

**PANyc**

**NEWSLETTER**

Number 123, March 2006

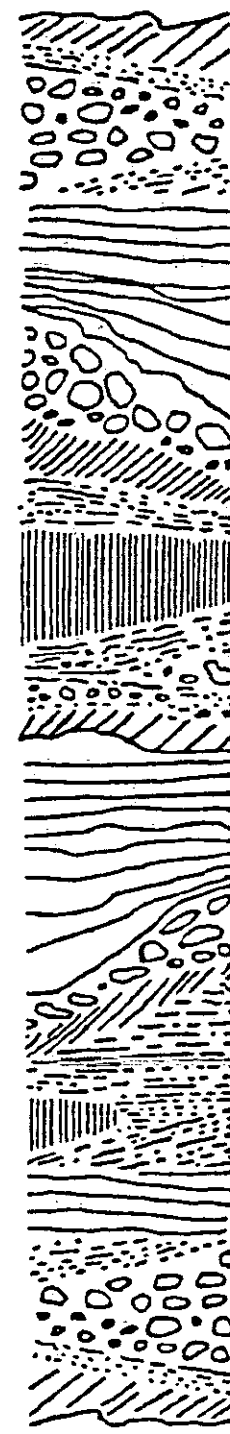
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PANYC GENERAL MEETING  
MINUTES  
NOVEMBER 17, 2005

**Next Meeting:**  
**January 25, 2006**  
**6:30 P.M.**

**Neighborhood Preservation Center**  
**232 E. 11<sup>th</sup> Street**  
**Between Second and Third Avenues**

President Geismar called the meeting to order at 6:40 P.M.

**Secretary' Report:** The minutes of September's meeting were accepted.

**Treasurer's Report:** Spritzer reported approximately \$2485 in the PANYC Treasury. The cost of the production and postage for the last Newsletter was relatively expensive at apx. \$100 but the membership thought it was a very good Newsletter. Spritzer noted that most of the money in the PANYC treasury is spent on public and membership mailings but that this is an important and necessary function of our organization. Spritzer sent notices to members who were in arrears.

**President's Report:** Geismar and Schuldenrein reported that Section 106 of the National Historical Preservation Act was still in danger due to the work of Senator Pombo, Chair of the Senate Resources Committee. Energy Bill HR 3893 was passed by the House and has gone to the Senate but Schuldenrein believes that the issue will be tabled in Congress. Attention must still be paid to Pombo and Senator Peter Domenici (Republican) of New Mexico, Chair of the House Energy Committee. Stone reported that Pombo held the vote about the energy bill (HR 3893) in August, knowing that most people would not be in attendance and that he and his cohorts are also attacking the concept of NEPA in committee through the Endangered Species Act. Stone also reported from Karen Hartgen that Pombo, et al have decided to react to the letters written by people such as PANYC members by going to the developers and asking them to state the problems involved in working on a project that is on the National Register. Pombo, et al appears to be amassing a body of evidence to work against preservation in general, because they believe it inhibits progress. Encouragement is seen in the fact that it will perhaps cost more to dismantle the program than to approve the budget and because New York's Senator Schumer's office seems to be paying a lot of attention to the issue.

Geismar arranged for future PANYC meetings to be held at the Neighborhood Preservation Center (NPC) at 232 E. 11<sup>th</sup> St between Second and Third Avenues. She said it is a lovely space and that PANYC would not have to pay rental fees because our organization falls under their scholarship program.

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The PANYC Archives, currently stored at the now defunct South Street Seaport Museum Library will be moved to the Municipal Library on Chambers Street. Paul Perkus, the Municipal Librarian agreed to accept PANYC Newsletters and to store the PANYC archives there.

Geismar reported that she would arrange a December meeting with Susan Henshaw Jones, the new Director of the Museum of the City of New York to discuss the possibility of the MCNY becoming the NYC repository for archaeological collections. Geismar was hopeful that the MCNY might take the South Street Seaport collections but according to Dallal, these collections

are definitely going to the New York State Museum in Albany. It is hoped that the MCNY will consider taking in future collections.

**Committee Reports:**

**Awards:** Cantwell placed two announcements in the last Newsletter dated November 2005. These were posted as "Nominations Requested for Special PANYC Award for Outstanding Contributions Made by a Non-Archaeologist to New York City Archaeology" and nominations for the "2006 Bert Salwen Award for the Best Student Paper on New York City Archaeology."

**Events:** Britt listed numerous events in the November 2005 Newsletter.

**Membership:** The membership voted unanimously to accept Elizabeth Martin as a member of PANYC. Martin graciously accepted the position of Secretary.

**Met Chapter:** Britt sent email invitations to the Met chapter membership inviting them to hear Stone's presentation about the South Ferry Terminal Project and the discovery of the old Whitehall Slip.

**NYAC:** Stone reported on the NYAC meeting she attended as PANYC representative. There were five presentations: Karen Hartgen, Doug Mackey, Christina Reith, Nina Versaggi and Stone. At the last meeting (September 2005), Stone solicited opinions from PANYC members on issues she should raise about New York City archaeology at the then upcoming NYAC meeting. From this discussion she presented three issues of concern to PANYC members: 1.) watering down of the city environmental review process; 2.) lack of a repository for NYC archaeological collections; and 3.) general issue of Section 106. Stone reported that she received a positive response from NYAC members and that the other presenters discussed Section 106 as well. NYAC members were "shocked" about the idea that the city environmental review process was being watered down. Mackey appeared to be interested in following up on this issue. He and PANYC President Geismar will speak about this issue. As for the Repository, Reith questioned the redundancy of the present state of affairs, i.e. how many privies do we need to excavate? What are these collections really for? Who uses them? PANYC will need to clarify these issues. In the discussion about the new state guidelines, it was agreed that they are meant to supplement the existing guidelines, not replace them. It was acknowledged that urban issues have never been dealt with well in these guidelines and that this needs to be addressed. To this end Nina Versaggi has asked Stone to reconvene the NYAC Urban Standards sub-committee. Stone is seeking new members. Matthew Kirk of Hartgen Associates has joined, Eugene Boesch joined and Geismar stated that she would try. Stone should be contacted for further information.

