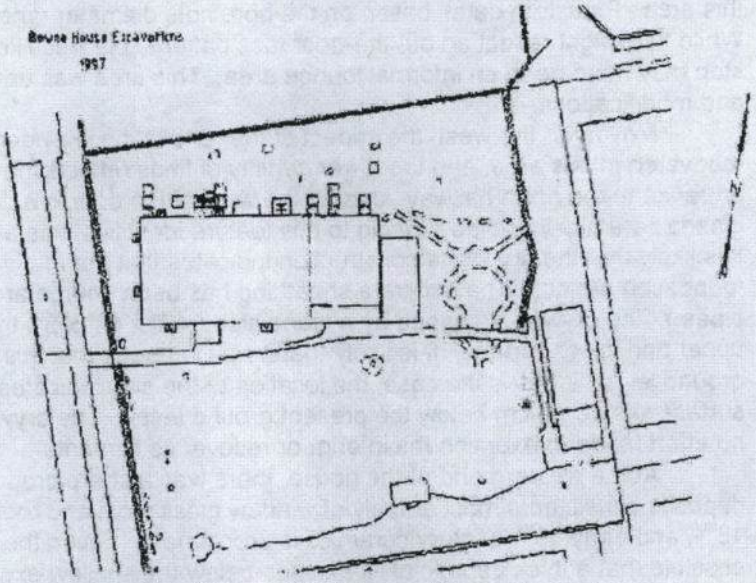

Figure 2 --Moore 1997 Excavation

0N1W to 1N1W
0N4W to 2N4W
0N6W to 1N6W
1N15W to 2N15W
0N17W to 1N17W
1N 19W
0N22W to 2N22W
Strat Pit 1 –4N0W
Strat Pit 2 –24S19E to 24S20E

The 1997 excavations were preliminary, and largely undertaken to provide a baseline for later research. Influenced by Ceci's conclusions, the strong spatial patterning uncovered by the excavation was unanticipated. There were significant implications for future research.

First, for the past seventy years the north side of the Bowne House had been treated as the "backyard." Excavation and construction activities had been shunted to the north to avoid disturbing the south yard. Known disturbances include:

The construction of the park fence (1950's),
The heating fuel delivery pipeline
Two drywell installations (1980's)
The gas pipeline (1984)
The buried electrical cable (1980's)
Foundation sheathing (1930's)

Second, there are significant areas of the yard that have not been disturbed by these recent construction activities. These areas, while largely consisting of sheet deposits, do

reflect the activities in that area of the yard. The spatial patterning strongly varied along the northern side of the house. The east end of the excavation was strongly influenced by the pre-1690 extension of the original house. There was a concentration of kaolin pipestems in this area. Pipestem dates based on the bore hole diameter range from 1690 through 1820 While this might reflect an out-the-door toss pattern, it is also likely that this area by the back step may have been an informal lounge area. This area was untouched by the 1830 addition and modifications.

Moving to the west, the impact of the renovation is evident. There are few pipestems recovered in this area, and the lower density of finds reflects the location of the formal entrance to the north hallway. Just to the west of the door is a dry stone construction. The glazed ceramic drainpipe running to this feature identifies it as a drywell used for roof run-off. It is likely that the dry stone construction indicates that the feature predates the 1935 foundation project. (The concrete sheathing has been poured around the glazed ceramic pipes.) The drywell is capped by a stone slab (40" x 40" x 3") that is dressed on both the upper and lower surface. It is likely that it was intended that this slab would sit even with ground level. If this is the case, the location of the slab indicates that the original ground surface sits 10-15 cm below the present ground level. The drywell was left intact, there was no effort made to examine the interior or recover its contents.

At the western end of the house, there was a sharp drop off in artifact density. The deposits consisted almost entirely of window glass, coal and roofing nails. The lack of 17th-, 18th-, and early 19th-century ceramics is problematic. Given the present street grade, it is possible that a thick deposit of fill extends below the shallow excavations in this area.

Topographic Survey

A micro-topographic survey of the southern yard was undertaken in fall 1997. The intent of this survey was to identify any subtle topographic features that would not be visible to the naked eye A one by one-meter grid was laid out over the yard. A transit survey of the grid recorded all elevations to .5 cm. These elevation recordings were plotted to generate a contour map of the southern yard.

