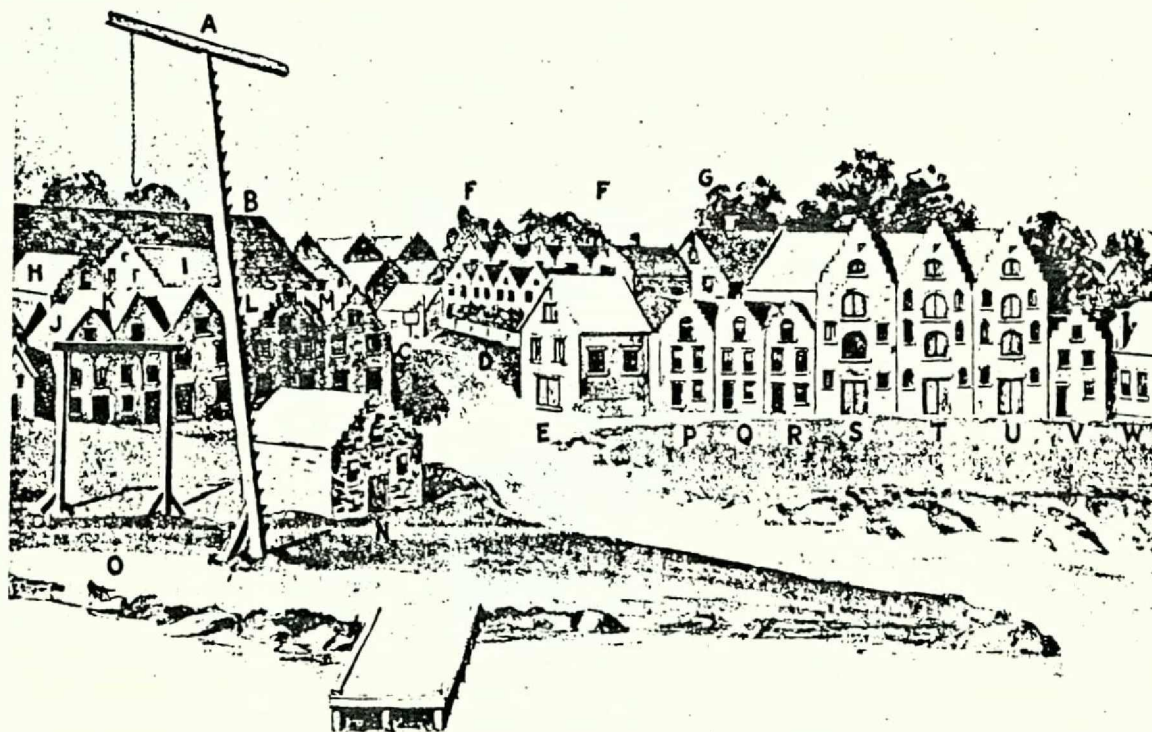


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Broad Street Plaza Site

Proposal to Perform Ay Testing

205 Brandon Place  
Atlanta Georgia 30328  
404 394-2969

October 7, 1983

Mr. Robert F. Fox, Jr.  
Fox & Fowle Architects, P. C.  
192 Lexington Avenue  
New York, New York 10016

Re: Fox & Fowle Project No. 83-08/357

Subject: Proposal to Perform Archaeological Testing  
Broad Street Plaza Site, New York  
GCI: 32-83-P004

Dear Mr. Fox:

Enclosed with this letter is our proposal to perform archaeological testing at the Broad Street Plaza project site, New York. ~~The purpose~~ of this testing program is to establish the integrity of the structure and content of the resources present, thus the information potential of the block -- the need for further archaeological investigation.

In order to achieve the purpose of this testing program a combination of archaeological tests will be performed. The site will initially be cleared and trench excavations opened by mechanical backhoe. This will serve as the basis for decision-making regarding the placement of controlled hand excavated test units. Selected samples will be screened and artifacts processed during fieldwork to enable the most efficient use of time. Should further archaeological investigation be required we are prepared to accomplish that phase immediately following the testing, with no time delay. It is possible, however, that contingency excavation units, included in this proposal, may adequately address the full research potential of this site.

While the archaeological issues and procedures are relatively straight forward for this testing phase, logistics, safety, and construction-related support activities are not. This proposal addresses all of these support functions which shall remain the responsibility of our firm. In order to most efficiently address these issues we have enlisted the support of three companies: Jones, Lang & Wootton; PCM Consultants Inc.; and the Amorosi Company.

**Greenhouse** CONSULTANTS incorporated

Mr. Robert F. Fox, Jr.

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October 7, 1983

Communication has been initiated with Mr. Michael Coughlin of Jones, Lang & Wootton regarding the leasing of laboratory space at 163 Front Street. This facility is conveniently located near the project site.