**Parks:** Wall asked if the job of Parks Archaeologist had been filled. The consensus was that it had not.

**Public Program:** Dallal has narrowed the Program theme to two possibilities and will announce her choice at the next meeting.

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**Research and Planning:** The committee of Britt, Cantwell, Dallal, Wall, Schuldenrein and Stone will convene to discuss a future program about curation issues.

**Repository/Governor's Island:** Geismar attended a meeting of interested parties at FIT. She reported that the plan seems to be to find moneymaking venues for the Island, even knocking down existing buildings in order to have more modern facilities. They believe it would probably be cheaper to start fresh rather than to renovate old buildings. GIPEC is still interested in

Education, however, and PANYC's NYC Artifact Repository would fall under that heading. Geismar is hopeful.

**Web Site:** Pickman and Schuldenrein will overhaul the PANYC website, (<http://www.learn.columbia.edu/panyc/>)

**Old Business:** Dallal reported that the New York City Housing Authority has asked the South Street Seaport Museum to de-install the exhibit, "8<sup>th</sup> Street Unearthed," from the Housing Authority's Police Facility located at 8<sup>th</sup> St. and Avenue C. The exhibit consisted of artifacts excavated on the site of the police facility by Grossman & Associates. The exhibit was curated by Dallal and the design and installation done by McGowan.

The membership gave Yamin a round of applause for doing the Newsletter.

**New Business:** Wall reported that she was contacted by Dr. Arthur Bankoff of LPC. Geismar will call Bankoff and invite him to the next meeting to present his ideas.

Spritzer announced that Archaeology Magazine mentioned the Seaport collections in their recent article, "Homeless Collections."

Schuldenrein announced that he will be giving a talk about Buried Landscapes in New York at the Ethical Culture Society in Riverdale at 11:00 A.M. on Sunday, November 20, 2005.

**After Meeting Presentation:** Linda Stone delivered a power point presentation about her team's discovery of the old Whitehall Slip at the South Ferry Terminal Project Site in Lower Manhattan, "Archaeology, The Lower Manhattan Redevelopment and the Whitehall Slip."

**Upcoming meeting Dates:** Wednesday, January 25, 2006  
Thursday, March 23, 2006  
Wednesday, May 24, 2006

**Reminder: PANYC Public Program at the MCNY, April 23, 2006, 1:00-3:30**

To: PANYC Members  
From: Joan Geismar  
Date: March 21, 2006  
Re: Request for Books from the New Orleans Public Library

## REQUEST

The New Orleans Public Library is asking for any and all hardcover and paperback books for people of all ages in an effort to restock the shelves after Katrina. The staff will assess which titles will be designated for its collections. The rest will be distributed to destitute families or sold for library fundraising. Please send your books to:

Rica A. Trigs, Public Relations  
New Orleans Public Library  
219 Loyola Avenue  
New Orleans, LA 70112

If you tell the post office that they are for the library in New Orleans, they will give you the library rate which is slightly less than the book rate.

January 27, 2006  
Public Lives

## Taking Down Colonial Walls Only to Build Them Up

By **ROBIN FINN**

A LITTLE bit giddy and extremely muddy, Joan C. Berkowitz, an architectural conservator with a jolly sense of mission, has just returned from another bonding session with the two Colonial-era walls — a slumbering subterranean assemblage of rock, rubble and mortar beneath Battery Park — discovered by accident when they turned up in the path of the new South Ferry subway tunnel.

Rather inconvenient for the Metropolitan Transportation Authority's construction timetable, but a historic find nonetheless, which means the walls are being documented and disassembled (her role), not dynamited. It is, she says, the dirtiest job she's ever done.

But posterity is at stake. These are consequential walls, possibly dating from the 17th century, possibly battery walls or part of a fort, making them the oldest military fortifications known to exist in Manhattan. And making preservation mandatory.

"To think of finding a wall in New York City that might be from the 17th century, that in and of itself is rather amazing," she says, brandishing two handfuls of Battery Park wall samples in her testing lab at Jablonski Berkowitz Conservation Inc. "They do tell us something about Manhattan's past; they are a nice example of something, it's just too soon to tell what."

The stray Dutch brick she found on the site makes a fabulous conversation piece as an office paperweight. "It's about as cute as a brick could be," says Ms. Berkowitz, whose fixation on gritty building materials extends to downloading a game called "Building Materials Bingo" from the Internet. Goofy.

Beautiful walls they are not: Ms. Berkowitz, who has a thing for old mortar, cannot tell a lie, especially not after spending her day ankle deep in mud in a claustrophobic subway trench scrubbing and cataloging the stonework, rock by rock. Granite, brownstone, sandstone, schist. Her work boots are filthy. Her feet are cold. Yes, the smiley face decals on her hard hat and official construction vest are there for artificial levity.

"Just try going down into a construction site and fussing over a dirty old wall while 50 stone-faced guys are giving you this look that says, 'Lady, you're slowing me down: I want to blow up this pit and put my tunnel through,' " says Ms. Berkowitz, whose cherubic presence means they can't do that. Not until she has diagrammed a safe way to disassemble the walls and spirit them away for storage so they can be rebuilt and displayed, probably in Battery Park as a companion piece to Castle Clinton, a reconstructed fort built right before the War of 1812.

The designated moving day for the first wall, about 40 feet long by 8 feet thick, was Wednesday. Excited, she bought herself a pair of work boots for the occasion: "state-of-the-art waterproof

clodhoppers." When moving day was postponed pending approval from the Federal Transit Administration, which is paying for the \$420 million subway project, Ms. Berkowitz, hired by the transportation authority to get the walls out of its subway's way, took it in stride.

