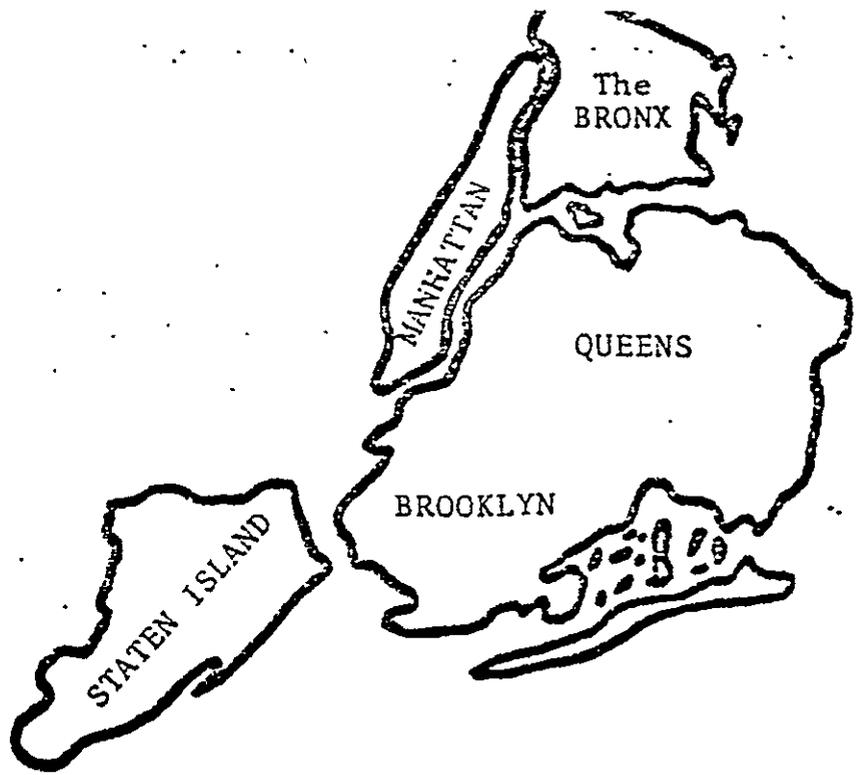


**P**ROFESSIONAL  
**A**RCHAEOLOGISTS OF  
**N**EW  
**Y**ORK  
**C**ITY



Newsletter No. 25  
 May 1985 (note - This issue should be dated September 1985)

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Material for inclusion in the PANYC Newsletter should be sent to the editors, Anne-Marie Cantwell and Diana diZerega Wall, Department of Anthropology, New York University, 25 Waverly Place, N.Y., N.Y., 10003.

The editors would like to thank Sharon Slowik for her invaluable help in preparing the layout for this issue.

Minutes of the PANYC General Membership Meeting, Barnard College,  
May 8, 1985

**Secretary's Report:** The minutes of the President's Report were changed to read "An ad hoc meeting was held on March 7, 1985, at 60 Bank Street". With this change the minutes of the last membership meeting, Mar. 20; 1985, were accepted. Geismar requested that future minutes be mailed prior to the subsequent meeting.

**Treasurer's Report:** Winter reported a balance of \$1145.75 as of May 8, 1985. There are 27 full members and 7 subscribers to the newsletter. Winter has found that in order to open a NOW account with City Bank in PANYC's name, PANYC needs a tax exemption or County Clerk's number. Winter and Marshall will find out if there is a fee or bookkeeping requirement associated with obtaining a County Clerk number. Meanwhile, we are maintaining our checking account with Chemical Bank.

**President's Report:** 1. Geismar reported on the Mayor's Coalition trip to Washington, D.C. Visits were made to the offices of Sen's. Paul Laxalt and Alfonse D'Amato. Discussions were held with Sen. Moynihan's staff. Sen. Moynihan supports proposed amendments to the Cultural Properties Implementation Act (see PANYC Newsletter No. 24, p. 25). Geismar will write a letter to Sen. Moynihan protesting the proposed amendments. Members are also urged to contact their representatives as individuals.

2. Geismar suggested the formation of a Guidelines Committee to consider the need for standards or guidelines for contract reports in NYC. It was decided to form a committee which would collect standards adopted by other agencies and groups. These will be reviewed to develop minimal standards which can be proposed to the Landmarks Preservation Commission (LPC) for their review. Baugher suggested that the committee evaluate instances in which standards had been implemented. J. Klein asked what the standards would apply to; recording techniques or the quality of the report. A committee was formed consisting of Rothschild (chair), Boesch, Dublin, and Pickman.

**Action Committee:** Rubinson reported on Ceci's correspondence with the Parks Department concerning excavations at the Bowne House. A letter expressing PANYC's concern with the matter will be written to Audrey Babber, Director of the Bowne House. Rothschild spoke to Linda Sterman regarding a newspaper article reporting excavations at the Kings Mansion in Jamaica. However, Sterman stated that the article did not indicate that the tests were being conducted professionally under the supervision of Jo Ann Cotz.

**Research and Planning Committee:** Rubinson reported that a cover letter was drafted to accompany the Park Department's property list which PANYC was asked to review. The letter will appear in the next issue of the PANYC newsletter.

Newsletter Committee: Cantwell reported that Byland xeroxed 50 copies of the Newsletter. Winter has volunteered to mail the balance not distributed at tonight's meeting. Orgel has agreed to xerox the fall issue. Perrazio will help with mailing.

Special Publication Committee: Cantwell reported that the committee has met and will report in the fall. Solecki suggested that the publication include a location listing guide for archaeological collections from New York City sites.

Curation committee: No report.

Public Meetings: Geismar reported that approximately 200 attended the April 27 meeting. She extended thanks to the participants, to Patricia Lighten for her film on Sheridan Square and to the Museum of the City of New York.

Legislative Committee: The committee met on April 11 and discussed proposed changes to the City Charter which would recognize archaeological resources in historic preservation legislation. Geismar and Rothschild will meet with Dorothy Miner (LPC) to discuss this matter and how next to proceed. It may be possible to lobby directly with the City Council to rally support. PANYC members with contacts in city government are asked to coordinate with Geismar and Rothschild.

SOPA Committee: Perrazio reported on his research into instances in which SOPA regulations have been applied (San Diego and Nevada). He presented examples showing how the SOPA grievance policy can work to sanction SOPA members responsible for unethical or unacceptable work. J. Klein offered to relay any questions PANYC has to SOPA. There was a general discussion over the grievance procedure. Klein pointed out that the grievance procedure has to be initiated by a complaint before SOPA can take action. SOPA annual fees are keyed to income and start at \$40 for membership, \$50 for certification and membership. There is an initial application fee of \$15.

Membership: Henn reported that six people have applied for PANYC membership. These are Alfred Cammisa, Jan Ferguson, Allan Gilbert, Robert Grumet, Edwina Gluck, and Jed Levin. The board recommended that all applicants be accepted by the general membership. After a vote all applicants were accepted.

New Business: 1) Henn reported that tax reforms proposed by the Federal administration will cut tax incentives for historic preservation. Geismar asked the action committee to write letters protesting proposed changes.

2) The Museum of the American Indian is considering offers to move outside of New York City. Geismar will write letter protesting such a move.

3) Geismar asked what if any standards are required of companies

contracted for projects which includes archaeology.

4) Baugher reported excavations at the Gracie Mansion Conservatory have been completed but no report has been submitted. Geismar will request a copy.

5) Geismar suggested that PANYC have an end of year party using some of the budgetary surplus. There was a discussion concerning such an expenditure. Byland proposed postponing the discussion until the fall and trying to have a welcome back party.

The next meeting will be Sept. 11, 1985.

Respectfully submitted,

A handwritten signature in cursive script that reads "Roselle Henn". The signature is written in black ink and is positioned above the typed name.

Roselle Henn, PANYC Secretary

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

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June 5, 1985

Commissioner Henry Stern  
New York City Department of Parks and Recreation  
The Arsenal  
830 Fifth Avenue  
New York, New York 10021

Dear Commissioner Stern:

I am writing on behalf of the Professional Archaeologists of New York City in regard to the gross mishandling of cultural resources at the Van Courtlandt Mansion, a city and national landmark located in Van Courtlandt Park in the Bronx. It is a situation that points to the larger issue of Park's policy toward its cultural resources and merely reinforces the validity our organization's acronym, PANYC.

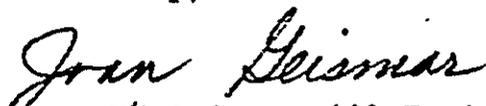
Undoubtedly, you are aware of the problem. You must know that excavation for a sewer line on the Van Courtlandt Mansion property proceeded from May 15th to the 18th without benefit of the survey or testing required when a landmark property is to be altered. In this case, it was not a question of ignorance; several New York City archaeologists had been contacted by the plumbing contractor, D. Reiner, as early as mid-April, and an archaeologist had agreed to undertake the project. Instead, it appears to be a situation where a miscalculation of costs by the plumbing contractor made it expedient to by-pass the environmental requirements. Unfortunately, this appears to have occurred with the knowledge and support of members of the Parks Department.

For several years, we have attempted to make contact with Parks, and recently a meeting was held with members of our executive board and Joseph Bresnan. We believed that strides had been made toward raising the Parks Department's consciousness about the handling of its cultural resources. The Van Courtlandt Mansion incident makes it apparent that we were wrong.

PANYC's current officers would like to meet with you, preferably with Mr. Bresnan, to discuss this matter more fully. It is time for the policy toward cultural resources to be altered and standardized throughout the park system. I believe that Mr. Bresnan cares, as I trust you do; perhaps it is merely a question of policy-setting from the top down.

I look forward to hearing from you regarding what is clearly an urgent matter.

Sincerely,



Joan H. Geismar (40 East 83 Street, New York, NY 10028 (212) 734-6512)  
PANYC President

cc. Joseph Bresnan



City of New York  
Parks & Recreation

The Arsenal  
Central Park  
New York, New York 10021

Henry J. Stern  
Commissioner

Alan M. Moss  
Deputy Commissioner

June 25, 1985

Ms. Joan H. Geismar  
President  
Professional Archaeologists  
of New York City  
40 East 83rd Street  
New York, N. Y. 10028

Dear Ms. Geismar:

Thank you for your recent letter of concern regarding the construction of a new sewer line at the Van Cortlandt Mansion in the Bronx.

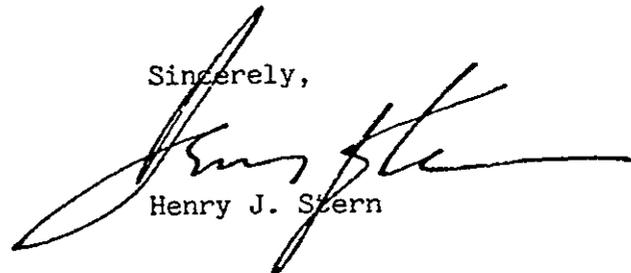
A serious health problem had arisen at the Mansion because the old sewer line was completely inoperative. The plumbing contractor installed a new line and ejector pump on an accelerated schedule in order to address this urgent situation. We had many requests to complete the work as quickly as possible and this was done.

Appropriate archaeological surveys were to have been done under the original plumbing contract. A waiver was granted for the purpose of speeding the work, but an archaeologist,                      Ms. Valerie DeCarlo, was present when the trench was excavated for the new line.

We regret that this short cut was taken. In order to prevent a recurrence of this problem in the future, we will contract for archaeological services directly (not through the site contractor) or use a staff archaeologist in order to keep the work under direct supervision. Our Department will monitor this important work to assure that all historic sites on City parklands receive proper consideration.

All the best,

Sincerely,



Henry J. Stern

PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

COPY

July 12, 1985

Commissioner Henry Stern  
New York City Department of Parks and Recreation  
The Arsenal  
830 Fifth Avenue  
New York, New York 10021

Dear Commissioner Stern:

Thank you for your letter of June 25, 1985. Needless to say, we found your sensitivity to the problem of archaeology in the Parks and your proposed solutions very encouraging.

Your plan to contract for archaeological services directly, or perhaps to use a staff archaeologist, will certainly avoid repeating the regrettable situation that occurred at the Van Courtlandt Mansion, as will monitoring of these sensitive matters by qualified members of your Department. You might also want to consult with the Landmarks Commission since an awareness of their experience with New York City archaeology might prove helpful to you in handling archaeology within Parks.

If we at PANYC can be of any help in implementing whatever program you adopt, please do not hesitate to contact us.

Sincerely,

Joan H. Geismar (40 East 83 Street, New York, NY 10028 (212) 734-6512)  
PANYC President

cc. Joseph Bresnan

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

August 22, 1985

Dr. Dean R. Snow  
Department of Anthropology  
State University of New York/Albany  
Albany, New York 12222

Dear Dr. Snow:

Louise Basa of the New York State Department of Environmental Conservation has made us aware of your appointment as the archaeological representative on the New York State Board of Historic Preservation. We congratulate you, and would like to encourage you to keep your New York City colleagues informed about the board's activities.

PANyc distributes a newsletter that reaches about 70 people five times a year (in September, November, January, March, and May). We would be delighted if this mailing could include a brief report of the board's activities. If you would care to discuss this matter, perhaps you could contact me, or Diana Wall, one of our newsletter editors, at your convenience.

Again, congratulations.

Sincerely,

Joan H. Geismar  
PANyc President  
40 East 83 Street  
New York, NY 10028  
212 734-6512

Diana Wall  
411 East 70 Street  
New York, NY 10021  
212 249-8078

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

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## COPY

May 13, 1985

Senator Paul Laxalt  
Chairman  
The Judiciary Committee  
Dirkson 224  
United States Senate  
Washington, D.C. 20510

Re: Bill S605, Importation of Archaeological Material

Dear Senator Laxalt:

The Professional Archaeologists of New York City (P.A.N.Y.C.) wish to register concern about Bill S605 proposed by Senator Patrick Moynahan (D, New York). By removing existing controls, this Bill, which deals with the importation of archaeological material into the United States, poses a threat to archaeological resources on a world-wide basis.

Should it be passed as written, this Bill encourages the looting and wanton destruction of archaeological sites for the profit of a few. Rather, what is needed is increased protection of these sites and the information they contain; it is information that enriches all of us.

We strongly urge that S605 not pass the committee.

Sincerely,

Joan H. Geismar,  
President  
Professional Archaeologist of New York City (P.A.N.Y.C.)

cc. Senator Daniel Patrick Moynihan/Bruce Heiman  
Senator Alfonse D'Amato  
Albert A. Dekin, Jr.

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

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# COPY

June 21, 1985

John Pousson  
National Park Service  
Northeast Team  
Archaeological Lab  
P.O. Box 77  
Germantown, MD 20874

Re: Archaeology on Ellis Island

Dear John:

This letter is intended to formalize the concerns we at PANYC (Professional Archaeologists of New York City) have regarding the basement excavations of the Main Building on Ellis Island. As we discussed on the phone, our assessment is based on a visit to the island made yesterday by Bert Salwen and myself on behalf of PANYC. It was a visit prompted by reports of a partially intact Native American burial discovered in an excavation pit as well as a general concern and interest in our local archaeological resources. We thank you for making this visit possible.

Based on the information at hand when the program began, the monitoring of hand-dug pits was certainly a logical way to ensure that no undisturbed archaeological deposits would be impacted during the assessment of the building's existing foundation columns. Then too, available information clearly suggested that historic rather than prehistoric deposits or features were the major and relatively predictable concern in this assessment. However, the pit excavation of column S36 has revealed important material that cannot be ignored.

From our visit, from the information found in your report describing the situation which we read at the site, and from conversations with Jim Kules, the on-site archaeologist, it appears that although the human bones uncovered in pit S36 may represent the skeleton of a Native American male, they are probably from a disturbed context (the integrity of the skeletal material could be assessed more conclusively if the actual rather than the planned dimensions of the column footing could be established). However, what does concern us, and should concern the National Park Service, is what appears to be an undisturbed shell midden that may surround and extend beyond the column.

Profiles and observations made by Jim Kules suggest that this shell midden extends west, east, and perhaps north and south of column S36. These data also suggest that although the midden was partially disturbed during the column's construction, it appears to surround it relatively intact. To determine if a pristine segment of midden does in fact exist, its integrity must be tested. This evaluation could be initiated by extending a 5-ft. archaeologically-excavated square just west of the current pit excavation.

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

Ellis Island/2

Pottery, including fragments from at least three separate vessels, was recovered from screened backdirt from the pit excavation that suggests the midden may be associated with Native American Woodland populations. If so, it might represent one of the only such intact deposits remaining in the vicinity of Manhattan Island. It certainly would be the only one located since the development of scientifically oriented archaeology.