There were four possible features identified by the micro-topographic mapping First, there was a large "bubble" directly south of the 1680 section of the house. It appears that this may be an area of fill used to bring the level of the yard up to the present street grade. Second, there are two shallow depressions. One is to the south of the 1660 section of the house, the other is in the south west area of the yard. It is likely that these to features are the result of subsidence following the installation of two drywells in the 1980's. Finally, there is a very shallow depression running parallel to the southern side of the house. The depression runs from the western edge of the yard toward the southern end of the Annex. This may be an access path or road to the outbuildings southeast of the house Alternatively, the depression could be the remnant of the 1841 fence noted above.

Resistivity Survey

In fall 1997 a preliminary resistivity survey of the southern yard area was carried out. The goal of the survey was to simple assess whether the resistivity technique would be viable in the context of the Bowne yard.

Resistivity survey is a non-invasive technique based on the electrical properties of soils. All soils, to some limited degree, conduct electrical current. In resistivity survey an electric potential is established between two electrical probes. Given a known voltage (electrical potential), two additional probes can then measure the current generated, and

hence the electrical resistance of the soil The actual values are measured at a point are not significant. It is the pattern of resistivity over a large area that is meaningful

Human activities modify the electrical conductivity characteristics of the soil. These characteristics can be modified in several ways. The deposition of organic acids from the human dumping of animal, plant and human waste increases the ion content of the soil and facilitates the flow of current. Trenches can change the drainage with increased drainage leading to dryer soils and decreased current flows. Subsurface walls of stone or brick block the movement of ions, to decrease current.

By mapping the values over a large area, the deviations from the general soil values can identify the presence of preserved subsurface features. Four resistivity transects were run from east to west. The survey indicated that resistivity would be a viable technique in the Bowne House Yard. Several localized deviations were identified. A large area of generally low reading was identified in the eastern end of the yard just to the west of the Annex.

Cotty 1998

As part of a Seniors Honors Thesis in the Queens College Department of Anthropology, Michele Cotty drew a number of soil cores from a transect across the south yard. The intent of the survey was to identify former soil horizons below recent soil fill in the south yard. Ms. Cotty employed a number of field and laboratory techniques to identify soil and sediment horizons.

In the field, all cores were measured as they were pulled from their location. All coring was done to a depth of 60 cm. The stratigraphic profiles, based on color and texture criteria, were drawn in the field. Soil samples were collected from each stratigraphically defined horizon for later lab analysis.

In the lab, pH tests, phosphate tests, and soil fractionation tests were carried out on all samples. The pH and phosphate tests identify modification of soil chemistry caused addition of organic material to the soil. The addition of organic material with their organic acids will lead to lower pH readings. Phosphate tests are more sensitive to the addition of animal waste to the soil.

Ms. Cotty's analysis indicated that the south yard had been an area of constant human activity over the past 350 years. There were numerous stratigraphic inversions indicating excavation activity in the yard. Topsoil deposits were frequently buried by subsoil, indicating careless refilling of pits. The limited number of soil cores made it difficult to identify the original soil horizon, but one strike emerged from her analysis. In the eastern end of the south yard, there was a large patch of lower pH. It was also difficult to draw core samples from a depth of greater than 20 cm. Ms. Cotty proposed that there was a large feature in this area (Cotty 1998).

Lazo 1999

Dubrovok Lazo undertook a Senior Honors Thesis in Anthropology in spring 1999. He proposed to examine the artifact material the 1997 excavations on the northern yard. As part of this project he completed the data entry for the 1997 field season, and reviewed the ceramic classification of the material As his projected developed, he proposed to examine the archaeological deposits from the excavated units next to the two entrances on the north side. The working hypothesis was that if the area was as extensively disturbed as Ceci had claimed that there would be little difference between the artifact deposits in the two excavated units. The alternative hypothesis was that spatial differences would be preserved over the yard Furthermore, the older doorway (pre-1690) functioning as a servants'

entrance would contain more utilitarian and fewer prestige items than the younger (1835 renovation) doorway which served as a formal entrance.