"My focus isn't to figure out how old the wall is, it's documenting it to make sure we understand it really well so we can put it back together again," she says. "Heigh-ho, it's off to the muddy pit we go," was the message in a follow-up e-mail update she sent yesterday after her project was officially greenlighted.

Every stone will be labeled so that the walls can be rebuilt, like giant three-dimensional jigsaw puzzles, aboveground. The original mortar will be, she says, "sacrificed" in the process of digging out the stones, but she hopes to reproduce a modern version of it in her lab. Mortar-matching is one of Ms. Berkowitz's specialties, her counterintuitive take on her mother's vocation, interior design; Dad was a dentist, perhaps explaining her ease with picks, chisels and other assorted sharp tools.

"Disassembly is about as aggressive as it gets," she says. "I've lost some sleep over this job; I mean, suppose we can't get the wall back together?" As for a preservationist's recurring nightmare, she says it boils down to this: "How do you keep a ruin a ruin without people ruining it?"

MS. BERKOWITZ, 45, is no stranger to old walls: In 1986 she spent five weeks in Pompeii restoring walls dating from before A.D. 79. Antiquity gives her chills: "You don't go into architectural conservation unless you get that little charge out of it. To me it's kind of art meets science. You need to have somewhat of an artistic eye in order to replicate things."

She worked on Fort Ticonderoga and spent two years reroofing Grant's Tomb and removing the graffiti. Her firm is analyzing paint samples for the restoration of the landmark interior sections of the Plaza Hotel, and has assisted since 1997 in the renovation of landmark bridges on the Merritt Parkway. The disassembly and rejuvenation of the fountain in Washington Square is on her to-do list.

She grew up in Glen Cove, on Long Island; graduated from Vassar with a degree in environmental science; and attended the historic preservation program at Columbia. Before opening her firm in 1995, she spent seven years with the National Park Service.

Ms. Berkowitz lives with a French bulldog, Charlie, and two cats in a not-terribly-historic co-op on the Upper West Side, but owns an 1870's relic (a former hog farm) in Ulster County. Her next project is tearing vinyl siding off the farmhouse's 1950's addition. No T.L.C. necessary. Vinyl does not have artifact status. Yet.

World, not their children. Five other individuals thought to be African slaves had isotope ratios expected for people born around Campeche, hence from a later generation.

"In a community occupied for several generations, only a relatively small proportion of the individuals in a cemetery would be expected to come from the first generation," they wrote in the report.

The four individuals, the researchers said, appeared to have come from the area around Elmina, Ghana, a major West African port in the slave trade.

This was also the region of origin of some of the slaves found in the 17th- and 18th-century African Burial Ground, uncovered in 1991 in Lower Manhattan.



March 1, 2006

## Subway Project Runs Into One More Wall (Just Don't Call It an Obstacle)

By PATRICK MCGEEHAN

Just when they thought it was safe to start digging again, workers building a new subway terminal at South Ferry found yet another big section of 18th-century seawall standing in their way.

This piece, about 105 feet long and 9 feet thick, is even larger than two other sections found under Battery Park in the last four months. The discoveries have left city officials with an embarrassment of historical riches and a problem: Where do you put several more tons of pre-Revolutionary stone and mortar in one of the most densely developed places on Earth?

They have cobbled together a three-part solution.

Once the construction of the terminal is finished, the City Department of Parks and Recreation plans to reassemble the first large section at ground level in Battery Park and to spread stones from the third one in other parks in Lower Manhattan. The Metropolitan Transportation Authority is considering embedding part of the second section in a glass wall inside the new terminal.

Archaeologists believe the walls lined the southern tip of Manhattan and were built at least 240 years ago, either to hold in the landfill that extended the shoreline or to protect British soldiers against a naval attack. Some archaeologists said they held out hope that at least one of the sections was part of the original military battery for which the park was named.

If so, it could date back as far as the late 17th century, they said. Either way, said Adrian Benepe, the city's parks commissioner, "these walls are essentially the oldest masonry in Manhattan."

Mr. Benepe said that an interesting feature of the latest find, unearthed in the last two weeks, was the barnacles and oyster shells stuck to it. "Clearly, this wall was exposed to the ocean," he said.

The analysis of just when the walls were built and for what purpose will not be completed until after they are removed from the path of progress. The delicate work of documenting and disassembling them has slowed the subway project since November.

They were discovered, one after another, by crews digging a long, deep trench that will hold a replacement for the 101-year-old South Ferry station and a tunnel for the No. 1 subway tracks that will connect to it. The new terminal, where trains will reach a dead end instead of screeching around a hairpin turn as they do now, is scheduled to be completed by the end of 2007.

Mysore Nagaraja, the president of the MTA Capital Construction Company, said his workers were supposed to be out of the park by mid-July of this year. But the delays caused by the work on the walls

will keep them there through the end of the summer.

One of their unanticipated tasks has been building three-foot-square wooden crates, filling them with chunks of the walls, then hauling them on trucks to Randalls Island, in the East River between Manhattan and Queens. The parks department will store them there until the workers have completed their work at Battery Park, Mr. Benepe said.

Mr. Nagaraja said he did not know if the entire project could be completed on schedule. But he said the additional work and delays would add less than \$1 million to the total cost. The Federal Transit Administration is spending \$420 million on the terminal.

After initially resisting, officials of the Metropolitan Transportation Authority have embraced the idea of incorporating some of the stone in the South Ferry terminal. They plan to embed a section 20 feet long and a few feet high in the middle of a white glass wall in the mezzanine, said Sandra Bloodworth, director of the transportation authority's Arts for Transit program.

The goal, Ms. Bloodworth said, is to "recreate the experience of discovering the wall." The section the stones will be taken from is too "massive," at 60 feet long and more than 8 feet thick, to be displayed as a whole, she said.