Although monitoring would accommodate what was initially anticipated in the pit excavations, the unexpected discovery of a possible shell midden requires more intensive exploration. It is an obligation, indeed a legal requirement, that the Park Service assess and protect the cultural resources within its purview. If archaeological excavation should indicate that this deposit is a pristine example of Native American activity, it must be considered in any subsequent construction and management activities.

If members of PANYC can be of any assistance to you, please do not hesitate to contact us. We believe that you share our concern and feel sure that this matter will be handled to everyone's satisfaction.

Sincerely,



Joan H. Geismar  
PANYC President  
40 East 83 Street  
New York, New York 10028

cc. Richard Hsu  
Frank McManamon  
David Moffitt  
Jim Kules  
Bert Salwen

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

July 1, 1985

John Pousson  
National Park Service  
Northeast Team  
Archaeological Lab  
P.O. Box 77  
Germantown, MD 20874

Re: Archaeology on Ellis Island

Dear John:

Both Bert Salwen and I received your memo of June 26 concerning the status of the Ellis Island archaeology program, and we thank you.

We fully appreciate the cooperation and concern that you and the National Park Service have shown. In addition, I was very pleased when you told me Friday that you will be here later this month to supervise the exploratory excavation into the midden that appears to surround column S-36. Given the potential of the deposit, I hope it was possible to channel the foundation work away from the columns near S-36 that are scheduled for excavation until the nature of the midden is established.

Again, we thank you for understanding our concern, and we are delighted that you will be actively involved in evaluating the situation. As noted in my earlier letter, and although we know that you have access to the Park Service's regional experts to aid in cultural identifications, please do not hesitate to call should you feel that PANYC can be of any help to you.

Sincerely,

Joan H. Geismar  
PANYC President  
40 East 83 Street  
New York, New York 10028

cc. Richard Hsu  
Frank McManamon  
David Moffitt  
Jim Kules  
Bert Salwen

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

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May 15, 1985

The Honorable Bob Packwood  
Chairman, Finance Committee  
U.S. Senate, The Capitol  
Washington, DC 20510

Dear Mr. Packwood:

The Professional Archaeologists of New York City support the retention of Section 2124 of the Tax Reform Act of 1976 (Public Law 94-455) that encourages the rehabilitation of certified historic structures.

We realize that tax reform is necessary in order to reduce the deficit and create a healthy economy. However, what future will our children have if the country's past is destroyed? The tax benefits which accrue to those who preserve our past are a small price to pay for the continuing reminders of where this country has been. A sense of pride in the past grounds America to responsibly live the present and face the future.

Sincerely yours,

Karen S. Rubinson

for  
PANYC

820 West End Avenue  
New York, N.Y. 10025

N.B.: Similar letters were sent to: James Baker, Secretary of the Treasury; Senator Moynihan; Dan Rostenkowski, Chairman of the Ways and Means Committee.

RESULTS FROM THE LANDMARK PRESERVATION COMMISSION  
OF THE CITY OF NEW YORK SURVEY OF LOCAL AND STATE  
GOVERNMENTS PROVISIONS FOR PRESERVATION OF  
ARCHAEOLOGICAL RESOURCES

SHERENE BAUGHER, URBAN ARCHAEOLOGIST  
DANIEL N. PAGANO, ARCHAEOLOGICAL RESEARCHER  
AUGUST 1984

1. Fifty states, one district and four territories were sent the Landmark Preservation Commission ("LPC") survey. \* Forty-three States, one district and three territories responded, seven states and one territory did not respond. Seven foreign municipal governments were contacted and three responded.

Eighty-one cities across the nation with populations of 500,000 or more, but including capitol cities with less than 500,000 were sent the LPC survey. Forty responded, forty-one did not respond. Six cities that were not contacted responded. Total response from cities to the LPC survey equaled forty-six.

2. In the United States, eight out of forty-six responding cities have archaeology departments or programs. Of the foreign cities that responded, all three respondents have archaeology departments or programs.

3. The number of years for which archaeology departments or programs have been established in cities in the United States is as follows: 1, 2, 4, 5.5, 10, 16, 50, and one no response. The number of years for which archaeology departments or programs have been established in the foreign cities surveyed is as follows: 5, 12, and one no response.

4. The location of archaeologists in city government in the United States is as follows: City Museum (2), City Planning (2), Environment Department (1), Office of History (1), Preservation Commission (2), and State Museum (1) [with one city reporting two positions]. The location of archaeologists in city governments from foreign respondents is as follows: City Museum (2), and Public Works (1).

5. Administrative titles for archaeologists in city government in the United States are as follows: City Archaeologist (5), Archaeologist (1), Urban Archaeologist (1), and Preservation Planner (1). Administrative titles for archaeologists in city government in the foreign cities surveyed are as follows: Conservator (1), Municipal Archaeologist (1), and Chief Urban Archaeologist (1).

\* see pp. 18 and 19, below.

6. Staff sizes are reported as follows:

(a) Urban archaeology departments in the United States city governments: (8 of 8 reporting)

	1	2-5	6+
Number of Employees =	1	2-5	6+
FULL TIME	3	5	-
PART TIME	3	3	-
VOLUNTEER	-	1	3 (16-20; 40; 75-300)

(b) Urban archaeology departments in foreign city governments: (3 of 3 reporting)

	1	2-5	6+
Number of Employees =	1	2-5	6+
FULL TIME	-	2	1 (60)
PART TIME	-	1	1 (25)
VOLUNTEER	-	-	1 (25)

7) Non-archaeologists on staff are reported as follows:

OCCUPATION	U.S. (7 of 8)	FOREIGN (3 of 3)
Architectural Historian	1	-
Architect	2	-
Biologist	-	1
Conservator	1	-
Draftsman	2	1
Environmentalist	-	1
Folklorist	1	-
Geologist	-	1
Historian	4	2
Museum Educator	1	-
Photographer	1	2

8) In the United States, eight of eight respondents indicated that laboratory space for processing of archaeological materials from excavations was obtained from the following sources: university (2), museum (2), private contract (1), had their own lab facility (2), and, had no lab facility (1). Of the foreign respondents, three of three indicated that space for processing of archaeological materials from excavations was obtained from the following sources: university (3), museum (2), and, had their own lab facility (2) [the total being more than three indicates multiple responses].

9) The percent averages of funding sources for local government archaeology departments/programs are as follows:

	U.S. (6 of 8)	FOREIGN (3 of 3)
Federal	12	11
State	23	10
County	16	3
City	34	65
Foundation	8	0
Corporate	0	0
Private	7	11
TOTAL	100%	100%

10. Average budgetary allocations for the following fiscal years for local archaeological departments or programs are as follows (in United States dollars):

	FOREIGN (2 of 3 cities)	U.S. (5 of 8 cities)
1980	136,210	48,773
1981	138,675	50,500
1982	1,051,837	53,600
1983	724,337	87,000
1984*	719,714	95,083
1985**	878,942	110,133

(\* ) projected; (\*\* ) estimated

11. In the United States, three out of eight municipalities with urban archaeology programs had specific provisions for consideration of archaeological resources in their local historic preservation laws, one municipality addressed archaeological resource preservation through an environmental quality law, and four municipalities had no archaeological resource preservation laws on the books. Of the foreign respondents, two out of three municipalities had provisions for consideration of archaeological resources in their local preservation laws.

12. In the United States, of the eight local governments with archaeology departments or offices, two withheld destruction/excavation permits, two withheld building or construction permits if inadequate provisions were made for preservation of archaeological resources, and four indicated that no permits were withheld regarding destruction of archaeological resources. Of the three municipal governments from the foreign respondents, two withheld destruction/excavation permits and one withheld building permits, if provisions for archaeological resource preservation were inadequate.

#### GENERAL COMMENTS ON DATA FROM MUNICIPALITIES

Twenty-four out of forty-six cities that responded to the LPC survey have archaeological resources protected by local legislation (landmark, environmental quality, cultural or archaeological resource protection laws) but twenty of the twenty-four do not have a city archaeologist or a program to monitor and implement the law.

Nineteen of forty-six cities do not have archaeological resource protection mentioned in their local laws, though four cities without laws have city archaeologists and archaeological resource preservation programs. Three cities did not answer the question.

A majority of the thirty-five cities without city archaeological programs indicated that projects requiring work under Section 106 of the 1966 National Historic Preservation Act or the Environmental Policy Act of 1969, depended on State Historic Preservation Offices ("SHPO") for assistance in archaeological resource management. When

archaeological resource evaluation and protection. If necessary, work was contracted to museums, private contractors or university contractors qualified to conduct the work, and this work was monitored by the SHPO.

#### DATA ON STATES

The LPC survey of local governments' provisions for preservation of archaeological resources was sent to fifty state Governors and Historic Preservation Offices with the intent that the survey would be forwarded to local governments with archaeology programs that were not sent the LPC survey directly. Forty-four states responded to the LPC survey, eighteen states (with the District of Columbia counted as a state) responded to answers on the questionnaire providing data on state archaeology programs, twenty-six states did not answer the questionnaire, and seven states did not respond at all. Data from the eighteen states responding to the LPC questionnaire is included in the following section. While this information was not specifically requested by the LPC survey of local governments, it is relevant and representative, though not comprehensive in terms of including data from all fifty states.

1. States that have laws regarding archaeological resources include sixteen of the eighteen respondents. Of the sixteen states with archaeological resource preservation laws, the following permits are withheld: archaeological resource survey and excavation permits on state land (8); destruction/excavation (3); building (1); and construction (0); with a total of twelve states noting withholding of permits. Four states did not answer this question.

2. The number of states with State Archaeologists in addition to SHPO's include seventeen of eighteen respondents. The District of Columbia did not have a state archaeologist.

3. Average budgetary allocations for the following fiscal years for state archaeological departments or programs are as follows:

		STATE
1980	\$	111,839
1981		146,101
1982		154,210
1983		140,370
1984 (estimated)		112,051
1985 (projected)		128,090

4. The percent averages of funding sources for state government archaeology departments or programs (with 17 of 18 respondents reporting) are as follows:

	<u>Percent</u>
federal	32.3
state	65.5
foundation	.1
corporate	.4
private	<u>1.7</u>
	100 %

5. Archaeological personnel staff size as reported by 18 of 18 responding state governments is as follows:

	<u>Number of Employees =</u>			
	<u>1</u>	<u>2-5</u>	<u>6+</u>	<u>11+</u>
FULL TIME	3	8	3	1(16-20);2(11-15)
PART TIME	-	4	2	-
VOLUNTEER	-	3	-	100

6. Nonarchaeologists on staff as reported by 17 of 18 states are as follows.

<u>OCCUPATION</u>	<u>NUMBER REPORTED</u>
Historian	10
Geologist	1
Draftsman	3
Architect	9
Environmentalist	1
Architectural Historian	4
Paleobotanist	1
Palyntologist	1
Archaeozoologist	1
Geographer	1

The LANDMARKS PRESERVATION COMMISSION OF THE CITY OF NEW YORK is conducting an international survey of local Preservation Commissions to find out about their provisions for protection, conservation and excavation of archaeological resources.

YOUR - City \_\_\_\_\_ County \_\_\_\_\_ State/Country \_\_\_\_\_

- 1) Is there an office/department of archaeology in your local government?  
YES \_\_\_\_\_ NO \_\_\_\_\_
- 2) If YES, how many years has this office/department existed? 1 \_\_\_\_\_ 2 \_\_\_\_\_  
3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ indicate number if over 5 years \_\_\_\_\_
- 3) Do you have a City or County Archaeologist? YES \_\_\_\_\_ NO \_\_\_\_\_
- 4) If YES, in what office/department or division of local government are they located? city museum \_\_\_\_\_, city planning \_\_\_\_\_, landmarks or historic preservation commission \_\_\_\_\_, other(list) \_\_\_\_\_.
- 5) What title is used for your senior archaeologist \_\_\_\_\_,  
title(s) for assistant archeologist \_\_\_\_\_.
- 6) STAFF SIZE    1    2-5    6-10    11-15    16-20    indicate number over 20.  
Full Time    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_  
Part Time    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_  
Volunteer    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_    \_\_\_\_\_
- 7) Are there non-archaeologists working with archaeology staff? Historian \_\_\_\_\_,  
Geologist \_\_\_\_\_, Draftsman \_\_\_\_\_, Architect \_\_\_\_\_, Engineer \_\_\_\_\_, Other \_\_\_\_\_
- 8) Do you have a staff of city/county archaeologists for archaeological field-  
work needed on city/county owned properties?  

	YES	NO		YES	NO
(a) documentary research	_____	_____	(e) public education programs	_____	_____
(b) fieldwork	_____	_____	(f) resource management planning	_____	_____
(c) laboratory analysis	_____	_____	(g) monitoring fieldwork of	_____	_____
(d) report preparation	_____	_____	private archaeological firms	_____	_____
			(h) evaluating private archaeological firm reports	_____	_____
- 10) If NO, how is archaeological work on city/county properties handled?  

	PRIVATE CONTRACT	MUSEUM STAFF	OTHER	NOT CONSIDERED
(a) documentary research	_____	_____	_____	_____
(b) fieldwork	_____	_____	_____	_____
(c) laboratory analysis	_____	_____	_____	_____
(d) report preparation	_____	_____	_____	_____
(e) public education programs	_____	_____	_____	_____
(f) resource management planning	_____	_____	_____	_____
(g) monitoring fieldwork of private archaeological firms	_____	_____	_____	_____
(h) evaluating private archaeological firm reports	_____	_____	_____	_____
- 11) Indicate the % of staff time spent on the following:

(a) documentary research	_____	(e) public education programs	_____
(b) fieldwork	_____	(f) resource management planning	_____
(c) laboratory analysis	_____	(g) monitoring fieldwork of	_____
(d) report preparation	_____	private archaeological firms	_____
		(h) evaluating private archaeological firm reports	_____
- 12) Indicate the type of laboratory facility you use: University \_\_\_\_\_,  
Commercial Space \_\_\_\_\_, Museum \_\_\_\_\_, Other \_\_\_\_\_.

- 13) Is the conservation work on archaeological objects handled by:  
 your own city archaeology office/department lab\_\_\_\_, private contract\_\_\_\_,  
 museum conservators\_\_\_\_, other (specify)\_\_\_\_\_.
- 14) Indicate the % of funding sources for your archaeology office/department
- |         |       |            |             |
|---------|-------|------------|-------------|
| federal | _____ | foundation | _____       |
| state   | _____ | corporate  | _____       |
| county  | _____ | private    | _____       |
| city    | _____ | TOTAL      | <u>100%</u> |
- 15) What is the total dollar amount of your archaeology budget for fiscal years:
- |       |       |       |       |             |             |
|-------|-------|-------|-------|-------------|-------------|
| 1980  | 1981  | 1982  | 1983  | 1984 (est.) | 1985 (est.) |
| _____ | _____ | _____ | _____ | _____       | _____       |
- 16) Does your Landmark/Historic Preservation ordinance or city/county laws provide for consideration of archaeological resources? YES\_\_\_ NO\_\_\_.  
 If YES, please send us a copy with this survey.
- 17) If YES, (a) How is the ordinance/law administered in the community?

- (b) What permits are withheld to guarantee compliance?
- destruction/excavation \_\_\_\_\_
- building \_\_\_\_\_
- certificate of occupancy \_\_\_\_\_
- other \_\_\_\_\_

- 18) Are annual reports issued by the Archaeology office/department?  
 YES\_\_\_ NO\_\_\_ . If YES, please send us a copy of your most recent report.
- 19) Would you like to receive a copy of the findings of this survey?  
 YES\_\_\_ NO\_\_\_ . If YES, please include your name and address in the space below.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Your cooperation in completing this form is greatly appreciated. Your comments, questions or further ideas on this questionnaire are welcome.

T H A N K Y O U !

Send response to: Dr. Sherene Baugher  
 N.Y.C. Landmarks Preservation Commission  
 20 Vesey Street  
 New York, N.Y. 10007

# A Dig for Artifacts From the Days of

## Old Breukelen

By JOYCE PURNICK

Archeologists have been digging in Brooklyn — in downtown Brooklyn, to be precise, on the edge of Brooklyn Heights, several feet beneath what was a broad, boring parking lot.

Now the cars are gone, and a few yards from the traffic of Cadman Plaza West and the quiet of Pierrepont Street, the asphalt is scarred with neat, deep trenches, where a team of archeologists has been searching for historical traces of the place known as Breukelen. That was the area's name when the Dutch lived there in the 17th century.

