

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



NEWSLETTER NO. 45  
 SEPTEMBER, 1989

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Material for the PANYC Newsletter may be sent to Celia Orgel, editor, 360 Cabrini Blvd., #3-G, New York, New York 10040. To ensure inclusion in the next issue, please submit material at least 10 days prior to the next scheduled meeting.

NOTICE OF NEXT MEETING: September 16, 1989 New York University, Main Building,  
at Waverly and Washington Square, Room 903.

This will be a joint PANYC/NYAC meeting. Executive Boards will meet at 9 am;  
General membership/committees will meet at 10 am. There will be an  
afternoon speakers session which will be dedicated to Lynn Ceci; the  
theme of the session will be contact period archaeology in New York  
State.

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Minutes of the PANYC General Membership  
Hunter College, Room 710, May 24, 1989  
Henn Called the meeting to order at 7:00 pm

SECRETARY'S REPORT: March 29th executive committee minutes under "old business"  
should read: "Ballots will be numbered and mailed out by the Treasurer. The  
ballots should be returned to the Secretary", as stipulated in the by-laws.  
These changes are in response to this year's election procedures in which the  
ballots were mailed to the Treasurer. The minutes were accepted with that change.

TREASURER'S REPORT Henn for Winter. Our bank balance is \$1,478.23. No  
contributions have yet been made to the Salwen Scholarship Fund or to the St.  
Christopher's Ottilie Childrens Home (Sea Cliff, NY) in memory of Lynn Ceci.  
Both should be paid promptly.

PRESIDENT'S REPORT: 1) Henn made a formal announcement of Lynn Ceci's death. She  
also announced the death of Mary Jane Rutsch; a letter will be sent to Ed Rutsch  
conveying condolences on behalf of PANYC. A fund has been set up in Mary Jane  
Rutsch's name at the Sussex County Historical Society to which the family had  
requested gifts be sent in lieu of flowers. 2) Henn on UDC letter. Has recieved  
no other responses. They are moving on the Schermerhorn Row report, coordinating  
with the SHPO's office. There may have been HUD money involved which may therefore  
be the next route to take if there's no action over the summer. Need to know what  
federal money was involved. Henn will follow up with Ed Larabee and Paul Huey.  
J. Klein asked if UDC is responsible for funding or just finding a funding source.  
PANYC should review the contract. 3) Next meeting will be a joint PANYC/NYAC meeting.  
Meetings will be dedicated to Lynn Ceci, and the theme of the speakers' session will  
be contact period archaeology in New York State. Will notify Lynn's family of the  
dedication. Basic format: morning, board and committee meetings (committees with  
overlapping functions will meet together, boards will meet separately); afternoon,  
speakers. Suggested speakers Lorraine Williams, Bob Grumet, George Hamell (Iroquois),  
Paul Huey (Fort Orange), Dean Snow. Mailing will be coordinated with NYAC.  
Volunteers were requested to help organize and to prepare the room. Bridges will  
help organize. Henn requested the formation of a committee to review the new  
abandoned shipwreck act guidelines put out by the Parks Dept. The issue is especially  
pertinent now because of possible work on the H.M.S. Hussar in the East River. Henn  
feels that PANYC should make comments on the new guidelines and keep close tabs on  
implementation. Volunteers for this committee: J. Klein (Chair), Yamin, Wall, Nurkin,  
Eisenberg, Rothschild. Henn will furnish PANYC with her comments in her capacity at  
the Corps. Corps and State meetings on the application for survey: this vessel may  
be exempt from abandoned shipwreck act because it is a military vessel. Other problems  
include past attempts at salvage. Unsuccessful attempt made in mid 19th century, and  
now that barge is also in the area. There may also be heavy fill from past Con Ed  
dumping. 5) Formation of a committee to arrange for keeping of PANYC archives:  
Marshall (Chair), Bridges, Wall.

#### COMMITTEE REPORTS

Membership One application: Joseph Schuldenrein. Unanimously accepted for membership.

Two new subscribers: Arnold Flegenheimer and Thomas Heffernan.

Action No response to letters about the Ridgewood Cemetery bulldozed by developer.  
However, the Staten Island District Attorney is already investigating the developer  
for other possible misconduct.

Awards Cantwell, Rothschild, Rubinson, Naar, Winter. Cantwell hopes to have a flyer out on the Salwen Award stating that papers should be submitted by Feb. 15th. Hope to announce the winner at the public symposium (it will be the 10th annual symposium).

City Agency Planning Kearns, Bridges. No report. Has had an informational function, but the charge may be expanded to include more active participation in bringing archaeological issues to the attention of officials and candidates, e.g. asking for policy stands on relevant issues.

Curation Baugher, Donadeo. No report. Possible change in scope of committee's activities will be discussed in future.

Legislation Vetter, Nurkin, Cantwell, Orgel. No report.

Museum Geismar, Rothschild, Wall, Davis. Museum of the City of NY is interested in having a series of speakers next year as well as the public symposium. Dates offered: March 17, 24, 31, April 7, 21, 28.

Native American Affairs Cantwell, Eisenberg, J. Klein, Nurkin, Baugher. 1) Re the Museum of the American Indian: there is still discussion about keeping some of the collection in NY at the Customs House, but most of the collection will go to D.C. (in violation of the charter). 2) Cantwell will report at next meeting on the meetings in Dakota on "Archaeological Ethics and the Treatment of the Dead." There will also be a symposium at the Heard Museum (Arizona) with three archaeologists and three native Americans as discussants.

Newsletter: Volunteers needed to copy for next year. Rothschild will copy in fall.

Parks: Geismar, Geoghan, Spritzer. No report.

Public Program: Bridges will confirm dates and theme. Evaluation forms returned to PANYC show that most people heard about it through the notice in the NY Times. Henn suggested having a person in attendance at the door with the sign up sheet since many attendees don't notice the list.

Research and Planning: Baugher, Rubinson, Harris (T. Klein has resigned since he is moving to N. Carolina with a new Berger Office). 1) Rothschild is on the State committee to develop programs for archaeology and will report to PANYC on their activities. 2) Possible change in direction for this committee. Wall will discuss with committee members.

Standards: Rothschild asked for comments/vote on proposed standards (18 month trail period is over). They were accepted unanimously. Rothschild will distribute at next meeting.

OLD BUSINESS 1) Henn for Rubinson. She has not received a response to her letter to Mr. Todd, new Chairman of Landmarks. Representatives of PANYC should meet with him. Henn will try to arrange. 2) Marshall got only a vague response from Herb Kraft about Port Mobil. He doesn't appear interested. 3) Robert Diamond is at it again. Gave a talk for Staten Island AIA and is still digging Brooklyn's first railroad. Winter was asked about Staten Is. AIA and felt that they were probably approached by Diamond. We might suggest that they check with PANYC about qualifications of future speakers on NYC archaeology.

NEW BUSINESS: 1) Harris asked about possible discussion and setting of guidelines on the problem of hazardous waste and fieldwork. PANYC should look into sources and availability of information, EPA guidelines, etc. May be handled by Research and Planning Committee; Henn will poll the committee. 2) Announcement noticed of NY State excavations at Dykman House. Henn requested that any information known or found on this be sent to her. 3) J. Klein announced an opening for a full time staff archaeologist at Enviroshpere (will function as a Field Director). MA and several years experience required.

Motion to adjourn accepted.

Respectfully submitted, Anne Donadeo, Secretary 1989-90.

# PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY

## JOINT PANYC-NYAC MEETING

Sponsored by the Anthropology Department, New York University

16 September 1989

903 Main Building, Washington Square East, New York, New York

9:00-10:00 PANYC Executive Committee

10:00-12:00 Joint Committee Meetings - Committees whose goals overlap will meet concurrently to establish mutual areas of concern and cooperation for the forthcoming year. Chairs should attempt to contact their committee members and their NYAC counterparts (listed opposite) to prepare agenda for the joint meeting.

### PANYC COMMITTEE & CHAIR

Action, A. Silver  
Award, A-M. Cantwell  
City Agency Policy, B. Kearns  
Parks, J. Geismar  
Research & Planning, K. Rubinson  
Curation, S. Baugher  
Museum, J. Geismar  
Standards, N. Rothschild  
Legislation, J. Vetter  
Shipwrecks, J. Klein  
Membership, A. Donadeo  
Public Program, S. Bridges  
Special Publication, D. Wall  
Newsletter, C. Orgel

### NYAC COMMITTEE & CHAIR

Action, E. McDowell-Loudan  
Student Prize, S. Scott  
State Plan, E. Curtain  
Collections, B. Engelbrecht  
Standards, L. Sullivan  
Legislative, vacant  
Membership, C. Florence  
Public Information, M. Rosenzweig  
Publications, L. Feister

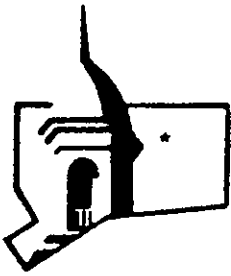
1:00-2:30 General Business Meeting for PANYC & NYAC  
Secretary, Treasurer, President's Reports  
Old Business, New Business

2:45-3:45 PROGRAM: NEW PERSPECTIVES ON WAMPUM  
IN THE CONTACT PERIOD  
Dedicated to Dr. Lynn Ceci  
PANYC Past-President and Founding Member, NYAC Member

Dr. Lorraine Williams  
N. J. State Archaeologist, N. J. State Museum  
"The Wampum Trade in the Colonial Middle Atlantic"

Dr. Elizabeth Pena,  
Bureau of Historic Sites, N.Y. Office of Parks,  
Recreation and Historic Preservation  
"Making Money the Old Fashioned Way:  
Colonial Wampum Production in Albany, New York"

3:45-4:15 Native American Affairs and Human Remains Committees:  
Status and of Policies for the Treatment of the Dead  
A-M. Cantwell and L. Basa



# The Connecticut State MUSEUM OF NATURAL HISTORY

May 1989

From: The Office Of the Connecticut State Archaeologist

## CONNECTICUT NEWS

The Connecticut State Archaeologist, Nicholas F. Bellantoni and the Staff Archaeologist at the Connecticut Historical Commission, David Poirier, have received funding from the Connecticut Humanities Council for the initial planning of the traveling exhibit "Preserving Connecticut's Archaeological Heritage." The exhibit will focus on prehistoric, historic and industrial archaeology. Co-sponsors of the project are the Connecticut State Museum of Natural History and the Connecticut Historical Commission. The following individuals have been hired to develop the exhibit and accompanying brochure for visitors: Loretta Rivers, archaeological consultant; Marion Leonard, historical consultant; Stuart Parnes, exhibit design consultant and Marina Mozzi, illustrator. Promotional activities, including teacher workshops, will be scheduled during the second phase of exhibit construction. Plans for future exhibit related materials include a curriculum and other resources for the classroom. A file is being created of similar projects and literature that have been developed for other areas, and will be made available to educators. If you have information you would like to share, please send it to: Loretta Rivers c/o Office of State Archaeologist, U-23, The University of Connecticut, Storrs, Connecticut 06269-3023, (203)486-5248.

at The University of Connecticut  
75 N. Eagleville Road, U-23, Room 312, Storrs, CT 06268 • (203) 486-4460

# DOWN AND DIRTY

*Can you dig it? They just want the arti-facts, ma'am*

Hear about the latest City Hall dirt?

Not a political scandal — real dirt, the kind archaeological types dig up to unearth treasures from times gone by.

Just the arti-facts, ma'am: between the years 1735 and 1797, a building believed to have been part of the city's first alms house stood between City Hall and the Tweed Court House.

The corridor over that site is due for replacement, so the Department of General Services gave The Landmarks

Preservation Commission permission to start digging it up a few days ago.

Joining them with picks, shovels and whisk brooms were students from the Brooklyn College Archaeological Field School.

Sure enough, they came up with the goods — fish bones, bits of clay, pipe fragments and the like.

When they're through, they hope to have a priceless picture of what it was like to be a colonist on the island of Manhattan.



New York Post: Marc Vedofsky

**dig THIS:** Ambitious would-be archaeologists from Brooklyn College search for artifacts in City Hall Park.



New York Post: Marc Vedofsky

**WHAT HAVE WE HERE?:** One archaeological type at dig in City Hall Park takes close look at uncovered artifact.

# Dig Yields Onlookers To History

NYT 7/4/89

By DAVID W. DUNLAP

Like the large rubble-lined holes that form a hopscotch pattern between City Hall and the Tweed Courthouse, the mystery of New York City's earliest social-welfare center has been growing deeper every week.

Underground ruins in City Hall Park, believed on discovery last April to have been New York's first homeless shelter, the Almshouse of 1735, now appear to have been an addition to the Almshouse or an outbuilding. Perhaps this was a colonial soup kitchen or an early garment center.

Whatever the case, the archeological dig near the heart of government (almost directly under the Mayor's windows) has been a remarkable summertime attraction, as the ground yields hundreds and hundreds of buttons, as well as the bones from which they were made and the pince-nez needed to see them, plus countless shards of dishes, bowls, cups and mugs.

Even more intriguing is the emerging subterranean outline of an 18th-century structure that unquestionably played a significant role in the treatment of the poor by New York's colonial regime. The floor of this building is about four and a half feet below the modern grade.

## Expanded Scope of Dig

Three months ago, the foundation of its northern wall came to light for the first time in nearly 200 years, after the New York City General Services Department delayed a pipe installation long enough for archeologists to excavate.

In recent weeks, 35 students from the Brooklyn College Summer Archeological Field School, working with the New York City Landmarks Preservation Commission, have proceeded from the initial eight-foot-square dig and expanded its scope considerably. They are to be followed in the next two weeks by Correction Department employees who have volunteered to help.

Although the structure under excavation was tentatively identified as the Almshouse, its outline as now discerned may be too small to fill that bill.

Dr. Frederick A. Winter, an associate professor of classics and co-director of the field school, said: "It is extending only 22 feet to the south, so it is not looking like the Almshouse per se. But it may have been a work house." Additions to and enlargements of the Almshouse continued at least through the late 1760's.

## Work for Needy Children

It's tempting — perhaps too tempting — to draw inferences from the written record and physical remnants. But with hundreds of buttons underfoot, it

CONTINUED



Student volunteers sifting dirt for artifacts at archeological excavation near City Hall where experts believe colonial Almshouse and possible satellite buildings were located.

The New York Times

## Archeologists wonder if the find was a work house or a soup kitchen.

It is impossible not to note that the Common Council envisioned the Almshouse as a place where needy children would be "employed in spinning of wool, Thread, Knitting, Sewing or Other Labour most suitable to their Genus in order to qualify them to be put out apprentices."

