BARTOW-PELL ESTATE CARRIAGE HOUSE SITE ARCHAEOLOGICAL REPORT

Prepared by HISTORICAL PERSPECTIVES For the International Garden Club And Beyer Blinder Belle September 10, 1985

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## INTRODUCTION

In connection with a proposed restoration of the carriage house on the Bartow-Pell estate, Historical Perspectives has been engaged by the International Garden Club, administrators of the historic property, to perform an archaeological reconnaissance survey of the carriage house. The specific topics of the survey were dictated by the needs of the architectural firm, Beyer Blinder Belle, responsible for the restoration of the structure. The research questions addressed in this preliminary survey were based on areas of concern to the architects in their quest for information about the site as it existed prior to 1888 when it became city property.

## RESEARCH TOPICS

- 1. Establishment of the original depth and material of the floors in each of the two basement sections
- Verification or not and approximate location of a structure northeast of the carriage house which is shown on an 1885 map
- 3. Assessment of the present condition and the original function, extent, and building technique of the stone wall which extends perpendicularly from the south face of the carriage house
- 4. Determination of the existence of a stone footing for an exterior staircase beneath the loft opening on the west side of the building
- 5. Determination of whether or not the road or ramp leading from the main house to the carriage house was paved with cobblestones
- 6. Examination of the area where evidence for an attached stone-plinthed pen on the east side was noted in the Historic Structure Report prepared in 1980
- 7. Notice, if possible, of evidence on peripheral issues including changes in grade over the years, the method of containment of animals outside of the carriage house proper, and the discovery of the functional use of the land between the main house and the carriage house over time

# METHODOLOGY

A walk-over of the entire carriage house site was conducted prior to selecting specific areas for closer examination. Nine areas were chosen and a tenth (area F) was examined when part of a drainage system was discovered by Ted Ewen during the course of his masonry restoration work. (See Figure 1, site map) Areas E and I entailed exposing shallow wide sections while others were test units. Artifact retrieval was limited due to prior disturbance in all areas. Those artifacts retained were either 1) an unmeasured sample from land fill, 2) of possible value to the architects (e.g. a small slab of finely cut and polished marble found just inside the doorway footing in the southern section of the basement), or 3) of possible historic or intrinsic interest such as a ceramic doll's head. It should be emphasized that such artifacts have no archaeological integrity having come from somewhere else at an unknown time, and with no proven link to inhabitants of the Bartow-Pell estate.

The necessary drawings and photographs were made and are appended to this report. Color slides were also taken and are available. Appropriate back-filling was done.

A careful study was made of available maps both for comparative purposes and as sources for clues as to what to search for. Beyer Blinder Belle furnished copies of an 1885 map and a 1934 topographical map.

Informant interviews, principally with Leo Megio, caretaker of the estate for many years, provided some valuable information about the magnitude of land manipulation around the carriage house.

#### FIELD WORK

Three test units were excavated on or adjacent to the stone wall which extends perpendicularly from the south wall of the carriage house (See Figure 2) A datum plane was established using a point on the top of the wooden window sill of the east window of the carriage house's south wall. Numbers in the drawings and text relate to the datum plane. That is, for example, grade elevation shown on Figure for Area C is 53" which means that the ground level is four feet and five inches below the window sill. The window is visible in Photograph 1.

Photographs 1 and 2 also show the southeast corner of the carriage house before a portion of the wall was exposed. The cleaned portion of the wall - Area A - is shown in Photographs 3 and 4. The wall abuts the structure at this point, but is not attached to it. What appears in the photographs to be a step and, indeed what was at first thought to be so during excavation, is apparently only a gap caused by the loss of the original stones. Probes revealed no further evidence of steps, and the topmost layer of stone is very loose and unstable. Surrounding and mingled with the large stones of the dry-laid wall is fill. Cultural refuse contained in this fill included sherds of glass and ceramic, metal, shell, bone, and one small glass medicine container of the type used with hypodermic needles. The soil matrix varied from loose to densely packed, but with no discernable stratigraphy.

After exposing more stones for four feet along the south face of the carriage house, it was realized that what was being uncovered was the ramp built to support the drive way into the carriage house; what had been referred to as 'wall' was simply the outer face of the ramp. A unit in Area C was opened to test this theory. The test trench was four feet (E-W) by eight (N-S). (See Figure 2 and Photographs 5 and 6 ) What was found confirmed information suggesting a ramp on the 1934 topographic map, though its configuration today is somewhat different from what was shown. This difference is not surprising considering the numerous episodes of fill which obviously have taken place over time.