Mr. Lazo's analysis soundly rejected the hypothesis of no spatial, temporal or functional difference. He found that there was a significant difference in the mean ceramic date calculated for the two units. The unit by the younger door had a date of 1840 while the older door unit had a mean ceramic date of 1760. Interestingly, a date generated from pipestems in the older doors' unit was 1770. Clearly the deposits tend to date from different periods. Lazo points to a shift in refuse disposal patterns as explanation for the patterning in the quantity and type of ceramics in the two units. The early "back-door" disposal is replaced by a later formal "front-door" deposition pattern.

Significantly Lazo's research suggests that spatial patterning is preserved in the Bowne House Yard. It is not safe to conclude as Ceci had, that disturbance had destroyed the artifact context.

Moore 1998

Moore undertook a second field season in fall 1998. The 8 students in the Field Methods in Archaeology course worked Fridays, either in the field or the lab, for 15 weeks. Conversations with Henry Ludder suggested that the extension on the house's east end was in very poor condition. Ludder felt that the shed, often called The Laundry, might require immediate action. The feature to the west of the Annex was also identified as an area for exploration.

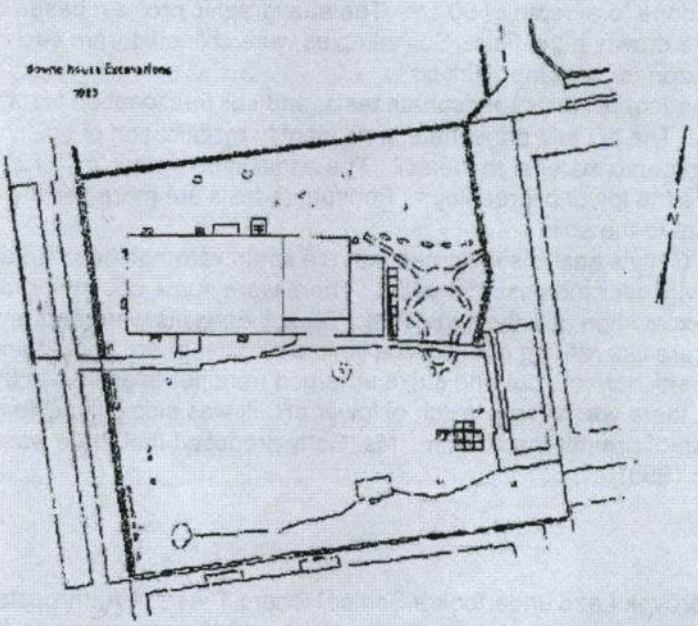

Figure 3 -- Moore 1998 Excavation

The area west of the Annex identified by the resistivity survey and soils survey proved to be a large subsurface feature. An area paved by cobblestones covered an area of about 10 square meters. The 10 cm diameter cobbles were closely and firmly set. The western edge of the cobbled area was identified at about 12 m east of datum. The limits of the

cobblestone surface have not been defined in the other three directions. The cobbled surface was not removed. The nature of the deposits below the cobbles is not known.

It is not clear whether the cobbles represent the interior floor of some outbuilding or a paved external surface. The feature could be the floor of one of the outbuildings on the 1841 map. It could also be a paving outside the early 20th-century carriage shed. Charcoal, glass and nails in the level immediately above the cobbles suggest that a structure burnt nearby. The deposits immediately above the cobbles contain small shards that are largely of a 19th-century character. The cobbles were covered by a 3 cm layer of course construction sand when the area was refilled.

The excavation of the trench running 40cm from the east wall of The Laundry also uncovered a subsurface feature. The area to the east of Laundry is presently known as the Quaker Garden, and the area was planted with herbs and vegetables. The rich soil indicated that there had been a long period of gardening in the area. It was expected that only disturbed deposits would be recovered. At a depth of 20-25 cm the churned garden soil began to mix with orange subsoil. In unit 4S5E a small sliver of dark soil was visible on the western edge of the unit. Careful excavation revealed the edge of a large feature running from 4S5E to 9S5 E. Fifteen cm of an intact cultural deposit was identified. The edge of the deposit runs at an angle to the grid (and to the shed wall). The majority of the deposit sits under The Laundry. The long straight edge of the feature makes it likely that it is a shed wall.