Dr. Sherene Baugher of the landmarks commission, the city's chief archeologist, believes the building may also have served as a kitchen. "Even within one building there may have been different activity areas," she said. "None of that can be answered until we're well under way in the lab work."

One notion developed in April that has been reinforced by continued excavation is that the structure was built with considerable care. One of the walls had a curve to it. The bricks were of unusually high quality. And interior walls were plastered.

"Apparently at that period they were more sophisticated than we give them credit for," said Donald Plotts, technical services director at the landmarks commission.

No matter what else is learned, the dig is already being judged a success. "It gives our students archeological experience without going to Israel or the Middle East," said Dr. H. Arthur Bankoff, chairman of the anthropology and archeology department and co-director of the field school. "And it is giving them a feel for their own city."

There was something else students got at City Hall Park that they would not find in the desert: hundreds of sidewalk superintendents. Bystanders with visions of Indiana Jones and the Temple of Chambers Street may have been disappointed, however. "People will say, 'Have you found anything interesting today?' and we hold up a pipe stem," said Alfred Vitale, a student supervisor.

Kibitzers offered disappointments of their own. As John Marangio, another student supervisor said, "People tend to think they're original when they say, 'Are you looking for Jimmy Hoffa?'"



The New York Times

Dr. Sherene Baugher, city's chief archeologist, discussing a discovery with Dr. Frederick A. Winter, center, and Dr. H. Arthur Bankoff, co-directors of Brooklyn College Summer Archeological Field School.



# Smithsonian to Give Up Indian Remains

By IRVIN MOLOTSKY

Special to The New York Times

WASHINGTON, Sept. 12 — The Smithsonian Institution agreed today to return the skeletal remains of thousands of American Indians to their tribes for reburial in their homelands, resolving a dispute that pitted the research needs of scientists against the anguish of Indians who say their ancestors have been desecrated.

The agreement was a compromise involving the Smithsonian, Congress and leaders of Indian organizations. All expressed the hope that the Smithsonian's action would prompt other museums to take similar steps.

"Obviously, what the Smithsonian does affects other museums," said Ian Brown, assistant director of the Peabody Museum at Harvard University. "A lot of museums are going through a shake-up, trying to come up with a policy on this on their own, including us."

David Hurst Thomas, curator of anthropology at the American Museum of Natural History in New York City, said his museum had been conducting such a program quietly for the last year.

## 'Wonderful and Inevitable'

Robert McC. Adams, Secretary of the Smithsonian, said the institution would "begin to return the remains when we can identify tribal descendants." This is done by studying the physical characteristics of the remains and the objects buried with them.

The Smithsonian will also return funerary materials found with the bones, such as beads, clothing, weapons, tools and ceramics. Virtually none of these objects are in the hands of art collectors or dealers, the Smithsonian said.

"It is wonderful and inevitable," Mr. Adams said of the agreement. "We do so with some regret, but everyone would acknowledge that when you face a collision between human rights and scientific study, then scientific values have to take second place. To do otherwise would suppress the record of violence against Indians in the westward movement."

The Smithsonian will conduct an inventory of its collection, a huge task in that it is estimated that there are 18,600 skeletal remains, ranging from prehistoric to turn of the century. The Smithsonian says it does not know for sure

how many individuals that represents.

Representative Ben Nighthorse Campbell, a Colorado Democrat who is an Indian and was a leader in fashioning the compromise, said, "Those remains that can be identified, either specifically or by name of tribe, the Smithsonian will notify the individuals and tribes and, upon request, will repatriate the human remains and associated funerary objects."

To reach the compromise, the Indians yielded on their insistence that all remains be sent from the Smithsonian's Museum of Natural History to Indian tribes, including remains of un-

## A museum honors human feelings before scientific study.

known origin. The Smithsonian agreed not to follow the guidelines of the American Anthropological Association, which allow for the return of remains only to relatives.

Suzan Shown Harjo, executive director of the National Congress of American Indians, said: "I am very pleased. It gives all Indian people a renewed sense of hope of what is possible when dealing with Federal agencies, museums and the scientific community. People do change; people do grow."

## 'Sensitivity Issue'

Mr. Brown at the Peabody said that while bones can tell scientists about the diet, diseases and nutrition levels of people, "clearly there's the sensitivity issue that these are their ancestors. Museums are becoming more aware that they have to deal with the human sensitivity issue."

Until recent years, Ms. Harjo said: "These museums thought that these collections were theirs forever and that they would not have to deal with living people, assuming that we all would be dead. It comes down to whether Indians are human. That debate remains

today. The fact that the Smithsonian has 19,000 of our people is one of the last vestiges of colonialism, dehumanization and racism against our people."

While the Smithsonian said the number of people the remains represent was unknown, Ms. Harjo insisted that each of the remains represented an individual. "Four thousand five hundred alone are from the Army Medical Museum from people whose heads were taken at the turn of the century for what they called the Indian Crania Study," she said.

Ms. Harjo said she had learned just this summer that the bones of some of her ancestors were in the Smithsonian. They were Cheyennes whom, Ms. Harjo said, American soldiers massacred in November 1864 at Sand Creek, Colorado. "They lopped off some of their heads," Ms. Harjo said, adding that the heads became part of the Smithsonian collection.

## Jewel in the Crown?

The agreement removes the last obstacle to the construction of a museum of American Indian history on the Mall by the Smithsonian, which Representative Campbell said would be "the jewel in the Smithsonian's crown."

Senator Daniel K. Inouye, Democrat of Hawaii and the Senate's leading proponent of the Indian museum, praised the compromise. "Many people predicted this day would never come," he said. "It marks a turning point in the history of the United States and allows a process for Native Americans to find a final resting place."

The announcement was made in the Capitol, not far from where the Indian museum will be built, and participants emphasized the impact the compromise would have on other institutions.

Mr. Thomas at the Natural History Museum said that his institution's skeletal collection, not limited to American Indians, was even larger than the Smithsonian's and that his museum had a new policy in effect similar to the Smithsonian's newly announced one but had not publicized it.

He said they were talking other Indian organizations behind the scenes. "We are offering them three options," he said. "First, leave the remains here. Second, transfer it to a local museum in which the group has a say. Third, retain it and rebury it after a suitable period of scientific study."

# A Dig Yields Clues to Colonial L.I.



By RICHARD WEISSMANN

**D**IGGING, scraping, hauling and sifting dirt, a group of teachers exploring an archeological site on the grounds of a 300-year-old house near Orient Point feel they have helped advance the knowledge of Colonial life on Long Island.

They also have discovered the rewards of archeology and plan to use them to motivate and inspire their own students as the new school year begins.

The teachers were part of a diverse group of graduate students who recently completed the summer program of the Archeology Field School at the State University of New York at Stony Brook. The group included elementary, middle and secondary school teachers, instructors in special museum programs and even a special-education teacher from the Riverhead Correctional Facility.

The ground where all the digging has taken place is in the backyard of the Terry-Mulford House, a well-preserved 17th-century farmhouse on Route 25 just a couple of miles west of the Orient Point ferry slips.

There, working in the shade of tarpaulin, the archeology students excavated neat wedges in the sloping ground that drops off toward a reed-covered marsh. A maze of stakes

strung with taut string set a complex grid pattern over the dirt where students knelt and painstakingly scraped with trowels.

"The idea that something can be found at any moment is really exciting," said Pat Stagg, a science teacher at Miller Place High School. "Just one move of the trowel may uncover an arrowhead 2,000 years old."