This portion of the ramp - along its southeast line - was either poorly constructed (see comparison with Area D which follows) to begin with or has undergone cycles of damage and repair. The entire surface is covered with dense plant growth with destructive root systems and is underlain with horse manure compost. Mixed with and under the compost is evidence of other kinds of fill, but because the stones are dry laid, loose, and have been dislodged by various forces such as heavy machinery and plant roots, all strata are hopelessly mixed. For example, a German made bisque doll's head, cl900, was found in the same level as a plastic wrapper for carrots.

Leo Megio, caretaker, recalls that five to seven years ago humus/compost from - he thinks - neighboring stables was bulldozed across the ramp and down over the retaining wall on the east. There is evidence, such as numerous horse shoes, to confirm the fact that much of the fill came from stables. Also, at 15 inches below ground surface, there was a large mass of fused metal, mostly horse-shoe nails. (See Figure 2 and Photograph 6) There was a large amount of other cultural debris such as ceramics, paper, plastic, and glass. But there is no reason to think that any of this material came from the Bartow-Pell estate since there are objects from a much later time than when the carriage house was in use as a stable.

A very large root cluster was removed from the southwest corner of the test unit (See Figure 2) which left a hole about two feet below ground surface. Probes to a depth of 18 inches below the hole encountered no resistence, only loose soil.

The top of the wall or ramp face as well as the ramp itself is generally unstable along its whole east side from the building wall to where it dwindles off approximately 45 feet south of the carriage house. It has been patched with mortar in some places. A sample of the mortar was analyzed by Ted Ewen who reports that it is not the same composition as the mortars found in the carriage house. The composition is:

1 part low grade Natural Cement

7 parts sand (from fine to course)

(Crushing Test performed by T.C. Ewen on August 3, 1985)

Area D was excavated to determine what the composition of the ramp was in the section which would have had to bear the most weight. It would have been surprising to find the unstable, unsafe conditions there as occur along the outer portion of the ramp, and indeed that was not the case. Instead, under a two inch cover of sod and grass there were two to four inches of densely packed traprock, 1 to 3 inches in diameter, in a thin matrix of soil and ash. Below that was a layer of orange-brown soft clayey soil. Under the clayey material, there were large stones, surrounded by the same clay, ranging in size from six to eleven inches at an average depth of 13 inches below grade. These stones, while obviously deliberately deposited, are definitely not a cobblestone pavement; they are of varying sizes and form a very irregular surface. (See Photographs 7 and 8) Material culture remains were quite **a**parse in this unit; two ceramic sherds, one nail and a piece of coal were retrieved.

Area B was located adjacent to the ramp wall face on its east side. See Figure 2 and Photographs 9 and 10 which show the wall partially cleaned before excavation. The objectives were to observe the structural condition of the wall, to determine its depth if possible, and to search for artifacts or features such as builder's trench which might yield evidence of original activity. The highest point of the stone retaining wall, which was called grade level, is 53 inches below the datum plane. Approximately 44.5 inches below grade level, or 97.5 inches below datum, begins a layer of compost fill which, according to Leo Megio, was bulldozed into place all along the east side of the wall and the eastern section of the ramp about five to seven years ago. Below this stratum I there is another fill layer which was excavated down to about five feet below grade or 114 inches below datum. Artifacts in this stratum included metal, bone, glass, ceramic, clinker, and coal. Slightly above the five foot level (112 inches below datum) a spoon, a Welch's grape drink bottle, and a brown beer or mineral water bottle embossed "Chas. Mau" (with a crown top - post 1896) were found. This is typical example of the extremely

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disturbed, mixed nature of deposits found throughout the site.

Even at a depth of five feet below the grade level of the ramp leading to the carriage house, the Area B test trench was considerably above the existing grade level outside the cellar entrances which presumably is close to the original grade along side the stone wall. Therefore, a shovel probe of ten inches depth was dug in the test unit to see if the same fill layer continued, which was the case. (See Photographs 11 and 12) It is concluded that if desired to recreate the style of the original carriage house area, the east face of the stone retaining wall may be exposed to a depth of no more than five and a half feet below the top of the wall (i.e. 119 inches below datum plane). Mechanical equipment might be cautiously used because the original surface/builder's trench is secure beneath later fill and large stones that could have originally been part of upper courses of the wall. One of these stones is visible in Photographs 11 and 12.

Frank Matero, one of the preservation consultants who prepared the Historic Structure Report of 1980, pointed out the location of what he thought to be a possible stoneplinthed pen at the northeast corner of the carriage house. Therefore, a large area (Area E, See Figure <sup>3</sup>) was cleared in order to find whatever pattern might exist. Two large fine quality, dressed granite slabs in line with the eastern wall of the building were uncovered. Excavation around these two blocks revealed brick and twentieth century glass sherds, coal, brick, and mortar. Photograph 13 is a close-up view of these in situ artifacts. See also Photographs 14 and 15. Mortar affixed on the corner of the southernmost granite block implied it had been placed here after original use somewhere else, which the findly dressed condition would seem to corroborate. Also, there is no evidence of any form of fencing being attached to either of the blocks. Exposure of other stones of many sizes and shapes extending westward behind the carriage house suggested that they were placed randomly rather than in a pattern. They were perhaps used to facilitate drainage rather than as a formal path or fencing arrangement.