The ceramic materials from the feature are largely 18th-century. Furthermore, there were a large number of bones and teeth recovered. The large number of teeth seems to indicate butchering activities rather than prepared food disposal. The Hunter College Zooarchaeology Lab is presently identifying the bones. Preliminary identification includes cattle, sheep and pig remains. The rich faunal material may give us a clearer view of diet and foodways in 18th-century Flushing. The cleaning and cataloging of the material was completed in fall 1999. It is presently being entered into the site database.

Excavated units include:

4S5E to 9S5E
20S12E to 20S13E
21S10E to 21S14E
22S12E to 22S14E

5. Summary

The commonly heard evaluation that there has been 350 years of disturbance at the Bowne House profoundly misstates the character of the cultural, historic and archaeological remains on the property. The 1998 excavations demonstrate that significant archaeological subsurface features and structures are intact. These deposits represent the entirety of the Bowne House history with intact 18th-century and 19th-century deposits. Given the limited scope of the excavation so far, it is likely that 17th-century deposits are also present. The preserved spatial patterning also points to the potential for tracking the changes in the location of activities in the yard.

These shifts in yard activities give us clues about how the Bowne's perceived their social identity and how they sought to present themselves to the wider community. The 17th-century farmyard would not only have been economically inappropriate in 19th-century Flushing; it would have been socially inappropriate. The social and economically important members of Flushing society did not live in farmhouses, did not have entryways that lead directly into the dinning room, and did not slaughter pigs in their yard.

The Bowne House property width its intact deposits gives us an opportunity to study how individuals used their house and their yard to construct their public social identities through the first 300 years of New York history

6. Archaeological Assessment Plan -- Fall 1999 - Spring 2000

Archaeological Assessment Process

The background research and review of previous archaeological investigations at the Bowne House clearly indicates that there are significant undisturbed archaeological deposits on the property. These intact structures and deposits have been found in all parts of the yard that have been investigated. Given the limited size of the yard and the significance of the archaeological remains, any area excavated as part of the stabilization process should be archaeologically tested.

The goal of the assessment process is to identify intact deposits and subsurface structures in the path of the drainage trenches and the foundation stabilization trench. The location of sheet deposits also needs to be recorded to understand changing distribution of activities in the yard. The identification of shifts in the front yard, backyard and side yard activities is an important goal of the Bowne House research. The shift pattern of trash disposal patterns also needs to be recognized.

Excavation Proposal

All aspects of the stabilization project involving excavation need to be viewed as potentially destructive disturbances of intact archaeological deposits or subsurface structures. The archaeological assessment program will archaeologically test as much of the stabilization trenching as possible. Two primary areas of impact are present-- the area adjacent to the foundation trench and the second drainage trench.

The area adjacent to the rubble foundation trench for the 1680 and 1695 sections of the structure requires some limited excavation and intensive monitoring while in progress. There have been extensive disturbances in the area adjacent to 1680 and 1695 sections of the house. It is very likely that the foundation on the north elevation dates to the 1830 renovation earlier deposits are likely to have been disturbed to some extent at this time. The misguided 1930s conservation effort which lead to expanded window wells, the installation of an access bulkhead, and concrete sheathing of the rubble foundation to a depth of 40 to 50 cm below ground level, also created extensive disturbances in an area from the foundation to approximately 1.5 m north of the foundation. This disturbance runs along the western and central sections of the house. There was no cellar under the eastern section of the house, and there was no disturbance from the concrete sheathing installation. The deposits in the eastern section are largely intact A test excavation by the architects in April 1999 led to additional disturbances. The area from 16 m west to 19 m west as excavated to the level of the cellar floor to visually inspect the nature and condition of the rubble foundation. The block within the archaeological grid designation 0N16W to 2N 19W was heavily disturbed. Moore made a visit to the site, but the support trusses made it impossible to clean the trench walls for inspection and recording of the stratigraphic profile.

It is highly unlikely that any surface deposits remain undisturbed in the areas within 1 to 2 meters of the north elevation of the 1680 and 1690 sections of the house. The area adjacent to the rubble foundation trench requires the following archaeological assessment:

1) A small archaeological test trench is needed to verify the proposed degree of disturbance. This test trench should be excavated to below the depth of the concrete sheathing to visually determine the depth of the sheathing-excavation disturbance.

