

# ❧ FORT GEORGE ADVICE ❧

The Newsletter of the Lake George Battlefield Park (Fort George) Alliance

PO Box 26, Lake George, New York 12845

FALL 2003

## President's Message ❧

**H**APPY BIRTHDAY! The Lake George Battlefield Park (Fort George) Alliance is now, as of October 5th, two years ago. Here's looking to another good year. But, first let's reflect back upon the happenings of the past six months.

In May, I met with the Park's DEC Region 5 Operations Supervisors and the Agency's Historic Preservation Officer at the Park's annual mid-year site management review. Most of that meeting was dedicated to reviewing the preparations for our first jointly sponsored and hosted Living History event to be held at the park this coming Columbus Day Weekend. You may find a schedule of planned activities for this event, a Revolutionary War Encampment and Reenactment of Carlton's 1780 Raid on Fort George, in this newsletter. I hope to see you all there. A couple of other noteworthy projects scheduled for this past summer season were discussed. The first was a project to repave the hard surface paths in the park and to bring one up to level with the Pavilion floor to make that facility accessible to the handicapped. The second was to address a safety concern by removing the old rusted page wire fencing that may be found marking the old boundary between the D&H Railroad property and the park. I'm sorry to report that due to the New York State Fiscal Crisis these projects have not been completed. I should also note here that due to this crisis, many personnel staff vacancies have occurred locally without replacement. My personal observation is that these vacancies have caused others

to have to shoulder the duties and tasks of many. It is my opinion this increase in work load is adversely affecting morale and productivity. This situation reminds me of an old saying that we



*John Crawford, President of the Lake George Rotary Club, hands the check to Alliance President Charlie Brown.*

had in the Corps: "No liberty until morale improves."

In June, the Alliance requested assistance from the Lake George Rotary Club in providing funds to assist in funding the conservation of the significant artifacts identified for treatment from the year 2000 archaeological collection. The request was approved to the amount of \$1,250. The Alliance in turn provided volunteers that assisted the Rotary in conducting their major fund raising event held during Americade. A hearty THANK YOU goes to the Lake George Rotary for their generous donation and the opportunity to participate with them in such a worthy project that means so much to the many

organizations that they so generously support.

A stroke of sadness came upon us on July 4th, with the passing of our Vice President Chris Verville. Chris, we miss you. To Marcia and others in the Verville family, we wish you well, please accept our sincerest condolences.

During the period, I appeared before two local organizations as guest speaker.

In August, I spoke to the Lake George Rotary on the purposes of the Lake George Battlefield (Fort George) Alliance and the historical significance of the site which is now the Lake George Battlefield Park. In September, I spoke to the Jane McCrea Chapter, Daughters of the American Revolution on, "Fort George at Lake George & its Role in the American Revolution".

Our second annual membership meeting and picnic was held on Saturday, August 23, 2003 at the pavilion at Lake George Battlefield Park, Lake George, NY. The day was gorgeous. Thanks to Mother Nature making up for the weather she provided for last year's meeting. The program was superb. A hearty WELL DONE goes to Chris Sabick, the Director of the Conservation Laboratory, Lake Champlain Maritime Museum, for such an informative presentation and giving us the opportunity to see their work.

I look forward to seeing you all on Columbus Day Weekend at the first Annual Revolutionary War Encampment and Reenactment of Carlton's 1780 Raid on Fort George at Lake George, NY. ❧

Sincerely,  
Herman C. Brown

## Notice ❧

**W**EB Sites provide up-to-date information on Alliance activities and more. To keep up to date on our activities periodically log on to the *America's Historic Lakes - The Lake Champlain and Lake George*

*Historical Web Site's* Upcoming History Events in the Lake Champlain and Lake George Region Bulletin Board at [http://www/historiclakes.org/living\\_history/history\\_events.htm](http://www/historiclakes.org/living_history/history_events.htm). For Park information check out <http://www.thenortherncampaign.org/fortgeosite.htm>. Carlton's Raid Revolutionary War

Reenactment information is found at <http://www.thenortherncampaign.org/fortgeocarltonerevent.htm>. ❧



*The Alliance supports the historic preservation, conservation, interpretation and associated maintenance, improvement and development of the Lake George Battlefield Park*

# The 2002 Archaeological Field Investigation of a Sunken Dock

By Joseph W. Zarzynski and Bob Benway, Bateaux Below, Inc.

## Introduction

THIS article is excerpted from a report by Bateaux Below, Inc. (BBI) entitled the *2002 Lake George, New York Submerged Colonial Dock Archaeological Field Investigation*. The article details the results of archival research and the archaeological mapping of a submerged colonial dock constructed during the French and Indian War (1755-1763). The project was conducted by BBI, a not-for-profit educational corporation that in the past has focused most of its efforts on studying the lake's submerged warships of "The Sunken Fleet of 1758." The sunken wharf is located off the Lake George Beach and Battlefield Park Day Use Area. This article reviews the site's history, details the project's fieldwork, documents the current condition of the site, and makes recommendations for cultural resource management purposes.

## Alliance Trustees

- ◆ Herman C. "Charlie" Brown, Grand Isle, VT, *President*
- ◆ Marilyn Van Dyke, Ph.D., Queensbury, NY, *Vice President*
- ◆ William M. Herrlich, Orleans, MA, *Treasurer*
- ◆ Robert B. Rockwell, Lake George, NY, *Secretary*
- ◆ Russell P. Bellico, Ph.D., Feeding Hills, MA, *Trustee*
- ◆ Thomas L. Nesbitt, Ticonderoga, NY, *Trustee*
- ◆ Michael E. Stafford, Esq., Lake George, NY, *Trustee*