The stones are a late addition to the design plan for the terminal, which will be home to the largest art installation in the entire subway system. About a year ago, Arts for Transit selected Doug and Mike Starn to create the decorative elements of the terminal. The Starn brothers proposed incorporating images of trees and leaves into both the walls and the fencing inside, Ms. Bloodworth said.

"We're bringing the park into the station," Mr. Nagaraja said.

Still, some archaeologists would prefer to see the walls preserved in full.

"A piece of a wall I don't think has much integrity," said Nan Rothschild, a historical archaeologist who teaches at Barnard College. "It is just a wall. But it's exciting when you see it. What it speaks to, to me, is the way the space in Lower Manhattan has been manipulated and how it's developed. The city keeps being rebuilt."

# NEW YORK PRESS

MARCH 15, 2006

## SUBWAY STORIES

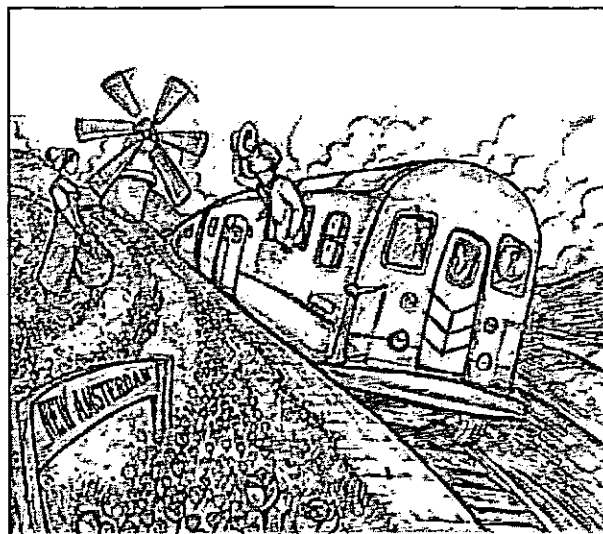
NEWS & COLUMNS

They are New York's oldest remaining structures, witnesses to a time that predates the American Revolution by up to an entire century. It was a time when the city stretched as far north as Wall Street. Life in the Colonial territories was dangerous, and fortification was a necessity. Fast-forward roughly 300 years into the future of one of the densest cities in the world. Colonial-era walls are discovered in Battery Park. What can we learn from these piles of stone, and what are we doing to ensure that such discoveries are properly preserved?

Recently, three colonial walls were un-earthed in Battery Park during construction to replace the 100-year-old South Ferry Station. The walls, dated from the early 1700s or late 1600s, have been found on separate occasions over the last four months. The largest measures 105 feet long and is nine feet thick. Experts have not reached a consensus regarding the purpose of the walls or if they are related, but most agree they were built to defend the city against foreign militaries, the ocean or both.

The *Times* reported that MTA Capital Construction Company, which supervises expansion projects, believes the wall will not interfere with the original expected completion at the end of 2007. Expenses from cataloging, removal and preservation of the walls will be included in the \$400 million project.

"You have to think of it (the cost of preservation) in terms of the whole project. The preservation will end up to be a very small percentage," said the appropriately named Diana Wall, a professor at City College, and co-author of *Unearthing Gotham: The Archaeology of New York City*. Regardless of the cost, Wall said it was better to be over cautious.



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Over the last few decades, New York City has been home to several important archaeological discoveries, with more expected as the city continues to push for development. In 1991, over 400 remains from the 17th and 18th century were discovered during pre-construction work in Central Park. "The impact of the African Burial Grounds is it brought home to New York that there was slavery, it opened up people's eyes," said Wall. "The walls are different, it shows the way the city really was."

Amanda Sutphin, director of archaeology for the city's Landmarks Preservation Commission, said the walls are important because they may help us understand present-day security.

"Finding such large sections of New York City's earliest fortifications—the battery of Battery Park—can help us to better understand the measures that were needed in the Colonial era to safeguard the city, which seem particularly meaningful post-9/11,"

Once such an important archaeological site is discovered, how can we know that proper steps are being implemented in its preservation?

"Urbanization in the last century has destroyed thousands of years of the city's history," said Anne-Marie Cantwell, a professor of anthropology at Rutgers University, and a co-author with Wall on *Unearthing Gotham*. "We need stronger legislature to protect the sites and greater public support and awareness of just how rich the city's past is."

That's where Section 106 of the National Preservation Act comes into play. But preservation experts complain that the Act is riddled with ambiguity that is only compounded when multiple governmental groups are involved in a project. "The guidelines, in effect, say that whenever there is federal involvement in a project, money or even a permit, the impact of that project on important cultural resources must be determined," Wall said. "If there are such resources that might be harmed by the construction, the impact must be 'mitigated.'"

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~~This can mean anything from canceling the project to removing the site to full-scale excavation (think of the stereotypical view of archaeology) or, what was chosen for the Battery Park walls, monitoring—having archaeologists study the site after a discovery has been made, and determine the best course of action. Discovering more colonial walls is unlikely, at least for this project. A final trial trench was dug where the project will conclude; no walls were discovered.~~

Robert Koehl, professor of archaeology at Hunter College, was involved in a subway project in Athens in preparation for the Olympics, which included archaeologists during the entire

project. Government commissions "were sensitive to the problems with digging a subway. Archaeologists were with them the entire time, that's why it took so long. Sure it took a couple of years longer, but everyone benefited."

Large-scale civilization in Athens does predate New York by thousands of years. Koehl said any time they "scratch the surface" in areas like Athens, ancient remains are being found. Adding to the difficulty of archaeology in New York is its dense nature. Some similarities between the New York and Athens subways projects do exist. The *New York Times* reported that the MTA plans to enclose a 20-foot portion of the colonial wall in the new subway station's mezzanine. Such displays in Athens have been well received. The Athens subway "was successful in that it preserved antiquities and turned the subway into a living museum while transforming Athens economically," Koehl said.