#### What She Tries to Instill

Ms. Stagg emphasized that it was this thrill of discovery, tempered with the calculated, careful methods of scientific inquiry, that she tries to instill in her own students.

"I guess a lot of us had this 'Indiana Jones' idea of what archeology was like before this experience," she said. "In fact, it's a lot of hard and even tedious work, but that doesn't make it any less exciting."

Frank Turano wears a wide-brimmed, straw sun hat instead of a slouching fedora, but his students may swear that he has cracked a bullwhip more than once in his role as director of the summer field school.

"Five more before we break for lunch" became a familiar refrain for the students, who knew this meant that five more large pails of dirt would have to be excavated and sifted through the big strainer suspended on framework and measurements recorded before they would be able to have sandwiches under the shade of

the big oak trees in the side yard.

But Mr. Turano's good-natured prodding, together with his overflowing enthusiasm for the work, seemed to inspire harder work.

This is the second year that Mr. Turano has taken his Stony Brook students to dig at the Terry-Mulford House, and it will probably take several more years before enough data have been assembled to answer his hypotheses about the origin of the house.

"The big question we have to examine is what is the relationship between this site and other 17th-century settlements in Colonial America," Mr. Turano said. "It's my feeling we are going to find that Eastern Long Island played a major role in the early trade network between England and the Colonies."

He suspects that the house originally might have been the headquarters for a large-scale lumbering operation that specialized in cutting the valuable white oak trees, of which the house is entirely built and which once might have flourished in a lush forest conveniently close to safe harbors for easy transportation.

#### Occupied by 1672

Although no one knows just when the house was built, Mr. Turano seems pretty certain that it was already occupied by 1672, when Thomas Terry 2d appeared on the tax rolls. For almost a century, it was owned by a series of Thomas Terrys and then by Elisha Mulford and his ances-

continued

tors up through the 19th century.

In 1899, Henry Heath, a relative through marriage, acquired the house and planned to use it as a Victorian museum. He built a modern extension behind the house to live in, closed off the old house and paneled over its interior walls and ceilings, thus effectively preserving the structure until its current owners, Ralph and Eleanor Williams, bought it in 1978.

"We were lucky," Mr. Turano said. "The house was never wired for electricity and it had no indoor plumbing. This has helped us in trying to trace its original construction and its histo-

## Teachers to use experiences at Orient Point site in classroom.

ry through the centuries."

One of the more exciting discoveries the students made as they dug was the site of what Mr. Turano believes is an old privy.

"Garbage dumps and privies can be an archeologist's richest source of information because artifacts tend to be concentrated there," he said.

### Bay Shore Science Teachers

Denise Kapiar and Elizabeth Stevens, science teachers at Bay Shore High School, carefully removed soil from a uniform layer of rounded pebbles several inches below the surface.

"This was probably a paved walk leading to the privy," Ms. Kapiar said as Ms. Stevens took measurements and drew a cross-section of the walk in a journal that each student was required to keep.

Both women were enthusiastic about how they would use their newly acquired skills to introduce their own students to archeology.

"We can certainly use our new perception to enhance the study of evolution in the classroom, and there are some practical measuring techniques that we hope to use on our field trips this year," Ms. Stevens said.

"I chose this course for the real hands-on experience that it offered, and it has been just great," Ms. Kapiar said. "The only thing I wasn't prepared for was all the hard labor."

### A Smiling Shoveler

Nearby, Philip Gardner smiled as he shoveled a small hill of sifted dirt back into an old excavation. Mr. Gardner's own students are 16- to 21-year-olds serving time at the Riverhead Correctional Facility.

"Working hard and getting the job done right are lessons that I try to get

across to my students," Mr. Gardner said.

"Too many of them have been in-

fluenced by drugs and the idea of easy money. I may not be able to take them out to do any archeology, but I hope that they can learn from my example and the things that I do."

Sue Habib, a teaching assistant in the anthropology department at Stony Brook who is studying for a master's degree, carefully recorded and diagrammed the small plot of ground that Margaret Detwiler gingerly scraped away at.

Ms. Detwiler is a fourth-grade teacher in Amagansett, and although she acknowledged to having studied some geology and being "fascinated with Indiana Jones," this was her first experience with archeology.

### A Fourth-Grade Requirement

"New York State curriculum for fourth grade now requires the study of New York history, native American cultures and the methods of studying them, and so this course is going to be a great help to me this year," she said.

Peter Connors emptied a pail of dirt into the screening frame, shook it and then removed some small fragments of pottery, which he handed to Eleanor Marx to be washed, labeled, and packaged.

Mr. Connors is director of the planetarium at Half Hollow Hills High School East. He plans to set up a "dig" in the planetarium next year for visiting fourth graders.

"I don't think any of us really knew what an archeologist does until we took this course," he said.

Ms. Marx is a retired teacher who is beginning a new job in the fall as an instructor at the Town of Smithtown's Hoyt Farms Museum. She expects to be teaching visiting fourth-through-seventh-graders the history, culture and technology of both native and Colonial Americans.

Vera Lecker, an instructor at the Long Island Museum on the Stony Brook campus, also runs a program that gives fourth-through sixth-graders a hands-on experience with archeology methods, ranging from measuring and digging to washing and identifying artifacts.

### Owners' Commitment

The ongoing project has been at the invitation and encouragement of Ralph and Eleanor Williams. Since they bought the house in 1978, the Williamses have been committed to researching its history and restoring it as close to its original condition as possible.

Because Mrs. Williams is related to the Mulfords — and, ultimately, to the Terrys — there is a special sense of mission in the undertaking.

"Eleanor is the 10th generation owner of the house, and we want to leave it as a legacy to our children,"



Richard Weissman

Archeological dig by the Terry-Mulford House and Frank Turano, summer field school director, with Sue Habib, a teaching assistant at Stony Brook.

said Mr. Williams, a retired engineer. He estimates that it will cost at least \$250,000 to complete the restoration.

"The students here are digging to learn skills," Mr. Williams said. "We're digging to uncover our own family history. We'd like to keep the house that way in the future: a teaching institution where archeology can be taught and history can be discovered."

# Findings Plunge Archeology of the Americas Into Turmoil

NYT 5/30

Estimates of first  
Asian migration are  
33,000 years apart.

By JOHN NOBLE WILFORD

**F**RONO, Me. FROM the tundra of the Yukon to Brazil and southern Chile, archeologists are digging up tantalizing clues that threaten conventional views about the peopling of the Americas. The mounting evidence, if confirmed, could establish that the first migrants from Asia reached the American continent as early as 45,000 years ago, about 33,000 years earlier than commonly believed.

One scholar described the discoveries, which also have been interpreted to suggest that the early Americans may have arrived in many waves of separate migration, as forcing American archeology to a "critical turning point."

The disputed claims and conflicting interpretations have stirred up a tempest in American archeology. Skeptics argue that nothing has yet been produced to prove human habitation took place in America before the accepted date of 12,000 years ago, near the end of the last ice age. Some of those who have discovered the new evidence protest that their work is



The New York Times/Gary Gulsinger

Niède Guidon of Institute of Advanced Social Science Studies, Paris, at meeting in Orono, Me.

being unduly criticized and some of their research impeded because it runs against prevailing theory.

#### Signs of Toolmaking

For more than half a century, the earliest date for human occupation in the Americas that archeologists accepted as indisputable was about 11,500 years ago, based on the dating of stone projectile points found throughout South and North America since the 1920's. Archeologists assume that the people who made the points were on the continent at least

several hundred years earlier.