The digging has just ended, and the artifacts found are undergoing testing.

### Site for Office Building

"We're looking for the story, the sequence of events, the unwritten record," said Dr. Joel W. Grossman, the archeologist in charge of the project — a \$50,000 city-financed effort to determine if the site, scheduled to house an office building, hides any treasures.

Dr. Grossman and his company, Greenhouse Consultants Inc., were hired by the City Public Development Corporation after the city had announced plans to replace the lot with a building that would include some offices of Morgan Stanley & Company, the investment concern.

Part of the complicated government-approval process for construction requires the city to submit an analysis of the impact of the building on a broad range of issues, from air quality to noise. State and Federal guidelines for such reports require that, if the site may be of archeological import, it has to include an archeological examination.

Hence, Dr. Grossman and his team of archeologists.

### Ahead of Schedule

If their two and a half weeks of work has found anything of great significance, the City Landmarks Preservation Commission would have to decide whether further digging was warranted.

The president of the Development Corporation, Steven Spinola, said he was confident that, in any event, construction of the office building would not be delayed, because the project was ahead of schedule in the approval process.

The archeologists uncovered only bits and pieces of pottery, two backyards and two basements believed to be at least 135 years old, a brick wall from the mid-19th century and a stone wall that might be substantially older. All the findings will have to be tested and dated in the Greenhouse Consultants laboratory in lower Manhattan during the next few weeks before their significance is clear, Dr. Grossman said.

The site has yielded nothing to com

pare with what he and his company found a year ago, at an excavation in lower Manhattan. On the northeastern corner of Pearl and Whitehall Streets, one of their digs revealed a warehouse of the Dutch West India Company that held 43,318 artifacts, with 21,000 from the 17th century.

### Pellets and Whips

It is Dr. Grossman's hope that the artifacts they found were from Revolutionary or even pre-Revolutionary War days. Someone did live near or on the site in the 1790's — a former Hessian soldier named John Valentine Swertcope, according to a 1940 article in the old Brooklyn Eagle by George Currie.

"Old Swertcope was a character," Mr. Currie wrote. "He wore a long grey beard, was an unabashed miser and irascible to boot. He invented an airgun which shot clay pellets, and armed with snis and a black snake whip, caused little boys to move over to the other side of the Old Turnpike (Fulton St.) when Satan tempted idle hands to thievery along his peach trees and strawberry patches."

A year later, an unbylined article in The Eagle revealed another side to Swertcope. Nobody in all of Brooklyn Village, it seems, was as talented as he in making rose water. "So the annual crops from nearly all the village rose gardens found their way into his rose water distillery, and in payment for the rose water distilled, he was al-

lowed to keep half the rose leaves sent him."

No obvious signs of the Swertcope days have turned up, but the archeologists, who found the articles in the course of their research, are still testing.

An associate professor of political science at Brooklyn College, Michael Kahan, said he believed Iphetonga Indians once lived in Brooklyn Heights. "But given what we know, there would have to be something pretty significant to stop development there," he said.

That is fine with Mr. Spinola, whose job is to encourage development, not archeological digs. "What we're doing is to prevent a lawsuit," he said. "And, if anything is there, we would like to know."

NEW YORK TIMES

THURSDAY, AUGUST 22, 1985

### Differences

They were no longer young. They were no longer able-bodied. But the men whose final haven was Sailors' Snug Harbor still had one thing in common with other seafarers: a life governed by shipboard rules.

To find out how closely life at Snug Harbor in the 19th century paralleled that at sea, archeologists and historians have been digging at the 80-acre compound, which overlooks the Kill van Kull on Staten Island.

"Was the difference in status based on privilege but not on belongings?" asked Dr. Sherene Baugher of the Landmarks Preservation Commission.

Some answers, she believed, would come from comparing artifacts thrown out of what amounted to the officers' quarters with those discarded around the dormitories, where the sailors lived.

Dr. Baugher, the only archeologist on the municipal payroll, headed the team that excavated a site near what is now called the Matron's Cottage. This was the home of Snug Harbor's steward from 1855 to 1879.

The team found buttons, animal bones and fragments of clay smoking pipes, dishes, mixing bowls, pie plates, glasses and bottles — altogether some 4,000 artifacts.

"The pipes found by the Matron's Cottage," she said, "were beautiful and ornate, with floral patterns on them, while the pipes that had come out near the dormitories were simple and undecorated."

"That was our first clue that we might have some status differentiation in the material goods."

The artifacts are now being cleaned, labeled, dated and reconstructed. "We are just starting," Dr. Baugher said. "By Thanksgiving, I can tell you a much more complete story."

# Did park workmen destroy Van Cortlandt family relics?

By BERNARD L. STEIN

Workmen employed by the Parks Department to repair the sewer serving Van Cortlandt Mansion destroyed archeological remains of the Van Cortlandts, and perhaps of their Indian predecessors, during three days of digging this week and last.

The Parks Department waived a contract provision that called for an archeological survey to be completed before the digging began and for an archeologist to oversee the actual digging.

The Department's deputy director of construction said the job was an emergency and that the archeologist who was to have been employed at the site refused to shorten the time she proposed for study.

The archeologist, Valerie De Carlo, watched as bulldozers and backhoes dug trenches near the Mansion last week. She said she saw the remains of a stone brick wall, as well as a garbage heap that might have been prehistoric.

Without the preliminary research and close study that enforcement of the contract would have provided, she was unable to assess the significance of the finds, she said.

Speaking without the professional caution of the archeologist, Robert Porter, the curator of the Van Cortlandt Mansion, said he was "certain" the bulldozers and backhoes had unearthed, and destroyed, the smokehouse of the Van Cortlandt family.

They also uncovered a foundation that Mr. Porter "suspects" may be part of the original house of Jacobus Van Cortlandt, built in 1699.

Mr. Porter and his wife, who live in the Mansion, have been without bathroom facilities since last summer. To restore service, the project rerouted the sewer from a 200-year old manhole to a contemporary manhole 200 feet away, according to Charles Franzetti, professional engineer with D. Reiner, Inc., the contractor. To accomplish the switch, workers dug a 200-foot trench.

John Freeman, the Parks Department assistant director of construction, accused Ms. De Carlo, the archeologist, of being rigidly unwilling to compromise over either money or time.

Because the Porters were living in discomfort, he said he turned down her proposal to spend about a week studying the history of the site and doing test digs. But he offered to permit her to stop the job if it uncovered anything she thought might be valuable and to allow her to photograph the finds. Ms. De Carlo, he said, refused the offer.

"No one I've spoken to understands what an archeological survey involves," Ms. De Carlo said in a telephone interview. "I needed a week. When you're talking about a national historic landmark, is that a lot of time?"

Ms. De Carlo wrote a proposal calling for a \$3,100 expenditure. The contract had allocated \$1,000 for archeology. She wanted to do background research, examining maps, deeds and histories of the area, then conduct a "shovel test," digging along the route of the trench and screening soil to see what it held.

The preliminary research, she said, is a necessity if an archeologist is to know the significance of anything uncovered during the actual digging. "You need time to make a judgement about what you're dealing with."

Last Friday, for example, the workmen dug up shards of pottery described variously as pieces of clay pipes favored by the Dutch, and as pots. Ms. De Carlo would only say, "I have retrieved cultural materials out of their dirt piles that indicate the definite presence of 18th century historic material there. Because I didn't conduct a survey with documentation, I can't say what it relates to."

An urban archeologist who is working with Wave Hill, Ms. De Carlo added that the situation was irretrievable. "When they go in with a backhoe, that's it."

"You have people who want toilets, and people who want perfection," said Mr. Freeman, the Parks Department official who waived the contract provision. Conceding that the Department had not treated the problem in the Mansion as an emergency until the Society of Colonial Dames, which administers the buildings, complained about the Porters' plight, he said he personally broke the bureaucratic logjam that was holding up repairs.

The Department voluntarily agrees to include archeological work in contracts at landmark sites, he said, and added that two assistant Parks commissioners, Bronson Binger and Ivan Lisnitzer, had told him to drop the provision. "I said 'no, I'll try to work out a compromise,'" he said, but when he failed he ordered the work to begin.

Officials of the city's Landmark Commission and local park advocates tried to halt the work on Friday with a telephone campaign but failed. "It's really horrendous. It's disgusting," said Peter Sauer, executive director of Wave Hill. "When you dig with a bulldozer, you're destroying history."

## KEY PERSPECTIVES: RECENT EXCAVATIONS

Inwood, Manhattan: Block 2172, Lots 16,68,72

This site was identified by Bolton as a native Amerind campsite or planting ground, located along Broadway (once a prehistoric trail) at its intersection with Barrier Gate Creek, at 194th Street. Subsequently the land was Adolph Zerrenner's truck farm; Indian remains were often turned up during tillage.

Inwood did not receive much attention from the earliest European settlers of Manhattan. Natives issuing forth from Spuyten Duyvil Creek had attacked Henry Hudson's Half Moon as it returned from its pioneering explorations up the river and perhaps this hostile and active Amerind presence helped initially to keep the Europeans out of the neighborhood. Eventually, title to the land of Inwood passed to the Europeans, the last title transfer being in 1715.

During the Revolutionary War, in November 1776, a major battle was fought in Inwood. Following British-Hessian attacks on November 8th and 9th, the Colonials constructed a wooden barrier between Forts Tryon and George, crossing our site.

Since there was no record of development on the site, and the present use was a parking lot with a small, foundationless shack the only standing structure, test excavations were carried out in June 1985. Frederick A. Winter, p.i. and field director, was assisted by Karen S. Rubinson as crew chief. 4 test units revealed extensive modern landfills. As in our excavations at 53rd At Third and those of Bert Salwen on Sullivan Street, we found evidence for extensive -- unrecorded -- landfillings. It is clear that the transformation of the Manhattan land surface has been significantly more extensive than records show and that large amounts of landfill in areas near surface streams should be anticipated in future projects.

Since the proposed use of the Inwood site is a schoolyard, any remains of the Indian planting ground/campsite and Revolutionary War stockade remain safely protected under the modern fill.

Tottenville, Staten Island: Blocks 7923,7924,7925,7936

Immediately adjacent to the major prehistoric cemetery of Burial Ridge and the pre-Revolutionary Conference House, the site consists of a number of lots within the four blocks bounded by Hylan Boulevard and Clermont Street, Massachusetts and Carteret Streets. With Frederick A. Winter as p.i., and Eugene Boesch as field director, the site was tested during January 1985. The block nearest Burial Ridge was tested intensively and the other three blocks extensively. Although there were traces of prehistoric activity in the form of a few flakes and some clam and oyster shell, and indications of historic period usage from a few small fragments of white ware, a single example of cream ware, and a kaolin pipe fragment, the remains were quite limited. Following consultation with the New York City Landmarks Preservation Commission, it was determined that the tests revealed no need for mitigation. In most areas the water table was quite high and bog and swamp covered much of the area, perhaps explaining why the evidence for prehistoric and early historic occupation was so limited in an area that was adjacent to zones of extensive past usage.

Submitted by

Karen S. Rubinson & Frederick A. Winter

WEDNESDAY, MAY 1, 1985

## In Search of Art, Collectors Leave No Stone Unturned

\* \* \*

Thieves Raid Old Cemeteries  
Seeking Puritan Carvings;  
How to Offend Neighbors

By JOANN LIPMAN

Staff Reporter of THE WALL STREET JOURNAL

Georgianna Costa keeps an 18th-century slate gravestone in her basement in East Haddam, Conn. Sometimes, after guests arrive, she hauls it up to the living room to show off. "The carving is so beautiful," she will say, admiring a winged cherub.

Mrs. Costa, who helps run a cemetery, would rather see the stone back in the ground. But it wouldn't stand a ghost of a chance of staying there, she fears. Once already, the stone has been spirited away from Cove Burying Ground. Before police intervened, a Manhattan gallery tried to sell the stone for \$1,950.

Gravestone thefts are rampant, the result of mushrooming interest in old gravestones—including the Puritans' only carvings—as folk art. Collectors, who will pay \$3,000 or more for a choice pre-1850 stone, extravagantly liken the stones' carvers to Picasso and Klee. Primitive, the carvings usually depict cherubs, skulls or death-related objects such as tombs, urns, empty hourglasses and burial tools. This is "art of vivid simplicity and primordial power," gushed FMR, a stylish art magazine, in a 28-page cover story last year.

### Guarding a Graveyard

Cemeteries wish that the word weren't out. So does an avid band of scholars who like to study gravestones in their original settings. "I am constantly worried about stones being stolen," says Miriam Silverman, an archaeologist who is studying the 1,800 or so stones crammed into the tiny Trinity Church graveyard in Manhattan's Wall Street area. The yard, the resting place of Alexander Hamilton and Robert Fulton, is guarded by day and locked at night.

Trinity Church's precautions appear to be sufficient, but other graveyards are either less careful or less lucky. Alfred Fredette, a gravestone maven in Scotland, Conn., scrutinized five Connecticut graveyards in 1976 and again in 1983. The second time, he reports, 168 stones were missing.

Such scholars don't doubt where the stones are going. "I hate to say it, but there is a market for this kind of thing," says a Minersville, Pa., folklorist whose name is—no kidding—Michael Graves. Even fragments of stones are valued by some collectors. In Manhattan's SoHo section recently, Ricco-Johnson Gallery of-



Gravestone of George Brown  
Died 1767, Wellfleet, Mass.

ferred two mounted cherub faces that had been part of carved gravestones. One was priced at \$950, the other at \$1,800 (they sold for undisclosed lesser amounts).

Such fragments, as well as entire gravestones, are showing up in homes. Some sit above collectors' fireplaces. Others stand in sculpture gardens or serve as coffee tables, doorstops or welcome mats. Some people pave their patios with gravestones.

Herbert Hemphill, a folk-art specialist in New York, keeps an 18th-century gravestone—it depicts a winged skull—on a living-room table. On a nearby wall he keeps the wooden marker, dated 1883, from another grave. "I have no problem showing them in my apartment," Mr. Hemphill says.

But gravestones are a bad thing to have in some houses. Diana Hume George, a gravestone specialist in Brockton, N.Y., once kept one over her mantel. The result: "One of my son's friends wasn't allowed to come over anymore because his mother found out." Soon, rumors spread that "we were grave robbers and weirdos." Chastened, she now displays gravestone rubbings rather than the real thing.

Selling gravestones can also prove chastening. In Otego, N.Y., Hesse Antiques aroused anger in 1981 by advertising plans to auction off a 1717 tombstone. "People were screaming for blood," recalls Jonathan Twiss of Hartford, Conn., an insurance-company employee who studies graveyards as a hobby. So the dealer withheld the stone from its auction and quietly arranged a private sale.

But the uproar didn't quite end there. After changing hands once or twice, the tombstone was seized by police and handed over to Jonathan Trumbull Cemetery in Lebanon, Conn., from which it had vanished in 1970. The police had been put onto the trail by Alfred Fredette, the man who counted the 168 stones missing.

It is also Mr. Fredette, a hero among gravestone scholars, who sprang into action when Ricco-Johnson Gallery in SoHo advertised a gravestone for \$1,950 in 1982. Mr. Fredette proved to the satisfaction of police that the stone belonged to Cove Burying Ground in East Haddam; it is the one that Mrs. Costa now keeps in her basement. Gallery owner Roger Ricco, who says he had acquired the stone for \$1,000 from another dealer, since then has sold only fragments, not entire gravestones.

"If somebody came in with a gravestone right now, I wouldn't buy it," Mr. Ricco says. "It's very difficult to prove that it wasn't stolen." (Generally, old gravestones are deemed to be owned by whoever owns the land where the stones were set.)

Keeping stolen gravestones off the market is a passion for all the members—numbering about 500—of the eight-year-old Association of Gravestone Studies. The members regard cemeteries as "outdoor museums." They raise money partly by selling bumper stickers ("I Brake for Old Graveyards").

These zealots help cemeteries catalog their gravestones and keep them there. Watched especially closely are the most endangered stones: those from New England that picture winged skulls (popular from 1650 to 1750) and winged cherubs (1750 to 1820). (Older stones exist, but they tend to lack carvings; newer stones, mass-produced, are too common to excite interest.) French settlers' gravestones in New Orleans also are cherished, as are 19th-century filigreed stones from North Carolina.

Some gravestones are prized because of who carved them (though not all are signed). To the initiated, signatures such as Obadiah Wheeler's and Lebbeus Kimball's are awesome. But unsigned as well as signed stones are valued as the only sculpture by the Puritans (for whom idols—and hence most sculpture—were taboo).