In a city rebuilding and expanding, it is only a matter of time before more archaeological treasures are found. Wall points to other African and Irish communities located where Central Park is today, or other forts, like the Dutch New Amsterdam Fort. "This will continue to be a golden era for New York City archaeology as long as there are regulations in place that require that we look for them," Wall said.

**Volume 19, Issue 11**

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# CIVIL ENGINEERING NEWS

## HISTORIC PRESERVATION

### New York Subway Construction Delayed by Colonial Walls

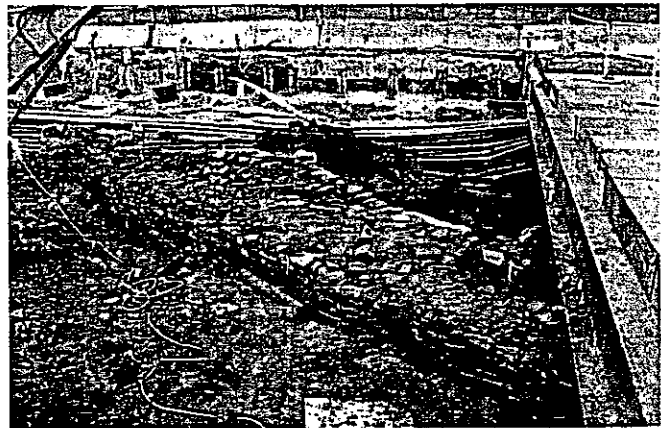
Three colonial-era stone walls were discovered in New York City's Battery Park late last year by workers carrying out excavation for a new subway station. The archaeological find offers historians a glimpse back at life in earlier times. The exact age of the walls has not yet been determined, so it is not known whether they date from the 17th or the 18th century. However, the find has also slowed progress on a critical construction project for New York and challenged engineers and preservationists to develop techniques for removing the walls without damaging or destroying the centuries-old structures.

The first wall was discovered in the northeast section of Battery Park, in lower Manhattan, on November 8 while a construction crew from Schiavone Construction Company, of Secaucus, New Jersey, was excavating a trench for the South Ferry Terminal Project. The wall, which has since been moved, was composed at least partially of dressed stone and measured approximately 40 ft (12 m) long, 3 ft (0.9 m) high, and 8 ft (2.4 m) thick; it was discovered approximately 10 ft (3 m) underground. A fragment of a second wall—considered too small to preserve—also was discovered on November 8 somewhat north of the first wall but was demolished during the excavation. The third wall was discovered on December 27 approximately 500 ft (152 m) south of the first one. It is roughly 50 ft (15 m) long, 6 ft (1.8 m) high, and 8 ft (2.4 m) thick. It was found slightly farther underground and rests on a type of timber cribbing.

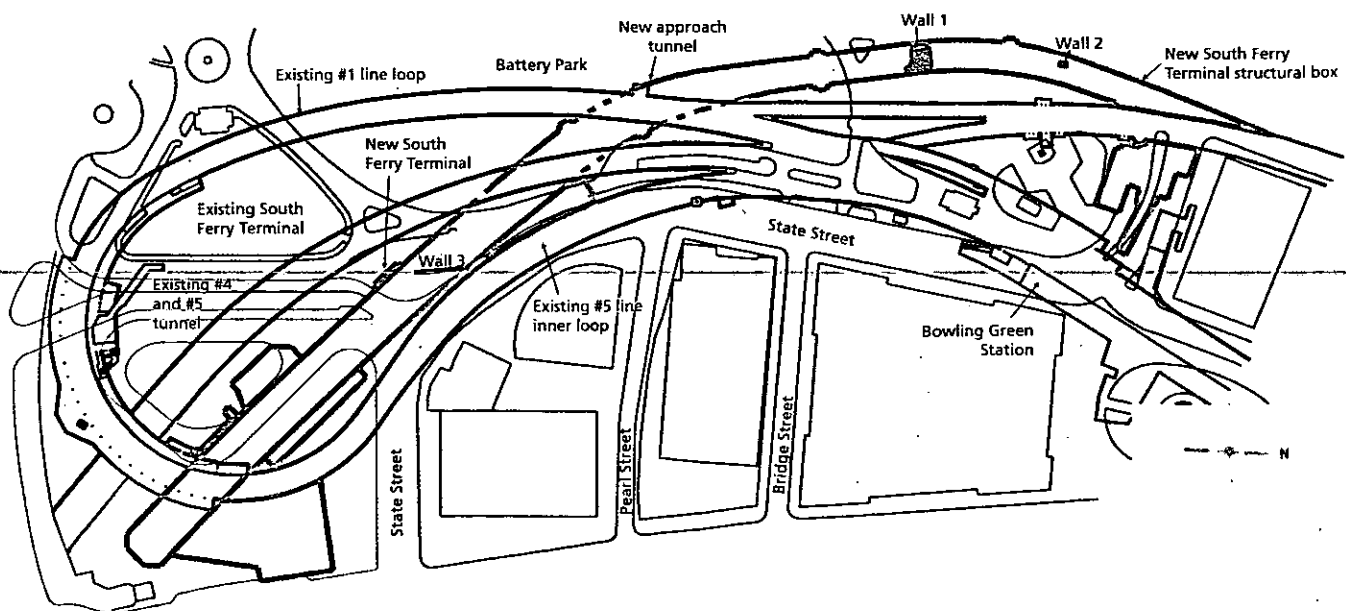
Mysore L. Nagaraja, P.E., F.ASCE, the president of MTA Capital Construction Company—which manages capital expansion

and transit infrastructure projects for New York State's Metropolitan Transportation Authority (MTA)—explains that the South Ferry Terminal Project is a \$450-million federally funded undertaking to replace the single-track South Ferry subway station with a double-track station for the subway's number 1 line. The project is part of the federal government's efforts to rebuild lower Manhattan following the September 11, 2001, terrorist attacks, explains Nagaraja. The new station is being constructed beneath the existing one, which is to be converted to an MTA maintenance facility.