But discoveries over the last decade in the Bluefish Caves along the Old Crow River of Canada's Yukon reveal fractured and flaked bones of mammoths, seeming to tell of human butchering and toolmaking 24,000 years ago. Many scientists are also impressed with other sites, in Pennsylvania and in the western United States, where stone tools and other artifacts suggest human presence much earlier than usually believed.

Excavations in South America are producing results even more at odds with traditional thinking. At Monte Verde in Chile, archeologists have found clay-lined hearths, stone tools, bone implements and traces of the foundations for wooden shelters. The artifacts are 13,000 years old, their discoverers maintain, and deeper deposits yield possible human material dated at 33,000 years.

More astonishing, and controversial, are the findings in rock shelters of northeastern Brazil, where French and Brazilian archeologists have discovered elaborate rock paintings as well as human fireplaces, tools and butchered animal bones. Three years ago they reported that they had dated the paintings at more than 12,000 years old and the other artifacts at 32,000 years old.

At a conference here this week at the University of Maine, Niède Guidon, an archeologist at the Institute of Advanced Social Science Studies in Paris, startled scientists by reporting

*Continued*

# Disputed Dating Roils American Archeology

new results that she said showed the Brazilian rock shelters were occupied by humans at least as long ago as 45,000 years. The "quantity, diversity and preservation" of materials at the sites, she said, should lead to "profound changes in the knowledge of prehistorical America."

Reactions at the four-day meeting reflected the scholarly turmoil over the first Americans: who were they, and when did they arrive?

No one is seriously questioning that they came from Siberia across the Bering Straits, when Asia and America were connected there by a land bridge. It is generally assumed that early people could not have reached America across the oceans and that clear evidence of early people in North America was probably lost during glaciation. But the new evidence is winning converts.

"Frankly, the sites in South America are driving us to a critical turning point in American archeology," said Alan L. Bryan, an anthropologist at the University of Alberta in Edmonton, who has found evidence at the Brazilian site persuasive.

## Limit Termed 'Untenable'

The dating of the first signs of human habitation at 11,500 years is based on stone projectile points, carefully flaked on both sides to form sharp edges and used either as darts or spearheads. They were found in the 1920's near the towns of Folsom and Clovis in New Mexico.

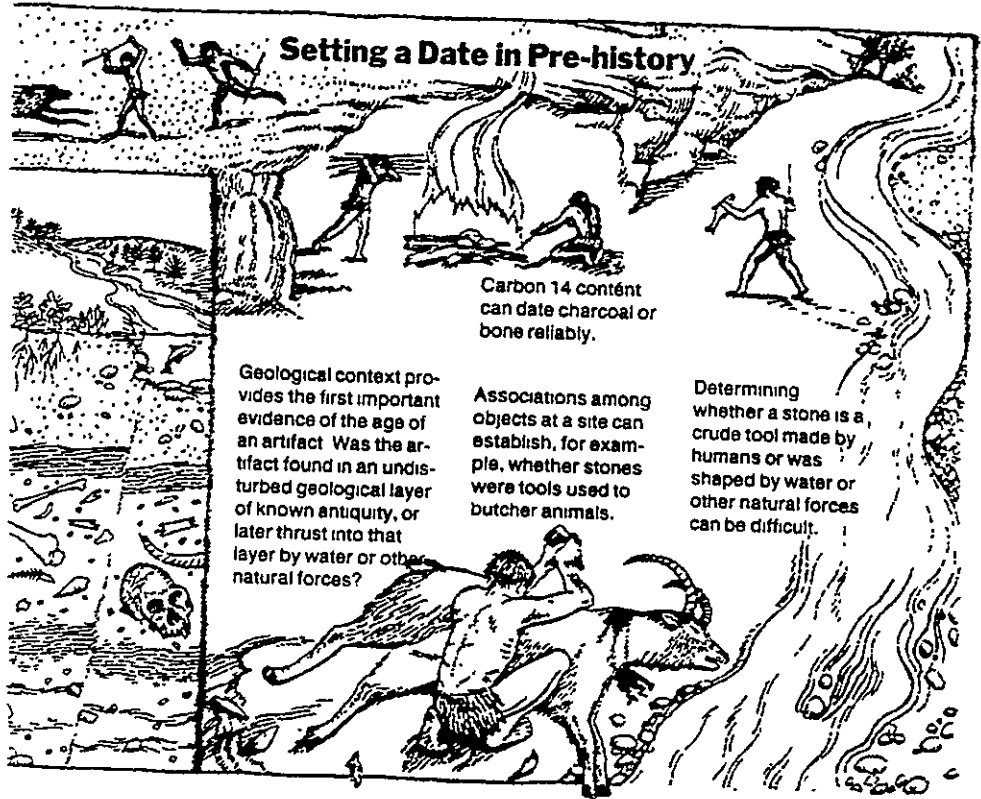
Similar points were soon identified at sites throughout North America, and other stone weapons were discovered as far south as Patagonia. The Clovis people thus came to be thought of as the paleoindians, ancestors of the people encountered by Columbus.

## 'There Is No Consensus'

A number of influential archeologists are resisting the growing challenge to the Clovis people's primacy. They caution that the sites yielding earlier dates must be examined more carefully to be accepted as genuine pre-Clovis encampments. One particular concern, they say, is the problem of being able to determine if the stone and bone objects, crude by Clovis standards, are actually the work of humans and not the result of natural erosion in streams or landslides.

One of the skeptics, Thomas F. Lynch, a specialist in South American archeology at Cornell University, said: "I'm still unconvinced. A lot of weak cases don't add up to a strong case."

David J. Meltzer, an archeologist at Southern Methodist University, summed up the dispute. "Some say



Setting a Date in Pre-history

Carbon 14 content can date charcoal or bone reliably.

Geological context provides the first important evidence of the age of an artifact. Was the artifact found in an undisturbed geological layer of known antiquity, or later thrust into that layer by water or other natural forces?

Associations among objects at a site can establish, for example, whether stones were tools used to butcher animals.

Determining whether a stone is a crude tool made by humans or was shaped by water or other natural forces can be difficult.

The New York Times/Harold Lohr/May 26, 1988

the evidence for earlier Americans is out there plain to see, and the skeptics are blinded by their theories," he said. "One thing we can say, there is no consensus."

Dr. Guidon is frustrated by the lack of acceptance of her results from the Brazilian rock shelter, known as Pedra Furada. In an interview, she said: "Why is American archeology so conservative and rigid? Nobody questions dates since 12,000. Why are only the earlier dates considered suspect and bad? It's emotional."

## Harm to Research Seen

The issue of possibly unscientific behavior has indeed been raised. After talking to investigators at some

**'A lot of weak cases don't add up to a strong case,' one skeptic says.**

of the disputed sites, Robson Bonnichsen, director of the University of Maine's Center for the Study of the First Americans, said the climate of controversy was "adversely affecting" their research.

"Numerous meritorious grant pro-

posals have been rejected because their goals and objectives were incompatible with entrenched academic opinion," he said. "At least five South American archeologists admitted that they are suppressing pre-12,000-year-old data out of fear that their funds would be cut off by American colleagues who endorse the short-chronology school of thought."

## 'Mind-Boggling' Findings

Like many archeologists who have visited Pedra Furada, Dr. Bonnichsen said Dr. Guidon's findings were "mind-boggling" but may turn out to be correct and certainly deserve a respectful hearing. Dr. Guidon complained that her severest skeptics had yet to visit the site.