This heritage of stones increasingly is protected not just by amateur sleuths but also by state laws. Gravestone thefts are expressly forbidden in 34 states. Connecticut's gravestone law, adopted last year, enables offenders to be jailed for as much as five years.

It appears that nobody has been jailed yet, but candidates for arrest abound—including some people naively unaware of the value of gravestones. Mrs. Costa knows of one person who uses a gravestone as an oven part. And one stolen stone, she says, wound up being used to help push meat into a big grinder. "It wasn't stolen in a malicious sense," she says. "It was just a handy stone."

## Looting Graveyards Isn't an Art Form

In a May 1 front-page article you raise a serious issue—the theft of old gravestones for resale in the art and antiques market. Unfortunately, you do not treat this issue with the seriousness it deserves. While the illegal removal and sale of gravestones is a growing problem, a discussion of dollar value and artistic styles which “excite interest” among collectors is hardly a responsible way to bring that problem under control.

Gravestones are more than just an interesting form of folk art. They are one of the remaining, tangible links between the people of a community and their past. Old burial grounds and the markers they contain are part of what gives Massachusetts its distinct and historic character. Protection of that historic character is something we take seriously. In Massachusetts,

gravestones are protected under both criminal and civil law. Theft of a gravestone is a felony. Possession of a gravestone without documentation of legal ownership may provide grounds for prosecution. While you may treat these issues lightly, dealers and collectors of gravestones art should be advised that we in Massachusetts do not.

VALERIE A. TALMAGE  
Executive Director

State Historic Preservation Officer  
Massachusetts Historical Commission;  
Boston

You weren't hard enough on the grave robbers who steal or buy gravestones. Two years ago a niece who is doing a genealogy of our family invited me along on an ancestor-hunting trip. We made a stop at a cemetery in Missouri where a great-great-grandfather Joshua Wilson (misspelled Wilson on the stone) was buried. We knew of the stone because another relative had taken a picture of it several years ago, but where it should have been there was only a marble stub in the ground.

It feels pretty bad to have one of your own family graves looted. I don't see how those collectors can fail to realize what an indecent thing they are doing. There must be very few stones on private property that would make them legally owned merchandise. Those people must know what they are buying.

Waterville, Kan.

HELEN B. POFF

## The Editorial Notebook

NEW YORK TIMES JULY 26, 1985

# The Trials of Treasure Hunting

Philip IV of Spain ran a vast defense establishment and a deficit to match. His hopes of relief depended on the annual treasure fleets from Spain's gold and silver mines in the New World. But the fleet of 1622, late in leaving Havana, ran into a hurricane that shattered the heavy treasure galleons on the Florida Keys. The Nuestra Señora de Atocha, laden with 29 tons of silver and 3,500 ounces of gold, foundered on Sept. 6, 1622, with the loss of 143 lives.

The bulk of its cargo, a wall of silver ingots, was discovered last week by Melvin Fisher, after a 15-year search. He and his colleagues — Don Kincaid, Eugene Lyon, Duncan Mathewson, Bleth McHaley, and David Paul Horan — learned through years of dashed hopes that the sharks to be feared were those above water. Each hint of success in the protracted search brought new setbacks, often driving the hunters to the edge of bankruptcy and despair.

Like other salvors, Mr. Fisher started looking off the Matecumbe Keys, in the middle of the island chain, the site mentioned in Spanish records. His first break came when Eugene Lyon, a historian, found from maps in the Archives of the Indies in Seville that “matecumbes” was once a generic name, applied to all the islands. From the worm-eaten reports filed by Spanish salvors sent to look for the wrecks, he learned they had

## Spanish Silver Lures Sharks Of All Kinds

worked in the “matecumbes” now called the Marquesas Keys, at the far end of the chain beyond Key West.

That still left a large area to search. From beneath the sands off the Marquesas, Mr. Fisher's team began in 1971 to recover the first items from the storm-strewn wrecks — silver and copper bars, crucifixes, reliquaries and an astrolabe. They found wreckage of the fleet's other treasure galleon, the Margarita, which the Spanish had salvaged. But the main pile of the Atocha remained elusive. Despite Mr. Fisher's brave motto, “Today's the day,” it seemed increasingly possible that the Spanish salvors had retrieved the Atocha's treasure too, but without mentioning the success in their reports.

Meanwhile, the search's finances were scraping the rocks. Rival treasure hunters claimed Mr. Fisher had salted the site with items from other wrecks and hadn't found the Atocha at all. Archeologists, afraid he would damage the wrecks, urged the State of Florida to withdraw his license.

Would-be backers were further discouraged by protracted legal battles.

The Marquesas site lay outside the three-mile limit but in waters claimed by Florida. After the state's claims were denied in 1973, Mr. Fisher offered it a 25 percent share in return for a halt to litigation.

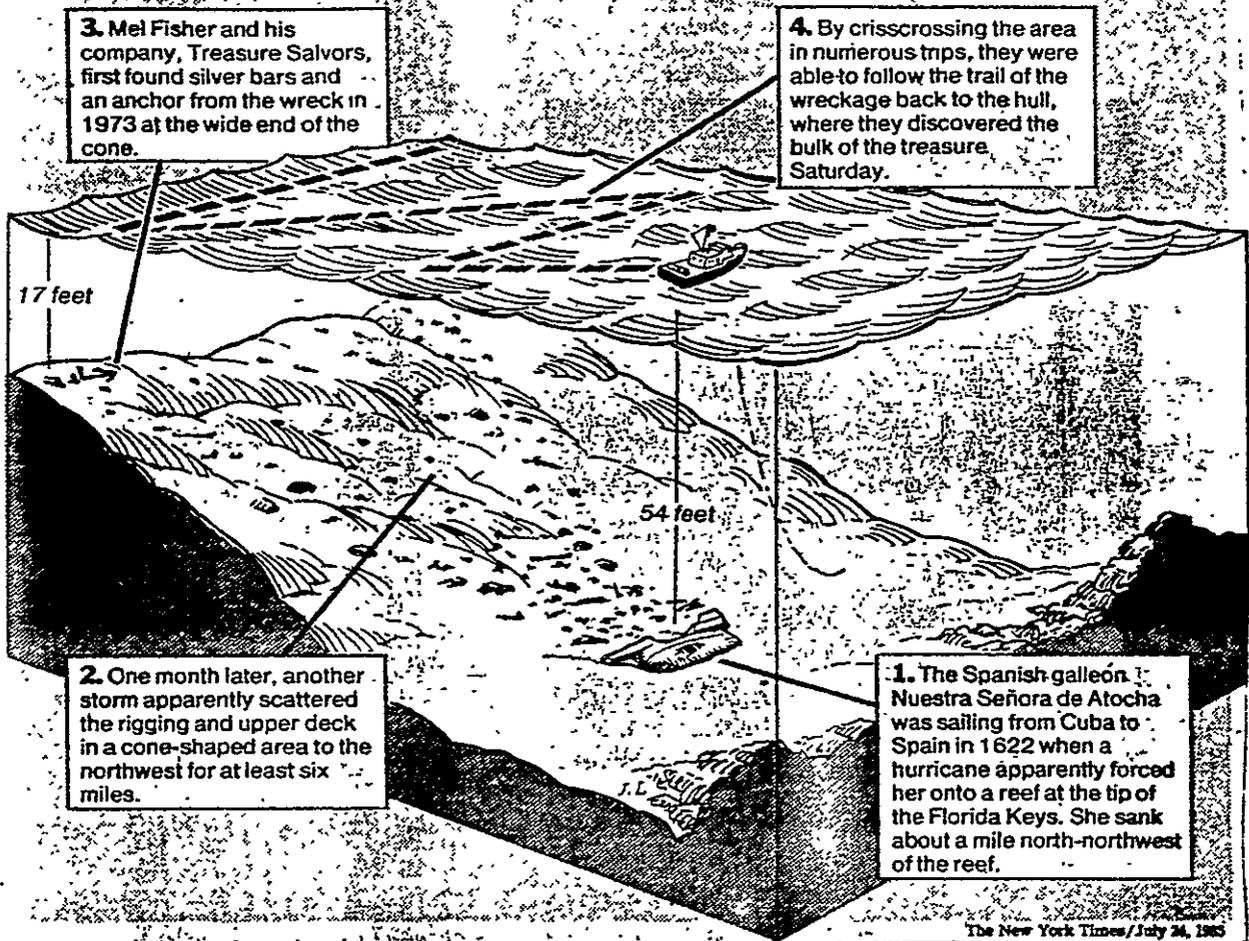
But Florida, wanting everything, encouraged the Interior Department to claim the entire wreck, arguing that the United States, as successor to the English monarchs, held sovereign rights to treasure found by American citizens. The case was summarily dismissed by a Federal judge who accused the state of “coveting” the treasure and of “egregious acts of bad faith amounting to collusion.” His decision was upheld in 1980, at last giving Mr. Fisher clear title.

Archeologists dislike the work of salvors, whose methods often destroy valuable information in fragile shipwrecks. But only an entrepreneur like Mr. Fisher could ever discover the Atocha, and he even took an archeologist on his team. Because so small a share of the wreck has been pledged to investors, he hopes to keep the bulk of the Atocha's treasure intact as a traveling exhibit.

Groping in shifting sands year after year, beset with misleading clues from the scattered wreck, Mr. Fisher at last triumphed over hostile elements on land and sea. Against many odds, Philip IV's loss has become the public's gain. NICHOLAS WADE

## Galleon's Treasure: Centuries in Hiding

Drawing is schematic. Distance from the site of the first discovery in 1973 to Saturday's find is about 6 miles.



3. Mel Fisher and his company, Treasure Salvors, first found silver bars and an anchor from the wreck in 1973 at the wide end of the cone.

4. By crisscrossing the area in numerous trips, they were able to follow the trail of the wreckage back to the hull, where they discovered the bulk of the treasure Saturday.

2. One month later, another storm apparently scattered the rigging and upper deck in a cone-shaped area to the northwest for at least six miles.

1. The Spanish galleon Nuestra Señora de Atocha was sailing from Cuba to Spain in 1622 when a hurricane apparently forced her onto a reef at the tip of the Florida Keys. She sank about a mile north-northwest of the reef.

## Archeologists' Eyes Glittering Over Treasure

By JON NORDHEIMER

Special to The New York Times

KEY WEST, Fla., July 23 — Late Monday night, as wind and rain from a tropical storm swept the puddled streets of Key West, jubilant treasure hunters and investors sang rousing choruses of "We're in the Money" and "The Impossible Dream," pounded out by a piano player in the Two Friends bar.

Besides yielding riches of silver and gold that had been buried in the ocean floor for more than three centuries, the sunken Spanish royal galleon they discovered last weekend may prove to be a scientific bonanza, their chief archeologist said today.

"It's a virgin shipwreck in situ, one of the greatest treasure finds from an ancient shipwreck recorded anywhere," said Duncan Mathewson, chief archeologist for Treasure Salvors Inc.

of Key West. Backers of the limited partnership spent years and millions of dollars to search hundreds of square miles of sea bottom 40 miles west of here for the remains of Nuestra Señora de Atocha, the 550-ton flagship of a Spanish treasure fleet sunk in a hurricane in 1622.

On Saturday, working 54 feet under the choppy, bottle-green surface, divers found the prize. Powerful gusts of water pumped down from their ship

blew up a storm of sand and exposed a jumbled mound of hundreds of silver bars, each 15 inches in length, that weighed 70 pounds each. Nearby gold and silver coins and jewels spilled from a well-preserved cedar treasure chest.

An excited diver rose and broke the surface with clenched fists of triumph. "It's here!" he shouted to those aboard the rocking ship, who at first feared some underwater emergency. "We found it! We found the main pile!"

The discovery touched off a celebration among the 40 or so employees of Treasure Salvors and sent investors rushing to catch planes to Key West. Among the latter were Frank Perdue, the poultry producer, and Melvin Joseph of Delaware, who has investments in construction and poultry farms.

At first, members of the company estimated the treasure was worth more than \$400 million.

Mel Fisher, the baldish guiding spirit of Treasure Salvors, winced today at the figures and said they might be too high, a turnaround of sorts for a man whose critics asserted in the past that he had inflated estimates of the value of artifacts recovered by his divers.

"The figures are kind of wild," said Mr. Fisher, 62 years old, beaming in his office in Key West this morning. Around his neck dangled \$12,000 in

CONTINUED...

gold, including a doubloon, souvenirs of earlier treasure hunts.

"None of it's going to be sold anyway," he said. "At least, none of my share will be sold."

An inventory of what his divers have found may take years, Mr. Fisher said. An archeological excavation of the underwater site is being prepared and the initial plan calls for careful removal of the buried treasure and everything else in the watery grave.

"We're not treasure hunters as much as we are an archeological recovery team," explained Mr. Mathewson. "We are somewhere between treasure hunters and scientific excavators."

In this respect, he continued in an interview, he was distressed to learn that the divers removed 200 silver ingots in their first flush of enthusiasm.

High winds from the tropical storm kept crews away from the find today, and no other removal of treasure is to take place until additional divers and archeological assistants can be hired.

"What we think we have is most of the hull and cargo of the Atocha, pinned under the mound of bars and nicely preserved," Mr. Mathewson said.

**'Enormous Time Capsule'**

If that turns out to be correct, he continued enthusiastically, the Atocha could be seen as "an enormous time capsule, as important as Pompeii or even King Tut's tomb."

By any measure, the cargo carried by the Atocha when she and nine other treasure ships sank was priceless. The Atocha alone bore 47 tons of gold and silver when the fleet set sail from Havana to deliver the riches of the New World to Spain. The Spanish sent salvage crews to reclaim part of the cargo of the two other royal galleons that sank in the same storm, the Rosario and the Santa Margarita, but after an initial sighting no trace was found of the Atocha and her riches.

Scholars over the years have frequently criticized the methods and claims of Mr. Fisher's operations. But news of the discovery of the Atocha brought heightened academic interest.

"From what I've heard it sounds like a spectacular find," said Dr. George Bass, director of archeology for the Institute of Nautical Archeology at Texas A&M University, in a telephone interview. "It is a special thing to find an intact cargo that can give a picture of 17th century exploration in the New World."

**Varied Insights Expected**

Mr. Mathewson, who holds a master's degree in marine archeology, said he hoped a scientific examination of the Atocha and her cargo would provide insight into a range of subjects.

Noting that the Atocha was built in Havana in 1618, a generation after the wreck of the Spanish Armada off the English coast, he said the wreck could

shed light on what innovations were incorporated into galleon design by Spanish shipwrights.

Mr. Fisher, after turns with his family's poultry business and the running of a divers' shop in Torrance, Calif., was lured to Florida in 1962 by tales of Spanish treasure. Using modern electronics, he and associates were able to recover gold and other artifacts from wrecks of the Spanish fleet destroyed in a storm off Florida in 1715.

By 1969 his divers were scouring the waters off the Florida Keys in search of the Atocha. Years were wasted searching in the wrong spot before Eugene Lyons, a Ph.D. candidate doing research in Spanish archives came up with documents that placed the sunken Atocha to the west of the Marquesas, islands 35 miles off Key West.

Acting on this and a hunch, Mr. Fisher dispatched his divers to search off a short underwater reef that ran east-west about 10 miles southwest of the Marquesas. He reckoned that the 1622 fleet, poorly designed to ride out a storm, had been driven on the reef.

As the events now make clear, his original hunch was essentially correct. But on July 4, 1973, three silver bars were found in shallower water five miles to the northwest. This moved the focus away from the deeper water. As things turned out, the discovery of the silver, and later the Atocha's anchor, in the shallow waters, which are called the Quicksands, was a costly and frustrating reversal.

"I wished we had never found them," said Bleth McHaley, vice president of Treasure Salvors. "It was a false lead that cost us years."

The hull with the treasure had remained in the deep water where the Atocha first sank. It is now believed that a storm that struck the area one month after that sinking wrenched the rigging and upper decks away from the hull, heavy with ballast and treasure, and carried the superstructure five miles or more to the northwest, strewn anchor, gold pieces and other artifacts along a wide trail leading to the Quicksands.

The last 10 years were spent following a teasing trail of artifacts and ballast back toward the reef, crisscrossing thousands of acres of ocean floor.

It was a decade of frustration for Mr. Fisher, as well as one filled with lawsuits, missed payrolls and tragedy.

On July 20, 1975, Mr. Fisher's oldest son, Dirk, 21, drowned when his diving work boat capsized at night. Dirk's wife and another hand were drowned in the same accident.

