

The Way West

By Robert E. Mulligan, Jr.

Robert Mulligan, retired curator of the New York State Museum, gave an excellent slide presentation of *The Way West* to the Society. While this is not the usual ASAC article, the scholarly presentation was of great interest to the members and is printed primarily as delivered. (Editor)

I want to begin by thanking you for this invitation to speak to you. It is indeed an honor to speak to this group. Also, to welcome you to a city which George Washington described as “this ancient city” when he visited in 1783 and was made a citizen of Albany.

THIS ANCIENT CITY: THE GEOGRAPHY

The earliest explorers of North America came by boat. By boat they pushed up the bays and rivers into the interior of the unknown continent. Indeed, there was no other way. There were no other highways into this land of largely unbroken climax forest. But bays and rivers stopped when they reached the “Fall Line:” that imaginary line connecting the waterfalls of our eastern rivers, where the coastal plain meets the foothills of the mountains. (Richmond, VA; Paterson, NJ; Lowell, MA are all on the fall line, built to take advantage of the fall of water to power their early mills.)

The Appalachian mountains run from northern Georgia to Montreal. The fall line, and the mountains west of it, prevent easy water travel into the interior of the continent. (Actually, Bill Kelly, one of the State Museum geologists told me that technically New York State does not have a fall line, and that the Appalachians end about where our southern border is located. But as you can see, mountains do indeed run north to Montreal.)

These mountains were a barrier to inland travel not easily overcome. For most 18th century British travelers, travel west was by foot, or perhaps on horseback, leading a pack horse or two. There are however, two passages to the west, into the interior of the continent and possible riches. The most northerly water level route was the mighty St. Lawrence River, but this was controlled by the French.

For the British, the water highway to the west was the Mohawk River. Flowing eastward from the height of land near today’s Rome, NY, the river reached almost to tidewater on the Hudson River at Albany, NY.

Even today, the NYS Thruway, the NYS Barge Canal, State Routes 5, and 5-S and the main line of what was the New York Central Railroad: all take this water level route



through the mountains. The importance of the Mohawk corridor to the history of New York is difficult to overstate.

Through this water gap, ages ago, the great inland sea covering our Mid-West drained to the Atlantic Ocean, the Mississippi River not yet having found its way to the Gulf. Our early explorers could travel these water highways, because they used their ships, boats, or the sturdy dugouts they found among the natives. Best of all were light birch bark canoes, used to the north of the Mohawk Valley. The Iroquois used elm bark canoes, not as good, but they did not have the giant birch trees the natives in Canada had.

Dugouts and canoes, although cheap shallow draft, swift vessels, could not carry a significant payload. A work boat was needed for commerce, and to move settlers and their tools and furnishings to the west. Later, to move settler’s crops and products to seaports.

THE BATEAU

To move cargo on British North America’s “water highways,” the colonists developed a specialized boat, which for some reason took the French word as its distinctive: “Bateau”—boat. These boats were as specialized as today’s tractor trailer, designed to carry a heavy cargo. Bark canoes were much faster; whaleboats were fast and much more seaworthy, but the bateau could carry up to twenty barrels of flour, at an average of 200 pounds per barrel, for a burthen of two tons.

The bateau was rowed by several oarsmen. On the Mohawk the average bateau crew seemed to be two oarsman and a steersman. In shallow water the sides were upright



Figure 1. A typical Mohawk River Bateau.

enough to allow it to be poled. In lakes the sides were flared enough to make it stable for sailing (Figure 1).

In New York, the flat bottom of the bateau, 20-30 feet long, was preferably made of white oak for strength. Rough board cleats nailed rather haphazardly to the bottom planks held the bottom together. The strong, flat bottom was slightly raised at bow and stern. This camber allowed the boat to be sledged over river shallows and sandbars, sometimes even while still loaded. It was also easy to draw the bateau up onto a beach for unloading, or during storms.

Where the rapid to be passed was short and the fall of water low, “ladders” of logs could be made, similar to a railroad track, and the flat bottoms skidded up or down to calm, deep water.

The sides were white pine, lapstrake built, and supported by knees nailed to the bottoms. Knees were natural crooks of trees, or if these were lacking, knees were sawn from thick planks. Thwarts or seats, helped to stiffen the sides as well, but perhaps could be removed to free up space for certain types of cargo.