Construction-related support activities would be provided through the firm of PCM Consultants Inc., a professional construction management consulting firm with extensive experience in Manhattan. An agreement has been reached with Mr. James J. Varga, President, who through past association with the undersigned is aware of the specific needs of an archaeological investigation. A site manager will be utilized to coordinate the following, as necessary, in advance of archaeological activities: security, site trailer, permits, site power generation, water supply, dewatering, debris removal, dumping, and site safety. Coordination will also be initiated with the Clearing House and local police. The cost of the site manager has been included in our proposal. However, other direct costs will not be known until work is in progress and thus have been estimated in the proposal budget. These items can either be billed directly or provided on a cost reimbursable basis.

Arrangements have been made with Mr. Don Amorosi, Amorosi Company, for the services of Mr. Fred Harvey as backhoe operator for the testing. Schedules have been coordinated and Mr. Harvey will be available to begin as necessary to accommodate project requirements. The costs for backhoe and operator have been included in this proposal.

We are prepared to initiate all necessary support services within two work days of notification to proceed. Assuming that Mr. Harvey will be engaged to provide the deep trenching for the Assay Office project, it will be necessary to coordinate this project with his schedule. Fieldwork would then be initiated during the week of October 31st and would continue for four weeks, with laboratory operations scheduled immediately thereafter.

We look forward to your favorable review of this proposal and to the opportunity to continue to provide services on this project.

Sincerely,

GREENHOUSE CONSULTANTS INC.

  
Barry D. Greenhouse

BDG:mj

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③ PROPOSAL TO PERFORM  
ARCHAEOLOGICAL TESTING  
BROAD STREET PLAZA SITE  
NEW YORK, NEW YORK

October 7, ② 1983

① GREENHOUSE CONSULTANTS INCORPORATED  
Proposal No. 32-83-P004

Prepared for:

FOX & FOWLE ARCHITECTS, P. C.  
192 Lexington Avenue  
New York, New York 10016

HRO INTERNATIONAL LTD.  
126 E. 56th Street  
New York, New York 10022



## INTRODUCTION

The following presents our approach to the archaeological testing program for Block 10, the Broad Street Plaza site. The purpose of this testing phase is to establish the integrity, structure and content of the resources present, and thus the information potential of the block -- the need for further investigation.

The earliest historic Block 10 inhabitants received land grants from the Dutch West India Company early in the seventeenth century. Thus, the block has had a continuous history of occupation spanning some three and one-half centuries. Additional historical significance relates to the first church and Pach-Huys associated with the block. Dutch architecture remained in evidence into the eighteenth century when the character of the block continued to be mixed commercial and residential. Shifting commercial trends and patterns greatly influenced the land use of Block 10 from that time on through the twentieth century; consequently, much building and redevelopment occurred on the block. It is therefore the purpose of this testing phase to not only establish research hypotheses concerning the block and its context, but also to determine the structure and integrity of those anticipated seventeenth, eighteenth and nineteenth century remains under the block so that a determination of the research potential can be made for further archaeological investigation. It is possible, given the additive nature of redevelopment, that later construction may have destroyed the integrity of the remains from the preceding occupation but not from earlier ones. Also, since the block is not on made land, but rather fast land, prehistoric and contact period Indian resources must be considered in the research potential of the block.

The study area for this archaeological testing phase shall coincide with that of the proposed project development -- Lot Nos. 8, 10, 11, 12, 13 and 14. Two standing structures occupy the remaining lots on the block, Nos. 1-7 and 15. It should be noted that there is no record of a Lot 9 having ever been on the block. It should be further noted that while two lots, Nos. 14 and 15 each had two buildings, there is no record of either lot having been subdivided. The two standing structures on Block 10 are at 27 Whitehall Street, occupying the northwest corner of the block, and at 100 Broad Street -- the New York Clearing House -- occupying approximately the eastern half of the block. Since neither of these structures are proposed for inclusion in the project, and both will remain standing, the archaeological investigation will be limited to the remaining half of the block. These lots, 8, 10-14, presently contain an unused paved and fenced parking lot.



## ARCHAEOLOGICAL IMPLICATIONS

Despite limitations of the documentary record, the surviving references, as presented by the Historic Report are clear on three key points. First, it has been demonstrated by the archival survey that Block 10 was of focal importance to the first Dutch settlement on Manhattan Island dating to the early seventeenth century. Second, it is apparent that the block was continuously occupied by a changing mix of residential and commercial establishments, reflecting the diversity of activities which together define the character and economic history of the area. And third, based on comparative sites in lower Manhattan, it is possible that early remains of Block 10 may be in evidence under the current occupation of the block.