The average share of a diver in the company is expected to be one-tenth of 1 percent, which could range from \$100,000 to \$300,000 depending on what is eventually taken out of the Atocha. Longtime hands, numbering about a dozen, stand to get a full 1 percent, which may make them millionaires.

NEW YORK TIMES JUNE 9, 1985

**Diggers Confident of Finding 28 Custer Troops**

Special to The New York Times

CROW AGENCY, Mont., June 8 — After 109 years, archeologists say they believe they know where to find the remains of 28 soldiers who died with Lieut. Col. George Armstrong Custer in the Battle of the Little Bighorn.

But they may not have the chance to uncover the bones, buttons and other artifacts buried with the soldiers after the battle June 25, 1876. Regional officials of the National Park Service say that unless new discoveries are significant, this may be the last year of a scheduled five-year investigation at the battle site, now a national monument. Lorraine Mintzmeier, the Western

regional director of the service, said, "It is our philosophy and policy not to excavate," although the service had made a decision to do so.

But James Court, superintendent of the Custer Battlefield, says the digging should go on, to answer such questions as whether the 240 marble grave markers are accurate and the whereabouts of the 28 soldiers of E Company, Seventh Cavalry, who died with Custer.

The search was planned in 1983 after a prairie fire razed the 600-acre battlefield. It is financed by a \$35,000 donation from the Custer Battlefield Historical and Museum Association. Colonel Custer was ordered to search

for a Cheyenne and Sioux encampment and wait for the infantry to back up the attack. The Army believed there were 800 Indians in the encampment.

Once he sighted the Indians, Custer feared they would escape before the infantry could arrive. He decided on a lightning attack, dividing his 650 men into three groups, and took 225 troopers with him.

The troopers on other flanks survived, but neither Custer nor any of his men were seen again. Not until it was too late did he discover that he was facing thousands of braves.

After the battle most of the bodies, many of them stripped and mutilated,

were taken by the Army to a mass grave on Last Stand Hill, near where the bodies of Custer and 50 other men had been found.

But the burial detail reported that the 28 bodies of E Company members in Deep Ravine, several hundred yards below Last Stand Hill, could not be extricated, and they shoveled dirt over them from the embankments.

Archeologists hope the new bodies and artifacts will make it clearer how Custer deployed his men and how the Indians fought.

On May 30 volunteers found the skeletal torso, which they say may be the most significant discovery. The bones will be sent to a forensic anthropologist in Norman, Okla., to determine the soldier's age, weight, height and how he died.

# Contract archaeology hits pay dirt

*Unearthing the past is often required before building the future*

Like wind chimes in a breeze, all that's heard in the consultant's office is harmonic clinking and clunking of glass and rock. Multi-colored bits and pieces of ceramics spill off tables and onto the floor, which needs sweeping. Marked boxes, one atop another, become walls, separating project finds. "This is from prehistoric America," says one archaeologist as he picks up a bone. "Not the time of dinosaurs, but prior to recorded American history."

The setting is the headquarters of Louis Berger & Associates, Inc. (LBA), East Orange, N.J. In the past five years, the consulting architect-engineer has branched into archaeology, turning what traditionally has been an exercise for universities into a profit-making venture. "We offer archaeology in a business setting," says John A. Hotopp, the firm's director of cultural resources. "Instead of relying on academic schedules, we can get the job done under stringent deadlines."

Big digs—defined by the number of artifacts and imposed time restraints—can grow to require 150 professionals, most of whom are called in from local universities. This is the business hunting ground for LBA, whose Bertram Herbert and at least 45 other staff archaeologists, historians, photographers and a cartographer are often called in on a SWAT-like archaeological mission at a moment's notice.

Hotopp's division accounts for about 30% of the company's \$18 million in domestic billings. "Although it is ideal when we do the engineering as well as the archaeology, most of our contracts are strictly archaeology," he says.

Explorations are generally done by university teams but the need for speed and precise scheduling has brought a number of traditional design firms into the act. And there are specialized archaeology firms that are equipped to make money by moving fast as well.

**Unstructured past.** But the history of digs at construction sites is dotted by instances of wasted money, time and research. At the site of the Bureau of Reclamation's New Melones Dam on the Stanislaus River in California, the federal government still doesn't know whether the information it obtained about ancient Indians was worth the \$4.7 million it cost to do 18 studies over 40 years.

Congress first authorized the project in 1944, but it was not completed until 1978. Meanwhile, federal requirements preserving cultural resources changed. Documentation of archaeological findings at New Melones was too poor to assess the historical value. A General Accounting Office report states: "Federal efforts to preserve archaeological resources at the dam have been clouded by the lack of federal guidance on the adequacy of archaeological preservation and who should direct the program."

Legislation involving construction and archaeological resources first cropped up in 1906 when Congress gave the President authority to withdraw public lands from use to protect archaeological and cultural resources. A 1935 law enabled the Secretary of the Interior to evaluate, preserve and acquire cultural resources. But it was the 1966 National Historic Preservation Act that gave archaeologists the means to make money. That act set up state historic preservation offices and permits spending up to 1% of a federal project's cost on archaeology.

A number of states and cities also have laws requiring preservation of artifacts found on both public and private construction sites. Those laws often delay the start of projects. And sometimes they stop bulldozers in their tracks. They always add to the cost, and there are questions about the worth.

**Lesson learned.** "I don't think the archaeology at New Melones was a waste," says Patti J. Johnson, archaeologist for the Corps of Engineers' Sacramento district. A lot of problems were encountered because "nobody had ever done an archaeological survey this large. There had to be a learning

curve." Since New Melones, procedures have been refined. The largest federally funded archaeology program in the U.S. cost \$16.2 million. It was conducted before and during construction of McPhee Dam, part of the Dolores Valley project in southwest Colorado. "This was not a dig-'em-up-and-store-it-away program like some federal efforts in earlier years," says Thomas J. King, Jr., BuRec archaeologist. The \$425-million earthfill dam will inundate several hundred sites of pre-Columbian cliff dwellings when the reservoir is filled in 1988.

BuRec's archaeology program there began in 1978, two years before preliminary construction started. The bureau hired the University of Colorado to conduct the investigations. It was a textbook dig that proceeded with barely any effect on construction, done by Guy F. Atkinson Co., South San Francisco. Says Atkinson project manager W. F. Henager, "They did a very fine job in getting the areas cleared and investigated out in front of us. We never had one bit of trouble."

**Who's who.** Archaeology practitioners have varying qualifications. Environsphere Co., a division of Ebasco Services, Inc., New York City, earns about \$1 million a year from managing consulting of archaeology. The firm contracts the digs out, usually for federal agencies, and Ebasco is often the project designer. "This enables us to work closely with engineers and thus avoid problems," says Environsphere archaeologist Joel I. Klein. "Private firms are faster than universities," says Barry D. Greenhouse, president of Greenhouse Consultants, Atlanta. But Prof. Glen E. Rice of Arizona State University (ASU), Tempe, says, "There are advantages to hiring universities for contract archaeology." For one thing, universities offer the environment to continue research after the excavation is complete. That way work is not wasted, he says.

CONTINUED...

Business universities almost always get involved because they can supply the special storage conditions these artifacts need."

**Fuzzy future.** No matter who does the work, the overall problem is that the field lacks needed guidelines. There is no governing body overseeing the profession, says New York City's Sherene Baugher, one of eight city archaeologists in the U.S. "It's a problem the profession has been wrestling with," says Donald J. Weir, manager of cultural resources of the Jackson, Mich., office of engineering consultant Gilbert/Commonwealth Cos. Gilbert employs 12 archaeologists and its annual billings for archaeology is about \$1 million.

Some firms do a quick and dirty job and charge too much, which damages the field's reputation, says archaeological consultant Karen S. Rubinson, head of Key Perspectives, New York City. "There's a lot of waste. If thousands of pieces of a particular ceramic exists and have been studied in the past, why waste the time and expense?" she asks. Archaeology firms need more business sense, says Hotopp.

Developers could not agree more. Costs just keep growing, says Jack Scaldini, vice president of HRO International, Ltd., a New York City-based developer. Someone has to pay to store the artifacts and to continue the investigations after the field work is done. Before HRO could start work on three office buildings in downtown New York City, it needed zoning variances and these required archaeological investigations. That cost \$7 million. And interest costs due to delayed construction cost \$3 million. Scaldini says, "The problem with contract archaeology is that you negotiate the terms ahead of time, but if the dig isn't completed, it just keeps going."

On one of HRO's sites, an early 18th century ship was found on the last day of the archaeology contract. After negotiations, the contract was extended for one month. "We finished excavating at 6:30 a.m. and the bulldozers moved in at 7 a.m.," says New York City's Baugher.

Archaeological finds on a site are not always predictable and can hold up construction. Clients are concerned about the open-ended nature of archaeological work, says Prof. James J. Hester of the University of Colorado. An archaeologist gives a figure for the survey, and then exploration shows three times the amount of ancient resources. The costs increase dramatically. "We're not in control because we don't know how many sites or even what types of sites are out



Disturbed souls include a graveyard of pre-civil war black Americans (above) and 700,000-year-old mastodons (below).



struction could begin. Their discovery occurred when a backhoe operator hit the end of a coffin while excavating adjacent subway tunnel. It cost \$510,000 and took 10 work two years to complete. Urban archaeology specialist Jim Milner Associates, West Chester, Pa., was contracted for excavation. "We learned about their health and custom says Michael Parrington, Milner archaeologist. Some were buried with material goods because they believed they needed possessions in the next world. A valuable find, but the type situation any building would prefer to avoid.

there," says Hester. As Ben Hotopp puts it, "Sometimes the hoogeymen because we to hold up construction." Archaeologists may not like to be seen as boogymen, but sometimes it is the case.

**Controversial delay.** One project has been held up for over years, partially due to two ancient Indian sites. The Arizona Department of Transportation contracted ASU and the University of Arizona, Tucson, to dig along a "precious" 20-mile stretch of Interstate 10 that will be built. The project is precious because of the artifacts and valuable because it is the uncompleted stretch of the highway that runs from Florida to California. The area is filled with artifacts from the Hohokams, which existed from about A.D. 300 to 1400. One theory is the people vanished because they exhausted the soil by irrigating with water.

"What's important about studying the Hohokams is we can learn about the potential extinction of man," says Rice. The dig cost \$1.3 million. "We were barely able to scratch the surface; it cost a lot of money," he says. Regardless, interest in preserving cultural resources is increasing.

**Roots.** Prof. Ronald Carlyle of the University of Pittsburgh says, "Interest in archaeology is growing because the country is going through an identity crisis." Some private developers are voluntarily doing archaeology. Dallas-based Trammell Crow Co. stopped construction of an office building when a backhoe operator dug up a 3-ft-long piece of mastodon tusk. Crow rescheduled construction and hired Lone Star Archaeological Services, Georgetown, Tex. Further excavation turned up more tusks and bones from the mastodons. The mastodons, which became extinct about 700,000 years ago, will be displayed in the building's lobby.

On a high-rise building project in Philadelphia, 140 skeletons of pre-Civil War black Americans had to be exhumed before construction could begin.

NEW YORK TIMES MAY 23, 1985

# Bill to Ease Restrictions on Archeological Imports Is Disputed

Special to The New York Times

WASHINGTON, May 22 — A proposed bill that would ease import restrictions on archeological artifacts from foreign countries drew sharp criticism today from museum and Government officials who said it could encourage looting.

The bill, S.605, co-sponsored by Senator Daniel P. Moynihan, Democrat of New York, and Senate Majority Leader Robert J. Dole, Republican of Kansas, would reverse a 1977 ruling that protects the property rights of foreign countries that claim ownership of archeological and ethno-

logical materials.

At issue is whether United States citizens should have to abide by foreign definitions of "stolen" objects. Many foreign countries, in an effort to protect unexcavated art and artifacts, have claimed broad governmental ownership of these materials. If such materials are then exported without authorization, they are considered stolen.

These definitions are currently honored under the 1977 "McClain" ruling and the National Stolen Property Act. American importers of material so defined are subject to criminal prose-

cution and confiscation of the objects.

In testimony before the Senate Judiciary Committee's Criminal Law Subcommittee, Mr. Moynihan said the McClain ruling unfairly limited acquisitions by American museums, collectors and scholars — giving Swiss, French and Japanese collectors an advantage. He said the old ruling subjected American citizens to undue prosecution under foreign laws and had been supplanted by a later ruling, the 1982 Cultural Property Implementation Act.

But James I. K. Knapp, deputy assistant attorney general in the criminal division of the Justice Department, said the 1982 C.P.I.A. legislation was meant to supplement, not supplant, the McClain ruling. He joined spokesmen from the State Department, the United States Customs Office and museum organizations in criticizing the Moynihan-Dole bill.

"S.605 would impair our ability to prosecute the trafficker in stolen archeological and ethnological materials who flouts the laws of foreign nations concerning such property," Mr. Knapp said. "Though not so intended by its proponents, its enactment could effectively create a legal marketplace within the United States for the fruits of foreign grave robbery."

Ely Maurer, assistant legal adviser for educational, cultural and public affairs at the State Department, questioned the broader ramifications of the bill, calling it "undesirable from the domestic law enforcement and international relations standpoints. Its legislative override would

unduly hamper prosecution of activity which is — and should continue to be considered — criminal.

"As the United States must look to these same countries for law enforcement cooperation in other fields, it seems very shortsighted to exempt foreign government property from any of the ordinary protection afforded by U.S. law," Mr. Maurer said.

Maureen Robinson, legislative director for the American Association of Museums, said, "This amendment encourages a don't-ask approach. It says, 'You don't want to know. What you don't know won't hurt you.' Passage of this law would, in a single stroke, signal to other nations this country's lack of regard for their efforts to protect their cultural patrimony, and give U.S. citizens a right to disregard another country's laws with impunity."

Mr. Moynihan, in rebuttal, said the McClain ruling did "not help preserve the cultural patrimony of the exporting countries. It simply means that artifacts are being exported, and will continue to be, to countries other than the U.S." He named Switzerland, France and Japan as the "principal beneficiaries" of the current law, "not Mexico or Peru."

Supporters of the new bill complained that, under the McClain ruling, the United States acts as an enforcer of other countries' export decisions. "By waving a magic wand and promulgating a metaphysical declaration of ownership," said Paul M. Bator, a Harvard law professor, "a foreign country, without affecting

any real changes at home, can thus invoke the criminal legislation of the United States to help enforce that country's export rules."

Others questioned the validity of the foreign laws. Thomas T. Solley, director of the Indiana University Art Museum, said, "I don't think the McClain decision is a realistic condition — for museums or collectors to be exposed in our courts to the potentially arbitrarily created laws of ownership of foreign governments."

But Richard H. Abbey, chief counsel for the United States Customs Bureau, pointed out that the legislation passed by some countries, including Peru and Mexico, which claim government ownership of all unexcavated pre-Columbian artifacts, was similar to the United States legislation in respect to artifacts found on Indian and public land.

"In general," according to Mr. Abbey, "we believe it is an unwise precedent to carve out exceptions to general criminal statutes for certain types of goods."

Mr. Abbey said that the wording of S.605 would require customs officials to interpret "ethnological and archeological interests" and "cultural significance," and would be "impossible to enforce."

# Tool Aids Archeologists

## in Field Studies

Photogrammetry is used for making three-dimensional images of sites.

By ERIC PACE

**A** NEW, simplified system of photogrammetry — the use of photography as a basis for precise three-dimensional measurements — is showing promise as a tool for archeologists, researchers report.

Precise measurements are often crucial in archeology, and subtle distinctions in the shapes and locations of objects found at a site can yield significant clues. But through the very process of discovery — exploring new layers of ground, for example — archeologists often must disturb or destroy such clues. To preserve an image of the original object or site researchers have relied largely on sketches, photographs and field notes.

Archeologists have occasionally used photogrammetry since the 19th century for detailed stereoptic images that researchers can study after they lose access to actual objects or sites, but the process has been cumbersome and expensive.

Now a Texas company has produced a relatively inexpensive system, the HDF/MACO 35/70, that can be used with ordinary 35 millimeter cameras and standard color film.