It is known historically that bateaux were often sailed on both lake and river. Presumably these historic craft had a mast step nailed to the bottom, and a thwart of some kind pierced to support the mast.

The bateau is a great boat: stable in the water, rides well when empty and fully laden, draws six inches of water when empty, and 18-24 inches when fully loaded. It can be rowed, sailed or poled in river and lake.

Perhaps best of all: it was said a crude bateau could be made on the banks of a lake or stream, by six men, in two days, from standing timber, using only a saw, axe, hammers and nails.

Bateaux were made by the thousands. Yet today there are no preserved bateaux, and only a dozen or so incomplete remains to show us how these boats were built. Despite widespread and common use, there are less than a dozen contemporary images to show us how they looked. Nowhere is there a manual to tell you how to build one. Bateaux were disposable, intended to last no more than two or three seasons (Figure 2).

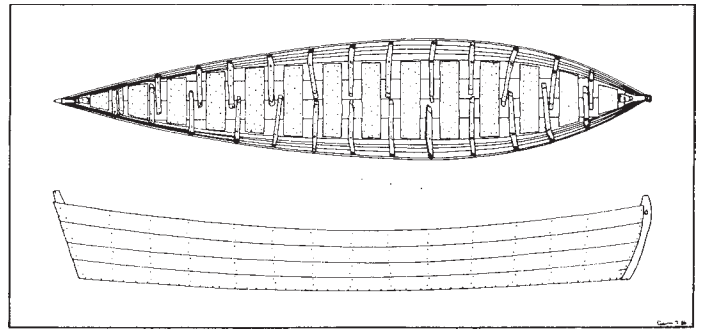


Figure 2. A drawing of a 1758 military bateau based on archeological remains lifted from Lake George.

Let me emphasize that there were other “bateaux” in colonial America. Other waters varied—crew, size, shape, construction details and intended cargo—all could and did vary. There is no one “correct” or even “typical” bateau in American and Canadian history.

One sturdy, oak-built, raft-like “bateau” was designed to bring tobacco hogsheads down the James River to the head of Tidewater at Richmond, Virginia. This was poled along the shallow James, the crew walking on boards along each gunwale.

The “York Boat” was used by the Hudson’s Bay Company to transport trade goods from Hudson’s Bay inland, and taking furs to the coast. Rowed on rivers and sailed on the large lakes of the Canadian Prairie, its hull is high and its bottom rounded in cross section to give it more seaworthiness while under sail in large waves. (I’m told that the Bay Company used Orkney Islanders as their boatmen, and that the York Boat was similar to those boats used in the Orkneys.)

THE ENGINEERING

The bateau was the solution to cargo navigation on wilderness waterways. But waterways themselves presented a series of problems. Sometimes they dried up. Sometimes they froze solid. Sometimes they were obstructed by rapids and falls, or the bateau had to navigate in narrow twisty streams, overhung by low branches and obstructed by tree trunks fallen into the water. And streams didn’t always go where you wanted to go.

The first boatmen and fur traders to use the Mohawk as a highway began to improve it. A V-shaped Wing dam, stretching from shore to shore, was easily made of piled-up cobblestones taken from the river bottom. There is still an existing wing dam on the Delaware River. These wing dams would funnel the available water through a narrow aperture just wide enough to accept a bateau. A loaded bateau only required about 18 to 24 inches of water.

When the boat reached the aperture of the V Dam, the crew jumped into the shallow water and lifted the bow of the boat into the boat-wide aperture. This was like putting a

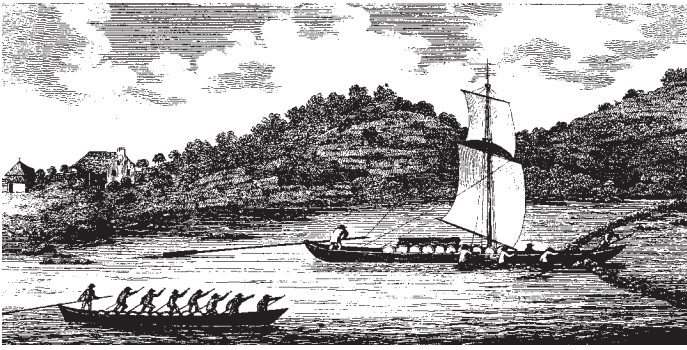


Figure 3. A view of the boats and manner of navigating on the Mohawk River.

cork in a bottle. Water began to back up. Soon there was sufficient water at the aperture to slide the laden boat through and into the upriver reach.