## Fort George Advice Contributors

- ◆ Steven G. Collyer, *Alliance Communications Chair & Editor*
- ◆ Herman C. Brown, *Alliance President*
- ◆ William Herrlich, *Alliance Treasurer*
- ◆ Joseph Zarzynski & Bob Benway, *Bateaux Below, Inc.*
- ◆ Andrew Farry
- ◆ Sean Kelleher, *Center for Heritage Education & Tourism/3 Valleys to Freedom Coalition*
- ◆ Christopher Sabick, *Lake Champlain Maritime Museum*
- ◆ Christina B. Reith, Ph.D., *New York State Museum*

## Background

On October 1, 2000, BBI's Bob Benway and Joseph W. Zarzynski located a submerged colonial dock during a reconnaissance dive, part of BBI's submerged cultural resources inventory at the "Queen of American Lakes." A few days later a description of the site and its location were sent to the State agencies that manage the lake's submerged cultural resources. On April 5, 2002, BBI was awarded permit #2107 to conduct an archaeological investigation of the 18<sup>th</sup> century submerged structure. The research design and permit, however, did not provide for excavation since artifacts from an aquatic environment require special conservation treatment that would have been both a financial and time burden upon the resources of BBI and the State.

## History

Before proceeding further it is necessary to discuss the use of the terms—dock, pier, wharf, and even the word—quay. Early into the project it was decided to refer to the site as a dock. However, 18<sup>th</sup> century records called the site a wharf and late 19<sup>th</sup> and early 20<sup>th</sup> century references often referred to it as a pier. There are even some modern references that refer to this waterfront structure as a quay. However, for our purposes, the terms—dock, pier, wharf, and quay—are interchangeable.

During the colonial era, Lake George was an integral part of a waterway corridor that ran from New York City to Canada. The British recognized the strategic importance of Lake George and in 1755 sent General William Johnson to the lake to establish a military presence. Following the British victory over the French and their Native American allies at the Battle of Lake George on September 8, 1755, Johnson's forces erected Fort William Henry. Since Lake George would be used as a waterway to move British troops north to seize the French strongholds of Forts Carillon and St. Frederic on Lake Champlain, a network of docks would be constructed at the head of the lake. The primary watercraft used by the British was the 25 to 35 ft.

long bateau, a flat-bottomed wooden vessel pointed at bow-and-stern. This warship was the utilitarian watercraft of its time and did not require docks to launch or retrieve. Bateaux could simply be pulled up onto shore. However, to more effectively move soldiers and supplies on Lake George, larger warships were needed. Thus, military engineers constructed sturdy docks to receive bigger vessels such as sloops, row galleys, and radeaux.

In July 1758, British General James Abercromby launched over 1,000 warships with 15,000 soldiers to attack Fort Carillon (Ticonderoga). Abercromby's army was defeated by the French and the British retreated to the south end of Lake George. There the British undertook a boat building campaign, hoping that before the end of 1758 they could again assault Fort Carillon.

Following Abercromby's defeat at Fort Carillon, on July 19, 1758, Captain Samuel Cobb, a provincial shipwright from Maine—then part of Massachusetts—noted that he "Began to Work on a Sloop to Draft and Mould her." That sloop was the *Earl of Halifax*. On August 23, Cobb wrote that he worked on a 40 ft. long "Row Gally." On September 18, Cobb began working on a large radeau named the *Land Tortoise*. These warships were much larger than the whaleboats and bateaux found in great quantity on the lake. On September 16, a provincial soldier, William Sweat of Massachusetts, wrote "our men are now Building a Wharf." On October 20, Sweat recorded "wee Lunched our Radow, & finished her; also our sloop were halled into the new wharf." It is most likely this "new wharf" was required to handle the larger warships like the 51 ft. sloop *Earl of Halifax*, the 52 ft. radeau *Land Tortoise*, and the row galleys. However, the British were not able to return to Fort Carillon later in 1758 as planned. The British had no fort at the head of the lake because Fort William Henry was destroyed by the French in 1757. Thus, with winter approaching and to protect their fleet from the enemy, the British deliberately sank the sloop,

*Continued on page 3*

*A Sunken Dock*

*continued from page 2*

two radeaux, some row galleys and whaleboats, and 260 bateaux. The British retired to Fort Edward, Albany, and other locations far from Lake George intending to return the following year and raise these sunken warships.

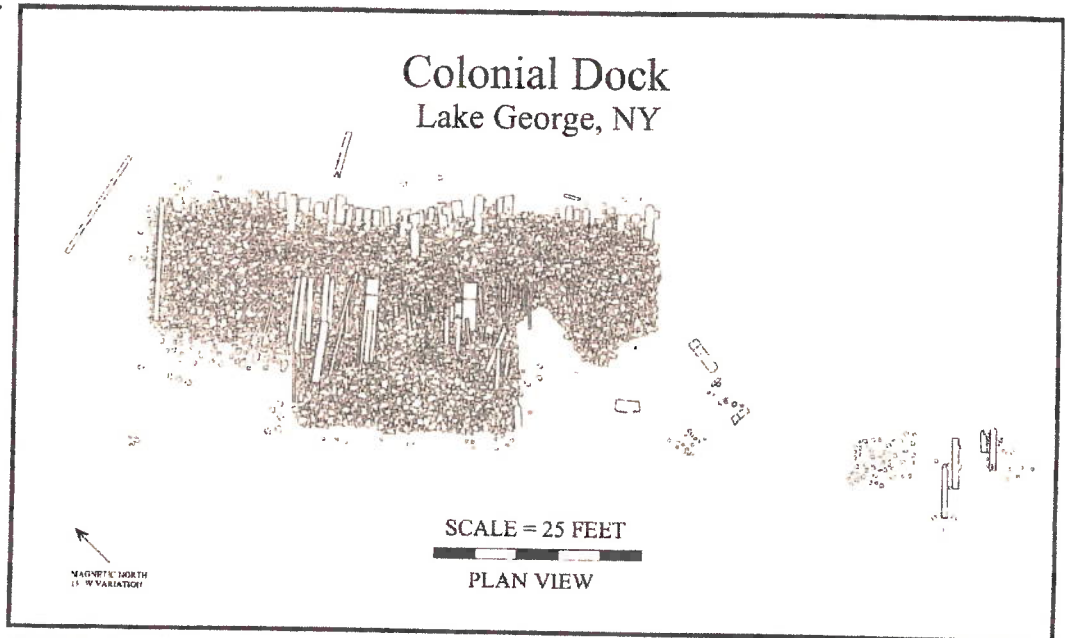
By June 1759, the British returned to the lake, under the command of General Jeffery Amherst. His mission was to push the French from their Lake Champlain garrisons. On July 4, 1759, Amherst wrote that "Captain Loring got the sloop a little above water and hawled her to the wharf so that I hope she will be soon ready." It is probable that the "wharf" in this salvage was the same completed in September 1758.

