



THE Louis Berger Group, Inc.

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December 23, 2009

Mr. Gregory Goings
Trinity Wall Street
Creative Services Department
74 Trinity Place, 4th Floor
New York, New York 10006

RE: Archaeological Monitoring, Trinity Church and St. Paul's Chapel

Dear Mr. Goings:

The Louis Berger Group, Inc. (Berger) is pleased to present our end of field letter detailing the results of the archaeological monitoring conducted at Trinity Church and S. Paul's Chapel during the installation of the sign posts last month. As you are aware, the archaeological monitoring did not identify any human remains during the excavation of the six sign post holes. However, the excavations did encounter seemingly intact archaeological deposits within the south side of Trinity Church's cemetery and the east side of St. Paul's Chapel's cemetery. Future work in these areas of the cemetery should be conducted with care to avoid damaging these potentially significant archaeological deposits.

Also enclosed with this package are the artifacts recovered from the excavations. The material has been cursorily reviewed by myself, but has not been subjected to a detailed analysis by an archaeological laboratory. The material has not been labeled but has been separated out by test unit and by stratum.

We are pleased to have assisted your institution with this project. If you require similar archaeological services or any other cultural resource related assistance (including deed research, cemetery relocation, historic map research, etc.), then please do not hesitate to contact me at the number above.

Thank you for the opportunity to work with you. Have a wonderful Christmas and a very happy New Year.

Sincerely yours,

THE LOUIS BERGER GROUP, INC.

Zachary Davis, RPA
Principal Archaeologist

cc: XE 4545 (file)



December 23, 2009

Summary of Archaeological Monitoring – Trinity Church and St. Paul’s Chapel

In advance of construction for six sign-posts to be installed within the limits of the cemeteries at Trinity Church and St. Paul’s Chapel, archaeologists from the Louis Berger Group, Inc. (Berger) monitored the hand-excavation of the six sign-post locations (see Figures 1-3). The goal of the archaeological monitoring of the six locations was to ensure that no human remains were disturbed by the installation of the sign-posts. Berger’s Principal Archaeologist Zachary Davis, RPA and Field Archaeologist Caitlin Keefe conducted the archaeological monitoring during the excavation for the sign-posts. The sign-post holes were excavated by the design-build firm of Fahey Design Build (of New York, New York) and the excavations measured 18” in diameter and were excavated to a depth of 3.5’ unless obstructions were encountered. During the excavations, Berger’s archaeologists closely watched the removal of soil from the ground and observed if any archaeological material was present in the excavation spoil pile. Efforts were made to retain all faunal material observed during excavation and any other culturally significant material.

As the goal of this work was to verify that the excavated areas did not disturb any human remains, this end of field letter provides a basic summary of the archaeological field work and archaeological material from the excavations. It is expected that this end of field letter will be submitted to the New York City Landmarks Preservation Commission to assure the commission that the excavations did not affect any human remains within the confines of the two cemeteries.

Archaeological findings

Excavation of the six tests was conducted on November 16 and 17, 2009. Excavation of the six post holes for the sign posts failed to uncover any evidence of human remains within the limits of the excavation. A variety of archaeological material was recovered from the excavations. The recovered material ranges from early colonial artifacts to 20th century objects. A brief description of the archaeological is presented along with the strigraphic observations of the excavated locations.

Trinity Church – Test #1 – Located at the southeastern corner of Trinity Church’s property (Photos 1 and 2), this post location was excavated to a depth of 3.5’. The test pit was situated within an area that has been used for planting flowers and several tulip/daffodil bulbs were observed in the uppermost layer. The excavations uncovered several layers containing a variety of archaeological material. The upper layer contained a mixture of modern material, including an aluminum can pull-tab, with obviously historic artifacts, including kaolin pipe stem fragments with bore diameters of 7/64” to 5/64”, covering a range from the 1600s through the mid-18th century (Binford 1962, Harrington 1964). A complete list of identified artifacts is included in Appendix A. The first layer was underlain by a light sandy soil and this was followed by a layer containing large oyster shells, faunal material and early colonial artifacts including several pieces of tin-glazed eathenwares, likely Delft ware (Photo 3). Of the faunal material recovered from test 1 at Trinity, none of the material appeared to be human, but rather a mix of medium to large mammal, probably pig/sheep to cow/horse.



FIGURE 1: Overview of the Trinity Church/St. Paul's Chapel Project

Source: NYCEMap GIS

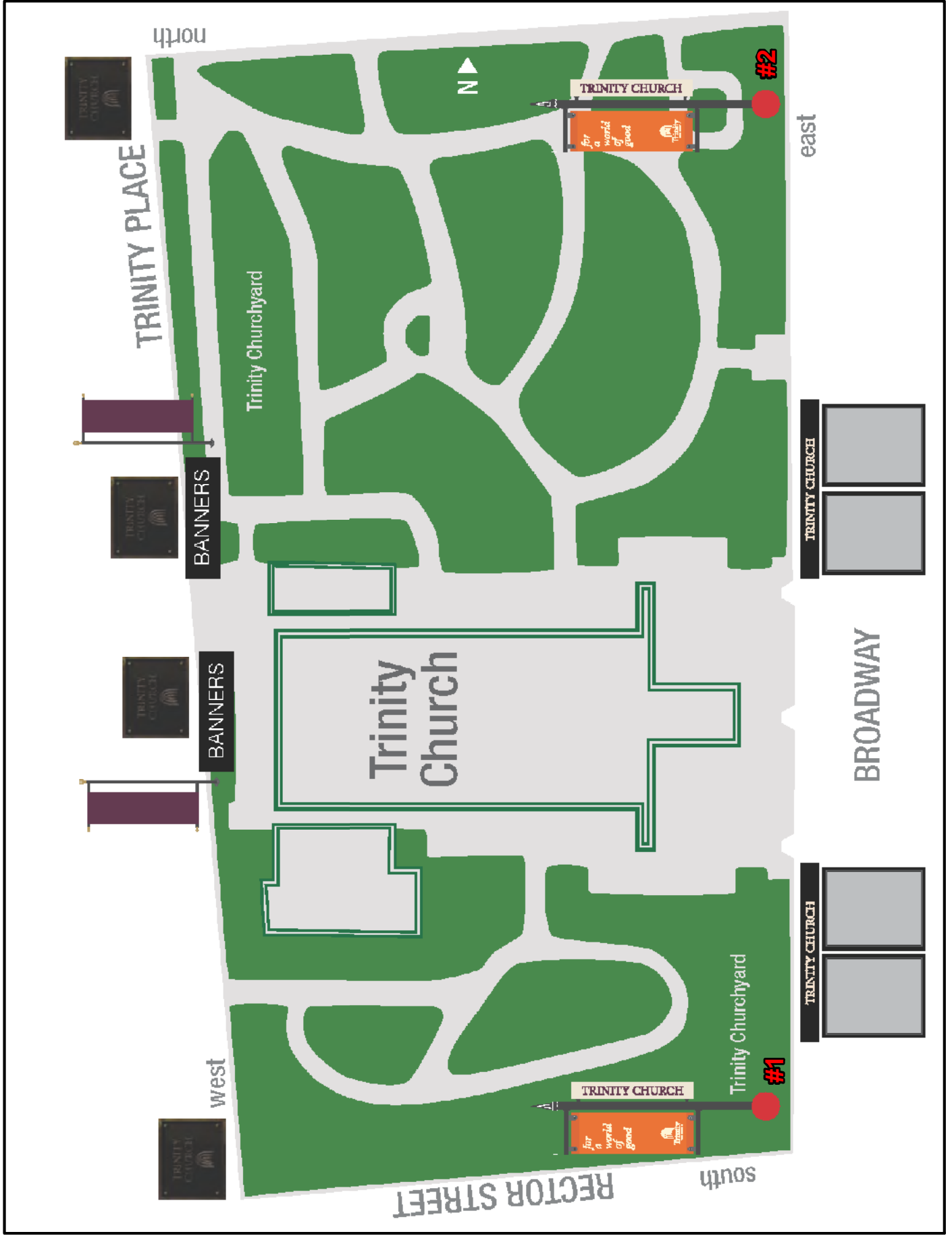


FIGURE 2: Locations of Sign-Post Holes Excavated with in the Trinity Church Cemetery