One of the leading skeptics, Vance Haynes of the University of Arizona in Tucson, said he had not altered his views but declined to make any further comment. In a letter to Dr. Meltzer a few years ago concerning the Monte Verde site, Dr. Haynes proposed that a "panel of objective conservatives" could help resolve such disputes by collecting their own samples at the sites for study. "If a positive consensus results," Dr. Haynes wrote, "we can then accept the interpretation and formulate new hypotheses for peopling the New World."

Continued

The task of authenticating an archeological discovery usually begins with geology. The sediments containing the artifacts must be examined to make sure the layers have not been disturbed by stream erosion or other forces and that the bones or tools belong in the sediments.

Another step is to demonstrate beyond doubt that the materials are related to human activity. It was clear that the Folsom and Clovis points were made by human hunters. But other objects identified as scrapers and choppers can be so crude that they could just as easily have been worn or broken by natural forces. Such is the case, some archeologists say, with artifacts at Pedra Furada.

Next, archeologists want to establish a pattern of the artifacts and other aspects of the site. Is it clear what people were doing there? A fair sprinkling of rock or bone flakes would indicate they were making tools and weapons. Animal bones broken in a certain way might indicate a hunting camp.

Finding charcoal in the deposits is critical because it could mean people were cooking and, moreover, it is a key to establishing a date. Wood or bone, anything that once lived, is essential in radiocarbon dating, which measures the time since the material was burned or killed.

#### Widespread Occupation Found

Dr. Guidon, responding to possible objections, said the charcoal at Pedra Furada was concentrated in stone hearths and so was not likely to have come from a forest fire. Also, she said, the rock shelter is high on a cliff, far from trees.

Pedra Furada is situated in an arid wilderness in the Brazilian state of Piaui. Carbon dating and geological analysis, Dr. Guidon said, indicated that the rock shelter was occupied by successive groups of people from as long as 45,000 years to 5,000 years ago. Test digging elsewhere in the valley indicated that human occupation was widespread.

Since the skeptics doubt the evi-

dence of the stone artifacts at Pedra Furada, they have yet to judge the claims under the other criteria.

The rock paintings, which first drew archeologists to the site, were made with red ochre and, Dr. Guidon said, are "a joyful and free art." Some fragments of paint have been found in deposits as old as 17,000 years, which would make the artists contemporaries of the Cro-Magnon people who decorated the caves of France and Spain.

#### Paintings of People

Anne-Marie Pessis, a member of the French-Brazilian team, said the most abundant and most legible paintings were made 12,000 years ago. In contrast to the Cro-Magnon animal and hunting scenes, she said, most Pedra Furada art depicts people in everyday activities. Later, however, the art depicts violent scenes.

If the findings at Pedra Furada and Monte Verde in Chile are confirmed, Dr. Meltzer said, it does not necessarily mean that the earliest people

at such sites were the ancestors of today's native Americans. They could have been part of early waves of migration from Asia that eventually failed. Later migrations might have been more successful and out of this "melting pot" of people emerged the Clovis people, he said.

A serious gap in the evidence for such an argument, archeologists said, is the absence of established relics from the route of migration closer to the Bering land bridge. Richard E. Morlan of the Archeological Survey of Canada said that, though the bone fragments from Bluefish Caves in the Yukon were dated at 24,000 to 40,000 years old, it was only "a working hypothesis" that they were broken by human hunters. If they were, it would be the earliest evidence for human presence in the region.

Tom D. Dillehay, an archeologist at the University of Kentucky in Lexington, who discovered the Monte Verde site, said, "Logic has always told me something had to be here before Clovis."

# The Plunder of the Past

A bullish market for Native American artifacts disturbs the peace of the dead and buried

It's a hot lazy June afternoon, but things are jumping at Morton Goldberg's New Orleans auction house. "You won't see a collection like this auctioned off again!" David Goldberg exclaims as his father hustles bids with a singsong chatter. Scattered on long tables, tacked to the walls, spilling out of cardboard boxes are the remnants of an earlier America. There are rugs, baskets, beads, necklaces, bows and arrows, pots of all sizes—even silver crosses from the graves of Indians whose souls were saved by white missionaries. When Goldberg announces that a set of shells and beads from an infant's grave has been withdrawn, the crowd moans in disappointment. Milo Fat Beaver, a Muscogee healer who came to the auction thinking it was an art sale, looks aghast. "It's a horrible thing," he mutters.

Collecting Indian relics is a time-honored tradition in many parts of the country. But what was once a rural hobby has lately blossomed into a multimillion-dollar industry. Spurred by the five-figure prices the most prized artifacts can fetch, small armies of treasure seekers are looting unmarked Indian graves from Arizona to North Carolina. Archeologists express horror that the pothunters are destroying an irreplaceable record of how the original Americans lived. Indian groups are horrified, too, but many find the practices of researchers as offensive as those of the looters. Many states are now moving to curb the plunder, and Congress is poised to do the same. But a sticky issue remains: who, if anyone, owns the past?

**Big business:** No one knows just how much has been lost, but disturbing signs abound. A report by the General Accounting Office suggests that illegal digging on public lands in the Southwest has doubled during this decade. And archeologists report that 90 percent of the surveyed sites have been damaged. As known quarries dwindle, the value of artifacts soars and the looters grow ever more determined. Pothunters now use helicopters and satellite maps to survey remote sites. Some carry automatic weapons. "The archeologists tell me that within the next five to 15 years, there won't be

any pristine ruins left," says Linda Akers, an assistant U.S. attorney in Phoenix. "The bad guys are beating us to the punch all around."

On leased or private land, where digging is still legal in most states, some pothunters mine ancient burial grounds with backhoes and bulldozers. Landowners in northeast Arkansas often recruit professionals to excavate their lots for a share of the profits. "Some of these people are digging in excess of a thousand graves a year," says Arkansas State University anthropologist Dan Morse. "It's obscene." Particularly heartbreaking, both to scientists and Native Americans, was the 1987 plunder of Slack Farm in western Kentucky, the site of a 500-year-old Mississippian village. After leasing digging rights from the owner,



Who owns history? Activists protest an Indian relics sale in Owensboro, Ky.



PHOTOS BY DAVE LUCAS—EVANSVILLE COURIER

**Grain harvest:** Researchers sift through the remains at the Slack Farm (above), skulls and grave goods on display in Longview, Texas

10 pothunters mined the area with a tractor, destroying an estimated 650 graves. Two months later the site was a bone-strewn moonscape.

To cash in on their finds, many diggers rely on dealers who distribute artifacts to collectors in New York, Los Angeles, Europe and Japan. The diggers typically sign releases swearing that their goods were obtained legally from private land. Since it's virtually impossible to prove otherwise, almost any piece can sell on the open market. Dealers and collectors sometimes know they're buying stolen property, says Gary Fogel, an editor of *Indian-Artifact Magazine*. But "they don't want to turn off the pipeline by asking too many questions."

Just 10 years ago nobody was asking questions; until Congress passed the 1979 Archeological Resources Protection Act (ARPA), unmarked Indian graves enjoyed roughly the status of garbage dumps. ARPA bars unauthorized digging on feder-



PHIL HUBER—BLACK STAR

al or Indian lands, but it says nothing about private property. Prompted by incidents like the pillage of Slack Farm, legislators in a number of states, including Kansas, Nebraska, Kentucky, Indiana, Texas and New Mexico, have recently passed new laws protecting all burial sites, marked or unmarked, even on private land.