Block 10 was not only significant as the locus of early Dutch settlement in New York, but also as it related to colonial economic and social activities of the seventeenth century. The block was the site of the first Dutch West India Company warehouse, as well as the first church in the New York area. It also contained the first provincial pharmacy and possibly the first Custom House. It was situated adjacent to the settlement's primary market fortification (Fort Amsterdam) and for some time fronted on New York's East River waterfront. Block 10 was, for some three centuries, of prime real estate importance.

Historical archaeology is a relatively new discipline, and the temporal phases of the seventeenth to the twentieth century are only beginning to be understood. Recent excavations in lower Manhattan, as well as in other areas of Colonial development, have begun to shed light on the seventeenth, eighteenth and early nineteenth centuries. These sites provide a datable picture of the range of economic ceramic styles which belonged to each period of the changing material record. The ceramic chronology for the northeast Atlantic coastal states is at present datable to the 1730's. The archaeology and history of the prior century is almost undefined at present. Recent urban archaeological investigations in the Boston area have only begun to fill the gap for the early Dutch period of American history. As a consequence, intact remains sealed under modern New York City may be one of the key sources of insight for early Dutch economic history.

Until the recent understanding of site formation processes which account for the often unexpected survival of archaeological sites in modern urban centers, it has commonly been assumed by archaeologists and planners alike that early remains were obliterated by repeated rebuilding and/or heavy alteration. The record, in contrast, is beginning to indicate a different pattern of survival. Instead of being redeveloped by cutting into the



previous occupation, the process instead has often been an additive one. Successive building phases were often deposited over the previous occupation with only minimal below-ground disturbance. The reasons for this vary, but may include early attempts at either flood control with land fill or urban sanitation.

Site integrity remains to be determined for Block 10. Given its proximity to previously excavated sites, such as the Stat Huys block, it may be reasonable to expect similar archaeological survival. The excavations within the Stat Huys block documented the survival of intact seventeenth and eighteenth century remains below and between nineteenth and twentieth century intrusions. Undisturbed archaeological deposits were recorded at depths of upwards of twelve feet below present grade.

Available documentary evidence suggests that the number and depth of late nineteenth and twentieth century cellar intrusions into the earlier remains of Block 10 may have been minimal at the western half of the block, at present covered over by a parking lot. The eastern end of the block, however, has likely been destroyed by more modern construction practices. The 1962 plans for the New York Clearing House building indicate a fifteen foot basement depth; thus, most, if not all, of the earlier deposits in this half of the block were probably either removed or disturbed beyond a reconstructable limit during construction.

In contrast, references to buildings on the western end of the block indicate most structures with subsurface basements extended no more than four feet. Structures at 27-29 Pearl Street had recorded cellar depths of seven feet. Nearby soil profiling (1937 Rock Data Map, Bureau of Topography) suggests that undisturbed seventeenth and eighteenth century deposits may be in evidence between three and twelve feet below present grade. Although no borings were taken within Block 10 itself, three borings (Nos. 300, 301 and 302) were made in the adjacent block to the north. All three borings showed a comparable series of deposits to depths of fourteen to sixteen feet below the modern surface. Borings 300 and 302 showed similar deposits of two consistent strata to depths of -13 feet and -14.1 feet below Mean Sea Level (MSL). Both showed an upper deposit between -2 and -4 feet below MSL of "Brick Fill" and "Brick Plaster Fill." Below these probably eighteenth and nineteenth century levels of cultural (architectural) materials, each boring registered undifferentiated strata of "Fine Sand" and "Fine Gray Sand" in a ten foot thick deposit to a depth of -12 and -14 feet respectively. In both cases, these two upper deposits were followed by a lower stratum of "Boulders" or "Boulders, Sand and Clay" beginning between fourteen and sixteen feet below the 1937 surface grades. These multiple and superimposed soil



distinctions correspond to the depths of cultural materials recovered from seventeenth century deposits at the Stat Huys block. It is therefore possible that cultural materials extend to a depth of fourteen feet below present grade.

#### METHODOLOGY AND TESTING PRIORITIES

The documentary record clearly demonstrates the potential for the archaeological significance of Block 10. What remains to be determined, and thus the purpose of this archaeological testing program, is the relative disturbance and consequently the integrity of these cultural remains.

Despite the probable destruction of the eastern 180-190 feet of Block 10 by the modern foundation construction under Lots 1-7, it is possible that earlier deposits in the western half of the block may remain undisturbed in structural and chronological makeup. Although most of the recent archaeological data recovery efforts at other sites in lower Manhattan have concentrated on the surviving backyard areas of those blocks, this project may offer an alternative information potential. While some nineteenth and twentieth century foundations and basements may have disturbed the integrity of the remaining lots, the total area of impact may have been minimal. By extension, in addition to the 22 features found at the Telco block, and the 55 features encountered in the 175 Water Street excavation (cisterns, well, privies and other structures of high artifact yield), Block 10 remains suggest that this archaeological record could provide additional categories of historically significant material remains. These may include old occupation surfaces, commercial activity areas, as well as traces of early patterns of interior and landscape design such as implied by the early seventeenth century maps of the block. This range of potential data from the material record are therefore included in the designation of the research goals for this testing program.