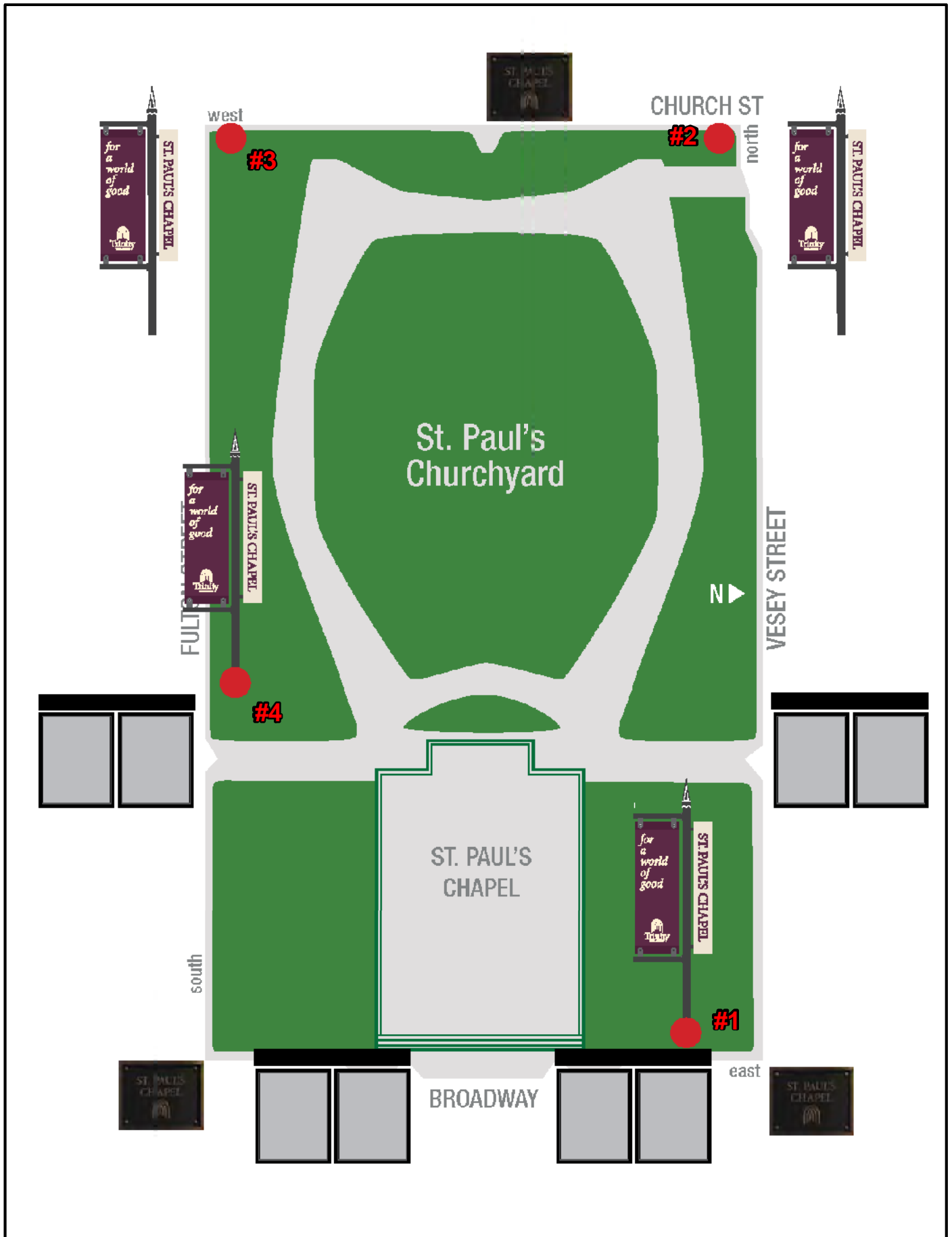


FIGURE 3: Locations of Sign-Post Holes Excavated within St. Paul's Chapel's Cemetery

Source: Arkigrafika 2009



Photo 1 - View South of Test #1 at Trinity Church.



Photo 2 - Profile of Test #1 at Trinity Church. Note the ight Sand Layer underlain by Shell and Brick.



Photo 3 - Selected Historic Artifacts from Test #1 at Trinity Church

The presence of early colonial artifacts within the lowermost layer is not unexpected given the history of the parcel occupied by Trinity Church. Trinity Church was initially constructed at this location in the early 1700s. However, before the first Trinity Church was built, the parcel would have been located at the extreme northern limits of New Amsterdam's Dutch settlement (Figure 4). The recovered archaeological material is consistent with this location's use as a residential site in the 17th and early 18th century prior to the construction of Trinity Church.

Trinity Church – Test #2 – Test #2 for Trinity Church was located at the northern end of the church's property opposite Pine Street (Photo 4) and outside the original confines of the New Amsterdam settlement area. This test was excavated to a depth of 3.5' and was found to contain one continuous and disturbed stratum (Photo 5). The archaeological material recovered at the test #2 for Trinity Church contained early colonial artifacts, including kaolin clay pipe stem fragments with 6/64" bore diameters and a shell button (Photo 6). However, due to this high degree of disturbance shown within this test's stratigraphy and the test's location north of Wall Street, it is unclear as to the historic origin of this material.

St. Paul's Chapel – Test #1 – This test was located at the northeastern corner of St. Paul's Chapel's cemetery, close to Vesey Street and Broadway (Photo 7). Excavation of this test revealed a regular

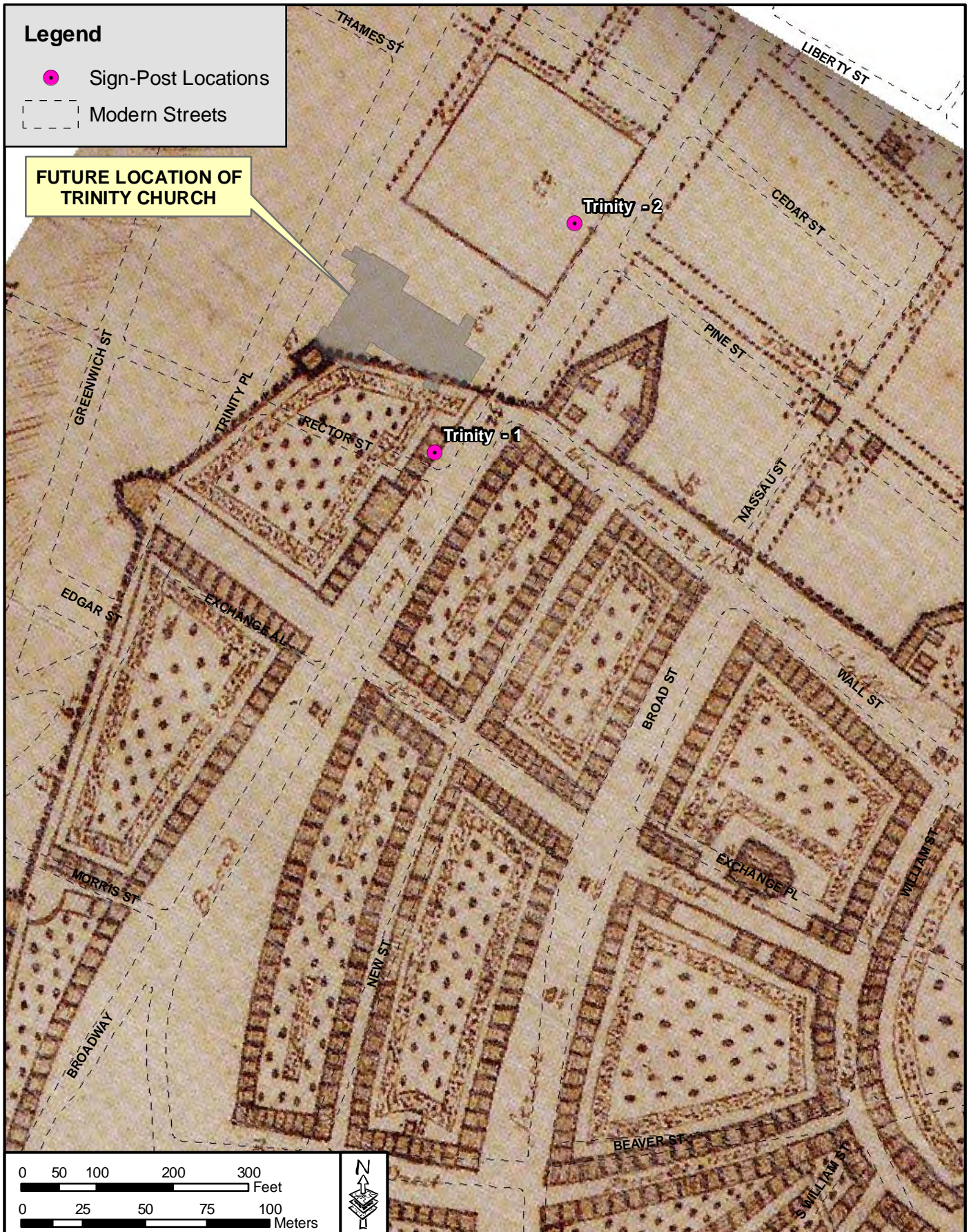


FIGURE 4: 1695 View of the Northern Portion of New York before the Construction of Trinity Church

Source: Miller 1695



Photo 4 - View South of Test #2 for Trinity Church, Opposite Pine Street.



Photo 5 - Profile of Test #2 for Trinity Church.



Photo 6 - Historic Pipe Fragments and Shell Button from Test #2 at Trinity Church



Photo 7 - View West from Broadway of Test #1 at St. Paul's Chapel

stratigraphic sequence containing archaeological material in the first 2'. Pipe bowl fragments were recovered from both the first and second stratum as well as a small collection of ceramic material. A few faunal remains were recovered though none of the faunal material presented as human in origin.