Some states have gone farther. The Kansas Legislature recently set aside \$90,000 to purchase and close down a roadside tourist attraction near Salina, where visitors pay \$3.50 for a peek at the shellacked remains of 146 Indians who were unearthed in 1936. And Nebraska lawmakers have

passed a measure requiring that state-supported museums give back, for reburial, any remains or grave goods that can be linked to a living tribe. The act will cost the Nebraska Historical Society 10,000 artifacts and a third of its 800 Indian skeletons.

Proposed federal laws could have similar effects. All five of the bone bills now before Congress would ban all commercial digging, and at least two of them would force federally supported museums—including the Smithsonian, home of some 20,000 Indian remains—to give up parts of their collections. The bill with the broadest support, sponsored by Sen. Daniel Inouye of Hawaii, takes no firm stand on the "repatriation" issue. But it does provide for a new National Museum of the American Indian in Washington, with Native Americans on its board of overseers. The proposed museum would house most of the 1 million artifacts in New York's decrepit Museum of the American Indian.

**Grave robbers?** Longtime hobbyists, some of whom simply collect relics they find on the ground, resent the current backlash against pothunting. Bob Brown, an automobile salesman from Deming, N.M., became interested in prehistoric Indian culture after taking a course in college. "Even if you are a qualified amateur and you love prehistoric culture, you are still considered a grave robber and a vandal or worse," he says. Brown maintains that since public lands are

still rich in artifacts—federal lands in the Southwest may contain more than a million unsurveyed archeological sites—there's no need to restrict digging on private property. Harry Elrod of Joiner, Ark., adds that many of the items pothunters recover would otherwise be destroyed. "It doesn't bother most people to go out in the fields and run a tractor over the graves, destroying them," he says. "What's wrong with taking out a shovel and getting some of the artifacts out? I'd rather see them survive in a private collection than see them in pieces."

Scientists and Indian advocates scoff in unison at the pothunters' preservationist line. "To allow the looters and gravediggers to call themselves amateurs and hobbyists is like allowing Jack the Ripper to call himself an amateur surgeon," says Ray Apodaca, director of the Texas Indian Commission. Yet scientists and tribal leaders differ sharply on whether dead Indians are suitable objects for study and display.

From the archeologists' perspective, understanding the past is vitally important, and it requires examining the ruins of earlier cultures. Even the crudest artifacts



reveal much about commerce and religion, they note. The pollen on buried objects can yield insights about vegetation and climate. And skeletal remains can speak volumes about health and disease. As scientists get better at extracting genetic material from old bones, says anthropologist Larry Zimmerman, remains now stockpiled in museums could begin to show how various tribes evolved, migrated and interacted. "Of course," he notes, "we won't learn any of that if all the bones are reburied."

Such reasoning is incomprehensible to many Indians. "When an archeologist digs and he shakes the very roots of a living soul, it is wrong," says Maria Pearson, a Yankton-Sioux activist from Ames, Iowa. "It is wrong for anybody to go into my grandmother's grave, my great-grandfather's grave, my great-great-grandfather's grave, because through all of this comes the mental security of my children, my grandchildren and my great-grandchildren." The well-known Indian activist Dennis Banks puts it more bluntly. "If you ask me," he told a National Geographic writer recently, "[archeologists are] hardly any better than the graverobbers themselves; only difference is they've got a state permit."

**Two worlds:** Such feelings are not surprising, given the sad history of Anglo-Indian relations. But the competing claims of Indians and archeologists reflect more than bad blood. They embody different attitudes toward the dead. Whereas Western scientists have been matter-of-factly cutting up cadavers since the Renaissance, many tribes believe that disturbing the graves of ancestors will bring spiritual sickness to the living. As New Mexico preservation officer Tom Merlan observes, "There is no real possible reconciliation between those views."

From either perspective, it seems clear that all the dead deserve equal consideration. It seems equally clear that they haven't received it. Until recently, notes archeologist Dan Morse, many researchers shared the feeling that "Indians were sub-human." Pearson recalls clearly the day in 1971 when an Iowa road crew accidentally unearthed an unmarked cemetery in the southwest corner of the state. Her husband, a construction engineer for the state highway commission, came home with the news. "The bodies of 26 white people were taken out, placed in new coffins and reburied nearby," she says. "They found one Indian woman and her baby. Their bodies were placed in a box and shipped to the state archeologist in Iowa City for study." Whatever becomes of the skeletons in museum closets, it's heartening to see such official callousness wane.

Geoffrey Cowley with Andrew Murr  
in Atlanta, Nonny de la Pena in Houston  
and Vicki Quade in Chicago

THE FAR SIDE GARY LARSON



"This is it, Jenkins . . . Indisputable proof that the Ice Age caught these people completely off guard."

# Salvagers Find Hulk of Galleon South of Florida

## Historians See Porthole to Past in Old Vessel

NYT 6/28/89

By JEFFREY SCHMALZ

Special to The New York Times

TAMPA, Fla., June 27 — In what archeologists say may be one of the most important discoveries ever of a Spanish galleon, a ship from the early 1600's has been found off southwest Florida in 1,500 feet of water, a depth where the temperature and pressure have apparently preserved much of the wooden vessel and her cargo.

A videotape made by a remote-controlled underwater vehicle shows dozens of amphoras, or large jars, on the deck, as well as a small cross and the ship's brass and silver bell, which was brought to the surface by the vehicle Friday. What appear to be coins and silver ingots are also visible.

A private business group that found the ship and plans to salvage her believes it may have hit on a multimillion-dollar treasure. Archeologists do not dispute that, but they say the find is even more important for its historical value. Although dozens of galleons have been found, virtually all have been in shallow water, broken up and with their cargoes dispersed by storms and currents. Only one or two have been found relatively intact.

"If it turns out to be an untouched galleon, and it probably is, then this is a very important discovery indeed," said Mendel Peterson, former chairman of the Department of Armed Forces History at the Smithsonian Institution and former director of its underwater exploration projects. Mr. Peterson is not involved with the work on the newly discovered ship, but has viewed the videotape.

### Name Not Established

"The importance of a site like this archeologically is tremendous," said J. Barton Arnold 3d, former chairman of the advisory council on underwater archeology to the Society of Historical Archeology. "In a situation like this where everything is pretty much like it was left hundreds of years ago, careful study could open a window to the past that we've never had before from a ship of this period."

Galleons were sailing ships with three or four masts. One of their defining characteristics, according to the Smithsonian, is that they were big enough to carry both large amounts of treasure and the weapons to defend it. The newly discovered galleon, whose name has not yet been established, may be the first of several to be found as new technology is employed in the search for treasure ships sunk in depths that had previously made them unreachable.

Seahawk, a Tampa-based high-tech-



The New York Times/Susan Greenwood

Greg Stemm, right, and John Morris of Seahawk, a high-technology ocean salvage company, holding a bell they raised from a well preserved Spanish gal-

leon they discovered off the coast of southwest Florida. The ship is thought to be an archeological and financial treasure.