Based on the above and the previously discussed criteria for establishing the scientific and historical data potential of the possible buried remains under Block 10, the following issues for investigation will be addressed and utilized to define the techniques and scope of the proposed testing program.



## Site Integrity

The primary question to be addressed in this testing phase is the degree of relative preservation for each of the successive phases of the site's history. Given the long span of occupation (some 350 years), and the documented depth of potential historic remains in the vertical record (reference the Stat Huys excavation), initial testing will establish the relative integrity of each period represented by the stratigraphic record of the site. As presented by Dr. Sherene Baugher of the New York City Landmarks Preservation Commission, while the vertically superimposed remains from more recent periods may have been disturbed by later construction, the earlier and deeper seventeenth century material record may still be sealed beneath subsequent deposits in a readable vertical and horizontal account of past occupation.

In order to test this research supposition, a combined program of expanded documentary research and field testing will be employed. The supplemental documentary research will attempt to identify and locate the size and placement of later nineteenth and twentieth century subsurface intrusions. Field testing will employ the use of multiple backhoe cuts to the bottoms of those intrusions along the length of surviving lots, Nos. 8, 10-14. Prior to these test cuts, ongoing documentary research (to include Building Department records presently on hand) will result in the graphic presentation of each identified nineteenth century structure. Where available, the documentary research will also locate deep basements, elevator shafts, boiler rooms and foundation structures. It is anticipated that this research will be completed prior to the initiation of backhoe cuts and controlled test excavations since it is anticipated that this schedule will have to be coordinated with that of the Assay Office site in order to employ Mr. Fred Harvey to operate the backhoe. This supplemental research will also be used to plan locations on the site which could be used for equipment and artifact processing (trailer, screens, stock piling, etc.). This effort, in conjunction with an optional one-day remote sensing scan will provide the basis for fixing the location of the backhoe test cuts along the long axis of each lot to be tested.

## Chronological and Spacial Diversity

During the four week archaeological testing phase, field crews will concentrate efforts on documenting the range of material remains in the backyard areas and the chronological status of each of the identified deposits, as well as the identification of old surfaces which may have survived beneath subsequent occupations. Based on the documented presence of six surviving

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lots datable to the seventeenth century, a total of six (one on each lot), with possible expansion to seven or eight controlled hand excavated test units will be placed. These will be five by five foot squares, with selected units enlarged to five by ten. These test units will be used to sample and document the integrity and vertical stratigraphic record within each lot. The placement of these controlled units will be determined by the combined results of the documentary research and test trenches.

#### Issues of Chronology and Trade

The potential chronological significance of early seventeenth century remains may well be of relevance. If the early seventeenth century deposits have indeed survived intact, then Block 10 represents a significant source of otherwise unavailable information on early Dutch material culture in New York (as well as the Mid-Atlantic region). As mentioned above, not only is the material record for the seventeenth century poorly controlled through time and space, but also as the focus of early Dutch settlement and economy. This block may provide the basis to fill key chronological gaps in the currently spotty record of seventeenth century historic archaeology. Preservation of selected artifacts, such as pottery and glass, is important for the historical and economic interpretations of the material culture of early Dutch economy and society.

As the material record now stands, the chronology for the historic period essentially begins as a viable tool for dating unknown deposits only in the mid-eighteenth century. Although it is known that the first significant Dutch settlements were established in the first quarter of the seventeenth century, the chronological record only becomes viable about a century later. This is to say that in its present state, there is a significant chronological gap of nearly one hundred years which archaeologists are presently unable to address due to a lack of controlled sites. The earliest deposits in Block 10, if intact, may help to fill this gap. If intact deposits from the first half of the seventeenth century can be identified, then further excavation could provide a significant addition to the as yet unavailable sequence of events which took place prior to the British conquest of New Amsterdam. The integrity and extent of significant remains will thus determine the additional time requirement for further investigation, if necessary. It is possible that the contingency excavation units presented in this proposal may adequately address the research potential of the site.