St. Paul's Chapel – Test #2 – This test was located at the northwest corner of St. Paul's Chapel's cemetery and closest to Church and Vesey streets; this test was situated opposite the World Trade Center site (Photo 8). While the prior test contained historic archaeological material Test #2 at St. Paul's Chapel contained largely modern artifacts, including a 1985 dime, a stoneware sewer pipe fragment and a few rodent and bird bones. None of this material was suggestive of a historic deposit

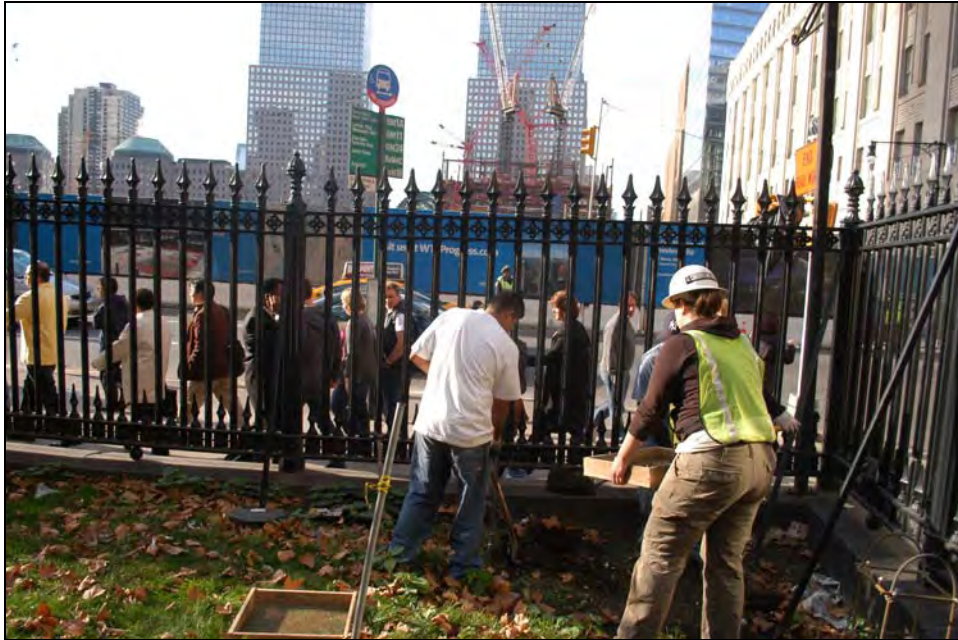


Photo 8 - Test #2, St. Paul's Chapel's Cemetery at the Southeast Corner of Vesey and Church Streets

in this area and the excavations did not encounter any human remains.

St. Paul's Chapel – Test #3 – This test, located at the southwest corner of St. Paul's Chapel's cemetery was located just north of Fulton Street and east of Church Street. Excavation of this test was impeded by the presence of a large cement slab covering the entirety of the test at a depth of 2.4' below the surface (Photo 9). Overlying the cement slab were several layers that suggested this location's surface had been modified in the past. Within these strata, mostly modern material was recovered, including a nail polish bottle with a screw-on plastic cap, three U.S. pennies (1961, 1968 and 2000) and one kaolin pipe stem fragment measuring 4/64" bore diameter. No faunal material was recovered during the excavation of this test.

St. Paul's Chapel – Test #4 – This test was located north of Fulton Street at the mid-point between Church Street and Broadway and immediately adjacent to the brownstone wall surrounding the cemetery on the south side. Excavation of this test was hampered by the presence of brownstone covering the southern half of the test and further brownstone to the north. This reduced the size of the test from 18" to approximately 10." Excavation of this test failed to recover any archaeological material.

Conclusions

Archaeological monitoring of the excavation of six post holes for the installation of post-signs in the Trinity Church and St. Paul's Chapel cemeteries did not affect or disturb any human remains. In the two tests excavated within the Trinity Church cemetery limits, early colonial artifacts were encountered. Excavations for the test south of Wall Street and closest to Rector Street revealed a seemingly intact 17th to 18th century deposit predating the construction of the first Trinity Church. Similarly, the one test excavated at St. Paul's Chapel nearest to Broadway also contained early colonial material. Both of these locations should be treated with caution for future projects that may reach to the depths of these early colonial deposits.



Photo 9 - South Profile of Test #3 at St. Paul's Chapel

The archaeological material recovered from the excavation of these six tests has been cursorily reviewed by Berger, but has not been subjected to a systematic analysis by our laboratory. Additional systematic analyses of the material may yield significant information regarding the early Colonial activities that took place at Trinity Church and St. Paul's Chapel. All material has been returned to Trinity Wall Street for their archives.



References

Binford, Lewis

1962 "A New Method of Calculating Dates from Kaolin Pipe Stem Fragments". *Southeastern Archaeological Conference Newsletter* 9(1):19-21.

Harrington, J. C.

1954 "Dating Stem Fragments of Seventeenth and Eighteenth Century Clay Tobacco Pipes". *Quarterly Bulletin of the Archeological Society of Virginia*. 9(1):10-14.

Miller, J.

1695 *New Yorke*. Unknown publisher, Cleveland.



Appendix A – List of Artifacts Recovered

Trinity Church

Shovel Test Pit #1 (Broadway & Rector Street)

Level 1 - 1' - 2' (Depth)

- 1 - large piece of mortar, architectural
- 1 - button, bone & copper, broken
- 1 - metal pull tab
- 1 - nail, wire cut
- 5 - bone fragments, non-human
- 1 - rib, portion, large mammal (cow/horse)
- 5 - oyster shell
- 1 - clam shell
- 5 - kaolin clay pipe fragments
 - 1 - pipe bowl fragment - with wheat motif decorations
 - 1 - pipe bowl fragment - undecorated
 - 3 - pipe stem fragments
 - 1 - 7/64" bore hole
 - 1 - 3/32" bore hole
 - 1 - 5/64" bore hole
- 1 - metal lump with orange paint
- 1 - glass bottle nck, fragment
- 12 - clear window glass
- 4 - clear bottle glass, thin
- 1 - clear bottle glass, thick
- 4 - green bottle glass
- 1 - bottle glass, thin, cloudy
- 2 - automobile glass, ridged
- 6 - white earthenware, white glaze
- 1 - white stoneware, white glaze
- 1 - porcelain
- 1 - yellowware
- 1 - earthenware, jug/keg(?)
- 1 - lead glazed earthenware
- 1 - stoneware, beer bottle(?)

Trinity Church

Shovel Test Pit #1 (Broadway & Rector Street)

Level 2 - 2' - 3.5' (Depth)

- 38 - oyster shell
- 9 - clam shell
- 1 - ceramic clay marble
- 1 - fragment, mortar, architectural
- 40 - faunal fragments, non-human
- 3 - rib, fragments, medium mammal (sheep/goat?)
- 1 - tooth - cow
- 1 - tooth - rodent
- 1 - ulna proximal, small mammal, non-human
- 1 - pelvis, small mammal - pig
- 1 - femur, proximal, small mammal (dog/fox?)
- 2- metal nails, square cut
- 1 - metal plate (1cmx2cm)
- 1 - metal button cap
- 2 - auto glass, ridged
- 1 - glass bottle neck and lip, frag., medicine bottle
- 1 - glass base, ink well (?)
- 1 - brown bottle glass, - "H" embossed
- 12 - clear window glass
- 6 - clear bottle glass, thin
- 4 - clear bottle glass, tick
- 1 - brown bottle glass
- 3 - tin-glazed earthenware tile, frags., mendable (Delft?)
- 6 - tin-glazed earthenware shards, white, undecorated (Delft?)
- 1 - tin-glazed earthenware shard, hand-painted decoration (Delft)
- 4 - pearlware shards - white, undecorated
- 1 - cobalt blue pearlware shard
- 2 - handpainted earthenware shards, white
- 4 - red earthenware shards, lead-glazed
- 5 - yellow & brown banded whiteware shards
- 4 - kaolin pipe fragments
 - 1 - pipe bowl fragment, undecorated
 - 2 - pipe stem, 3/32" bore hole
 - 1 - pipe stem, 5/64" bore hole

Trinity Church
Shovel Test Pit #2 (Broadway & Pine Street)
Level 1 - 0.9' - 3.5' (Depth)