The new station requires construction of a reinforced-concrete box that will be approximately 1,200 ft (370 m)



Of the three colonial-era walls encountered during construction, the one with water-soaked timbers will be the most challenging to remove because of the difficulty of preserving the timbers.



long and 60 ft (18 m) wide to house the station facilities. The station will be located some 60 ft (18 m) belowground to avoid the tunnels and infrastructure of the other subway lines that pass through the area, Nagaraja says.

Battery Park is also the site of the original Dutch and English settlements on Manhattan; the park itself is named for the fortifications—including gun batteries—that protected the early colonists. The site's historical importance meant that MTA Capital Construction was required by the federal government and the state office in charge of historic preservation to work with an archaeological team during the excavation. "It was expected that we might find some artifacts," Nagaraja states.

When the walls were discovered, the archaeologists studied various maps and documents and speculated that they could be part of fortifications dating anywhere from 1625 to 1788, Nagaraja says. In addition to uncovering the walls, archaeologists found a coin dating to 1744 and such artifacts as ceramics and pipe stems. It is not yet clear whether the two larger walls are part of the same structure; nor is it certain when or how they came to be buried.

What was clear, though, is that the two walls were directly in the path of the subway station excavation; the first wall was even damaged slightly by a backhoe before the contractor's crew realized what had happened. Once the first wall was discovered, work halted in that area and the site was reinforced and covered with planks to protect the artifact while work on the excavation continued to the north and south, Nagaraja says. The third wall was discovered a few weeks later.

To ensure the safe removal and preservation of both walls, MTA Capital Construction contracted with the New York City-based architectural conservation firm Jablonski Berkowitz Conservation, Inc., and halted work as much as possible to ensure that no damage was done to the exposed walls. Vibration sensors were installed in the ground around the walls so that the excavation work—which includes the use of explosives—could proceed beyond the protected areas. The sensors made it possible to monitor that work to ensure that it did not endanger the walls, Nagaraja explains.

The first wall was carefully dismantled and removed in late January on the basis of specifications developed by Jablonski Berkowitz. Under the plan, the wall was first documented with measured drawings, large-format photographs, and a laser-scanning digital camera that the MTA uses to prepare contract documents for maintenance work on tunnels, says Marie Ennis, P.E., M.ASCE, a New York City-based private structural engineer who was hired by Jablonski Berkowitz to oversee the removal.

Ennis, the author of "The Engineer as Preservationist" (see *Civil Engineering*, September 1994), describes the challenges involved in architectural preservation as being entirely different from those that typically confront structural engineers. "It's not building something—it's figuring out how something was built and then coming up with a logical, rational way to take it apart so that someone in the future can reconstruct it," she says.

With the eventual reconstruction of the wall in mind, each of the large stones—roughly 10 in. (255 mm) wide and ranging in length from 12 to 24 in. (305 to 610 mm)—was labeled in a three-stage process, explains Joan Berkowitz, a principal and co-owner of the conservation firm. First, a square of dissolvable acrylic resin was applied to the stone's surface. Next, a layer of white latex was painted on top of the acrylic resin. Finally, the identification information was written on the painted square with indelible markers.

The plan also specified the use of hand tools—chisels, rubber and wooden mallets, and wooden wedges, for instance—that would not shock or vibrate the wall, says Berkowitz. A canvas sling and a small crane were used to lift each large stone out of the excavation; the stones were then covered with a protective foam material and crated for storage. The rubble fill that formed the interior of the wall was collected in bulk, cleaned, and stored in crates as well. The original mortar will be destroyed during deconstruction but samples are being analyzed to replicate the material, which was probably sand and lime, says Ennis.

All the dismantling and removal work was accomplished by a crew of three to four people on loan to the preservation effort from Schiavone.

A plan to dismantle and remove the third wall is being developed. That structure is expected to present a greater challenge because it is larger than the other wall and includes water-soaked timbers that could prove difficult to preserve, Berkowitz notes.

New York City's Department of Parks and Recreation, which owns Battery Park, hopes to eventually reconstruct the two walls as part of an aboveground exhibit in the park, although no definite plans have been developed, explains Dana Rubenstein, the deputy director of the department's press office. The third wall might also be incorporated into a display within the new South Ferry subway station, says Joe Trainor, P.E., a vice president of the MTA and its chief engineer.

The discovery of the walls is not expected to delay the completion of the new subway station, which is scheduled for May 2007, says Nagaraja. The time lost—roughly 11 weeks for the first wall and an as yet unspecified period for the third wall—can be made up elsewhere in the schedule. But it will add just under \$1 million to the cost of the project and will require the contractor to work within Battery Park for several weeks longer than originally planned, Nagaraja says.

—Robert L. Reid



January 31, 2006

## At Burial Site, Teeth Tell Tale of Slavery

By **JOHN NOBLE WILFORD**

While remodeling the central plaza in Campeche, a Mexican port city that dates back to colonial times, a construction crew stumbled on the ruins of an old church and its burial grounds. Researchers who were called in discovered the skeletal remains of at least 180 people, and four of those studied so far bear telling chemical traces that are in effect birth certificates.

The particular mix of strontium in the teeth of the four, the researchers concluded, showed that they were born and spent their early years in West Africa. Some of their teeth were filed and chipped to sharp edges in a decorative practice characteristic of Africa.

Because other evidence indicated that the cemetery was in use starting around 1550, the archaeologists believe they have found the earliest remains of African slaves brought to the New World.