Shovel tests and probes revealed no evidence of a stone wall - as shown on the 1885 map - extending north from the northwest corner of the building.

Informant Leo Megio noticed that in times of heavy rainfall the floor of cobbles and flattish stones in the northern section of the basement - which slopes from west to east - served as a kind of drain. He recalled that at one time the basement door sills were lower than now and that the large flat stones continued outside the building. A confirmation of this continuing problem with water run-off was discovered by Ted Ewen during some of his masonry restoration activities. He called attention to the drain pipe which he saw outside the door of the southern section of the cellar. The feature was exposed further, along with the wooden members running perpendicular to and under the pipe, and photographed as Area F. (See Figure 1 and Photographs 16 and 17.)

In order to ascertain the composition of the floor in the southern section of the cellar, a shovel test, 16 inches in diameter, was dug close to the south wall and 69 inches west of the cistern wall. (Area G - See Figure 1) Four to five inches of cinders, coal, and ash lie over a grey-brown clayey loam. The soil matrix contains no pebbles or stones except for some decomposing schist and is wet and compact. Seven to eight inches of this layer II, which took the test down to 12 inches below grade, was considered sufficient to prove that there is no flooring in this section. Neither did punctures with an 18 inch probe indicate any flooring and/or large stones.

Two exploratory areas were examined in the northern section of the basement. (See Figure 1 ) There are large flat stone slabs (the largest approximately 3'x4'x6") clearly visible at the cellar door entrance due to water flow, but in the remainder of the cellar there is an overburden from 1 inch to 5 inches deep. The overburden contains some ash and cultural detritus such as glass, metal strips, and nails in a dark loam matrix. A large area (Area I, see Figure 1 and Photographs 18 and 19) was shallowly exposed. In parts not covered by the large slabs, there are crudely laid field stones and some water-worn cobbles. At least four irregular patches of decomposing mortar between some slabs was noted.

Area H was located adjacent to the south wall, fifteen feet in from the doorway, and was 4 feet long by  $1\frac{1}{2}$  feet wide. By scraping off five inches of overburden, field-stones ranging from 4"x7" to 8"x11" were uncovered and are clearly part of the floor - ing. (See Figure 1 and Photograph 20)

During the walkover of the site, two probable locations of previous structures were noted. The first is 58 feet northwest of the carriage house and is a depression in the ground bounded on one side by what may be the remnants of a stone wall topped by a small mound. The second and more clearly defined one is 60-70 feet northeast of the carriage house and is almost certainly the remains of the building shown on the 1885 map. However, for so large a complex as the one depicted on the map, the remains are amorphous and lacking the evidence such as boards, bricks, or window glass which one might expect. What is visible are gentle mounds, ditch-like depressions, and large boulder scatter. It is possible that the City of New York demolished the structure as an unsafe building; it is known from maps that what was present in 1885 was gone by 1923. Perhaps there is some mention of the demolition in International Garden Club records. Further exploration, both in documents and in the field, of these possible ancillary sites should be part of an overall cultural resources management plan for the entire Bartow-Pell Mansion complex.

Area J was located at the southwest corner of the carriage house. The purpose of this test unit was to search for a stone base for a possible stairway to the second floor loft if any such existed and to establish what the relationship was between the drive way/ramp and the area west of the building. Before excavation was begun the area was cleared of vines and recent refuse. It was hoped to find the 'depression' in grade mentioned in the Historic Structure Report as the place where a stair base might be, but no hollow was recognizable. This was hardly surprising considering the amount of fill and ground disturbance which has taken place over time. Some examples from the past decade were related by Leo Megio. 1) He himself built up a small mound or ridge (running N-S) west of the carriage house in an attempt to keep rain water from running through the cellar. 2) Mr. Megio allowed persons with metal detectors to explore the site on the condition that they show him what they found; he never saw anything he considered of value, only objects such as wire and horseshoes. 3) When the new driveway to the mansion was built, Mr. Megio recalled that a quantity of asphalt was dumped on the west side of the building; it is currently still obvious.

At the time the field testing was done, the scaffolding used by T. C. Ewen in his masonry restoration was in place as shown in Photograph 21. This structure limited the size of the test unit because care had to be taken not to undermine it, but enough data was obtained to satisfy the research topic requirements. A unit 32 inches wide by 69 inches along the west side of the carriage house was excavated. Although the test was made to a depth of approximately 35 inches below existing grade, or approximately 12 inches below the bottom of the basement window sill, no evidence of the existence of an exterior stairway was found.