- 7 - nails, wire cut
- 2 - wing-nuts, metal
- 2 - indeterminate metal
- 3 - green bottle glass
- 1 - clear glass bottle "Tr" - Tropicana juice bottle
- 1 - clear glass bottle, thick
- 1 - brown bottle glass
- 4 - window glass
- 1 - clear glass bottle, thick, patina
- 1 - octagonal shaped glass bottle, patina
- 14 - oyster shell
- 1 - clam shell
- 1 - shell button
- 14 - bone, indeterminate
- 1 - radius, large mammal, species indeterminate
- 1 - bone, calcaneus (?), species indeterminate
- 2 - bird bones
- 4 - rib bones, fragments, large mammal (horse/cow?)
- 1 - red earthenware frag, glazed
- 1 - red earthenware, unglazed
- 1 - thick porcelain, cup base
- 3 - whiteware frags
- 1 - cremeware
- 1 - delftware/tin-glazed frag
- 1 - earthenware, beer bottle frag.
- 2 - pearlware
- 1 - tile, handpainted - delftware?
- 6 - kaolin pipe fragments
 - 2 - pipe stems, 3/32" bore diameter
 - 2 - pipe stems, 5/64" bore diameter
 - 1 - pipe stem, 1/16" bore diameter
 - 1 - pipe bowl fragment

St. Paul's Chapel

Shovel Test Pit #1 (Broadway & Vesey Street)

Level 1 - 0' - 1.0' (Depth)

- 1 - metal, doorknob
- 1 - metal, handle
- 1 - metal, unidentified
- 1 - metal, lead
- 13 - window glass
- 7 - clear bottle glass
- 2 - bottle, blue/green - lip
- 2 - bottle, green
- 1 - bottle, blue
- 1 - bullet cartridge, .22 caliber
- 2 - U.S. pennies, 1961, 1992
- 1 - bone, rib, large mammal
- 1 - ceramic, whiteware
- 2 - pipe bowl fragments
 - 1 - pipe bowl w/ decoration, unidentifiable

Level 2 - 1.0' - 1.8' (Depth)

- 3 - green bottle glass, thick
- 1 - clear bottle glass, thin
- 5 - faunal, 1 - vertebral fragment, 4 - unidentified
- 16 - oyster shell
- 1 - clam shell
- 1 - yellowware, combed & dotted, rockinghamware
- 1 - hand painted porcelain - blue decoration
- 1 - redware, lead glazed slip
- 1 - creamware
- 1 - pipe bowl fragment

St. Paul's Chapel
Shovel Test Pit #2 (Church & Vesey Street)

Level 1 - 0' - 0.6' (Depth)

- 3 - fauna, rodent
- 1 - brown bottle glass
- 1 - green bottle glass
- 3 - clear bottle glass
- 1 - bone, avian
- 1 - ceramic tile - modern
- 1 - U.S. dime, 1985

Level 4 - 1.6' - 2.4' (Depth)

- 8 - nails, corroded
- 1 - clear bottle glass
- 1 - whiteware
- 1 - glass tile, decorative embossed pattern
- 1 - stoneware, sewer pipe

St. Paul's Chapel

Shovel Test Pit #3 (Church & Fulton Street)

Level 1 - 0.3' - 1.9' (Depth)

- 1 - metal, nail
- 1 - nail polish bottle, w. plastic cap
- 2 - clear bottle fragments
- 2 - terra cotta fragments, modern flower pot
- 1 - ceramic tile, undecorated
- 1 - metal, lead
- 1 - pipe stem, 1/16" bore diameter
- 3 - pennies, 1961, 1968, 2000

Level 2 - 1.9' - 2.2' (Depth)

- 1 - clear bottle glass
- 1 - porcelain bathware (sink/toilet)



Appendix B – Excavation Profiles

Trinity Church**Shovel Test Pit #1**

(Broadway & Rector Street)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-0.7	10 YR 3/1	Very dark gray	Silty loam	
0.7-1.4	10 YR 3/2	Dark brown	Silty loam	
1.4-2.2	10 YR 3/1	Very dark gray	Silty loam	
2.2-2.5	10 YR 5/4	Yellowish brown	Very fine sand	
2.5-2.9	10 YR 3/2	Dark brown	Silty loam	lacking shell
2.9-3.5	10 YR 3/2	Dark brown	Silty loam	with brick and shell

Shovel Test Pit #2

(Broadway & Pine Street)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-0.9	10 YR 2/1	Black	Silty loam	
0.9-3.5	10 YR 3/1 mottled w/ 7.5 YR 5/6	Very dark gray Strong brown	Silty loam	mixed deposi

St. Paul's Chapel**Shovel Test Pit #1**

(Broadway & Vesey Street)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-1.0	10 YR 3/1	Very dark gray	Silty loam	
1.0-1.8	10 YR 4/1	Dark gray	Sandy silt, w/ gravel	
1.8-2.9	10 YR 5/4	Yellowish brown	Sandy silt, root intrusions	
2.9-3.4	10 YR 6/6	Brownish yellow	Sandy silt	

Shovel Test Pit #2

(Church & Vesey Streets)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-0.6	10 YR 2/2	Very dark brown	silty loam	
0.6-1.2	10 YR 3/4	Dark yellowish brown	sandy silt	
1.2-1.6	10 YR 2/2	Very dark brown	ash/burnt matrix	
1.6-2.4	10 YR 2/2	Very dark brown	ash/burnt matrix with plastic	
2.4-3.5	10 YR 4/3	Brown	Sandy loam	

Shovel Test Pit #3

(Church & Fulton Streets)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-0.3	10 YR 3/1	Very dark gray	silty loam	
0.3-0.7	10 YR 3/3	Dark brown	sandy loam	
0.7-2.0	10 YR 2/1	Black	Sandy loam	
2.0-2.2	10 YR 7/6	Yellow	Sand	
2.2-2.4	5 YR 4/4	Red	Sand	

<<<CONCRETE IMPASSE>>>

Shovel Test Pit #4

(Mid-Block on Fulton Street)

<u>Depth (ft.)</u>	<u>Munsell</u>	<u>Color</u>	<u>Texture</u>	<u>Comments</u>
0-0.5	10 YR 3/2	Dark brown	Sand & gravel	
0.5-3.5	5 YR 4/4	Red	Medium sand	



Appendix C – Resume of Key Personnel

ZACHARY J. DAVIS
The Louis Berger Group, Inc.
Principal Archaeologist

EDUCATION

- Interdepartmental Doctoral Program in Anthropological Science, State University of New York at Stony Brook, 2000-2005.
- M.A., Anthropology, State University of New York at Stony Brook, 2000.
- M.A., Archaeology, Institute of Archaeology, University of London, 1994.
- B.A., Archaeological Studies, Boston University, 1993.

PROFESSIONAL REGISTRATIONS

- Register of Professional Archaeologists (RPA)

TECHNICAL TRAINING

- 8-hour refresher for Hazardous Waste Operations and Emergency Response, Emilcott Associates, Inc., October 6, 2009.
- Trenching and Excavation Safety—OSHA Construction Industry Standards, Subpart P (29 CFR 1926.650-652). Emilcott Associates, Inc., September 22, 2009.
- Cultural Resources Best Practices Workshop, 7-Hour Training Program, New Jersey Historic Preservation Office, October 27, 2006.
- 40-Hour H&S for Hazardous Waste Operations and Emergency Response meeting the training requirements of 29 CFR 1910.120. Emilcott Associates, Inc., March 15, 2004.
- Introduction to Section 106 Review (Ralston Cox, instructor), February 20-21, 2002.
- Introduction to GPS using the Trimble Pro XR (Mike Popoloski, instructor), March 19, 2001.

PROFESSIONAL AFFILIATIONS

- Society for American Archaeology
- Millburn-Short Hills Historical Society

PROFESSIONAL EXPERIENCE

Mr. Davis's background includes archaeological investigations at prehistoric sites dating to the Paleoindian through the Late Woodland periods and historic sites dating to the seventeenth century through the early twentieth century. As a Principal Archaeologist he is responsible for client interaction, preparation of innovative research designs, and overall technical supervision and implementation of research and field projects. He also prepares technical reports and agreement documents in compliance with Section 106 of the National Historic Preservation Act (1966), Section 4(f) of the Department of Transportation Act of 1966, and state and local regulations for projects in the metropolitan New York City area and the Northeast and Middle Atlantic. In addition, Mr. Davis has extensive experience with lithic material analysis and Geographic Information Systems database development and analysis for cultural resources. Since joining Berger, Mr. Davis's major projects include the following.

- **Cultural Resource Services, Second Avenue Subway, Phase 1, New York, New York.** Oversight and coordination of cultural resource compliance for final design and construction of Phase 1 of the Second Avenue Subway, from East 63rd to East 99th streets. Responsible for drafting the

archaeological field testing plans, archaeological monitoring, and implementing archaeological fieldwork in advance of and during construction. Coordinated historic architectural resource evaluations of properties adjacent to the proposed ancillary structures associated with the new subway station. For New York City Transit.