2) Visual inspection of the stabilization trench will be required following every day of stabilization-trench excavation. The stabilization excavators will be asked to leave 5 to 10 cm of soil adjacent to the rubble foundation. This soil will be inspected and removed by the archaeologist. The artifacts recovered will be recorded in their 1m by 1m and depth provenience. Each section of the rubble foundation will be photographed. The goal is to more firmly date the construction of the rubble foundation.

The area of the second drainage trench located 2 to 3 meters north of the house does not appear to have suffered a similar degree of disturbance Archaeological excavation of the path of the drainage trench is required. The archaeological testing will require excavation to an estimated depth of 60 cm. The topsoil horizon will be removed in 10 cm levels until the subsoil is encountered. The Subsoil levels will then be removed in 10 cm levels. At least 10 cm of archaeologically sterile sediments will be removed.

The excavated soil will be screened through a quarter-inch mesh All finds will be recorded in their 1m by 1m unit and 10 cm level provenience. The finds will be cleaned and cataloged at the Queens College Department of Anthropology archaeology lab. The cataloged material will be entered into the Bowne House Project Access Database. The cataloging will be completed within six months of receipt of funding.

In April 1999 a temporary enclosure was erected on the north elevation to protect the house while the siding was removed. The removal permitted visual inspection of the extensive structural damage. The discovery of substantial structural problems has meant that the enclosure has been left standing to protect the exposed area of the house. This shed encloses the area with the archaeological grid designation of 0N7W to 2.5N15.5. A substantial section of the stabilization project excavations are within the area of the shed. These areas will be made available for archaeological testing by the prior to any excavation work.

Curatorial Management

The artifacts recovered in the course of the archaeological testing belong to the BHHS. The Queens College Department of Anthropology will curate the collections. There is public access to the collections with prior notification.

8. Fall 1999 Results

In Fall 1999 archaeological testing of the proposed areas to be impacted by the stabilization project was initiated. The areas within the Shed were not examined Eight Queens College students excavated and preformed lab work for 15 Fridays of the fall semester. At the beginning of the fall semester, the number of drainage pipes and their location was still uncertain, as Construction Documents were not complete.

The initial excavation effort focused on the area adjacent to the rubble foundation. The western foundation trench quickly established that there was extensive disturbance in the area adjacent to the north elevation. There were no observable soil horizons in the area. The thin layer of topsoil (7 cm) was underlain by a mixed and disturbed layer to a depth of 60

cm below the ground level. This disturbance continued to below the level of the concrete sheathing.