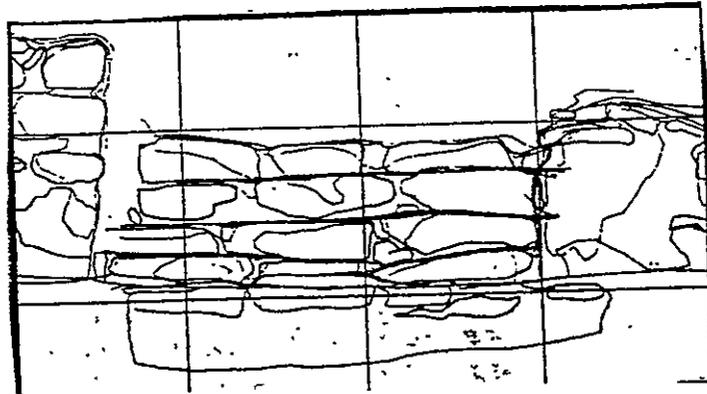
The computerized system is housed in the Harvard University Semitic Museum, in Cambridge, Mass. It is owned by the American Schools of Oriental Research, a Philadelphia-based scholarly organization.

"A main advantage of photogrammetry is comprehensiveness as well as precision," said Thomas W. Beale, a research associate in Near Eastern archeology at Harvard. "It enables you to retrieve data about any of the dimensions of the object or site that appear on the stereo image."

An ancient Egyptian statuette in the Semitic Museum and ruins at Tell Qarqur, a site 80 miles east of the Syrian port of Latakia that was occupied as early as 2500 B.C., are among the subjects that have been measured and recorded by the new system.

The system is also to be used this summer at two archeological sites, Sepphoris in northern Israel and Tell Safut near Amman, Jordan.

Harvard scholars say the HDF/MACO 35/70 is easier and less expen-



sive to use in archeology than other photogrammetrical equipment.

Dr. Beale, stressing the system's "archival value," said in a recent telephone interview, "Once you dig up an ancient building or artifact, the usual procedure at a site where the ancient remains are in different layers is to destroy the building or to remove the object in order to excavate what lies beneath."

The advantage of an easy-to-use photogrammetric system, Dr. Beale said, "is that you obtain for your photo archive a data base from which you can make measurements that may have been missed in the field."

The American Schools of Oriental Research commissioned H. Dell Foster Associates, a San Antonio company founded by H. Dell Foster, a Montana-born optical-mechanical engineer, to design and build a photogrammetric system for archeologists. The first model of the HDF/MACO 35/70 was delivered to the Semitic Museum in November 1982.

Preparatory to using the system, the archeologist must select control points on the site or object under study, and measure their spatial relations to a single reference point, usually one of the control points.

"You want to be able to tell the computer where those eight points are," Dr. Beale said.

Then two color slides giving overlapping views of the site or object must be taken.

In the laboratory the slides are inserted into an instrument called a stereo plotter, while the measurements are fed into a microcomputer.

The computer, after digesting all the data, can give the exact measurements, to 10 decimal places, of everything depicted in the photographs.

Then a scholar looking through the eyepieces on the stereo plotter and manipulating controls that move a floating dot of light on the stereoptic image of the two photographs, can draw on the computer screen anything on the image.

A drawing of a bronze statue depicting a minor Egyptian deity, Neferhotep, was made last year in San Antonio by Foster Associates to show what the system was capable of. The statue, made in the first millennium B.C., is 16 centimeters tall and shows Neferhotep wearing the double crown of Egypt, a wig and a false beard, and with one hand extended.

Scholars trained in the use of the system are taking pairs of photographs this summer at Sepphoris and Tell Safut to enter into the system at the Semitic Museum this winter.

Richard S. Saley, coordinator of computer-assisted research at the Semitic Museum, and Mr. Foster declined to disclose the price of the system, which Mr. Foster said was under review.

But he said the price for the system's hardware and for the developing of film are considerably lower than those used in conventional photogrammetric systems.

Conventional photogrammetry, used for mapping large land areas and for highway design, uses cameras weighing up to 200 pounds to take pictures on 9-by-9-inch negatives that require special processing, he said.

Foster Associates has sold three additional HDF/MACO 35/70 systems. One was bought by General Dynamics for use at its Forth Worth plant in the manufacture of the F-16 tactical fighter. Another has been bought by the National Park Service for use in Santa Fe, N.M., to assess the condition of ruined Indian pueblos and old Spanish mission buildings.

The third was bought by Packer Engineering, of Anoka, Minn., which does engineering analysis and damage assessment of accidents. It is using the system to construct computer models of damaged equipment and accident scenes.

# Turkey Excavation to Clear Way for a Dam Yields Layers of Civilizations

By HENRY KAMM

Special to The New York Times

SAMSAT, Turkey — In a mound 180 feet high, surmounted by the jagged ruin of a citadel that Arab invaders built seven centuries ago in this town on the Euphrates, lie, layer upon layer, artifacts of at least six millenniums of history.

A team of nine archeologists, backed by 130 wielders of picks and shovels, are working against the clock to glean from this extraordinary compilation as much knowledge as they can and save a maximum of the works of the ancients.

Some time in October, a lever will be pulled at a dam site nearby and the waters of the Euphrates will cover all that was Samsat.

So great are the needs of power and water in Turkey's underdeveloped southeast, along the borders of Syria and Iran, that Mesopotamia, the ancient land traversed by the Euphrates and Tigris Rivers, has become the beneficiary of a costly, long-term and necessary program of dam construction by recent Turkish governments.

## Much of History Born Here

Gains in human well-being in this region, where much of history was born, are achieved at immense cultural loss. The great civilizations of the West and Middle East have crossed this region, built here and left their traces, each before it was driven out by the fresher strength of a rival civilization.

At many points in the 315-square-mile area that will be covered by the reservoir of the Ataturk Dam, archeological teams are laboring on crash projects to learn and save what they can. In October, the river will be diverted to allow Turkey's biggest dam to be placed across its bed. The dam will start producing electricity in 1991 and enter full operation in 1993.

"Under normal conditions, I would make an archeological program, of

more than 50 years," said Nimet Ozguc, a professor of Near Eastern archeology at Ankara University, who directs the Samsat excavation. "But we had to make a fast program instead."

## Archeological Aspects Ignored

That means three years of digging instead of 50, said Professor Ozguc, a dean of Turkish archeologists and a former scholar at the Institute for Advanced Studies in Princeton, N.J.

She said the archeological aspects of the site had not been discussed in the many years the dam was under study and when work began in 1981.

"This is the largest project, and nobody thought about archeology," the professor said at the end of a day's digging, in the modest house she and her team occupy in the doomed town. "Now everybody is weeping and saying, 'Sorry, it must be done.'"

At the dam site, Raif Ozenci, a deputy regional director, said with less mixed feelings that 4,500 men were digging round the clock to build the largest dam under construction anywhere: 591 feet high, 1,821 yards long and containing nearly 3 billion cubic feet of rock fill.

Four days of driving in this impoverished area offered much visual evi-

dence for the urgent need for development.

Agriculture is small-scale and without the benefit of modern farm equipment. At the height of a particularly hot summer, the region was arid and brown, with green strips limited to river banks. Rare gusts of wind sent up huge swirls of dust that cover faces and clothes.

The towns were visibly neglected. In the provincial capital of Adiyaman, the only water pump had been out of order for days. The town is dry except for infrequent brief spells.

There was talk of sending the pump to Istanbul for repairs. Side roads are largely unpaved, and much of the traffic is drawn by animals.

## Engineers Are Enthusiastic

Engineers at the dam's site spoke enthusiastically of their work and the benefits it would bring. They did not mention the archeological losses, if they were aware of them. They cited the progress a similar project had brought to the region of Adana, a city to the west.

Indeed, large fields of cotton and vegetables lined the road approaching Adana, and the city is thriving compared to those to the east.

Ataturk Dam, whose cost exceeds \$1 billion, not including the ambitious irrigation projects, will have an annual capacity of 125 million kilowatt hours and is to irrigate 1.25 million acres from a reservoir stretching roughly between the towns of Adiyaman and Urfa.

The archeologists appeared to accept the primacy of development and they consoled themselves with the importance of their finds. "We don't feel very happy," Professor Ozguc said, "but still we found very important things."

She said that the most important discovery had been the palace of the Commagene kings, who reigned at Samsat during the Hellenistic age, in the first century B.C.

The kingdom stood at the eastern marches of the Roman Empire, a buffer between Rome and Parthia, until Rome swallowed it up in A.D. 72.

## An Important Roman Outpost

From then until the period of Emperor Diocletian in the third century, Samsat served Rome as an important military and trading outpost at a strategic Euphrates crossing.

Mosaics and frescoes from the palace have been removed to the Adiyaman museum, and detailed plans and photographs have been made to preserve Samsat's memory, so briefly revived from oblivion before its ultimate disappearance.

Professor Ozguc said surface finds at the mound went back to the calcolithic age of the fourth millennium. Finds dating to more recent ages have shown the presence, among others, of Byzantines, Frankish crusaders, the Turcomans who fought against them, Umayyad and Abbassid Arabs, Seljuks and finally Turks.

Professor Ozguc said that she and her team were digging through these layers of history now, saving little but trying to gain as much knowledge as the mound of Samsat can yield in such a brief time.

Money and archeological manpower have run short since this last excavation season began three months ago.

"In the trenches we dig we can count the levels of civilizations," the archeologist said. "We are now in the second millennium, but we are going deeper and deeper." Then perhaps to break the wistful mood of her colleagues, she added: "That's why I like archeology. Everything is older than me."

An associate guessed that the grand old woman of Turkish archeology is 70 years old. "We have done our best; I can say safely," the professor said with a cheerfulness that took an effort. "but I'm awfully sorry not to dig as much as we would want."

# Columbus's Lost Town: New Evidence Is Found

By JOHN NOBLE WILFORD

CAP HAITIEN, Haiti

**O**N the night before Christmas in 1492, the flagship of Christopher Columbus, the Santa María, ran aground on a reef off the North Coast of Hispaniola and was wrecked beyond repair. Accepting the hospitality of an Arawak chief, the men stripped timbers from the abandoned ship and erected a fortified settlement at an Indian town. Columbus named the place La Navidad.

Leaving 39 men there with instructions to trade for gold, Columbus sailed back to Spain on the Niña. He returned 11 months later to find a scene of desolation. Both the European settlement and the surrounding Indian village had been burned. All of his men were dead.

Columbus sailed on, and La Navidad dropped out of sight. The location and fate of this first European settlement in the New World — the point of first extended contact between European and New World cultures — have mystified scholars ever since.

Archeologists are almost certain now that they have discovered the site of the Indian town about 10 miles east of Cap Haitien, in the part of Hispaniola that is Haiti today. They believe they could be on the verge of finding the scant remains of La Navidad itself.

Archeologists from the University of Florida, winding up the third summer of systematic explorations, dirty toil in the baking sun, reported finding an abundance of pot shards and other artifacts of a style associated with the Arawaks at the time of Columbus. This was a large town, one presumably fit for a ruler of the stature of Guacanacaris, the chief who welcomed Columbus. Buried with the Arawak artifacts were a few fragments of late 15th century or early 16th century European material — a piece of Venetian glass and two pieces of Spanish ceramics.

The people of this town had had some dealings with Europeans, either the sailors of the Santa María or others soon afterward. Even more tantalizing was the excavation of what may have been a well. Columbus wrote of examining a well at the ruins of La Navidad, hoping to find hidden gold. The Arawaks dug no wells. Inside the well the archeologists found the tooth of a pig and the bone of a rat, animals introduced by Europeans. Dating of the well is set between 1492 and 1510.

Dr. Kathleen Deagan, leader of the expedition, is cautious in her interpretation of the discovery. The site was "very likely the town of Guacanacaris," she said, but "I'm not willing yet to say it is La Navidad."

Dr. William H. Hodges, the medical missionary and avocational archeologist who first identified the site, has fewer doubts. "I firmly believe that's were La Navidad was," he asserted. "I've spent a long time exploring this area, and I've given it a lot of thought."

Dr. Hodges, an American, has practiced medicine since 1958 at a Baptist mission hospital in nearby Limbé. In 1974, he succeeded in discovering the remains of a 16th century Spanish town, Puerto Real. Three years later, a farmer led him to the present site by the poor village of En Bas Saline, which is a mile or so from Puerto Real.

"He may be right," acknowledged Dr. Deagan, who is director of anthropology at the Florida State Museum and a professor at the University of Florida in Gainesville. "His intuition has been good. After years of digging, his intuition was right. I hope he is, but

we have to be careful." According to Dr. Deagan, the evidence is circumstantial, though compelling, that this is the town where, by contemporary accounts, Columbus's men settled in one or two fortified houses surrounded perhaps by a palisade and a moat.

## Notes From Columbus's Journal

The location, for one thing, accords with descriptions given by Columbus in his journal. Analyzing these accounts and shoreline conditions, Samuel Eliot Morison, the admiral's authoritative biographer, was close when he fixed the location as being near Limonade Bord de Mer, a fishing village less than a mile away on the Caribbean. But his excavations revealed only an 18th century French blockhouse.

If Dr. Morison had gone inland across a stretch of mangrove scrub, he might have met with success. The site at En Bas Saline is bordered in part by saline flats that once were channels of a brackish river, indicating to University of Florida geologists that the Arawak town had a water access to the sea, as described by Columbus.

Other circumstantial evidence includes the absence of other significant 15th century Arawak towns in the vicinity and the buried ceramics that placed the date of the town's occupation to the time of Columbus's presence in the area.

Finding European artifacts at the site is not sufficient proof that this was La Navidad, Dr. Deagan said. Through trade, these items could easily have reached areas unseen by Europeans. Moreover, she noted, most possessions of the Santa María crew were probably removed from La Navidad by the Indians after its demise.

## Search for Proof

"The best thing we could find would be evidence of a moat," Dr. Deagan said, discussing the proof required to identify La Navidad. Documents are not clear as to whether a moat was in fact dug or exactly what kind of fortifications the men built.

"The best thing we have now is the pig tooth and rat bone," Dr. Deagan added. "If this is La Navidad, there should be more remains of European wood, animal bones and pollen and seed from European plants."

These, then, were among the objectives in the search this summer for the long lost La Navidad.

After leaving macadam and then gravel, one reaches the dig site by a narrow dirt road that winds through one village of rude huts after another and — just as it seems the road leads nowhere — finally enters En Bas Saline. The few thatched huts and many of the garden plots of the village lie within the bounds of the site

What Dr. Hodges found and dug in a preliminary way was a slightly elevated ring of earth enclosing an oval-shaped area about 390 yards in diameter north to south and 330 yards east to west. The raised earth is all but imperceptible. The ring is about 60 feet wide but less than three feet in elevation.

Cutting trenches through the ring, Dr. Hodges and later the Florida archeologists found middens rich in the refuse of an Arawak settlement, mostly shells but also animal bones, stone and shell tools and earthenware pots and bowls. The ceramics were from the Caribbean period that archeologists call the Carrier culture, that is to say, the time immediately prior to and during the early European discovery.

Archeologists surmised that the ring ran around the edge of the main town, being built up over the years by people throwing trash out in the back of their houses. The ring has one distinct break to the east, where the town probably opened to the river and the people beached their canoes — and perhaps where Columbus and his men landed to call on Guacanacaris and seek his help.

## Well-Swept Plaza

Much of the central area is level and virtually free of artifacts. This would seem to conform with what Columbus wrote of a well-swept plaza at the center of the Indian town that could have held 2,000 men. One central area is slightly elevated, though. Perhaps it is the site of the chief's house. Nearby is the well-like feature, raising the possibility that the Spaniards set up their little fortress close to the chief, where they could watch him and he could watch them.

All of this is hard to visualize, except through the eyes and minds and maps of the archeologists. The land at the site is divided now for cultivation: A banana grove here, manioc and beans there and some plots where cattle and goats graze. These are the livelihood, such as it is, of En Bas Saline, and so the archeologists work with care in and around the agricultural obstacles.

Maurice W. Williams, a research archeologist at the Florida State Museum, working with William Fisher, a student, completed this summer a topographic map of the site, a basic step in any excavation. The map can be a guide to where to dig and a framework in which to plot discoveries and thereby give shape to the past.

**Location and fate of first settlement has been a mystery.**

CONTINUED...

### Hunting for Buried Anomalies

John Marron, a University of Florida student assisting Dr. Deagan, surveyed the entire site with a portable terrain conductivity meter. This measures the electric conductivity of the subsurface soil as a means of detecting buried anomalies that might correspond to a moat or burned palisade. Most of the mapped anomalies have yet to be investigated.

By the middle of August, the archeologists finished going over the surface of the entire site with the proverbial fine-tooth comb. Plowing and weathering can expose material from the deep past. Local farmers and young boys, hired for \$15 a week, or somewhat more than the going wage, walked every inch of the area, following plotted grids and picking up every stone, bone or whatever.