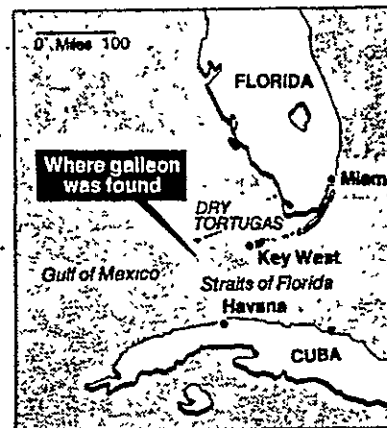
nology ocean salvage concern that discovered the galleon, said today that it plans to begin searches this summer for six other colonial Spanish ships sunk off the east coast of Florida in the 1600's. Seahawk discovered the vessel last month and plans to announce it formally Wednesday.

Seahawk, a subsidiary of Fox Ridge Capital, had limited its work to deep-sea salvage of ships recently sunk, often working for insurance companies. But it decided recently that more money could be made from salvaging galleons and other colonial ships. New technology, using remote-controlled vehicles, makes it possible to bring up artifacts from a mile or more below the surface, compared with the 70- or 100-foot limit of the past.

Many archeologists and salvagers believe that Seahawk's entry into treasure hunting will transform that world from one of hit-or-miss wildcaters into a sophisticated corporate operation that runs a dozen recovery projects at a time and shrewdly controls the release of artifacts into the market. That prospect both excites and alarms archeologists, who are eager to see what lies in the ocean depths but fear wholesale plundering.

### Sales Are Likely

Seahawk has established an association with two of the leading salvagers of colonial wrecks, Robert F. Marx and Barry Clifford. To offset accusations of plundering, it has asked archeologists to advise it on how to handle the recent



The New York Times/June 28, 1989

The Spanish treasure ship was found in 1,500 feet of water.

discovery. It says it will take great pains to map the location of artifacts.

Seahawk officials say they would like to see many of the artifacts put into an exhibition and that they will give archeologists time to study them. But the ultimate disposition of the material is unclear, and it seems likely some of the pieces would be sold. Seahawk, which seeks to be a profitmaking venture, says its costs so far have been more than \$2 million.

"Good archeology is good business," said Greg Stemm, one of the operators of Seahawk. "If we want to do other projects, we've got to act responsibly."

continued

But some archeologists are not so sure. Many argue that shipwreck sites should be left untouched. Others argue that no artifacts should be sold, that even when found in international waters, where the most recent discovery was made, they should be considered part of the public trust and given to museums.

"The Seahawk people say they are going to do things differently than other treasure-hunters of the past," said James J. Miller, Florida's state archeologist. "We'll see. They seem to be aiming at keeping the artifacts together for a long time. But in the end, they're a business out to make money; they're not a charity."

Seahawk was directed to the site where it discovered the galleon by Mr. Marx, who for years has studied records in Spain of colonial vessels. The site is about 75 miles southwest of Key West, or about 25 miles directly south of Dry Tortugas. Two decades ago, shrimpers reported snagging pieces of pottery in the area, but the water was too deep for the technology of the day to explore.

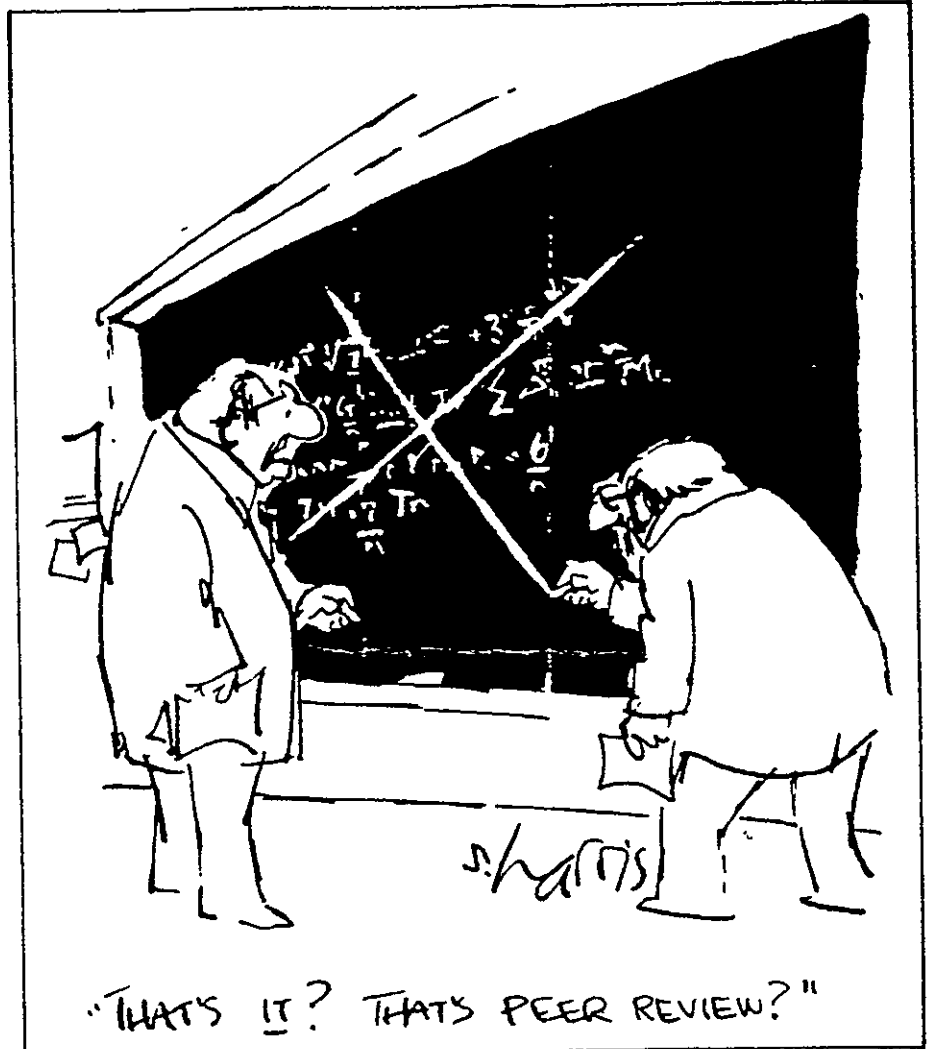
At its most optimistic, Seahawk hopes that the vessel is the Merced, which records show to have been carrying 1.5 million pesos. The Merced's sister ship, the Atocha, was found about 50 miles away in much shallower water in 1985, one of nine galleons in a 28-ship Spanish fleet to sink in the area during a hurricane in 1622. But there is no confirmation that it is the Merced. The bell brought up Friday is being examined for any clues to the ship's identity.

The ship lies in the route used by Spanish vessels as they returned, often laden with gold, silver and emeralds, from the New World to Spain. The ship, which the wreckage indicates to be about 120 feet long, probably sank shortly after leaving Havana.

Cameras have only skimmed the surface of the ship, which is covered with silt, and they have not yet probed the wreckage. As a result of pressure and temperature, what little wood is visible appears to be intact, with its edges still sharp and not rounded.

So great is the water pressure, archeologists said, that it is possible the contents of the dozens of large jars on deck, which probably contained olives, are intact.

"We get very scientific about all this and try to use technology to increase our odds," said John Morris, who heads Seahawk. "But you know there are no signs out in the middle of the ocean that say, 'Dive here.' To be out in the middle of the ocean and come up with a ship's bell from 400 years ago, it gives you a bit of a shiver."



PROFESSIONAL ARCHAEOLOGISTS OF NEW YORK CITY - PANYC  
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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.

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- 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 curation experience. Requirements for both field and laboratory analysis will be considered to have been met by attendance at an archaeological field school which meets the guidelines set forth by the Society for 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 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.
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