Aside from the chronological implications and potential for undisturbed archaeological record below Manhattan, there are other research issues of significance to archaeologists,



historians and economists which are worth addressing. Beyond the implications of trade conflicts, embargoes and tax levies which were less than amenable, the historical record can say little about the nature or substance of early trade and international economy during the Colonial period. What people were permitted to trade often had little to do with what actually transpired. Smuggling was not uncommon, and consequently trade routes often had little to do with the law or mandates of the time. Much of the commerce of the day was illegal and thus unrecorded. This in turn affected the historian's ability to characterize the nature and flow of trade routes from written records alone. A key research question, given the high commercial significance of the early Dutch occupation of Block 10, will center on the origin and identification of the material artifacts encountered. The outcome is by no means a given. Recent analysis of the eighteenth century "Dutch" port community of Raritan Landing in New Jersey, whose residents had close ties to the early merchant families of New York, revealed little in the way of material Dutch culture. The "Dutch" pottery was made in England, and of hundreds of pipe fragments, only one could be securely identified as of genuine Dutch origin (Grossman, 1982).

#### Environmental Indicators

Although only recently perceived as such, the unwritten archaeological record is now recognized as perhaps the sole source of otherwise unavailable information on past environmental conditions, and as a gauge of contemporary environmental change. In order to address environmental issues today, it is essential to control the nature of the environment and landscape prior to the advent of environmental trauma. In both legal and scientific disputes involving the degree and direction of environmental impacts, it is necessary to have some benchmark against which to gauge. Given the fact that reliable documentary record data only truly begins in the twentieth century, the archaeological record has emerged as perhaps the only objective source of data on past environmental conditions. Thus, undisturbed historic archaeological sites, especially early ones, can be viewed as non-documentary "environmental time capsules" for reconstructing history.

As an example, the Raritan Landing excavation of pre- and post-Revolutionary eras in New Brunswick provided a line of evidence for environmental change in the region prior to the documentary record. Through the use of micro-flotation procedures to recover preserved seed remains, both imported and domestic, it was possible to document, based on the stratigraphic record, that there had been a substantive change in total species and diversity at the time of the American Revolution. This change



was experienced nearly a century before the impact of the Industrial Revolution. While this information is suggestive, the data pertains only to that period after colonial deforestation of the earlier seventeenth century environment. Early Dutch environmental remains potentially buried in the block could conceivably fill this data gap as well.

Finally, the study of the charred and waterlogged plant remains from datable deposits will also be evaluated during the testing phase. Small selective samples will be taken during the controlled testing to evaluate the range of preservation as well as the potential for answering research questions relevant to past environmental conditions.

#### Prehistoric Traces

The seventeenth and eighteenth century settlement of Manhattan, a fortress against a hostile environment, survived either together with or in conflict with the indigenous population of American Indians. This was the "Contact Period," a period of trade between these two groups of inhabitants as well as a period of displacement. Since the Dutch settlement was on prime native land, it is possible that there may also be traces of Prehistoric occupations. This also will be treated as a research concern during the testing program.

In conclusion, the above constitutes the main thrust of research hypotheses to be tested. Should the integrity of the site provide the research potential for answering these questions an expanded excavation would be appropriate. It is possible, however, given the as yet unknown extent of these buried resources, that the contingency controlled hand excavation units presented in this proposal may adequately address the research potential of the site. This issue can only be evaluated as a result of this phase of investigation.

### SITE TESTING RECOMMENDATIONS

#### Backhoe Trenches

As the first phase of the physical testing procedure on the site, a backhoe with a 30" bucket, under the operation of Mr. Fred Harvey, would be used to cut a series of long trenches, as discussed above. These trenches would be positioned based on the

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expanded documentary research ongoing prior to the testing program. The trenches would be advanced to the depth of later site subsurface intrusions, such as late nineteenth and twentieth century cellar. The depth of the trench cuts will be determined by a combination of field conditions and documentary research. Deep cuts will not be necessary as Block 10 is on fast land. As evidenced by the Stat Huys excavation in the immediate vicinity, cultural remains would not be anticipated below a depth of twelve to fourteen feet. Therefore, in order to allow for controlled excavation units to be advanced below, trenching would be terminated at relatively shallow depths.

#### Controlled Excavation Units

While the backhoe is ideal for removing overburden and to sample for material locations, its utility in excavation is limited. The goal of any controlled sample is to expose any structures and datable artifact deposits without disturbance as isolated units of association. Thus a minimum of six controlled hand excavated units will be advanced. These units will be positioned based on the trenching program. One will be placed in each of the surviving, unoccupied six lots, Nos. 8, 10, 11, 12, 13 and 14. Additional test units will be placed as required and as time permits. These excavation units will be five foot squares taken to an average depth of five feet. As required, selected units will be expanded to five by ten feet.

#### Sampling and Screening

Given the high inverse ratio of approximately 1:10 between the recovery of unscreened artifacts versus screened artifacts from historic sites, it is recommended that selective sampling be screened through one-quarter inch mesh to identify and recover artifacts. Projections of artifact density are both risky, and site and period specific.