- **Phase IA Cultural Resource Assessment, Gowanus Canal Corridor Rezoning, Brooklyn, New York.** Project Manager, proposed rezoning of 24-block area. Rezoning was designed to implement a mixed-use district to support a wide range of uses, both residential and commercial. Research was conducted on the ownership and occupation history of 16 lots; each of the lots or portions of each were found to have potential to contain intact archaeological deposits associated with the residential occupancy of the lots and/or construction of the Gowanus Canal bulkhead, part of the National Register-eligible Gowanus Canal Historic District. Of the properties identified and evaluated as part of this study, 12 were recommended as eligible for listing in the State and National Registers. For the New York City Department of City Planning.
- **Phase I/II Cultural Resource Assessment, Armed Forces Reserve Center and Implementation of BRAC 05 Realignment Actions, Preferred Site & Alternative 2 Site, Gloucester and Winslow Townships, Camden County, New Jersey.** Project Manager, cultural resource investigations associated with the construction of new AFRC facility. Assessment included background research, an architectural survey, a pedestrian reconnaissance, and a systematic subsurface archaeological survey, yielding two previously unidentified archaeological sites, with one determined eligible for listing in the National Register. For the United States Department of the Army, 99th Regional Support Command.
- **Phase I Archaeological Assessment, GSA Leased Office Space, City of Oswego, Oswego County, New York.** Project Manager, archaeological investigation of new Social Security Administration building. Assessment included background research and a pedestrian reconnaissance. For the United States General Services Administration.
- **Phase IA Cultural Resource Assessment, Broadway Triangle Redevelopment Project, Williamsburg, Brooklyn, New York.** Project Manager, proposed rezoning of nine-block area. Rezoning was designed to implement a mixed-use district with wide range of uses, residential and commercial. Research was conducted on the ownership and occupation history of the rezoning area. The project was found to have no effect on archaeological resources. Of the properties identified and evaluated as part of this study, five were recommended as eligible for listing in the State and National Registers. For the New York City Department of Housing Preservation and Development.
- **Phase IA Cultural Resource Assessment, Newark Liberty International Airport, Redevelopment and Modernization of Terminal A, Elizabeth, Union County and Newark, Essex County, New Jersey.** Project Manager, cultural resource assessment of proposed improvements to Terminal A. Included determination of archaeological resource potential and historic architectural resources within view of the project's area of potential effect. For the Port Authority of New York and New Jersey.
- **Cultural Resource Eligibility/Effects, Improvements to County Route 571, Princeton/Hightstown Road, Princeton Junction, Mercer County, New Jersey.** Project Manager, completing eligibility/effects documentation for proposed road improvements. Included determination

of the project's archaeological resource potential, evaluation of the presence/absence of archaeological resources, and a survey of the historic architectural resources within view of the project's area of potential effect. For the Delaware Valley Regional Planning Commission.

- **Phase IA Cultural Resource Assessment, Fordham University New Residence Halls, Fordham University Rose Hill Campus, Bronx, New York.** Project Manager, cultural resource assessment of new residence halls. For the Dormitory Authority of the State of New York on behalf of Fordham University.
- **Archaeological Documentation, Hudson River Bulkhead, World Trade Center PATH Terminal, New York City.** Project Manager, documentation of the late nineteenth-century Hudson River Bulkhead located underneath the West Side Highway and within the footprint of the proposed underground pedestrian connector between the new WTC PATH station and the World Financial Center. Included monitoring construction activities and documenting the extent, nature, and design of the Hudson River Bulkhead in the project area. For the Port Authority of New York and New Jersey.
- **Phase IA Archaeological Assessment, Proposed Vent Plants, West 53rd and 55th Streets and Eighth Avenue, New York, New York.** Project Manager, archaeological resource assessment of two proposed vent plant installations in midtown Manhattan. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area and utilized historic elevation survey data to determine extent of disturbance from construction of Eighth Avenue in the early nineteenth century. For New York City Transit.
- **Phase IA Cultural Resource Assessment, Dutch Kills Rezoning, Queens, New York.** Project Manager, proposed rezoning of 40-block area adjacent to the Sunnyside Yards and north of Queens Plaza and Long Island City. Rezoning was designed to implement mixed-use and contextual zoning districts for the wide range of uses found in Dutch Kills. Research was conducted on the ownership and occupation history of the five lots; each of the five lots or portions of each was found to have potential for intact archaeological deposits. Of the properties identified and evaluated as part of this study, 10 individual properties and one historic district were recommended as eligible for listing in the State and National Registers; three were also recommended as New York City Landmark-eligible. For the New York City Department of City Planning.
- **Phase IA/IB Cultural Resource Assessment, Beacon Institute for Rivers and Estuaries, Beacon, New York.** Project Manager, Phase IA archaeological assessment and limited Phase IB archaeological field survey of proposed location for the Center for Advanced Environmental Technology, positioned on the remnants of a nineteenth- and twentieth-century historic brickwork. Historical and cartographic research, identification and analysis of past disturbances and/or prior settlement and land use, and assessment of the property for its potential to contain historic and/or prehistoric archaeological resources. For the Dormitory Authority of the State of New York and the New York State Office of Parks, Recreation and Historic Preservation on behalf of the Beacon Institute for Rivers and Estuaries.
- **Phase IA Cultural Resource Assessment, Proposed New Primary/Intermediate School at PS/IS 48, William Wordsworth School, Queens, New York.** Project Manager, cultural resource assessment of new primary/intermediary school adjacent to historic school building. For the New York City School Construction Authority.

- **Cultural Resource Constraints Technical Memo, Dinky Right-of-Way Route 1 BRT Project, Princeton Township, Princeton Borough, and West Windsor Township, Mercer County, New Jersey.** Project manager, study to identify potential cultural resource constraints within the Dinky right-of-way project area of the proposed Route 1 Bus Rapid Transit Project between Princeton University and Princeton Junction. For New Jersey Transit.
- **Phase IA Cultural Resource Assessment, Replacement of the Central Avenue Bridge over Blind Brook, Rye, New York.** Project manager, cultural resource assessment of project area, including background research, on-site evaluation, limited field testing and historic architectural survey and evaluation of the bridge and surrounding area. For the City of Rye, New York.
- **Phase IA/IB Archaeological Investigation, Southern Water Pollution Control Facility Expansion Project, Stafford Township, New Jersey.** Project manager, archaeological assessment and subsurface survey conducted for compliance with the environmental approvals required for a loan application submitted to the New Jersey Department of Environmental Protection Environmental Infrastructure Trust. Historical and contextual background research, archaeological site file and historic property searches at the New Jersey State Museum and the New Jersey Historic Preservation Office, and a pedestrian reconnaissance and a subsurface survey. For the Ocean County Utilities Authority.
- **Cultural Resources Eligibility/Effects, Garden State Parkway, Interchange 10 Improvements, Cape May Court House, New Jersey.** Project manager, cultural resource services associated with the environmental compliance to design three new interchanges on the National Register eligible Garden State Parkway in Cape May County. Background research, field efforts to identify the presence/absence of archaeological resources, recommendation of five previously unidentified archaeological sites as eligible for listing in the National Register, and survey of historic architectural resources within the view of the proposed project. For the New Jersey Turnpike Authority.
- **Phase IA Cultural Resource Assessment, Lehman College New Science Facility Project, Lehman College, Bronx, New York.** Project Manager, cultural resource assessment conducted for proposed construction of new science facility at the Lehman College campus. For the Dormitory Authority of the State of New York.
- **Phase IA Cultural Resource Assessment, Proposed Oak Point Detention Facility, Block 2604, Lot 174, Bronx, New York.** Project Manager, Phase IA archaeological assessment of late nineteenth- to early twentieth-century rail yard, reviewed under CEQR. Historical and cartographic research, identification and analysis of past disturbances and/or prior settlement and land use, and assessment of the property for its potential to contain historic and/or prehistoric archaeological resources. For the New York City Department of Corrections.
- **Phase I Archaeological Investigation, Stream Restoration and Related Work in the Sweet Brook Bluebelt, Annadale, Staten Island, New York.** Project Manager, archaeological investigations in advance of the restoration and alteration of two sites along the Sweet Brook Bluebelt and its associated wetlands. For the JRC Construction Corporation.
- **Phase IB Archaeological Survey, Eagle Academy for Young Men, Block 2923, Lots 17, 23, and 26, Bronx, New York.** Project Manager, archaeological field testing at proposed New York City

school location in the Tremont section of the Bronx. Excavations identified, evaluated, and mitigated a buried historic trash scatter and bottle dump feature dating to the early to mid-twentieth century. For the New York City School Construction Authority.