In a report to be published in *The American Journal of Physical Anthropology*, the archaeology team led by T. Douglas Price of the University of Wisconsin concluded, "Thus these individuals are likely to be among the earliest representatives of the African diaspora in the Americas, substantially earlier than the subsequent, intensive slave trade in the 18th century."

Dr. Price said last week that a more precise dating would be attempted soon with radiocarbon analysis of the excavated bones. Maps and other records of Campeche, on the Yucatán Peninsula, indicate that the burial ground was used from the mid-16th century into the 17th. A pre-1550 medallion was found in a grave.

Other archaeologists and historians who were not involved in the research said they knew of no earlier skeletal remains of African-born slaves that had been found in the Americas. Dr. Price said that a colleague in the research, Vera Tiesler of the Autonomous University of the Yucatán, who is a historian of the colonial period, thought the slave burials occurred in the cemetery's first years. She directed the excavations.

The fact that the burials were found in ruins of a colonial church could mean "that they had some kind of status or were converted to Christianity," said Richard H. Steckel, a professor at Ohio State University who studies health and nutrition of pre-Columbian American Indians.

Although ample records attest to the presence of African slaves in the New World at this time, Dr. Steckel, who had no part in the discovery, said: "Much less is known about their health. So, if researchers can document the stature, degenerative joint disease, dental decay, trauma and so forth, then it could be quite interesting."

William D. Phillips, a University of Minnesota professor who is a historian of Old World and New World slavery and who was not involved in this research, said it was not surprising to find African



remains in the Yucatán at this time.

Dr. Phillips and other historians said colonial Campeche was an important Spanish gateway to the Americas and would have had substantial traffic in slaves. Within a few years of the first voyage of Columbus, in 1492, they noted, Africans were shipped to the Caribbean and then the mainland. Their numbers increased steadily as sugar plantations were established by the Spanish on the islands, then in Mexico and coastal Peru.

"Some experts suggest that more Africans than Europeans went to Spanish America in the period up to 1600," Dr. Phillips said.

Herbert S. Klein, a historian of Latin America at Stanford and an author of studies on slavery in the region, said, "The slave trade was in full development by the mid-16th century and would have brought African slaves to Mexico, though the primary work force remained Amerindians."

In time, as European diseases reduced Indian populations, the demand for labor from Africa increased. Over a span of four centuries after Columbus, it is estimated, as many as 12 million Africans were placed in bondage and brought across the Atlantic to ports throughout the Americas.

If any older slave burials have been excavated, Dr. Klein has not seen reports of them in the professional literature, he said. The most likely places for any earlier finds, he added, would be in Santo Domingo in the Dominican Republic or in Cuba, where African slaves were first introduced.

The site in Campeche was discovered in 2000. As researchers examined the remains, they determined that some belonged to Europeans and Indians. Then they were drawn to a few with the distinctive dental mutilations, their first clue that these were probably people born in Africa.

Upon further examination, James Burton, the third member of the team, said four of the individuals "were like something we'd never seen."

Dr. Burton and Dr. Price, who are colleagues at the Laboratory of Archaeological Chemistry at Wisconsin, and Dr. Tiesler embarked on the strontium studies, supported by the National Science Foundation. Such strontium research, often applied in physical anthropology, is a part of their broader investigation of social mobility — where people were born and how near or far from home they eventually settled — in ancient Mexico and Central America, known as Mesoamerica.

At least 10 skeletons appeared to be African, the researchers reported, and four had teeth with "unusually high" combinations of two isotopes of the element strontium. An isotope is a slight variation of a chemical element, with a different mass but otherwise the same as the basic element.

In this case, the ratios of the isotopes strontium 87 and strontium 86 were consistent with those in the teeth and bones of people who were born and grew up in West Africa. A comparison with strontium measurements of people born in Mesoamerica showed no similarities with the four specimens.

These strontium signatures enter the body through the food chain as nutrients pass from bedrock through soil and water to plants and animals. Different geologies yield different isotopic strontium ratios. This is locked permanently in tooth enamel from birth and infancy, an important tool to trace the migration of individuals.

The researchers said the findings showed that these four appeared to be original migrants to the New

PANYC EVENTS COMMITTEE REPORT MARCH 2006

TITLE/SPEAKER	EVENT	DATE	TIME	LOCATION	CONTACT	FEE
Monarchs of the Sea: Celebrating the Ocean Liner Era	Exhibit	Perm. Exhibit		South Street Seaport Museum, 12 Fulton Street, New York	212.748.8766 or <a href="http://www.southstreetseaportmuseum.org">www.southstreetseaportmuseum.org</a>	\$5 adults Free children under 12 members-member card
Brooklyn Works: 400 Years of Making a Living in Brooklyn	Exhibit	Exhibit		Brooklyn Historical Society, 128 Pierrepont Street, Brooklyn, New York	<a href="http://www.brooklynhistory.org">www.brooklynhistory.org</a> or 718.222.4111	\$6.00 Adults \$4.00 Students/ Seniors
Nieuw Amsterdam: Dutch New York as Represented in the Archaeological Collections of South Street Seaport Museum	Exhibit	?	?	South Street Seaport, Schermerhorn Row Galleries, 12 Fulton Street, New York	<a href="http://www.southstreet.org">www.southstreet.org</a>	?
New Tribe: New York	Exhibit	January 29, 2005-April 9, 2006	10am-5pm; open Thursdays until 8pm	George Gustav Heye Center, New York	<a href="http://www.nmai.si.edu">http://www.nmai.si.edu</a>	Free
First American Art: The Charles and Valerie Diker Collection of American Indian Art	Exhibit	April 24, 2004-April 9, 2006	10am-5pm; open Thursdays until 8pm	George Gustav Heye Center, New York	<a href="http://www.nmai.si.edu">http://www.nmai.si.edu</a>	Free
Tolerance and Identity: Jews and Early New York	Exhibit	May 10, 2005-October 2, 2006		Museum of the City of New York, 1220 Fifth Avenue, New York	<a href="http://www.mcny.org/visit/">http://www.mcny.org/visit/</a>	Suggested Donation
Born of Clay: Ceramics from the National Museum of the American Indian	Exhibit	November 5, 2005-April 30, 2007		George Gustav Heye Center, New York	<a href="http://www.nmai.si.edu/subpage.cfm?subpage=exhibitions&amp;second=ny">http://www.nmai.si.edu/subpage.cfm?subpage=exhibitions&amp;second=ny</a>	Free