From the results of relevant previous excavations in lower Manhattan, including the Stat Huys excavation, vertical profiles taken from below basement intrusions showed some six distinguishable strata or deposits. Based upon the analysis of the quantified results from the Raritan Landing study (Grossman, 1982), the tabulated results suggest an average of about 1000 artifacts per strata, per five foot square. Assuming a like number of identifiable strata, each unit would indicate a potential volume of 6,000 artifacts. Thus, given the six to eight controlled units proposed, and allowing for size variations



to five by ten, a potential total of 50,000 artifacts can be anticipated. This number has been used as the basis for projecting laboratory efforts -- washing, screening, inventory and initial stabilization.

#### Field and Laboratory Personnel

1. Field Effort Ratios: Computerized task-effort artifact and labor inventory ratios at comparable historic sites have been utilized for personnel projections. Based on cross reference of time, task and area tabulations, it was determined that on the average, each five by five foot excavation unit with vertically superimposed strata required approximately 70 man-hours to complete to a depth of five feet.

2. Assuming a total artifact count of approximately 50,000 from the total excavation units proposed (allowing for size variations), and based on the following ratios of laboratory effort per level, per five by five foot unit, the following ratios were used to project total man-days necessary for the basic recovery and processing of artifacts:

- a. Screening: 2170 artifacts/day = 23 man-days
- b. Washing: 2000 artifacts/day = 25 man-days
- c. Labeling: 3000 artifacts/day = 16.7 man-days
- d. Inventory: 1000 artifacts/day = 50 man-days

Thus, the total laboratory labor effort for processing of 50,000 artifacts is 115 man-days.

#### Remote Sensing

In order to more effectively locate the placement of backhoe trenches, an optional, low-cost, one-day remote sensing scan may prove helpful. This phase could be accomplished in conjunction with a similar scan of the Assay Office site; thus, well in advance of the initiation of fieldwork. Instrumentation would primarily rely upon a Geonics EM31 Terrain Conductivity Meter. This additional phase would add \$1500 to the cost of the testing program.

The project Geophysicist, Dr. Bruce W. Bevan, will utilize the newest generation of terrain conductivity meters, the EM31, which is both highly portable and immune to many of the impediments affecting older types of remote sensing. It is also deep in



penetration and rapid in its ability to measure and provide data. Each measurement takes approximately 30 seconds and data is immediately available for interpretation. The sample would be taken at five or ten foot intervals using a simple grid layout. Test results would be analyzed by the project PI using in-house computer facilities and advanced three-dimensional graphics software.

## SITE LOGISTICS

In addition to the archaeological aspects of this project, a timely and efficient testing program depends upon the availability of both heavy equipment and the personnel capable of addressing the issues of site safety, city permits, earth removal and dumping, site power and water supply, and general engineering and construction-related problems. To address these issues we have worked out subconsultant agreements with two construction-related firms to provide all equipment and logistical capability necessary to provide an adequate and safe working environment. All of the following points have been worked out through discussions with Mr. Don Amorosi and Mr. Fred Harvey of the Amorosi Company which will supply the backhoe and operator; and with Mr. James Varga of P. C. M. Consultants Inc. which will provide project site management and logistical planning. Each issue has been worked out and each party is both ready and prepared to mobilize and address his respective tasks upon project authorization. In addition, the issue of project laboratory space, at 163 Front Street, is being worked out with Mr. Michael Coughlin of Jones, Lang and Wootton.

Given the logistical issues to be addressed in the field, the following tasks and equipment are included as part of the overall project effort of Greenhouse Consultants Incorporated:

1. Trenching Operation: Using Fred Harvey as the backhoe operator, the Amorosi Company will supply the required 30" bucket backhoe.

2. Earth Removal and Dumping: Due to the physical constraints of the site and the need for access, it would be difficult to stockpile excavated earth on the site. Therefore, arrangements have been made for the removal from the site and dumping of the excavated material.

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3. Security: Security will be provided as necessary to protect both the equipment and exposed cultural materials throughout the testing program.

4. Coordination: Since the testing will occur literally in the "backyard" of the New York Clearing House, coordination will be arranged with both the local police precinct and the Clearing House itself. Of prime concern is the computer situated within the building and the potential impact of the archaeological testing program.

5. Necessary Permits: The project site manager will provide any required city permits, such as for water supply if from a fire hydrant, and for the project trailer.

6. Laboratory and Storage Facilities: Prior to initiation of fieldwork, P. C. M. in conjunction with the project staff, will prepare the laboratory facilities for the proper processing and evaluation of recovered cultural materials.