- **Phase IA Cultural Resource Assessment, Burlington Sod Farm, Springfield Township, Burlington County, New Jersey.** Project Manager, Phase IA cultural resource assessment of 640-acre agricultural property slated to become a new county fairgrounds. Historical and cartographic research, identification and analysis of past disturbances and/or prior settlement and land use, and assessment of the property for its potential to contain historic and/or prehistoric archaeological resources. For the Freeholders of Burlington County.
- **Combined Phase IA/IB Archaeological Assessment, Alcan Aluminum Corporation Focused Remedial Investigation Project, Oswego County, New York.** Project Manager, combined Phase IA archaeological assessment and Phase IB archaeological field survey under SEQRA for the Alcan Facility prior to the execution of contaminated soil mitigation project. For ARCADIS/BBL.
- **Phase IB Archaeological Survey, Jamaica Avenue School, Block 4102, Lots 19, 27, 33, 35 and 36, Cypress Hills, Brooklyn, Kings County, New York.** Project Manager, archaeological trenching at a proposed New York City school location. Excavations identified, evaluated, and mitigated extensive backyard deposits dating to the late nineteenth through early twentieth centuries. For the New York City School Construction Authority.
- **Phase IA Cultural Resource Assessment, Proposed Eagle Academy for Young Men, East 176th Street, Block 2923, Lots 17, 23, and 26, Bronx, New York.** Project Manager, Phase IA archaeological assessment for proposed school building. Historical and cartographic research, identification and analysis of past disturbances and/or prior settlement and land use, and assessment of the property for its potential to contain historic and/or prehistoric archaeological resources. For New York City School Construction Authority.
- **Phase IB Archaeological Survey, Rockaway Boulevard Site, Rockaway Boulevard and Nassau Expressway, Block 14260, Lot 1, Jamaica, Queens County, New York.** Principal Investigator, archaeological survey of proposed New York City Transit Bus parking facility located adjacent to JFK International Airport. Survey consisted of excavation of shovel tests across the project area. For New York City Transit.
- **Phase IA Cultural Resource Assessment, CCNY/ASRC Science Facility Project, City College of New York Campus, New York, New York.** Project Manager and lead researcher, archaeological assessment and historic architectural survey of proposed location for Advanced Science Research Center Facility Project. Historical and cartographic research, identification and analysis of past disturbances and/or prior settlement and land use, use of GIS technology to locate proposed plans on historical maps, and assessment of the project's potential effect on historic properties. Identified the potential location of a nineteenth-century burial vault in the proposed project area. For the Dormitory Authority of the State of New York.
- **Phase IB Archaeological Survey, World Trade Center PATH Terminal, New York City.** Project Manager, archaeological investigations in advance of construction of the new WTC PATH Terminal. Coordinated excavation of 170-foot-long trench to 15 feet below the surface, following

OSHA safety regulations. Identified, evaluated for National Register eligibility, and mitigated late eighteenth- and early nineteenth-century backyard residential archaeological features. For the Port Authority of New York and New Jersey.

- **Phase IA Archaeological Assessment, Rockaway Boulevard Site, Rockaway Boulevard and Nassau Expressway, Block 14260, Lot 1, Jamaica, Queens County, New York.** Principal Investigator, archaeological resource assessment of proposed New York City Transit Bus parking facility located adjacent to JFK International Airport. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New York City Transit.
- **Phase I Cultural Resource Assessment, Trenton-Morrisville Toll Bridge Rehabilitation and One Auxiliary Northbound Lane, Morrisville, Pennsylvania, and Trenton, New Jersey.** Project Manager, cultural resource assessment of improvements to interchanges and the Trenton-Morrisville Toll Bridge spanning the Delaware River. Archaeological assessment of proposed ground disturbance and historic architectural assessment of proposed interchange improvements to local structures, including the National Historic Landmark Delaware Division of the Pennsylvania Canal. For the Delaware River Joint Toll Bridge Commission.
- **Archaeological Monitoring, Condominiums at Cooke Mill, Market and Jersey Streets, Block H0850, Lot 21, City of Paterson, Passaic County, New Jersey.** Principal Investigator, archaeological monitoring project at former location of the Cooke Locomotive and Machine Works, which manufactured locomotives from 1852 until 1926. For Silk Mills Ventures, LLC and the City of Paterson Historic Preservation Commission.
- **Phase IA Cultural Resource Assessment, New Stapleton Waterfront Plan, Staten Island, New York.** Project Manager, cultural resource assessment of a mixed-use development and 12-acre park on the site of the former Navy Homeport in the Stapleton area. Conducted historical deed research on 11 development parcels, analysis of the historic shoreline evolution. Five locations were found with potential to contain historic archaeological resources associated with the waterfront development in the nineteenth century. One historic architectural resource was found to meet eligibility criteria. For the New York City Economic Development Corporation.
- **Replacement/Rehabilitation of the Kosciuszko Bridge, Brooklyn-Queens Expressway (I-278), Queens and Kings Counties, New York.** Provided archaeological consultation services, including review of previously completed cultural resource documentation, assisted with preparation of scope of work for Phase IB archaeological field testing, and reviewed the archaeological work plan. Conducted as part of an environmental impact statement, enabling the client to meet its requirements under Section 106 of the *National Historic Preservation Act* and Section 4(f) of the *National Transportation Act*. For New York State Department of Transportation.
- **Phase IA Archaeological Assessment, Jamaica Avenue School, Block 4102, Lots 19, 27, 33, 35 and 36, Cypress Hills, Brooklyn, Kings County, New York.** Principal Investigator, archaeological resource assessment of proposed New York City school location. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources within the project area. For the New York City School Construction Authority.

- **Phase IA Archaeological Assessment, Remedial Options Pilot Study, Grasse River Study Area, Alcoa-Massena, Massena, New York.** Principal Investigator, Phase IA archaeological assessment of early twentieth-century Alcoa fabricating, ingot, and extrusion and smelting plant under the jurisdiction of the U.S. EPA as a Superfund Site. Research and analysis of past disturbances and potential for historic archaeological resources associated with the industrial use of the project area. For Blasland, Bouck and Lee, Inc.
- **Phase IA Archaeological Assessment, Proposed Ventilation Fan Plant Rehabilitation,, West 30th Street and Sixth Avenue, New York, New York.** Project manager, archaeological resource assessment of a proposed vent plant rehabilitation project servicing four NYCT subway lines. Archaeological assessment evaluated proposed project's potential to adversely affect previously undisturbed archaeological deposits, consulting historical maps and present-day mapping of the subway line and utilities. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New York City Transit.
- **Contextual Study, 153rd Street Pedestrian Bridge Access at Fort Washington Park, Manhattan, New York.** Principal Investigator, assisting with completion of the required environmental documentation for new pedestrian bridge to provide access from Riverside Drive and 151st Street to Fort Washington Park, crossing over rail lines and the Henry Hudson Parkway (Route 9A). As part of the environmental documentation, a contextual study of the project area was completed, including an inventory of all historic properties listed and eligible for listing in the state and national registers. For New York State Department of Transportation.
- **Phase IA Archaeological Assessment, Hebrew Academy of Brooklyn/Yeshiva R'tzahd, 965 East 107th Street, Block 8215, Lots 12 and 21, Brooklyn, Kings County, New York.** Principal Investigator, archaeological resource assessment of proposed New York City school location in Canarsie. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For the New York City School Construction Authority.
- **Phase I Archaeological Survey, Mount Vernon Avenue Bridge, Chatham, Morris County, Summit, Union County, New Jersey.** Project manager, Phase I archaeological assessment of proposed replacement for bridge spanning the Passaic River between Chatham and Summit. Involved assessing the project's potential to affect archaeological resources adjacent to the existing bridge, constructed in 1906, and archaeological fieldwork to document the presence/absence of archaeological resources. For the County of Morris, Department of Public Works, and the County of Union, Department of Public Works.
- **Phase IA Cultural Resource Assessment, East Orange Demonstration Project, Pre-K to 12th Grade School for the Performing Arts, City of East Orange, Essex County, New Jersey.** Principal Investigator, cultural resource assessment of proposed new school to be constructed at the present location of the circa 1910 East Orange High School. Determined project's potential to affect potential archaeological resources and coordinated the determination of the East Orange High School's National Register eligibility and the recordation of the school prior to demolition. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.

- **Phase IA Archaeological Assessment, Proposed Vent Plant Installation, West 21st Street and Sixth Avenue, New York, New York.** Principal Investigator, archaeological resource assessment of proposed vent plant installation in Chelsea. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources within the project area. For New York City Transit.
- **Phase IA Cultural Resource Assessment, Proposed Oakwood Avenue Elementary School Addition, City of Orange, Essex County, New Jersey.** Principal Investigator, cultural resource assessment as part of the E.O. 215 process of an addition to existing circa 1888 school. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources within the project area. For New Jersey School Construction Corporation.
- **Phase IA Cultural Resource Assessment, Harlem Hospital Center Modernization, New York, New York.** Project manager, cultural resource assessment of proposed hospital modernization project. Included archaeological assessment of the project area of potential effect, historic architectural evaluation of the surrounding area, and the preservation, removal, storage, and adaptive reuse of five Works Progress Administration (WPA)-commissioned murals in buildings slated for demolition. For the Dormitory Authority of the State of New York and the New York City Health and Hospitals Corporation.
- **Phase IA Cultural Resource Assessment, Proposed Peshine Avenue School, Elementary School Replacement, City of Newark, Essex County, New Jersey.** Principal Investigator, cultural resource assessment of a proposed new school to be constructed at the present location of circa 1911 Peshine Avenue Elementary School. Determined the project's potential to affect potential archaeological resources through the use of GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New Jersey School Construction Corporation.
- **Cultural Resource Screening, PATH to Newark Airport, Preliminary Design, Newark, New Jersey.** Project Manager, cultural resource screening to identify previously documented historic properties in the corridor between Newark Penn Station and Newark Liberty International Airport. For the Port Authority of New York and New Jersey.
- **Phase IA Archaeological Assessment, Hudson Yards/Number 7 Subway Line Extension, New York, New York.** Assisted with the analysis of archaeological resource potential for 39 lots on the west side of Manhattan and determined the potential effect of alternatives on cultural resources. For New York City Department of City Planning and New York City Transit.
- **Phase IB Archaeological Survey, Proposed Vent Plant Installation, Chrystie and Stanton Streets, New York, New York.** Principal Investigator, archaeological survey consisting of backhoe trench excavation to determine the presence/absence of late nineteenth- and early twentieth-century front yard archaeological resources. For New York City Transit.
- **Phase IA Cultural Resource Assessment, Proposed Grove Street Elementary School Replacement, City of Irvington, Essex County, New Jersey.** Principal Investigator, cultural resource assessment as part of the E.O. 215 process of a proposed new elementary school to be constructed in existing residential neighborhood. Employed GIS technology to georeference historical

maps to trace potential historic archaeological resources in the project area. For New Jersey School Construction Corporation.