General Amherst's fleet of nearly 800 warships with over 11,000 men departed from the head of Lake George on July 21, 1759. His army was loaded onto warships at the wharf built the previous year. Indeed, the submerged colonial dock that was studied in 2002 is "The Dock That Launched a British Fleet!" Amherst's forces seized the French fortresses of Carillon and St. Frederic, and the war ended in America in 1760 and in Europe in 1763.

Between the French and Indian War and the American Revolution (1775-1783), Fort George and its waterfront structures were used by the British. The fort's docks were utilized, too, by local sutlers.

In 1819 and 1821, Professor Benjamin Silliman of Yale College made excursions through Lake George. He mentioned a pier in his journal when writing about Fort George: "At this place, although principally covered by the water, are the ruins of the old military quay or pier, formerly extending a good way into the lake, and affording important facilities to the numerous expeditions, that have sailed upon Lake George." Several 19<sup>th</sup> and early 20<sup>th</sup> century maps also show the remains of the old colonial dock.

In 1937, an historic marker was placed



CAD by Bob Benway

© 2003 Bateaux Below, Inc.

near the submerged colonial dock ruins to inform visitors about the landmark. The August 11, 1937 edition of the *Glens Falls Post-Star* reported:

"Location of the water -logged remains of the historic old military dock that jutted into Lake George waters from the end of the military road that leads to the lake from Battle Ground Park in the early days is to be marked by a substantial buoy bearing a large sign describing the site...What remains of the old dock is submerged in four or more feet of water half way between the life dock and the float at anchor beyond it along the town beach..."

The August 13, 1937 issue of the *Lake George Mirror* reported that the sign read: "Here Abercromby's Army in 1758 and Amherst's in 1759 Embarked on Their Expedition Against Ticonderoga."

On June 14, 1992, the Lake George Historical Association and BBI erected a \$400 blue-and-yellow marker to replace the 1937 signage. It reads:

**MILITARY DOCK  
DURING THE FRENCH AND  
INDIAN WAR, BRITISH AND  
PROVINCIAL TROOPS USED A  
DOCK NEAR HERE FOR LOADING  
SOLDIERS, ARTILLERY, AND  
SUPPLIES.**

Lake George Historical Association  
1992

During the summer of 1950, the same year the Delaware & Hudson Co. retired their marine track at the head of the lake, a 23-pound cannonball was found by a construction crew working on the Lake George Beach Project. The July 7, 1950 *Lake George Mirror* newspaper reported that the cannonball was found near the "old military dock...at a depth of about six or seven feet in front of the road leading to the Fort George picnic grounds." The article also stated: "Timbers from the military dock are being found by workmen in their excavations." The news story declared that the cannonball could be from "the French and Indian War."

Unfortunately, during the mid-1950s, when the Lake George Steamboat Co. erected the Steel Pier, Fort William Henry's old colonial dock was destroyed. The *Lake George Mirror* of June 25, 1954 reported: "When the old [D & H] dock was taken out, two older docks were found within it. One of these had its deck planking two feet below the present level of the lake. This planking was in such good condition that in order to remove it and make the fill solid, it was necessary to dynamite the old dock." Thus, the submerged colonial dock off Fort George is probably the sole surviving 18<sup>th</sup> century dock in the lake.

**Fieldwork**

From May 17 to November 30, 2002, BBI conducted 34 days of fieldwork on

*Continued on page 4*

## Archaeological Trivia From the Test Pit

By Andrew Farry

WITHOUT a doubt my favorite artifact is a musket ball. I'm not sure why but there is something very interesting and exciting about lead projectiles, despite the fact that these objects can be relatively common among military sites. A colleague of mine even goes so far as to award a free libation to the first member of his field crew that recovers a musket ball, a tradition that as no doubt endeared him to his crew members over the years. The following includes a brief review of a few "neat" facts about the archaeological recovery and analysis of musket balls.

One of the most important characteristics of musket balls, in terms of archaeological analysis, is the object's diameter (typically recorded to the nearest .01 inch). This measurement may serve as a proxy for understanding the types of firearms used at a given military site. This is due to the simple fact that either through accidental loss, discard, or intended use (firing) projectiles enter the archaeological record much more easily than muskets. In addition, there would have been a very high ratio of projectiles to firearms during a site's original military occupation, increasing the likelihood that balls rather than muskets will be recovered archaeologically.

Estimating the types and variety of firearms used at a site based on ball diameters must, of course, factor windage into the analysis. Windage refers to the difference between ball diameter and musket caliber, typically a .05 to .10 inch

difference. The discrepancy between the two measurements allows for the inevitable buildup or fouling of black powder on the inside of the musket barrel after repeated firings, as well as for increased reload speed. Too large of a discrepancy, however, can allow gas to escape around the ball during firing and ensure an erratic flight to the projectile.