Sometimes, as they worked, they hummed or sang in Creole. In a banana grove one day, any singing and all work stopped abruptly when they came on a boa constrictor. They bashed its head with a shovel, burned it, cut it into pieces and then buried it. Boa constrictors are good for killing rats, the workers agreed, but better to have rats.

### Laboratory Work Ahead

Hundreds of pounds of samples thus collected were then sorted and placed in labeled plastic bags for shipment back to Gainesville for analysis. The discoveries of this summer may not be revealed for many months. The Venetian glass, pig tooth and rat bone, collected last year, were not extracted from all the specimens and identified until last January.

"A rule of thumb in archeology," Mr. Williams said, "is that for every day you spend in the field, you have to spend three in the lab. For us, with all the stuff we've collected, it will take even longer."

New excavations did not begin until two weeks ago, after most of the survey work was done. Dr. Deagan had five large rectangular pits dug in an area where some test holes turned up interesting traces and the topographic map suggested the raised ground for what might have been the chief's house.

At the first two pits she had reason to hope she might find signs of the moat, some concave configuration of sediments, and maybe traces of European wood from the posts of the cut palisades. She found neither. But scraping away with a trowel, Dr. Deagan did uncover what must have been a cooking hearth. She found pieces of a stone griddle and a large chunk of coral shaped something like a bowl. She showed these to the local workers and their wives who looked on.

"These people often have the same domestic technology as the Arawaks," Dr. Deagan explained. "They can help identify something's probable function."

Out of the pit also came seeds and animals bones, which would be analyzed in the laboratory. Deeper still, there were human bones. Evidence of cannibalism? Or an earlier burial

was obviously European. But, again, it was too soon to tell.

### Death of 39 Men

Even if En Bas Saline is eventually established as the site of La Navidad, archeologists may lack for clues as to what caused its downfall. Various accounts suggest that the 39 men died as a result of disease, internal fighting or Indian attack. The Europeans described the Arawaks as a docile people and considered Guacnacaric friendly. But who is to say what lust for gold and women might have done to turn the Arawaks against the Spaniards or the Spaniards against each other?

And even if the archeologists fail to prove that this is La Navidad, Dr. Deagan said the exploration should produce an excellent picture of the possessions, subsistence strategies and organization of the late 15th century Indians of the Caribbean on the eve of European contact, and therefore on the eve of their destruction. The Arawak culture and most of the people in the area died out within 25 years of Columbus's first voyage.

As James Cusick, a Florida graduate student who supervised the screening and sorting of artifacts, said: "En Bas Saline is the first Arawak village ever fully mapped and surface-collected. It may become the prototype for defining what the Arawaks were all about."

### Other Ruins Studied

At the nearby Puerto Real site, Charles R. Ewen, a Florida Ph.D. student, and Patty Peacher, another graduate student, are exploring the ruin of a Spanish house for evidence of assimilation between the European and Indian cultures. Puerto Real was founded in 1503 to exploit copper in the hills and was abandoned in 1578.

Beneath a veneer of European architecture and fine tableware, Mr. Ewen suspects that he will be finding an increasing number of Indian wares for everyday life and other signs of merging cultures. It was at this time, also, that black slaves were brought in and French smugglers held increasing sway.

The explorations at Puerto Real and at the possible site of La Navidad are supported by the Government of Haiti, the Organization of American States, the National Endowment for the Humanities, the Florida State Museum and the Institute for Early Contact Studies at the University of Florida. The search will continue next year.

As this digging season drew to a close, the archeologists and the local workers held a celebration feast of roast goat, banana fritters and rum and Coca-Cola. They could toast the accumulation of a mountain of bagged artifacts and perhaps some telling clues to the mystery of La Navidad.



"I see your little, petrified skull ... labeled and resting on a shelf somewhere."

## A New Growth Industry — Archeology

By Bart Jackson

What kind of march of progress is this? The plans are becoming set for seven new interchanges and two more lanes on Route 1 from Trenton to New Brunswick. At the first of those new interchanges, at Quaker Bridge Road, the planners have done their work, rights of way are being acquired, and bulldozers are expected to be at work by the fall.

But, in the meantime, teams of young men and women, looking vaguely like graduate students, dig shallow holes in the earth alongside the roadway. In front of such places as Behrwood Kennels and American Cyanamid they sift the dirt and scrutinize any objects they discover.

The archeologists are out in force along Route 1 these days, the product of a new era in road construction in which progress treads more warily, with deference to the heritage of the land it is passing over. If a grand old colonial home or an ancient Indian village falls in the surveyor's line, it will be discovered first not by the bulldozers but by the archeologists swarming along the roadside.

Do not assume, however, that the roadside digging will become a roadblock to progress. The archeologists at Quakerbridge Road and elsewhere are operating under the aegis of the 1966 National Historic Preservation Act, which states that before any construction project can receive one dime of federal funds it must file an environmental impact statement with the Environmental Protection Agency.

A major part of that statement is a cultural resource survey for which expert archeologists, historians, and architects study the construction area to discern what is of historic value. Ideally, when warned of a specific site, construction will be planned around it. If that's impossible, the archeologists will salvage it as best they can. (See box on the Scudders Mill Road excavation)

The law hasn't stopped many highways, but it has resulted in a whole new profession: contract archeology. Previously academe was the only proper haunt for archeologists to eke out a wage and glean funds for research. But now, with as many as 30 projects in New Jersey alone demanding resource surveys, the archeologist has been drawn out from the classroom into the field. A wealth of hastily formed archeological corporations have sprung up to meet the need for research and surveys.

Most are small husband-and-wife shops such as Ed Rutsch's Historic Conservation and Interpretation Inc., currently poking around at the Delaware & Raritan Canal dredging. A few, such as Louis Berger & Associates, with a 40-person permanent staff, have burgeoned out of established architectural or construction firms, and are large enough to handle many projects at once. Berger did the dig at the Trenton Complex.

But, regardless of size, all these firms act as research centers, swelling their ranks with professional geologists, paleobotanists, industrial historians, or whatever expert their contract demands.

For contract archeologists, the Route 1 renovation has been a much pursued plum. With its several broad crossovers and widened lanes, the construction plan will allow exploration of one of New Jersey's most historic stretches. Last fall a six-figure contract was awarded to Peter Primavera and his two-year-old Highland Park company, Research and Archeologic Management Inc. Since November RAM's crew has been exploring the first site: the proposed Quakerbridge and U.S. 1 interchange.

"Historically," says Primavera, "this is one of the state's oldest major intersections." In 1689 Quakerbridge Road was known as Province Line Road, the official boundary between what was then East and West Jersey. Route 1 itself dates back to 1804, when state legislators authorized the Straight Line Turnpike, a "four-rod nettled road," 66 feet wide covered with crushed stone, between Trenton and New Brunswick.

The work of the cultural resource survey, all completed prior to the final construction design, is much more than a random sampling with shovels. The first digging is done in the library.

Historians study the state museum and Smithsonian regional maps, along with piles of paper in the State Historic Preservation Office. Archeologists pore over the National Register of Historic Sites. All this produces a "predictive model" of what is where within the impacted area.

"Before we ever set foot on the site," says Primavera, "we have a pretty good idea of what we're going to find. The excavation is incredibly labor intensive. You can't just dig around, hoping."

At Quakerbridge, the test excavation has borne out RAM's research. Digging the series of small test holes, the 12-person crew has sifted the soil and found a number of artifacts. Their labors have uncovered foundations of colonial taverns along the old stage route and even several prehistoric finds as yet undated. But probably the greatest find will be a more complete picture of colonial life at this specific site. If everything runs according to schedule this survey should cost the state about \$68,000.

Primavera paints a fairly detailed picture of the benefits that he believes justify the cost. The intensive study of the Quakerbridge interchange area, which probably would never have occurred without the construction, will doubtless broaden insights into the state's colonial period. However, it is a site for the scholar, not the tourist — richer in information than displayable artifacts. Thus, when the information gathered, this site, like most others, will be filled back in.

When Primavera's company completes its survey, it will be mailed to the Environmental Protection Agency, thereby releasing the Federal funds. The artifacts will be shipped to the State Museum in Trenton. Research and Archeological Management will move on to the next interchange site.

With all the federally funded construction in New Jersey, contract archeologists are experiencing an unimagined boom. In the Route 1 vicinity alone three different teams are sifting the soil at construction sites. Most of the contracts come from basic public works projects, sponsored by the Department of Transportation or public works administration on all levels. Also the Pinelands Commission, state and local preservation societies, the Coastal Resource Commission, and state and county parks all are clamoring for archeological surveys.

The state itself has published bids for archeological surveys on several projects with no federal funds or mandates involved. One archeologist reports, "whether it's a small historic house in the Pinelands or something really big, New Jersey always takes into consideration the specialties and areas of expertise of the crew bidding on the item. Almost no other state does that."

In practice, however, contract archeology is a business, like any other. The company is assigned to cover a specific area. It does not extend beyond that. The picture of the construction crew twiddling their thumbs while some scholar rummages through the dirt is a scene that just does not occur. Though business is booming, no one is reaping great profits from this line of work. In fact, many of the digs turn out to be less financially rewarding than an academic project of equivalent scope.

Far from being a candidate for a Golden Fleece award, contract archeology has proved to be an inexpensive and fairly effective method of expanding knowledge and preserving the cultural heritage. It has led to the discovery of sites and artifacts that otherwise would never have been explored. After the surveys, granted many sites are destroyed forever. But something from each, at least, is saved. When a private developer comes in with his bulldozers, in contrast, everything is lost.

As Ed Larrabee, one of the principals in the firm that performed the Scudders Mill Road dig, points out, "it's refreshing to see the government meet an intangible but nonetheless very real, need."

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## Plainsboro's Hidden Heritage

When Plainsboro Township and the Department of Transportation began work on the new Scudders Mill Road in 1981, the archeological survey was expected to be routine. Historic Sites Inc., a Princeton-based firm headed by Susan Kardas and Edward Larrabee, two Ph.D.s in archeology who have been in the contract archeology business for the past 10 years, had studied the old maps, dusty records, and even the state and national registries of historic sites. Except for a few old foundations, little was supposed to come of the Scudders Mill excavation.

But when the shovels reached about 18 inches, the artifacts began to pop out of the ground. The six-person team had uncovered a prehistoric village dating back to 1700 B.C. Seven elliptical houses proved to be a permanent settlement, complete with firepits, tools, and other keys to the past, all lurking within two to three feet of the surface.

"We were lucky to find some preserved organic material, including wood from the fire hearths and charred hickory nuts, which were undoubtedly a major food source," says Kardas. Carbon 14 dating of the organic material determined the period of the settlement.

Here was a site that demanded exploration. But wedged between FMC and the Forrestal Center, the route of the bypass road allowed very little room to maneuver. Other design requirements allowed little change in the road specifications. Kardas and Larrabee, along with the road design engineer, the State Historic Preservation Officer, and even the Army Corps of Engineers all studied the problem. In the end road relocation was deemed impossible, and they opted to salvage the site and all its artifacts.

The crew, now beefed up to 13 people, began work in the spring of 1982. They laid out a grid over the site and separately sifted dirt from each segment. An ancient streambed which probably attracted these Indians to the area and fed the Millstone was found, along with a variation of the common projectile point. In all about 25,000 artifacts were unearthed, catalogued, and sent to the State Museum in Trenton. Many of these will soon come back to Plainsboro for an exhibit in the Municipal Building.

Kardas remembers that the contractor "began to scream" as soon as he heard the word archeologist. But in fact the team from Historic Sites Research had completed its work and had left the site a year before the actual roadwork finally got underway. And the archeological contract of \$50,000 was only a drop in the bucket for Plainsboro Township and the State of New Jersey, which paid nearly \$10 million for the roadway.

# Seeking shards of evidence

## Archaeologists dig at 1684 home

By Bradshaw Hovey  
Staff Writer

RIVER EDGE — Later this summer, a sagging, weather-beaten old farmhouse at Center Avenue and River Edge Road will be demolished to make room for 20 town houses.

But in the few weeks before the bulldozers arrive, workers are at the site using tools of a considerably more delicate cut: brushes, sifters, and the petite trowels of the archaeologist.

The house, or at least the original core of the house, is believed to be the 299-year-old second homestead of early Bergen County settler David Demarest and one of the oldest structures in the county.

And before it comes down, archaeologists hired by the county historical society hope to learn whatever the shards of pottery, buttons, and assorted domestic

debris buried in the red-brown soil around the old foundation can teach them about the lives of the early residents.

"What we're hoping to find here is some evidence of late 17th Century occupation at this site," Ed Lenik, principal archaeologist on the dig, said. "This area was settled quite early and was known as Demarest's Landing. The documents indicate that he moved here in 1686."

### Arrived in 1677

In 1677, David Demarest, a farmer, merchant, and grain miller, arrived on the east bank of the Hackensack River in what was then part of Essex County. By 1681, a dam and a mill had been constructed there, and in 1683, Bergen County was established. Three years later, according to research of the Bergen County Historical Society, Demarest moved across the river into River Edge and built another house.

If the dig does turn up artifacts that can be dated to the late 1600's, it will support the theory — based on early maps of the area — that the house was

indeed, Demarest's. But Lenik says the dig could tell much more than that. It could shed light, for example, on the social and economic status of the occupants.

"We don't know what kind of tableware they had," Lenik said, or whether the residents were rich or poor. "I'll give you a guess off the top of my head: They did pretty well for themselves. These are not poor man's ceramics."

Unearthed in the first two days of the dig were fragments of fine 18th- and 19th-Century porcelain teacups and saucers, pieces of slip-decorated Staffordshire earthenware, and a shard of Dutch Delftware, a style popular from the late 17th Century until about 1760.

The dig, both Lenik and historical society President John Spring say, will be an abbreviated one, limited both by the availability of money and the desire of the developer, the C&S Construction Corporation of Fort Lee, to get on with construction.

The cost of the archaeological project

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will be about \$2,800, Spring said, enough to pay for five days of fieldwork, washing, and cataloging of the artifacts and a report on the findings of the dig. The funds, he said, are yet to be raised.

Archaeological fieldwork — the literal nitty-gritty of the discipline — is often referred to as painstaking or tedious. At this dig, the workers are using brushes,

small trowels, and sometimes shovels to scrape away the aromatic dirt an inch at a time from 5-foot by 5-foot squares set up to the east of the foundation of the house.

The dirt is shaken through sifters, and the debris scanned for noteworthy artifacts. Each one is saved and plotted on a chart. Later, it will be analyzed and cataloged. But although the work is certainly methodical, it also is exciting.

"You never know what artifacts you're

going to turn up," Paul Grzybowski said. "You just try to keep a positive attitude about what you're going to find and hope for the best."

Yesterday afternoon, it seemed that an interesting piece of pottery or a clay pipe stem — "the cigarette butt of the 18th Century," Lenik quipped — was found every few minutes.

"Now this is beautiful," Lenik said, holding a fragment of what appeared to have been a red teapot. "I've never seen that style before."

Brian Ludwig, another of the archaeologists, turned up a brass button two feet below the surface in his square and reacted tongue-in-cheek: "Disgusting. It should be a paleo-Indian site this far down, and all we get are buttons."

What story the dirt around the old house will finally tell will have to wait for a closer analysis of the artifacts. But whether the dig actually proves that this was David Demarest's house, Lenik says,

it will be worth the effort.

Also unearthed and logged were a piece of Flo Blue china from the 19th Century, the bottom of an English-made white ware vessel complete with a maker's mark, and even a pile of clam shells.

"Could've been lime for their garden," Lenik hypothesized, or perhaps just the remnants of some long-ago picnic.

And deep in his musty square, Ludwig continued scraping and mused, "There's some interestingness here."

By DOUGLAS C. MCGILL

The American Museum of Natural History will offer \$7.5 million a year to help operate the Museum of the American Indian if the two museums agree to merge, according to Thomas D. Nicholson, the director of the Natural History museum.

Dr. Nicholson also said yesterday that if the Indian Museum agreed to relocate in a new building of 200,000 square feet next to the Natural History museum, the latter would offer 126,000 square feet of its own space in which to manage and display the combined collections, as well as 270,000 square feet of existing museum facilities to be shared equally between the two institutions.

The proposals are the most sweeping yet made by the Museum of Natural History in its several years of negotiations with the Museum of the American Indian about a merger. Those negotiations were stalled earlier this year when H. Ross Perot, the Texas computer executive, offered to invest \$70 million in the Museum of the American Indian if it moved to Dallas.