- **Phase IA Cultural Resource Assessment, Proposed Burnet-Warren Elementary School Replacement, City of Newark, Essex County, New Jersey.** Principal Investigator for cultural resource assessment as part of the E.O. 215 process of proposed new elementary school to be built within the limits of the James Street Commons Historic District, a National Register-listed historic district. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New Jersey School Construction Corporation.
- **Cultural Resource Eligibility/Effects Investigations for the Proposed Tuckahoe Road (C.R. 557) Bridge Over Cape May Branch Rail Line Replacement, Atlantic County, New Jersey.** Principal Investigator, Section 106 compliance activities for NJDOT's proposed improvements to the Tuckahoe Road Bridge. Involved subsurface archaeological investigation and historic architectural survey within the area of potential effect (APE). The architectural survey indicated that the Tuckahoe Road Bridge had previously been determined not eligible for inclusion in the National Register of Historic Places. The Cape May Rail Line, also in the APE, was determined to be potentially eligible for inclusion in the National Register as a historic district. Review of project plans determined that the proposed bridge replacement project would not have an adverse effect on the National Register-eligible Cape May Branch Rail Line.
- **Phase IA Archaeological Assessment, Proposed Fan Plant Rehabilitation, 52nd Street and Sixth Avenue, New York, New York.** Principal Investigator, archaeological resource assessment of a proposed fan plant rehabilitation in midtown Manhattan. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New York City Transit.
- **New Embassy Compound, Baghdad, Iraq.** Research assistant for cultural resource investigations associated with construction of a new embassy compound. Tasks included securing historical maps of Baghdad, georeferencing historical maps to modern mapping, and drafting portions of the report's historic background section. For the U.S. Department of State, Overseas Buildings Operation.
- **Cultural Resource Screening, Proposed Middle School Replacement, City of Irvington, Essex County, New Jersey.** Principal Investigator, cultural resource assessment (part of the Environmental Assessment process) of proposed new elementary school to be constructed in existing residential neighborhood. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New Jersey School Construction Corporation.
- **Phase IA Archaeological Assessment, New South Ferry Terminal, New York, New York.** Responsible for archaeological resource assessment of proposed subway terminal project in Battery Park. Extensive cartographic research documenting the historic evolution of the Lower Manhattan shoreline. Employed GIS technology to georeference numerous historical maps in order to trace potential historic archaeological resources in the project area. Coordinated review with New York City Landmarks Commission and New York State Office of Parks, Recreation and Historic Preservation. Drafted portions of the Memorandum of Agreement and the entire Archaeological Resource Management Plan to be enacted during construction. For New York City Transit.

- **Phase IA Archaeological Assessment, Proposed Fulton Street Transit Center, Fulton Street and Broadway, New York, New York.** Principal Investigator, archaeological resource assessment of proposed downtown transit facility. Reviewed historical maps and documents and summarized past disturbances to the project area to calculate the project area's potential for archaeological resources. Drafted portions of the project's Programmatic Agreement. For New York City Transit.
- **Phase IA Archaeological Assessment, Proposed Fan Plant Rehabilitation, Lafayette and Flatbush Avenues, Brooklyn, New York.** Principal Investigator, archaeological resource assessment of a proposed fan plant rehabilitation in Fort Green, Brooklyn. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New York City Transit.
- **Triborough Bridge Rehabilitation Project, Randall's and Ward's Islands, New York, New York.** Principal Investigator, archaeological monitoring necessitated by strong possibility for human burials from the Manhattan Psychiatric Center during all geotechnical borings for bridge project. Included observation of soil stratigraphy, inspection for human remains, and recordation of archaeological materials. No human remains were identified during the testing; however, specifications related to archaeological issues and the potential for human remains were drafted and incorporated into the bid documents for the construction contracts.
- **Cultural Resource Constraints, Louise Nevelson Plaza Redesign, William Street, Maiden Lane and Gold Street, New York, New York.** Project manager, preparation of cultural resource screening report to identify previously documented historic resources close to the proposed project and assessment of archaeological potential in the proposed project's area of potential effect. For the Lower Manhattan Development Corporation.
- **Phase IA Archaeological Assessment, Proposed Vent Plant Installation, Chrystie and Stanton Streets, New York, New York.** Principal Investigator, archaeological resource assessment of proposed vent plant installation on Manhattan's Lower East Side. Employed GIS technology to georeference historical maps to trace potential historic archaeological resources in the project area. For New York City Transit.
- **Phase IB Archaeological Survey, SUNY College at Purchase, New Residence Hall, Purchase, New York.** Principal Investigator, archaeological field survey of 2-acre parcel slated for new residence halls. Limited archaeological testing revealed the absence of potential culture-bearing soil horizons in highly disturbed locations. For the Dormitory Authority of the State of New York.
- **Phase IA Archaeological Assessment, Niagara Mohawk, Hudson (Water Street) Site, City of Hudson, New York.** Principal Investigator, Phase IA archaeological assessment of late nineteenth-/early twentieth-century coal-to-gas generating facility on the banks of the Hudson River. Involved research and analysis of past disturbances and potential for historic archaeological resources associated with the industrial use of the project area. For Blasland, Bouck and Lee, Inc.
- **Phase I Archaeological Investigation, Sweet Brook Drainage Area, Carlton Boulevard, Annadale, Staten Island, New York.** Principal Investigator, Phase I archaeological survey for sewage installation project. For JRC Construction Corporation at the request of NYC DEP.

- **Phase I Archaeological Survey, Luzerne County Road No. 9, Jackson, Lehman, and Dallas Townships, Luzerne County, Pennsylvania.** Documented the results of previously conducted roadway survey designed to assess the project's potential impact on late historic-period archaeological deposits. For Pennsylvania Department of Transportation Engineering District 4-0.
- **Cultural Resource Constraints Assessment, Route 9 and Garden State Parkway, Cape May County, New Jersey.** Conducted background research on archaeological and historic architectural resources in the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the South Jersey Transportation Planning Organization.
- **Stage IA Archaeological Assessment, Cross Harbor Freight Improvement Project, Greenville Yards, Jersey City, New Jersey.** Co-Principal Investigator, Phase IA archaeological assessment of the Greenville Yard. Involved research and analysis of past disturbances and potential for prehistoric and historic period resources. For Allee King Rosen & Fleming, Inc. in association with New York City Economic Development Corporation (NYCEDC).
- **Cultural Resource Constraints Assessment, Route 17, Bergen County, New Jersey.** Conducted background research on archaeological and historic architectural resources in the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.
- **Cultural Resource Constraints Assessment, Route 22, Essex and Union Counties, New Jersey.** Conducted background research on archaeological and historic architectural resources in the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.
- **Cultural Resource Constraints Assessment, Route 57, Warren County, New Jersey.** Conducted background research on archaeological and historic architectural resources in the project corridor. Prepared GIS files for cultural resources and summary cultural resource assessment of the project corridor. For the North Jersey Transportation Planning Organization.
- **Phase IA Archaeological Assessment, East 126th Street Bus Garage, New York, New York.** Responsible for the archaeological and architectural site file review at New York City Landmarks Commission (LPC), background research, and archaeological assessment for the half-block project area. For New York City Transit.
- **Cultural Resource Eligibility/Effects Documentation for Final Scope Development of Routes 1 and 9 at North Avenue, City of Elizabeth, New Jersey.** Principal Investigator, identification and evaluation of archaeological resources (Phase I/II) and historic architectural properties (eligibility/effect) within the proposed project area for roadway improvements. Conducted all background research and prepared archaeological report. For the New Jersey Department of Transportation.
- **Hudson Energy Project, Hudson River Bulkhead at Pier 92, Manhattan, New York.** Responsible for archaeological and architectural site file review at New York City Landmarks

Commission (LPC), background research, and field inspection of the study area from the bulkhead at Pier 92 to the ConEd substation at West 94th Street. For Genpower Hudson Energy.