Measurement of spherical ball diameters can be easily recorded with calipers, and studies have shown that dimensions taken perpendicular to any visible mold seams provide the most accurate diameter. Irregular or non-spherical balls (those that may have been chewed, fired, or otherwise altered) present a slightly different problem. Measurement of the original diameters of these deformed balls must be calculated indirectly by using the "Sivilich Formula" (see *Historical Archaeology* 1996 30(2):101-109, or visit [http://bravo\\_nj.tripod.com/bravo/id9.html](http://bravo_nj.tripod.com/bravo/id9.html)). Dan Sivilich has published an elegant mathematical formula for calculating non-spherical ball diameters based on the artifact's weight, expressed as:

$$\text{Ball Diameter (in.)} = .223204 \times (\text{weight in grams})^{1/3}$$

Assuming that non-spherical balls in a given sample are deformed but complete (i.e., portions are not missing), the Sivilich Formula provides a means to extract very useful data that would otherwise be lost.

So what do all these diameters tell us? As mentioned earlier, ball diameters can serve as a proxy for determining the firearms used at a site, which in turn can help shed light on the degree of variation/standardization in firearms and on exactly who was using these weapons. Revolutionary War sites have benefited from such analysis: Leland Ferguson, for example, was able to pinpoint the location of an American firing tower at the British Fort Watson in South Carolina based on the location and caliber of spent musket balls (see *Research Strategies in Historical Archaeology* 1977, S. South ed.), and Dan Sivilich has performed similar research at Monmouth Battlefield State Park in New Jersey (see above reference).

Fort George may also benefit from this type of analysis. My own examination of lead ball data from the 2000 archaeological field season shows that over 70% of the specimens in Building 1 (and 100% in Building 2) measure between .65 and .70 in. in diameter, suggesting use in the standard issue British Brown Bess musket of .75 caliber by British regulars. More dispersed diameters suggesting less standardization in weaponry could likely be associated with American provincial forces, those soldiers whom William Johnson in 1755 characterized as "Strangers to Military Life...all their Muskets of diff' bores & sorts" (*Johnson Papers*, Vol. 9, pp. 206). Further analysis of lead ball data from a number of contexts across the Battlefield Park site offers yet another means to help understand the complex military occupations of this area. ↪

## A Sunken Dock

continued from page 3

the 2002 Lake George Submerged Colonial Dock Archaeological Investigation. Four days were remote sensing—two days of side scan sonar and two days of ground penetrating radar. Thirty-eight team scuba dives and one snorkeling dive were made over 30 days of fieldwork. The field crew consisted of Principal Investigator and underwater archaeologist Joseph W. Zarzynski, six divers (Bob Benway, Paul Cornell, John Farrell, Chris Fox, Mark Peckham, and John

Wimbush), and two non-diving personnel (Vincent J. Capone and Mary Patram Meaney); the latter involved in remote sensing. Since site security was a major concern, the team accessed the site by boat rather than from shore so as to minimize contact with the public. Visibility was generally very good with water transparency ranging from 15 to 35 ft. Following each dive, scuba divers completed field notes on a *pro forma* dive log sheet. The Principal Investigator also kept a journal. Daily dive logs were reviewed by the Principal Investigator and filed for each day's work.

The research team's fieldwork was driven by the Research Design that was drafted by the Principal Investigator and approved by the State. Prior to collecting data, a pre-disturbance survey was completed using both underwater photography and videography. Whenever possible during underwater photography and videography, a scale, north arrow, and "mug board" were used. The "mug board" annotated visual documentation with site designation, date, and the research team's name. Following the pre-disturbance survey, the team spent several dives setting up the site for data col-

Continued on page 5

*Carleton's 1780 Raid Revolutionary War  
Encampment and Reenactment &  
Columbus Day Weekend, 2003*

THE Alliance brings a piece of the Revolutionary War history of the Lake George Battlefield Park - Fort George to Life! On Saturday and Sunday, October 11 & 12th, 2003 approximately 200 reenactors from as far away as Staten Island, NY, Mystic CN, and Boston, MA will be gathering at the Park to recreate the sounds, smells and sights at Fort George during the 18th century. We hope to see you there.

This living history event features the reenactment at the original site and on the anniversary date of the October 11, 1780 raid led by British Major Carleton upon Fort George, at the southern end of Lake George, New York. The 1780 Brit-

ish raiding party included British Regulars, Canadians, American Loyalists and their Native American Allies. Fort George was then principally garrisoned and defended by the American Continental Line Regiment under the Command of Colonel Seth Warner (The Green Mountain Boys). The script to be followed during the reenactment closely follows the events that occurred on the day of the original raid. Those events were described in *The American Journals of Lt. John Enys* of the British 29th Regiment of Foot and the writings of Captain John Chipman, the Continental Commander at Fort George during the raid. &

*A Sunken Dock*

*continued from page 4*

lection. Ten datum points, designated A through J, were established around the site. These would be utilized during measurement data collection. Furthermore, a 63 ft. long baseline was established several feet from the north face of the dock. The baseline was used to acquire offset measurements from various objects on the lake bottom. Finally, all the logs at the site, that numbered 92, were marked by either small survey flags or by survey tape. Each log was given a number designation from L1 through L92. An integral part of the mapping phase was collecting data to reconstruct the shoreline features adjacent to the sunken site. Data collected during the mapping phase was then entered into a PC computer using AutoCad LT2002 software. Computer technician Bob Benway met regularly with the Principal Investigator to input the data into the computer.

No excavation work was undertaken. Neither were dendrochronology or timber species identification samples taken. General identification of timber (wood) was done based upon observation.

Prior to the year 2000 discovery of the submerged dock by BBI divers, there were two dives made in 1991 by BBI to

try to find the underwater ruins. The total dive minutes at the site were: 1991: scuba (2 hrs. 4 min.), 2000: scuba (5 hrs. 25 min.), 2001: scuba (1 hr. 12 min.), 2002: scuba (72 hrs. 10 min.), and 2002: snorkel (50 min.).