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TITLE/SPEAKER	EVENT	DATE	TIME	LOCATION	CONTACT	FEE
Lenape: The First Staten Islanders-Staten Island Museum	Exhibit	Permanent	Tuesdays - Saturdays from 9 am to 5 pm. Sundays from 1 pm to 5 pm Mondays from 9 am to 5 am by appointment only.	Staten Island Museum 75 Stuyvesant Place Staten Island, New York 10301	<a href="http://www.statenislandmuseum.org/permanent.html">http://www.statenislandmuseum.org/permanent.html</a> or 718.727.1135	Adults: \$2.00 Children, Students under 12, Seniors: \$1.00 Members: Free
Dr. James Chatters, archaeologist and paleoecologist and Kennewick Man expert on the Kennewick Man skeleton remains estimated to be 9,400 years old presents "Kennewick Man"	Lecture	January 28, 2006		Glastonbury High School Auditorium Sponsored by the Office of State Archaeology and the Connecticut Archaeology Center	for more information, contact Carol Davidge, Public Information Coordinator, UCONN, <a href="mailto:Carol.Davidge@UConn.edu">Carol.Davidge@UConn.edu</a>	
Irene Winter, tba	Lecture	Monday March 27, 2006	6:00 pm	612 Schermerhorn Hall, Columbia University, tba	<a href="http://www.columbia.edu/cu/archaeology/events/main/columbia_conf/index.html">http://www.columbia.edu/cu/archaeology/events/main/columbia_conf/index.html</a>	Free
Jerald Milanich, Florida Museum of Natural History, "Archaeology of Colonialism: The Spanish Missions of La Florida as a Test Case"	Lecture	Monday March 27, 2006	7:30-8:45 pm-6:00 for Dinner	New York Academy of Sciences	<a href="http://www.nyas.org/events/eventDetail.asp?eventID=4919&amp;date=3/27/2006%207:30:00%20PM">http://www.nyas.org/events/eventDetail.asp?eventID=4919&amp;date=3/27/2006%207:30:00%20PM</a>	Members Free Non-Members \$20

PANYC EVENTS COMMITTEE REPORT MARCH 2006

TITLE/SPEAKER	EVENT	DATE	TIME	LOCATION	CONTACT	FEE
Dr. Jason Ur, Harvard University "Satellite Imagery and the Structure of Ancient Landscapes: Case Studies from the Near East"	Lecture	Thursday, April 6, 2006	5:30 pm	The meeting will be held at the Columbia University Faculty House (117th Street at Morningside Drive; enter from 116th Street behind the Law School). The lecture begins at 5:30 PM (cash bar at 5:00), followed by dinner with the panelists at 7:00 PM. If you wish to make dinner reservations (they are necessary; cost is about \$23),	Please contact our seminar rapporteur, Lee Ullmann [lzu1@columbia.edu], and for those without internet access, a phone call to me will be fine [(718) 817-3854]. Faculty House rules require that dinner reservations be made two weeks in advance, so please do not wait until the last moment to make yours.	Cash Bar Dinner-@\$23
David Mattingly, University of Leicester UK presents "Town and County in Roman Libya"	Lecture	Monday, April 10, 2006	TBA	AIA National Sponsored Lecture at the New York University Institute of Fine Arts, 1 East 78th Street, New York	RSVP to the Institute of Fine Arts' events hotline: (212) 992-5803, or ifa.events@nyu.edu	Free
Ellen Morris, Columbia University	Lecture	Monday, April 24, 2006	TBA	The meeting will be held at the Columbia University Faculty House (117th Street at Morningside Drive; enter from 116th Street behind the Law School). The lecture begins at 5:30 PM (cash bar at 5:00), followed by dinner with the panelists at 7:00 PM. If you wish to make dinner reservations (they are necessary; cost is about \$23),	Please contact our seminar rapporteur, Lee Ullmann [lzu1@columbia.edu], and for those without internet access, a phone call to me will be fine [(718) 817-3854]. Faculty House rules require that dinner reservations be made two weeks in advance, so please do not wait until the last moment to make yours.	Cash Bar Dinner-@\$23
<i>Conferences and Meetings:</i>						
Society for American Archaeology	Conference	April 26-30, 2006		San Juan, Puerto Rico	www.saa.org	Varies

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TITLE/SPEAKER		EVENT	DATE	TIME	LOCATION	CONTACT	FEE
NYAC meetings		Conference	April 28-30, 2006		The 2006 NYSAA Annual Meeting will be held at the Hudson Valley Resort and Spa amid 400 acres of majestic landscapes and surrounded by the fabled Shawangunk Mountains and adjacent to Minnewaska State Park. The resort is located at 400 Granite Road, Kerhonkson, New York 12146. Complete directions are available at <a href="http://hudsonvalleyresort.com">http://hudsonvalleyresort.com</a> . Accommodations details and rates will be provided in a future mailing.	<a href="http://www.nyarchaeology.org/mainpages/NYSAA/NYSAAintro.htm">http://www.nyarchaeology.org/mainpages/NYSAA/NYSAAintro.htm</a>	Varies

If any members have events that they would like listed, please contact Kelly Britt at 717.393.3289 or email at [kb239@columbia.edu](mailto:kb239@columbia.edu)  
 Or by mail 410 South West end Avenue, Lancaster, PA 17603

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