7. Site Trailer: Depending upon the location of appropriate laboratory facilities, the project team will require a site trailer to facilitate data processing and analysis during the testing phase, and to support site security.

8. Power: Arrangements will be made to provide power generation to the site, as necessary, utilizing portable generating equipment if power is not otherwise available on the site.

9. Water Supply: Water will be provided externally from the site from a fire hydrant. Should that not be workable, arrangements have been made for a water truck to be on site as necessary.

All of the above enumerated logistical support items will be the responsibility of Greenhouse Consultants Incorporated. The cost of a site manager is included in the budget. However, other line item costs, unknown at this time, have only been estimated.

#### KEY PROJECT PERSONNEL

The Principal Investigator for this project will be Joel W. Grossman. Dr. Grossman earned his doctorate degree in anthropology from the University of California, Berkeley in 1972.



He has been in the New York City metropolitan area continuously since then. He has been on the academic staffs of both Brooklyn College and Rutgers University. His most recent large-scale project experience has been as PI for a similar period urban historic site near New Brunswick, New Jersey. He has also recently served as consultant for the 175 Water Street project conducted within the vicinity of the Broad Street Plaza site.

Ms. Diana Rockman will serve as Project Archaeological Consultant. She is currently completing her Ph. D. degree at New York University and will be available to the project for up to a forty percent full-time basis. Ms. Rockman has recently served as Principal Investigator on the Telco excavation and Co-Principal Investigator on the Stat Huys excavation across from the Broad Street Plaza site. Her intimate knowledge of that project will be most helpful in being able to understand and evaluate comparative analyses for research questions concerning the seventeenth century Dutch occupation of the block. This is an important component of the testing inasmuch as determinations will be made regarding the redundancy of data versus the additional data potential of further investigation.

To most efficiently and effectively accomplish the testing requirements within the four week period proposed, two field crews are recommended. Each field crew will be directed by a separate Field Supervisor, under the direction of the project Principal Investigator. These individuals will be selected from among William I. Roberts, IV., Michael Davenport, Debra C. Bodie and Bertram S. A. Herbert. Mr. Davenport earned his M. A. degree in Anthropology from Rutgers University. He is equally proficient in archaeological drafting and computer graphics as well as archaeological field supervision. Mr. Roberts earned both his B. A. and M. A. degrees from the Institute of Archaeology at the University of London. Ms. Bodie, a graduate of New York University, has had recent project experience on the 7 Hanover Square, Stat Huys, Telco and 175 Water Street excavations in lower Manhattan. Mr. Herbert served as archaeological assistant to Dr. Grossman during the preparation of the historical documentary report for the Broad Street Plaza site, Block 10. Until recently Mr. Herbert had served in a similar supervisory capacity for an archaeological consulting firm and worked on the 175 Water Street project, among others, for that firm. Mr. Herbert earned his M. A. in Anthropology from the State University of New York, Buffalo.

The project Laboratory Director and Conservator will be Ms. Melba Myers. Ms. Myers earned her M. A. degree in Museum Studies from George Washington University. From 1979 to 1981 Ms. Myers served

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as Laboratory Director at Rutgers University. For the past two years she has been a contract conservator at the Smithsonian Institution. She is reknown for her conservation expertise in Colonial pottery.

Laboratory quality control and photographic control will be provided by Ms. Karen Bluth. Ms. Bluth has recently been manager of black and white quality control for the Dugall Laboratories in New York City. She has also served on staff at the Metropolitan Museum from 1980 through 1981.

Continued historical documentary research will be provided by Leo Hershkowitz, Ph. D. Dr. Hershkowitz has served as Professor of History at Queens College, City University of New York since 1971. In addition, he is under an exclusive consultant agreement with our firm. He conducted all previous documentary research for this project, as well as the Assay Office project. Since 1970 Dr. Hershkowitz has also been Director of the Historical Documents Collection at Queens College and has published numerous books about the history of New York City.