During the fieldwork, the research team paid particular attention to the geology at the submerged wharf. The sunken dock is made up of two types of material—logs and rocks. The rocks are either angular-shaped pieces of limestone or a more rounded and circular-shaped cobble. The limestone probably came from a quarry near Fort George. The quarry's stone is Little Falls dolomite that was used by the colonists as construction material and burned into lime at area kilns. On September 20, 2002, Capone, Farrell, Meaney, and Zarzynski walked Fort George's grounds. Over the summer of 2001, Farrell and Meaney participated in an archaeological dig at Fort George under the direction of Dr. David Starbuck. Farrell reported that during one excavation at Fort George the ground near one of the limestone outcroppings was investigated. The work revealed a limestone block that had been quarried showing evidence of drill holes. The 2002 scuba team recorded two pieces of limestone at the sunken pier that had drilled holes.

When discussing the submerged c o-

*Reenactment of  
Carleton's 1780 Raid  
and Revolutionary  
War Encampment  
Columbus Day Weekend  
2003*

Schedule of Activities

Friday, Oct. 10th:

Noon - Reenactor Registration Opens

11:00 PM - Registration Closes

Saturday, Oct. 11th:

8:00 AM - Straggler Registration (Public Information Tent) Opens

10:00 AM - Straggler Registration Closes; All Vehicles out of Camp; Encampment open to the Public

11:00 AM - All Officers Meeting (Encampment Headquarters)

1:00 PM - Continental Forces March to the Fort

1:30 PM - Reenactment begins with the Beach Landing of a Continental Scout

5:00 PM - Encampment closes to the Public

5:30 PM - Public Information Tent Closes

7:00 PM - Historic Site Lantern Tour (Starts at the Toll Both Entrance to the Park) (Reenactors, Park Staff & Alliance Members Only)

Sunday, Oct. 12th:

9:30 AM - Public Information Tent Opens

10:00 AM - Camp open to the Public

1:00 PM - Continental Forces March to the Fort

1:30 PM - Reenactment begins with the Beach Landing of a Continental Scout

4:00 PM - Vehicles allowed in Camp

5:00 PM - Encampment closes to the Public

lonial dock, lying in three to eight ft. of water, the issue of the water level change

*Continued on page 6*

## Treasurer's Report

By William Herrlich, Alliance Treasurer

September 3, 2003

AFTER the complications of starting up in fiscal (March) 2002, F 2003 was a straightforward year. Fifteen deposits reflecting 24 memberships and several gifts provided total income of \$3,680. Ten checks were written to pay expenses amounting to \$5,576.90. Of this, The Lake Champlain Maritime Museum received 85%, or \$4,805, for artifact conservation of items unearthed during the archaeological dig at the Battlefield Park in 2000. The difference in income and expense drew down the Alliance's bank balance to \$479.67 at the end of F 2003 from \$2,376.57 at F 2002 year end. Such a change, of course, can only occur when

both the resources and the opportunity to use them co-exist. In this case, artifact conservation serves the Alliance's objective of advancing public awareness of the Battlefield Park and Fort George, and cash does not accumulate idly. As of this writing, membership renewals and a grant have returned the Alliance's balance, net of recent expenses, to \$1,864.07.

The Alliance's IRS Form 990-EZ for F 2003 has been filed. The annual report required by the New York State Museum has been delayed due to budgetary entanglements at the state level, but the Alliance has sent the Museum a copy of its 990-EZ, for the Form is a key component of the state filing. Copies of the 990-EZ are available for inspection as part of the public record.

Respectfully submitted,  
William M. Herrlich,

## Your Alliance has joined the 3 Valleys to Freedom Coalition

By Sean Kelleher, Center for Heritage  
Tourism & Education; 3 Valleys to  
Freedom Coalition Coordinator

THE 3 Valleys to Freedom Coalition is very excited to welcome Lake George Battlefield Park (Fort George) Alliance as a coalition member. The Alliance joins with over thirty-five other 3 Valley to Freedom historic sites and museums in sharing resources and expertise to promote sites and events preserving and interpreting the Colonial Period of the Champlain, Hudson and Mohawk Valleys regions of New York and Vermont. The participat-

*Continued on page 8*

## A Sunken Dock

*continued from page 5*

at Lake George is very relevant. Lake George lore has it that the lake level today is several feet deeper than during the 18<sup>th</sup> century. A 1945 publication—*Lake George, Complete Lake George Report of the New York State Joint Legislature Committee on Lake George Water Conditions*—reveals that “the building of the dam at the upper falls resulted in permanently raising the lake levels about two feet...” A Lake George Association symposium entitled “The Lake George Ecosystem” produced several science papers on Lake George. One of those 1981 papers—“The Sedimentary Framework of the Southern Basin of Lake George, New York”—had a different change in the lake level than the 1945 account. The 1981 paper reported: “Modern lake level is maintained slightly above 97 m by an artificial dam; the natural threshold is a rock channel 1 m [3.28 ft.] lower.” So, it was the manmade dam that created the water level change that raised the lake level by 2 to 3.28 ft., depending upon which source you believe. Thus, the 18th century deepwater lake bottom depth for the dock, that is the north end, would have been a depth of between 4 ¾ ft. to 6 ft.

One of the major research questions of the project was: Is there submerged dock

structure lying off the known dock, but in deeper water? To answer that, the team employed side scan sonar to image the submerged dock and to scan the deeper water nearby. On May 17, 2002, Capone, Farrell, and Zarzynski deployed a Klein 2000 side scan sonar that acoustically mapped the submerged structure. On July 24, 2002, Benway, Capone, and Zarzynski also imaged the site using a new generation of sonar, a Klein 3000. The surveys, however, did not detect any waterfront structure in deeper water.