A secondary datum plane was established at  $52\frac{1}{2}$  inches below primary datum. This plane was about  $2\frac{1}{2}$  to  $5\frac{1}{2}$  inches above grade which was uneven. The unit was excavated by

stratagraphic levels. (See Figure 4 for a visual presentation of this process.) The interpretation of the contents of the upper strata are that they represent various fill episodes, none of which can be securely associated with the 1840-1888 period of private residental use because of the presence of post-1880 artifacts in the upper three levels. (For example, a bottle base of "sun-colored" or amethyst colored glass was found in layer 3. It gets its color from the manganese that was added from 1880 to 1915. Manganese was actually added to make the glass clear. However, after extended exposure to the sunlight, the glass will take on a lavendar hue. Therefore, after manufacture, no earlier than 1880, this sherd was above ground for an extended period before becoming part of the landfill on the Bartow-Pell estate.) Level 4 may or may not be associated with the residential era; no cultural material was found to date it. If in the future, therefore, sub-surface work is necessitated by, for instance, grading or utility placement, down to approximately 30 inches below grade may be excavated with impunity.

The fill in Area J bore little resemblance to that in the ramp area. There is nothing to suggest that any of it came from stables, and certainly it was not carefully placed like the traprock over large stones in Area D for purposes of load-bearing and percolation. There were large stones throughout Level 3, but they appear to be backfill for the builder's trench.

What is apparently a natural rock outcropping was found at the southwest corner of the carriage house. (See Photographs 22 and 23) It begins 8 inches west of the southwest corner of the building and extends 32 inches directly west and at least 42 inches south - the southern extremity could not be uncovered because of the scaffolding. The northwest corner of the rock may have been dressed, but the surface is uneven and there is no indication of anything having affixed to it.

### FINDINGS

Negative evidence is very important in archaeology. To reconstruct the past one must know what was not there as well as what was there. Those who plan a restoration may then proceed on the basis of data gleaned from maps, drawings, and other documents confident that their decisions will not be contradicted by material evidence that lies beneath the ground. The Bartow-Pell carriage house site is a case in point. Archaeological investigations found no traces of a stone footing for an exterior stairway. Neither were there remains of a stone-plinthed pen or a cobblestone pavement on the driveway leading from the main house to the carriage house. No artifacts were found which could confidently be assigned to the residents of the estate between c. 1840 and 1888. It is possible that these things did exist but have been obliterated by the manifold disturbances created by both accidental and purposeful earth moving of which there is ample evidence.

Conversely, material remains were found or confirmed in other areas. The composition and depth of the cellar floor in both sections was ascertained. An examination of the stone retaining wall determined its condition and the depth alongside it which may be safely excavated without disturbing early deposits. The composition of the ramp - or more specifically, the drive leading into the carriage house - was examined revealing traprock over clay over roughly laid large stones. The eastern portion of the ramp as well as the wall face are unstable and should be repaired before supporting public visitors or heavy equipment. The existence and approximate locations of the remains of at least two structures were verified. A very large natural rock outcropping at the southeast corner of the carriage house was discovered which may have been connected in some way with the placement of the building on its plot. The Bartow-Pell carriage house site has been the scene of numerous episodes of ground disturbance ranging from pot hunters to land filling in order to control water problems.



SCALE IN FEET





NOTE: Exposed top surface of dressed granite block 1 rests two inches below exposed top surface of northern most stepped foundation blocks.

BARTOW-PELL ESTATE CARRIAGE HOUSE SITE

Area J

South Profile Section

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South Wall of Carriage House Area A Before Clearing Looking Northwest Photograph 1



South Wall of Carriage House Area A Before Clearing Looking Northwest Photograph 2





Area A Looking West Photograph 4

Area A Looking Northwest Photograph 3



- LEFT: Area C Looking northeast Photograph 5
- BELOW: Area C Looking east Photograph 6





Area D Looking South Photograph 7

Area D Looking South Photograph 8





Area B Ramp retaining wall partially cleared Looking West Photographs 9 and 10



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Area B Looking West Photographs 11 and 12







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Area E LEFT TOP: Close-up from above Photograph 13 LEFT BOTTOM: Looking Southwest Photograph 14 BELOW: Looking South Photograph 15





Area F Looking Northwest Photographs 16 and 17

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Area H Looking South Photograph 20

Area J Looking Northwest Photograph 21





ABOVE: Area J Close-up of rock outcropping Looking Southeast Photograph 22

RIGHT: Area J Looking Southeast Photograph 23

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