"The perception is that they have received a better offer" from Mr. Perot, Dr. Nicholson said yesterday. "We're saying that that's not the case. We want to demonstrate that the resources committed to this project will be more than adequate to carry out the needs of the Museum of the American Indian."

Formal Offer in a Month

The Natural History Museum will formally offer these and other proposals in writing to the Indian museum's trustees within a month, Dr. Nicholson said. Among the other proposals are the promise of tenure for all staff and employees of the Indian museum, and administrative autonomy for both institutions.

In the talks between the two museums, a chief obstacle has been over the amount of space that would be devoted to the relocated Indian museum, which has said that it needs a minimum of 412,000 square feet in a building completely separate from the Natural History museum.

# Museum Tentatively Accepts Perot Offer to Move to Texas

By DOUGLAS C. MCGILL

The trustees of the Museum of the American Indian voted tentatively yesterday to accept \$70 million from H. Ross Perot, the Texas computer executive, and to move the museum to Texas.

The vote was made, subject to reconsideration if the museum decides that the financing commitments in a new proposal from the American Museum of Natural History are sufficient to make a merger of the two institutions acceptable.

Last Friday, the American Museum of Natural History delivered a new merger proposal to the Museum of the American Indian, with an offer to spend more than \$4 million a year from its own yearly operating budget on the Indian museum if the merger takes place. In addition, the Natural History's proposal repeated an earlier promise to raise more than \$30 million to aid the merger.

"We don't know how solid any of the figures are," Barber Conable, chairman of the Indian museum's board of trustees, said yesterday. "It appears to be a substantially better proposal than they have made before, but we haven't had time to nail it down with specificity."

Meeting Within a Few Days

He added that the Indian museum's lawyer, Edward N. Costikyan, would meet with Natural History museum officials "within the next few days" to decide whether their commitments of funds are realistic and attainable. If it is decided they are not, he said, the Indian museum will sign an agreement with Mr. Perot to begin the move to Dallas.

"We've been negotiating, on and off, for 10 years now," Mr. Conable said. "The moment of truth is at hand."

Before the meeting yesterday, New York State Attorney General Robert Abrams distributed a letter to the trustees, saying that if the museum decided to move to Dallas, he would go to the State Supreme Court to try to stop it. State law says that a charitable institution chartered in New York cannot leave the state without proving that it is unable to meet the terms of its charter.

Mr. Conable said the Indian museum was ready to argue its case in court, should it decide to refuse the Natural History museum's most recent offer.

"We're New Yorkers, and we'd like to stay in New York," Mr. Conable said. "But we're not going to be able to stay alive as an institution unless our situation is resolved quite quickly. If this is in fact a new offer from the museum, we're sorry we didn't have it earlier."

Ted Carpenter, an anthropologist and trustee of the Indian museum, said yesterday that Mr. Perot had asked the trustees to make a decision by July 1, but that the board had voted to extend the deadline to July 3. He added that a trustee also reported at the meeting that Mr. Perot had said he hoped that the museum's ultimate site would be determined by a bidding process among major Texas cities to provide funds.

The Museum of the American Indian, at 155th Street and Broadway, has been plagued for many years by lack of space and poor attendance. Negotiations to merge with the American Museum of Natural History have long been under way, but have been stymied by lack of agreement between the two boards of trustees.

NEW YORK TIMES JUNE 22, 1985

NEW YORK TIMES JUNE 30, 1985

## Museum Fire Sale

Predictably, the trustees of New York's Museum of the American Indian have all but sealed a deal with billionaire H. Ross Perot to move their priceless collection to Texas. All that stands in the way is New York's commendably determined Attorney General, Robert Abrams.

Mr. Perot has offered \$70 million to build a new museum in Texas, thus heightening the trustees' dissatisfaction with alternatives closer to home. New York City and State have each pledged \$13 million toward a new Indian museum next to the American Museum of Natural History in mid-Manhattan.

The history museum would raise \$30 million more and pledge \$7.5 million a year for operating funds.

The Indian museum complains that it needs twice the space Manhattan promises. It also fears for its autonomy. These are issues worth exploring, but merely asserting them is hardly ground for making off with a cultural treasure. As a charitable institution chartered by New York State, the museum cannot move until it proves in court that it can no longer fulfill its charter. Like some of those they commemorate, the trustees would sell Manhattan short.

# Science and Space 'Burial'

By MALCOLM W. BROWNE

SOMETIME in the next year or so a Conestoga rocket is expected to blast a capsule carrying the cremated remains — "cremains," as they are called in the trade — of 15,000 human beings into an orbit 1,900 miles above the earth.

A consortium of businessmen, inventors and rocket engineers has worked out a method for reducing a body to ashes, condensing the residue into a lump about the size of a bouillon cube and sending it into space, all for about \$3,900 per customer.

A few critics have deplored the idea that America's first private venture into space should haul so seemingly useless a payload as ashes. But the day may come when the space undertakers go beyond cremains to orbit human relics of genuine value to the historians, archeologists, scientists and doctors of a future age.

Science can learn a lot from bodies or fragments of bodies. One case in point was the discovery a few years ago that a lock of Napoleon's hair contained traces of arsenic. This hinted that the French Emperor might have been poisoned while in captivity on St. Helena, although scientists later decided that he probably had not been poisoned after all. The mummified remains of

Pharaoh Ramses III of Egypt, the body of the naval hero John Paul Jones, pickled in alcohol in a lead casket, and the desiccated cadavers of pre-Columbian Peru, among many other examples, have made important contributions to our knowledge of the past.

The trouble with cremation is that it denies such sources of knowledge to future generations; little can be learned from ashes. As the living world becomes more crowded, so do our cemeteries, and cremation seems increasingly attractive as a space-saving alternative to burial. If the trend continues, scientists in the distant future might encounter a troublesome shortage of human remains representing today's society.

We have been profligate in our consumption of ancient bodies, and science has already begun to suffer the consequences. Egyptian mummies, whose preserved tissues and genes have lately become extremely valuable to scientists, are scarce. A once abundant supply of mummies was first diminished by the ancient Persians, who began the practice of eating mummies as medicine. Mummy therapy persisted in some countries until the 19th century.

In the American Civil War the Union found itself in need of high-quality rag paper — war has always consumed mountains of paper — but was cut off from the cotton fields in the Confederate States that had previously supplied rag fiber.

Yankée ship captains stepped into the crisis by putting in at Alexandria and plundering the Nile Valley of every mummy they could lay hands on. Transported to Blue Hill, Me., thousands of mummies were unwrapped, dumped into granite quarries and burned, their linen wrappings used as feed stock for the paper mills.

Space burial of at least a few representatives of our society would serve future science admirably. Safe from grave robbers, souvenir hunters, land developers and other terrestrial menaces, an orbiting body would remain in the most pristine frozen storage imaginable, costing no one a penny for maintenance.

Short of orbiting whole bodies, even the storing of samples of human tissue in space would give future scientists useful time capsules. A system patented by an American inventor, Philip Backman, reduces a human body to 5 percent of its natural weight by freezing, pulverizing and vacuum drying it. A few grams of the resulting powder, taking up no more space in an orbiting mausoleum than cremains, would bequeath to future scientists important clues about the deceased person's identity, genetic makeup, pathology and even style of life.

Space may be the arena of our future wars. It seems fitting that space should also serve as a graveyard, from which our distant descendants could mine the treasure of knowledge.



*"You figure it. Everything we eat is 100 percent natural, but our life expectancy is only 31 years."*

SECOND ANNUAL CONFERENCE ON NORTHEASTERN POTTERY

Date: Saturday, September 14, 1985

Time: 9:30 A.M. - 4:30 P.M.

Location: Peabody Museum of Natural History  
Yale University  
170 Whitney Avenue  
New Haven, CT

(Take Trumbull Street Exit (#3) off I-91. Exit ramp leads directly into Whitney Avenue. Take right onto Whitney Avenue. Museum is located one block up at corner of Sachem Street and Whitney.)

Parking: Lots are located adjacent to and behind the museum. Off street parking is also available.

Sponsored by the Peabody Museum of Natural History at Yale, the Conference is intended to assemble researchers for informal discussions and "show and tell" comparisons of pottery assemblages from their respective areas that may help us to formulate finer regional sequences and provide insight into problems presently plaguing specialists in the field.

AGENDA

- I. Introductory address by Dr. Mary Ann Niemczycki (Rochester Museum and Science Center/SUNY Brockport) on the complementarity of attribute analysis and typology in pottery classification.
- II. Discussion sessions.  
Tentative topics: Methodology in Ceramic Analyses.  
The Socio-cognitive Utility of Pottery Studies.
- III. Informal perusal of collections.

If you are interested in participating in the Conference, please contact the organizers at your earliest possible convenience, as we need the information to reserve the appropriate size room.

Lucianne Lavin  
Yale Peabody Museum of Natural History  
P.O. Box 6666  
170 Whitney Avenue  
New Haven, CT 06511  
(203) 436-8517

Renee Kra  
Radiocarbon  
Yale University  
P.O. Box 6666  
170 Whitney Avenue  
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DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF NEW JERSEY HERITAGE

CN 402

TRENTON, N.J. 08625

(609) 292-2028

Dear Consultant:

The Office of New Jersey Heritage is updating and revising its consultants' lists for:

- 1.) Historic sites survey, National Register nomination, preservation planning, and tax act consultants;
- 2.) Historical architects;
- 3.) Architectural conservators;
- 4.) Archeologists; and
- 5.) Firms involved in the preparation of Environmental Impact Statements.

In order to be included on our lists, consultants must be able to demonstrate that they meet the applicable federal qualifications (see enclosed excerpt from the National Park Service's regulations). \* In addition to providing the lists, the Office keeps on file resumes and work samples which we encourage potential clients to look at.

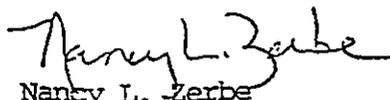
If you are interested in being included in the new list, we ask that you submit the following listed material. This request applies to new listings as well as consultants currently on our lists.

- 1.) Updated resume;
- 2.) Work samples (If samples are already on file, please indicate);
- 3.) Complete list of projects submitted to the State Historic Preservation Office (if not included in updated resume);
- 4.) Statement as to which list you are applying for; and
- 5.) Explanation of how you meet federal guidelines for each applicable list. Please identify which of your past work experience is part-time and how this experience adds up to the required minimum.

If you have any questions, please feel free to contact Mr. Terry Pfoutz, Ms. Olga Chesler or me at telephone no. 609-292-2023.

\* see Federal Register, Vol. 42,  
No. 183, September 21, 1977.

Sincerely,

  
Nancy L. Zerbe

Principal Historic Preservation Specialist

## American Committee for Preservation of Archaeological Collections

### ANOTHER ARCHAEOLOGICAL COLLECTION DESTROYED BY BURIAL IN A CALIFORNIA STATE PARK

We regret to report that the State of California is again reburying archaeological collections in state parks and that key materials are being destroyed without adequate study and analysis in violation of environmental regulations and apparently in violation of the court order obtained by ACPAC in 1982. Needless to say, there was no consultation with scholarly archaeologists on this decision. The State Historic Preservation Officer was not consulted nor were the members of the State Historic Resources Commission. There was no hearing or input from the public.

The detailed facts are difficult to ascertain since the reburial was done hastily and covertly. It appears that the reburied collection (items recovered in excavation only a few weeks ago) included 22 human burials, several dog burials, one bird burial, and associated artifactual materials. The reburial was done with the knowledge and approval of Maurice H. Getty, District Superintendent, in Los Encinos State Park prior to May 3, 1985.

ACPAC had sent letters of inquiry and concern on the reburial problems to Wm. H. Briner, Director of Parks and Recreation (Jan. 3, 1985) to M.H. Getty, District Superintendent (April 21, 1985), and to Nancy DeSautels, head of the environmental impact firm which did the archaeology (March 27, 1985). A reply from DeSautels (April 22) indicated that the plan was to reinter the "burial remains" which in this case included the artifacts, dogs, and bird. Other employees of the archaeology project have stated verbally that there was a contract agreement with the Native American Heritage Commission to dispose of these collections. There does not appear to have been any contract or other agreement with the State Historic Preservation Office, which is charged by law with the management of cultural resources including archaeological collections.

At the same time key parts of the collection have been destroyed before a report is available documenting the adequacy of the study, there is a bill in the California State Legislature asking for a large sum of public money to house and study the collection (SB 358). This money will not be administered by the State Historic Preservation Office, but by the Native American Heritage Commission. On the one hand, this collection is proclaimed to be of such great importance that large sums of taxpayer's money are needed (beyond what has already been spent in the field); on the other hand, the proponents want to spend this money to study a partial collection, and reserve the right to throw away all parts of the collection which are deemed to be off-limits for scientific study, not on scholarly grounds, but on political grounds. Questions that need to be addressed:

Is this collection of value as part of the national heritage? Is it a publicly owned collection (Getty's letter of May 3 says it is not)? If private parties can claim parts of the collection for destruction, why was the site excavated in the first place? Has the damage to the site been ameliorated, or was

it just dug at great expense? Does this kind of "selective destruction" comply with the spirit and intent of the California Environmental Quality Act and other legislation requiring study and preservation of cultural resources?

Nothing in state law requires that birds, dogs, and similar material be destroyed. The collection of dog burials appears to be the largest and best documented such collection so far recovered on the California mainland. Many significant avenues of scientific study are forever closed by the reburial of this collection.

ACPAC held a board meeting on May 21 to explore a number of options for legal and legislative action. We have several courses of action laid out but cannot publicize them until we have spoken to several key people. We will report details in subsequent newsletters as our plans progress. We will not accept the situation passively---it is counter to the ACPAC resolution adopted by all of us when we signed up.

We have to augment our war chest for court and/or legislative lobbying. If you are concerned about the increasing politicization of California archaeology, and of the double standard which requires large collections be made but does not see them as important enough to preserve in museums, we hope you will continue your pattern of contributing money to our legal fund.

Significant parts of archaeological research are now illegal in California; we are on the verge of seeing the entire discipline captured by political appointees who have no knowledge of, or commitment to, the preservation of our archaeological heritage. We may soon reach the point when persons with no archaeological training are allowed to excavate sites and dispose of collections as they see fit, and we will be back to the days of the 1930s when pothunting was a common hobby. The only difference will be the large sums of private and public money will expected to subsidize this activity.

Clement Meighan, Ph.D.  
Chairman

-----  
Yes I would like to contribute to ACPAC's legal fund. Enclosed you will find my contribution of:

\$5.00 \_\_\_\_\_  
\$10.00 \_\_\_\_\_

\$25.00 \_\_\_\_\_  
\$50.00 \_\_\_\_\_

Name \_\_\_\_\_  
Address \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_

PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY  
MEMBERSHIP APPLICATION

Membership in PANYC is open to any professional archaeologist who subscribes to the purpose of the organization and who meets the following criteria for Education, Training and Professional Activity:

a. Applicants must have been awarded an advanced degree, such as an M.A., M.S., M.Phil., Ph.D., D.Sc., or official A.B.D., from an accredited institution in archaeology, anthropology, history, classics or other germane discipline with a specialization in archaeology.

b. Applicants must have had at least six weeks of professionally supervised archaeological field training and at least four weeks of supervised laboratory analysis and/or curating experience. Requirements for both field and laboratory experience will be considered to have been met by attendance at an archaeological field school which meets the guidelines set forth by the Society of Professional Archaeologists.

c. Applicants must demonstrate professional experience in one or more areas of archaeological activity, such as: field research and excavation, research on archaeological collections, archival research, administration of units within public or private agencies oriented toward archaeological research, conduct of cultural resource management studies, review of archaeological proposals and/or cultural resource management studies for public agencies, or teaching with an emphasis on archaeological topics. Applicants meeting the education and training criteria and having other professional interests related to archaeology will be considered on a case by case basis.

d. All prospective applicants must be approved by a majority of members present at a regularly scheduled meeting of the general membership. All members receive the Newsletter and other PANYC publications.

The 1986 dues are \$12.00.

If you are interested in applying for membership in PANYC complete the below form and mail it to:

Rosalee Henn                      187-14 91 Avenue, Hollis, New York      11423  
(718) 454-7837

Name \_\_\_\_\_

Address (Business) \_\_\_\_\_

Telephone (\_\_\_\_\_) \_\_\_\_\_

(Home) \_\_\_\_\_

Telephone (\_\_\_\_\_) \_\_\_\_\_

Are you a member of the New York Archaeological Council? \_\_\_\_\_  
or of the Society of Professional Archaeologists? \_\_\_\_\_

Please attach Curriculum vitae or resume.