On September 20-21, 2002, Vincent J. Capone of Enviroscan, Inc. and BBI conducted a ground penetrating radar (GPR) survey at the dock location. Unlike sonar that utilizes sound energy, GPR employs radio pulses for subsurface detection. The GPR unit was a Geophysical Survey Systems, Inc. SIR SYSTEM-2000. This survey was financed by a small grant from the Fund for Lake George, Inc. The team on September 20 consisted of Capone, Farrell, Meaney, and Zarzynski. The survey was conducted on the shoreline, adjacent to the submerged dock. The GPR consisted of a digital control unit, cable, and antenna. The system was powered by a 12V DC battery. A total of 15 anomalies were flagged with 14 anomalies mapped into the overall site plan. The GPR anomalies detected on the shore seem to indicate a possible

feature (dock ruins?) or construction fill to the southwest of the submerged dock. If the GPR anomalies are modern construction fill, it could be from the 1949-1951 construction along the Beach Road. The permit BBI had from the State did not allow for any excavation to ground truth these GPR anomalies.

On September 21, Benway, Capone, and Zarzynski conducted GPR surveying from Zarzynski's 22 ft. *TuffBoat*. The GPR antenna was wrapped in waterproof plastic and was deployed from the boat. First, several passes in the research vessel were made over the known dock section to acquire a GPR “signature” of the log-and-rock structure. The team then made several passes in *TuffBoat* following a track line between the submerged dock and shore. Capone commented on the result:

“The GPR determined there were several parabolic reflectors which infer individual targets between ‘dock proper’ and the cement overlook. These are approximately two to three feet below the sediment of the lake bottom surface, but that depth could vary as much as a foot due to radar pulse velocity in freshwater.”

On July 20, 2002, Rensselaer Polytechnic Institute's Darrin Fresh Water Institute scientist John Wimbush dived with BBI to undertake a faunal and flora inventory. The aquatic survey catalogued

*Continued on page 7*

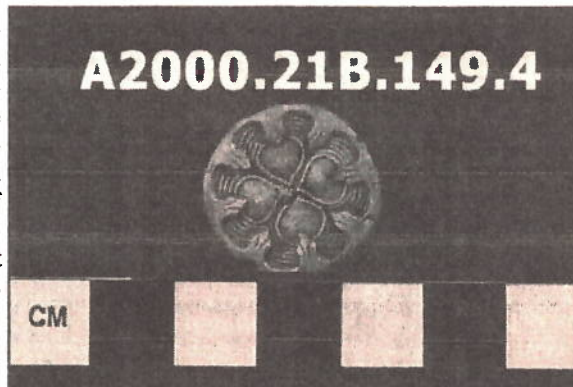
## Conservation Update of Fort George Artifacts

By Christopher Sabick, Lake Champlain Maritime Museum

THE Lake Champlain Maritime Museum has been continuing the conservation of artifacts for the Lake George Battlefield Park (Fort George) Alliance, New York State Museum, and the New York State Department of Environmental Conservation.

Documentation is an important part of the conservation process. To ensure that details of each artifact are noted and recorded, all the artifacts have been drawn and digitally photographed. Black and white photographs have also been taken of each object.

The iron artifacts, including iron shot, clothing fasteners, a shovel blade and a



One of the brass buttons during treatment (photo by Rebecca Roberts)

variety of other items, have been completed and placed in archival packaging

to protect the objects from the environment.

The brass buttons with designs are currently undergoing treatment in citric acid soaks and cleaning with fiberglass brushes to polish and remove corrosion. Funding for the buttons was provided at the annual picnic. These objects are coming along nicely, the designs are becoming clearer and shinier, and conservation will be complete within the next few weeks. It is hoped that the designs, once cleaned, will help with the dating and identification of the buttons.



## A Sunken Dock

continued from page 6

11 species of macrophytes, 6 species of mollusks, and 8 species of fish.

During the 2002 fieldwork no historic artifacts except possible colonial brick fragments were observed. It was determined that the visible part of the submerged site lies in 3 to 8 ft. of water on an 8 degree slope. From a plan view the submerged site at first appears to be somewhat T-shaped, but this may not be the case. There are two distinct sections of dock that the research team refers to as tiers. One tier, the most offshore, is made up of a "king" log, designated L49. It lies as a support for transverse logs, designated L11 to L47. Logs designated L11 to L47 lie perpendicular to the shoreline. A second tier of logs lies several feet closer to shore and all of its logs are oriented perpendicular to shore except one log that lies as a support, similar in function to L49. To the west of the dock is a single disarticulated log. To the north of the sunken wharf is found another single disarticulated log. To the east and southeast of the dock structure are found 10 logs, called L1-10. It appears that the logs designated as L1-10 have migrated from the main section of the dock, possibly deposited there due to human intrusion or from ice damage and prevailing lake currents. Around the site are rocks,

both angular-shaped limestone as well as cobblestone.

### Results of the Archaeological Investigation

The colonial dock studied by BBI represents a log-and-rock structure that probably underwent alteration during its period of use—from the mid-French and Indian War through the American Revolution. This structural change was most likely associated with occupational armies—British, French, and American—at the lake during these conflicts. Retreating armies probably damaged useful structures, a scorched earth tactic often employed during warfare. Thus, it is likely the colonial dock was victimized in such a manner. This would have meant that armies reoccupying the area would have had to repair the dock. This repair work could even have meant rebuilding damaged sections or adding or deleting parts of the waterfront structure. It is also likely that shortly after the demilitarization of the south end of Lake George, other means of human intrusion could have also impacted the dock's structural integrity. It is possible the dock could have been used as a quarry where locals went to collect rocks for building material. Newspaper accounts and aerial photographs also indicate the structure was impacted during the 1949-1951 construction along the Beach Road. Furthermore, winter ice damage

most certainly played havoc with the colonial dock's structural integrity. Nevertheless, construction details about the dock's design can be deciphered from the archaeological data collection. Tool marks and joinery techniques found on the site's 92 timbers as well as an examination of the rocks, provide clues to the colonial dock's type. The archaeology team hypothesizes the military dock was a solid crib type wharf with timber floor. That is, it was constructed from timbers cut and fashioned into a crib design with a timber lined floor. The multiple timber cells of the wharf were then filled with rocks that sank the maritime structure and gave it strength.