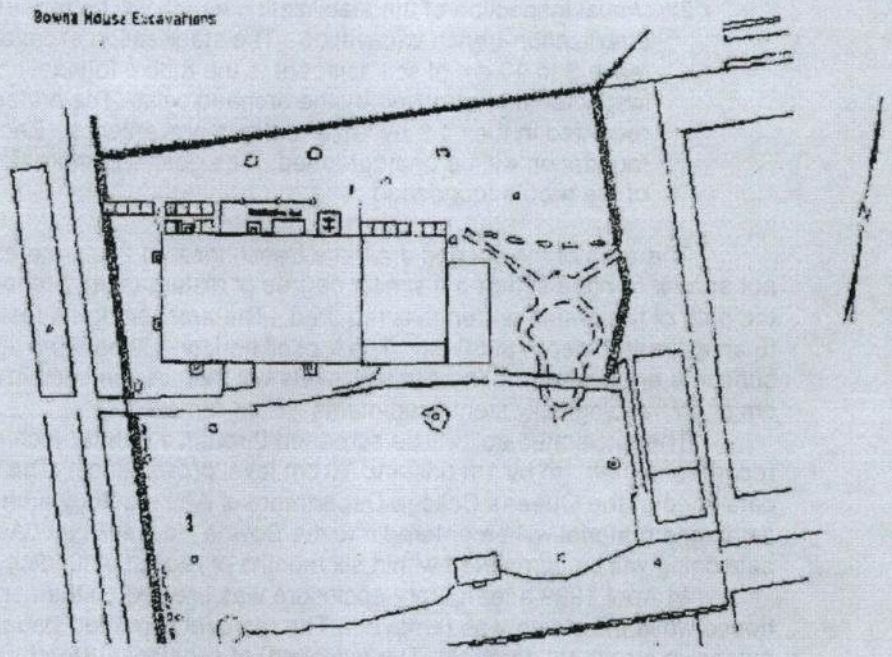

Figure 4 -- Moore Excavation 1999

West Foundation Trench
0N19W to 0N23W

East Foundation Trench
0N0W to 0N6W

West Drainage Trench
1.5N19W to 1.5N27W

The western drainage trench testing was initiated once the architects decided that the French drains would be installed between 1.5 and 2.5 m from the north elevation. A trench was excavated from the property line to the shed wall. The trench revealed that the thin topsoil at the western-most end grew in thickness as the trenching proceeded eastward. There was a ceramic drainage line uncovered that ran from the downspout at the northwest corner of the house toward the dryset drywell uncovered during the 1997 season. There was little evidence of disturbance outside of this drainage trench. There was a thin scatter of artifact material along this test trench. The material recovered included a large amount of coal, window glass of varying thickness, and roofing nails. There were a relatively small number of ceramic shards recovered. The ceramic material was largely late 18th- and 19th-

century in origin. A very low density of pipestems was noted. Formal analysis of the materials has not yet been completed.

The excavation of the 1669 foundation trench lead to notably different results. There was a much larger number of 17th- and 18th-century artifacts in the test area. The test excavation proceeded to the depth of the bottom of the rubble foundation. The bottom of the foundation was found to extend to a depth of 60 cm to 70 cm below the ground surface, or approximately 90 cm below the wooden sill. The rubble foundation included a number of bricks. While the bricks could not be measured without endangering the stability of the foundation, they did not have the wide, thin shape of early colonial bricks. It appears that the foundation of this section may not date to the 17th-century.

The artifact material from this area supported conclusions drawn from the 1997 excavations of the area. There is an intact pattern of deposits. The western end of the trench contained a much lower density of pipestems. The drop off in the density of artifacts while moving way from the doorway was clearly evident. The density of 17th- and early 18th-century ceramics is much greater that the western foundation trench or western drainage trench. The washing ands cataloging of this material is nearly completed. Formal analysis awaits the entry of the catalog into the Access database.

9. *Spring 2000 Proposal*

Central and Eastern Drainage Trench

At this time the central and eastern areas of the drainage trench have not been archaeologically tested. There have been no excavations in this area by any earlier archaeological research. It is import for some archaeological testing to be carried out in this area before the drainage trenches are excavated. The central drainage trench cuts across what was likely the front path of the Bowne House following the 1830 renovation. If this were an active path to the private road Fox Lane, the deposits in this area would likely be different from other material recovered from the site, and could help date the return to the south formal entrance. The topsoil needs to be removed to expose any features intruding into the subsoil.

10. Impact Assessment

The archaeological assessment carried out as part of the Bowne House Restoration Phase I – Structural Stabilization, Component 1 (Northern Elevation Stabilization Project) has established a number of important findings:

1) There will be no adverse impact in the area adjacent to the central and western foundation trenches. The area has been subject to repeated excavation of the past 150 years. There will be no damage to surface deposits. Daily archaeological inspection of the stabilization trench will be sufficient to mitigate any adverse impact of the stabilization trench on materials that may be contained in the original rubble foundation trench.

2) There will be no adverse impact from the excavation for the western drainage trench. The archaeological testing has recovered the artifacts and their spatial distribution in this area. This will successfully mitigate the effects of the French drain installation in this area.

3) The archaeological testing of the 1669 foundation trench has recovered the artifacts and their distribution in this area. This will mitigate the effects of the French drain installation in this area.

4) There has been no effort to assess the impact of the central and eastern French drain trenches. There will be the removal and screening of the topsoil from the path of this drainage trench. However, the contractor has been instructed to coordinate with the Anthropology Department of Queens College the archaeological testing of this area.

It should be noted that an emergency excavation due to sewage drainage problems has already disturbed a two-meter section of this trench at its easterr most edge. This trench exposed the house's main sewage line, exact date of installation is unknown. This is the second time the main sewage line has been exposed, the first being in the late 1980s to repair/replace the line.