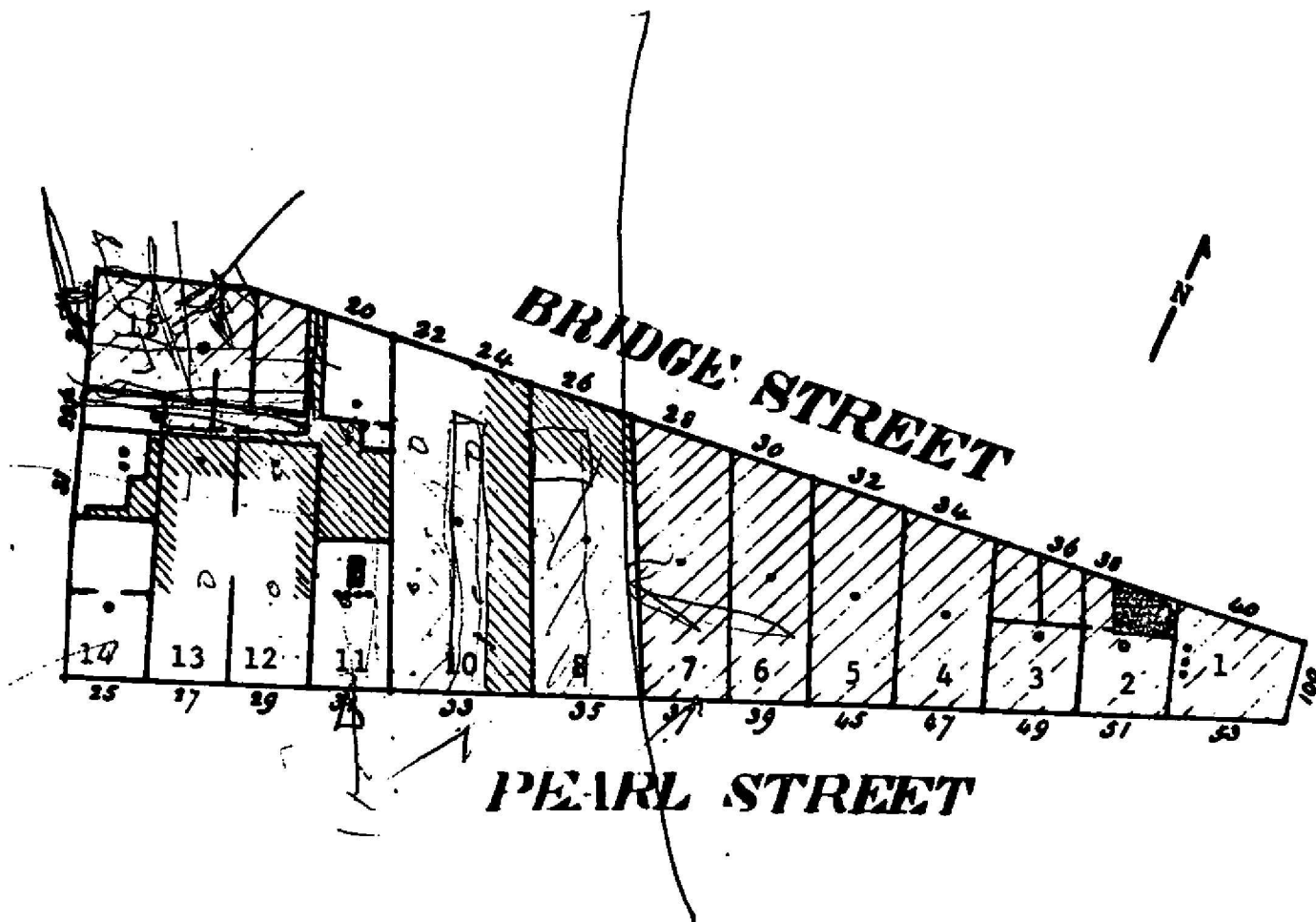
Assisting Dr. Hershkowitz will be Ms. Diane Dallal. Ms. Dallal's relevant archaeological experience includes both the Stadt Huys and Hanover Square investigations in lower Manhattan. Ms. Dallal also served in a similar research capacity at Rutgers University on projects directed by Dr. Joel Grossman. She earned her B. A. degree from Montclair State College and is presently completing her graduate studies at Hunter College.

Should remote sensing be employed, it would be conducted by Consultant Geophysicist, Bruce W. Bevan, Ph. D. Dr. Bevan has been a principal in the firm Geosight since 1978. His expertise includes the use of state-of-the-art remote sensing instrumentation such as the Geonics EM31 Terrain Conductivity Meter. Dr. Bevan's relevant experiences include work for Bell Telephone Laboratories, the General Electric Company, and the Museum of Applied Science, Center for Archaeology, University of Pennsylvania.



## PROJECT SCHEDULE

Week of:	October 17      31	November 14      28	December 12      26	January 9      23
Logistics and Planning	x--x			
Remote Sensing	x-x			
Documentary Research	x-----x			
Fieldwork		x-----x		
Site Preparation		x.x		
Trenching		x.....x		
Excavation Units		x.....x		
Expanded Excavation			x.....>.....>	
Analysis		x-----x-----x-----x		
Concurrent Laboratory		x.....x		
Laboratory Analysis			x.....x	
Report Preparation				x.....x



indicates area of primary concentration  
for hand excavated units, per lot.

Note: Standing structures superimposed.  
Lot numbers added.

Scale: 1" = 50'

Source Map: 1852-53 INSURANCE  
ATLAS OF THE CITY  
OF NEW YORK.  
William Perris.