### Management Issues

The National Historic Preservation Act of 1966 authorized the U. S. Department of the Interior to "expand and maintain" a "National Register of Historic Places." There are already several shipwrecks in Lake George that have been listed to the National Register. BBI worked with the New York State Office of Parks, Recreation and Historic Preservation to get these shipwrecks listed on the National Register:

- ♦ *Wiawaka Bateaux* (1992): Seven approximately 30 ft. long 1758 French and Indian War bateau wrecks (British in origin).
- ♦ *Land Tortoise Radeau* (1995): Fifty-

Continued on page 8

## Research Permits for Archaeological Excavation on State Land

By Christina B. Rieth, State Archaeologist for Research and Education, New York State Museum

NEW York State has a diverse and rich cultural heritage spanning the last 10,000 years. Cultural resources, including artifacts and architectural features, are tangible remains of this heritage that remind us of important people or events in our history, and allow us to learn more about the activities of our predecessors. Although history books document many major events in New York's history, they often concentrate on the activities of the rich or famous, leaving the contributions of minority groups poorly understood. Moreover, most of the period of human occupation in New York is undocumented, and written records for these groups aren't available. Through controlled investigations at archaeological sites the lives of these groups can be understood.

Archaeological sites are finite and non-renewable resources. When a site is destroyed through natural or human activities, it can never be replaced or returned to its original state. During excavation, archaeologists carefully record information about the site including the relationship between individual artifacts, their vertical and horizontal location in the ground, and their relationship to other landscape features. If this information is not recorded during an excavation, the site can never be fully understood and important information about the past can be lost forever.

Recognizing the need to document and preserve these sites, the State of New York enacted Section 233 of the Education Law in 1958 to help protect State-owned cultural resources and rep-

resent the interests of the people of New York to benefit from the future scientific and educational values preserved in these resources. In part, it specifies:

"...no person shall...excavate, injure or destroy any object of archaeological... interest, situated on or under lands owned by the state of New York, without the written permission of the commissioner of education. ... Permits for the examination, excavation or gathering of archaeological...objects...may be granted ... to persons authorized by the commissioner of education for the purposes of the state museum...with a view to the preservation of...such objects worthy of permanent preservation and...to the acquisition and dissemination of knowledge relating thereto."

Administration of the State Education

*Continued on page 9*

## 3 Valleys to Freedom

*continued from page 6*

ing sites tell the story of our shared American heritage from the time of the first European contact with the American Indians through the French & Indian Wars and American Revolution, ending with the formation of a new republic of the United States of America.

3 Valleys to Freedom formed in late 2001 to market the reenactments and educational events that were planned to commemorate the 225th anniversary of the Burgoyne Campaign of 1777. The

group joined together to promote educational reenactments and programs in the 3 Valleys. The marketing project included a poster, a 3-panel brochure, a press mailing to over 100, and a website at [www.3valleystofreedom.org](http://www.3valleystofreedom.org) that was visited by over 29,000 from May – December, 2002. Funding for the project came from voluntary donations or in-kind donations from the participating sites. In addition, the group received a \$15,000 grant from the Cultural Tourism Initiative, a project of the Arts & Business Council Inc. and the New York State Council on the Arts.

The marketing campaign was a huge

success. Over 128,000 individuals attended 30 events in the three valleys. Using economic data given by the state of New York, these 128,000 individuals provided an estimated \$31,166,892 million in economic benefit for the region. The success of the marketing campaign has resulted in the coalition continuing to meet to promote the region in 2003. Now the group has expanded its scope beyond the initial year. For more information on the 3 Valleys and to see the alliance events listing visit <http://www.3valleystofreedom.org/fortgeocarltonevent.htm>

## A Sunken Dock

*continued from page 7*

two ft. long 1758 floating gun battery; the seven-sided vessel was built by British military forces. In 1998, the shipwreck was listed as a National Historic Landmark, only the sixth shipwreck with that designation.

- **Cadet steam launch (2002):** Forty-eight ft. long wooden steam launch, built in 1893 as the *Olive* and later renamed the *Cadet*.

BBI recommends that the 1758-built submerged colonial dock site be nominated to the National Register of Historic

Places under Criteria A ("associated with events that have made a significant contribution to the broad patterns of our history"), C (embodies "the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction") and D ("that have yielded, or may be likely to yield, information important in prehistory or history").

Furthermore, BBI recommends a monitoring program for the site. Such an endeavor would involve periodic

monitoring dives at the submerged site to inspect the structural integrity as well as monitor for visiting divers using metal detectors. DEC personnel who regularly monitor the grounds of Lake George Beach and Battlefield Park Day Use Area should expand their surveillance to likewise include the sunken dock. Finally, signage promoting historic preservation and informing people that metal detecting is not permitted on the grounds of the park should be erected. The Lake George Battlefield Park (Fort George) Alliance should be approached to ascertain if they could fund the signage.



*In Memoriam*

Rest in Peace

Christopher J. Verville  
6/23/30 - 7/4/03

Founding Trustee and  
Vice-President of the  
Lake George Battlefield Park  
(Fort George)  
Alliance

Chris, we miss you!

*Help Wanted*

*Vol*UNTEERS are needed to help staff the Registration and Public Information Tent during the Carlton's 1780 Raid Encampment and Reenactment at the Lake George Battlefield Park this coming Columbus Day Weekend. This reenactment is the first major living history event to be sponsored/hosted by the Alliance. As of the writing of this notice, we have over 200 reenactors scheduled to be with us that weekend. Some reenactor units are coming from



as far away as Staten Island, NY; Mystic, CN and Boston, MA. Please help us make this event a resounding success by volunteering a couple of hours or more of your time this coming Columbus Day Weekend. The schedule for which the tent is to be staffed may be found elsewhere in this newsletter. Please contact any one of the tent's co-coordinators to be worked into the schedule.