- **New Jersey Cellular Telecommunications.** Principal Investigator for several Phase IA Archaeological Assessments and Historic Architectural Resource assessments for proposed Nextel cell tower installation in Essex, Berger, Morris, Sussex, Warren, Hunterdon, Somerset, Middlesex, and Monmouth counties. For IVI Environmental, Inc.
- **La Tourette Park, Staten Island, New York.** Principal Investigator, Historic Architectural Resource assessment of proposed Omnipoint cell tower installation. For Goodkind and O’Dea, Inc.
- **U.P.N. Pallet Co. Cell Tower, Penns Grove, New Jersey.** Principal Investigator, Phase IB archaeological assessment of proposed AT&T cell tower installation in Salem County. For Rescom Environmental Corporation.
- **Clayton Cell Tower, Clayton, New Jersey.** Principal Investigator, Phase IB archaeological assessment of a proposed AT&T cell tower installation in Gloucester County. For Rescom Environmental Corporation.
- **Peach County Cell Tower, Mantua, New Jersey.** Principal Investigator, Phase IB archaeological assessment of a proposed AT&T cell tower installation in Gloucester County. For Rescom Environmental Corporation.
- **P.S. 234-Q, Long Island City, Queens, New York.** Principal Investigator, Phase IB archaeological assessment for proposed New York City public school. For Parsons Brinckerhoff, Inc. and the New York City School Construction Authority.
- **Arthur Kill Road Bus Maintenance Facility, Staten Island, New York.** Principal Investigator, Phase IB archaeological survey for prehistoric and historic resources. For New York City Transit.
- **Arbutus Avenue Sewer Project, Staten Island, New York.** Principal Investigator, Phase I archaeological survey for sewage installation project along the Arbutus Creek. For JRC Construction Corporation.
- **Two Bridges Road Bridge, Lincoln Park, Wayne and Fairfield, New Jersey.** Principal Investigator, cultural resource screening of archaeological and historic architectural properties, including five known prehistoric Native American sites, several historic residences predating 1950, and the 1887 National Register-eligible steel truss bridge. Project involved assessing archaeological sensitivity for the area surrounding the confluence of the Passaic and Pompton rivers. For the County of Passaic.
- **Interchange 142 (Garden State Parkway and I-78), Hillside, Irvington, and Union, New Jersey.** Principal Investigator, Phase IB archaeological survey. For the New Jersey Highway Authority.
- **Interchange 142 (Garden State Parkway and I-78), Hillside, Irvington, and Union, New Jersey.** Contributed to the Historic Architectural Evaluation with background research on and evaluation of

the Elizabeth River Park, a National Register-eligible park in Union County. For the New Jersey Highway Authority.

PAST PROFESSIONAL EXPERIENCE

- **Calverton Naval Weapons Industrial Reserve, Calverton, New York.** Geographic Information Systems analyst. Integrated GIS analysis with lithic analysis to interpret prehistoric activity patterns.
- **PS 56R Site, Staten Island, New York.** Lab Director. Analysis, curation, and data entry for cultural material derived from the mitigation of a primarily Late Archaic prehistoric site.
- **Calverton Naval Weapons Industrial Reserve, Calverton, New York.** Field Supervisor. Cultural resource survey of 6,000-acre parcel with several early to mid-twentieth-century buildings and several Late Archaic and Late Woodland prehistoric sites.
- **Russian Mission, Bronx, New York.** Lithic Analyst. Cultural resource survey of a Late Archaic/Woodland quartz quarry site.
- **Long Island College Hospital, Brooklyn, New York.** Excavator. Monitoring heavy machine excavation of eighteenth-, nineteenth-, and twentieth-century historical archaeological deposits for the construction of a parking garage along Atlantic Avenue.
- **Robin's Island, Southold, New York.** Field Supervisor and Lithic Analyst. Survey of 450-acre island located in the Peconic Bay, revealing several prehistoric and historic sites.
- **Hudson Valley Rod & Gun Club, Pawling, New York.** Excavator. Mitigation of a Middle and Late Archaic prehistoric site.
- **Umm el Tlel, Syria.** Excavator. Long-term excavations of an open-air site containing cultural material from the terminal Lower Palaeolithic, through the Middle, Upper, and Epi-Palaeolithic, to the Neolithic.
- **Abri Castanet, Sergeac (Perigord), France.** Excavator. Long-term excavations of an early Upper Palaeolithic rockshelter in the southwest of France.
- **Le col de Jiboui, Haut-Diois (Drôme), France.** Excavator. Salvage excavations of an open-air Middle Palaeolithic site in the French Alps.
- **Fouilles Préhistoriques à Cagny, Cagny (Nord), France.** Excavator. Excavation of two open-air Lower Palaeolithic sites located in northern France.
- **African Meeting House, Nantucket, Massachusetts.** Excavator. Assisted with the excavation and interpretation of archaeological deposits surrounding this early nineteenth-century structure, the second constructed African Meeting House in America. Supervisor: Mary Beaudry, Boston University.

- **Spencer-Pierce-Little Farm, Newbury, Massachusetts.** Excavator. Boston University archaeological field school at a late seventeenth-century homestead. Supervisor: Mary Beaudry, Boston University.

ACADEMIC POSITIONS

Graduate Teaching Associate, Department of Anthropology, SUNY at Stony Brook. Primary Instructor: Anthropology 402, Problems in Archaeology - Landscape exploitation strategies in the Eurasian Palaeolithic.

Graduate Teaching Assistant, Department of Anthropology, SUNY at Stony Brook. Primary Teaching Assistant for Anthropology 102, Introduction to Cultural Anthropology; Primary Teaching Assistant for Anthropology 356, Urban Anthropology; Primary Teaching Assistant for Anthropology 104, Introduction to Archaeology; Primary Teaching Assistant for Anthropology 290, Ancient Science and Technology.

Graduate Teaching Assistant, Department of Anthropology, SUNY at Stony Brook. Lab Instructor for Anthropology 418, Lithic Technology; Lab Instructor for Anthropology 420, Geographic Information Systems in Environmental Analysis.

HONORS/AWARDS

- Graduate Council commendation for excellence in teaching by a graduate student, SUNY at Stony Brook
- General grant for thesis research, L.S.B. Leakey Foundation
- Grant for thesis research, Geological Society of America
- Grant for thesis related research, IDPAS, SUNY at Stony Brook
- Travel grant to the Annual Meeting of the Paleoanthropology Society, Columbus
- Travel grant to the 63rd Annual Meeting of the Society for American Archaeology, Seattle
- Travel grant for summer fieldwork, Sigma Xi Research Foundation
- General research grant, IDPAS, SUNY at Stony Brook
- Travel grant to the 62nd Annual Meeting of the Society for American Archaeology, Nashville

PUBLICATIONS

- Controlled Experiments with Middle Paleolithic Spear Points: Levallois Points, by J.J. Shea, K.S. Brown, and Z.J. Davis. In *Experimental Archaeology: Replicating Past Objects, Behaviors, and Processes*, edited by J. R. Mathieu, pp. 55-72. British Archaeological Reports, International Series 1035, Oxford. 2002.
- Experimental Test of Middle Palaeolithic Spear Points Using a Calibrated Crossbow, by J.J. Shea, Z.J. Davis, and K.S. Brown. *Journal of Archaeological Science* 28:807-816. 2001.
- Quantifying Lithic Curation: An Experimental Test of Dibble and Pelcin=s Original Flake-Tool Mass Predictor. By Z.J. Davis and J.J. Shea. *Journal of Archaeological Science* 25:603-610. 1998.

PAPERS

- Paleoindian Lithic Foragers in the Delaware Water Gap: Integrating Lithic Resource Distribution and Lithic Technological Strategies. Paper presented at the January 2003 meeting of the Archaeological Society of New Jersey, Trenton, New Jersey. 2003.
- Costs and Benefits of Levallois Flake Production: An Economic Perspective on the Variability in Middle Palaeolithic Stone Tool Assemblages. Paper presented at the 65th Annual Meeting of the Society for American Archaeology, Philadelphia. 2000.
- Levantine Mousterian Mobility Patterns: The View from Mt. Carmel, Israel. Paper presented at the 1999 Paleoanthropology Society Meetings, Columbus. 1999.
- Experimental Test of Middle Paleolithic Hunting Weapons: Preliminary Results (with J.J. Shea and K.S. Brown). Paper presented at the 64th Annual Meeting of the Society for American Archaeology, Chicago. 1999.
- The Analytical Potential of Refitting Studies: History and Synthesis of Applications. Paper presented at the 63rd Annual Meeting of the Society for American Archaeology, Seattle. 1998.
- The PS 56R Site: A Vosburg Habitation on Staten Island, New York (with A.M. Pappalardo). Paper presented at the 62nd Annual Meeting of the Society for American Archaeology, Nashville. 1997.

CONFERENCE SYMPOSIA ORGANIZED

- Refitting Studies in New and Old World Lithic Analyses. Symposium organized for the 63rd Annual Meeting of the Society for American Archaeology, Seattle. 1998.