The coordinators are Tim Cordell at cordelltimothy@hotmail.com or (518) 745-8521; Jeff Martin at dmar-til3@nycap.rr.com or (518) 668-5093 and Bob Rockwell at rockwel@nycap.rr.com or (518) 668-3313. ☞

*Research Permits*

*continued from page 8*

Department's Section 233 Program is delegated to the New York State Museum as the repository for scientific specimens and collections, works of art, objects of historic interest and similar property owned by the state. Due to its research and curatorial expertise, the State Museum's Division of Research and Collections currently oversees the management of these collections.

Section 233 has three principal components for archaeology. First, it protects archaeological and other objects of historic interest from damage by preventing their removal without written permission. Second, it establishes a program of study permits by which qualified researchers may undertake the scientific excavation and study of archaeological resources on state land. Third, it establishes a procedure by which anyone who unexpectedly discovers artifacts on state land can report it to the appropriate authority.

Cultural remains that are greater than 50 years old and are of archaeological or historical interest are protected under Section 233. Although most of these remains occur as spatially discrete sites, isolated objects may also retain research interest since they often represent remnants of other nearby sites. In addition to land sites, submerged resources, such as shipwrecks, are also protected. Excavation or disturbance of archaeological sites on state land should not be conducted without permission even when the objects to be collected have no historic

value since other agency policies may prohibit their collection.

Section 233 permits are issued by the State Museum for research projects involving the collection and excavation of archaeological materials on state land. These projects must be consistent with the standards and goals of scientific research and are usually granted to professional archaeologists associated with institutions with sufficient resources to support the project. Individuals may apply for permits to initially survey a property or to conduct identification studies on a particular resource. Permits are not issued to merely retrieve artifacts from state land, since site preservation is a priority in the management of these resources.

Applications for permits to conduct archaeological and historical studies on state lands under Education Law 233 may be made by letter and should describe the planned project in detail including the research goals and hypothesis being tested, the field and lab methods that will be undertaken, and any plans for conservation, cataloging, storage and analysis of materials. A cover sheet for signatures and copies of current resumes for each of the project's participants must also accompany the application. Permit applications are reviewed by staff from the State Museum, the Office of Parks, Recreation, and Historic Preservation, and the agency that manages the property for their research value and potential contributions to New York's archaeological heritage.

If the permit application is approved, the artifacts and associated documenta-

tion resulting from such excavations belong to the state agency that manages the property and become part of the State Museum's collections unless placed in other custody by a specific law. Individuals receiving permits are required to complete a Curation Agreement acknowledging the public ownership of the artifacts and committing to the processing and preparation of these materials in accordance with the State Museum's policies regarding collections acquisition and care.

The State Museum makes its collections available to the general public through loans of artifact collections to institutions to promote educational purposes. Requests for such loans should be made to the Division of Research and Collections at the State Museum.

In addition to the State Education Department's efforts, there are other ways that each of us can help protect the State's archaeological heritage. These include the following: (1) spread the word enthusiastically that cultural resources on public lands belong to all New Yorkers and are protected, (2) let your local and state representatives know that you support the protection of these resources, (3) develop education programs that enhance our understanding of these resources and their association with local history, (4) serve as an archaeological site steward to help monitor and record sites in your community, and (5) report violations of Section 233 to appropriate law enforcement and agency representatives.

Additional information regarding the State Museum's Section 233 Permit Program can be found on-line at <http://www.nysm.nysed.gov/services/srv233.html>. ☞

## Support the Alliance Online &

THE Holiday Season is rapidly approaching. As you shop, consider shopping online and sending a little holiday cheer to one of your favorite causes. Support the Lake George Battlefield Park (Fort George) Alliance when You Shop Online. Shop through MyCause.com's Web Page <http://MyCause.com/LGBP> to support the Alliance.

MyCause.com is a service that lets Internet shoppers direct a portion of their purchase price to a cause like the Lake George Battlefield Park (Fort George) Alliance when they go to MyCause.com

before shopping with top Internet retailers like Amazon and Lands' End for books, music, software, computers, clothing and more. MyCause lets you choose among thousands of organizations to support, including the Lake George Battlefield Park (Fort George) Alliance. You can help support the Alliance by visiting MyCause.com and spreading the word. MyCause lets you do a good turn while you shop and costs you nothing extra! Shop through <http://MyCause.com/LGBP> whenever you shop online. &



## Mystery Photo

### Unsolved &

By Charlie Brown

THE questions asked about the mystery photograph printed in the Spring 2003 *Fort George Advice* remain unanswered. The view in the real photograph postcard purports to be of the bake ovens used by General Johnson' Army at Lake George, NY. The postcard was printed by The Valentine-Souvenir Company, New York.

If you have information that might help answer the offered questions or any knowledge about the scene shown, please pass that information on to [Chazmanbsr@aol.com](mailto:Chazmanbsr@aol.com) or any one of the Alliance's Trustees. &

LAKE GEORGE BATTLEFIELD PARK  
(FORT GEORGE)  
ALLIANCE  
P.O. BOX 26, LAKE GEORGE, NEW YORK 12845

## MEMBERSHIP APPLICATION

Yes, I want to protect Historic Lake George Battlefield Park (Fort George) at Lake George, New York. I'm joining the Alliance as indicated below:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Home Phone: (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_  
Work Phone: (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_  
FAX: (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_  
Email: \_\_\_\_\_

- Sustaining Member, \$2,500
- Associate Member, \$1,000
- Sponsor Member, \$500
- Paid Up for Life Member, \$500  
For an individual person making a one-time dues payment of \$500
- Patron Member, \$100

- Family Member, \$50  
For a husband, wife and their children under 18 years of age.
- Individual Member, \$35
- Student Member, \$15  
For a person 25 years or younger enrolled in a full time education program
- Institution Member, \$35  
For newsletter subscribers only

All memberships, except those Paid Up for Life, expire on March 31st annually unless renewed

For additional information please contact our Membership Committee Chair at (518) 668-5093 or [dmarti13@mycap.rr.com](mailto:dmarti13@mycap.rr.com).  
Membership is tax deductible to the full extent allowed by law.