In Figure 3 we see a Durham boat, a later and larger type of cargo boat, passing through a wing dam from an image made about 1805. These larger boats were used after the Mohawk had been improved by 1800. (These Durham boats were similar to those used by Washington's army to cross the Delaware River and attack Trenton.)

Where wing dams could not raise the water to a smooth, deep surface, a by-pass canal might be the solution. The first record of a by-pass canal on the Mohawk was made as early as the 1730's by boatmen/fur traders heading west to trade at Oswego on the shores of Lake Ontario. That first canal still exists as a swamp across a broad field from the Thruway. Unfortunately it is lacking a state historical marker. It must be one of the earliest remaining examples of civil engineering in New York State.

As time passed, more and more of these improvements were made, if not too labor intensive to men who had other things to do to earn their livelihood. A map of the three quarter mile long canal dug past two important rapids: Wolf Rift and Knock em Stiff Rift.

This canal was one of the many works of the Western Inland Lock Navigation Company, built around 1800. As this date is beyond my time frame, I will leave the story of this company's history to others.

With the British construction of Fort Ontario at Oswego in 1728, and with the gradual settling of the Mohawk and Schoharie valleys as the century progressed, an improved Mohawk River "highway" west from Schenectady became ever more important to an ever growing number of people.

The beauty of the forested hills and shore hills along the Mohawk river is stunning. A boat ride on this river in the autumn can be sublime. But consider this—the early colonist saw in trees not beauty, but an obstacle to be overcome. Before agriculture could begin, the trees had to be girdled, felled, burned to ash, and the stumps rooted out. This was a task of immense labor. These trees were not the second

growth of today—we are talking about climax forests, six-foot trunked hardwoods and pines 100 feet tall.

To the 18th century settler, the most pleasing view was a hillside stripped bare, planted in wheat or corn, or covered with cows, all neatly fenced and under control of man.

THE WAY WEST

The Hudson is tidal as far upriver as Fort Orange—the site of Beverwijck, later Albany. In Len Tantillo's painting "The Return of the Experiment," we see a typical Hudson River sloop of the type used throughout the latter half of the 18th century to carry goods upriver from New York City's Port of Entry, and to carry farm produce down river for export to the larger world.

With about 3,000 inhabitants by 1776, the city of Albany had in the century and a half of its existence, grown beyond it's fur trading beginning to become a center for banking, and the trans-shipment of grain—the famous and high quality "Albany wheat."



Figure 4. Cohoes Falls at the mouth of the Mohawk River.

Let us take a trip to the "Golden West." Because the impressive Cohoes Falls (see Figure 4) at the mouth of the Mohawk River blocked passage from the Hudson at Troy, the actual head of tidewater, goods had to be taken from the sloops in Albany, and carted on the King's Highway (see Figures 5-6),



Figure 5. New York state sign marking the King's Highway.



Figure 6. Note the narrow trails on the King's Highway.

across the Pine Bush, sixteen miles to Schenectady (an Iroquoian compound word meaning "beyond the pines").

Schenectady was a century old by the beginning of the French and Indian War. There were numerous channels of the river which provided plenty of water front for development into warehouses, boat slips and workshops. Schenectady had survived the Massacre of February 1690, and now was established as a boat building and cargo handling center.

This work was carried out along the Binne Kill, formerly a channel open to the river at both ends. Today it is just a quiet, silted backwater off the Mohawk. Most of the Binne Kill has been filled in to make land for the General Electric factory. Little remains where the boatyards and warehouses once stood, all burned in the Great Fire of 1819. Today there are only quiet back yards—pieces of brick and broken glass just below the sod.

The Binne Kill's boat sheds and warehouses were the reason for the city's prosperity. Recovery from fire destruction was slow, because ever improving turnpikes began to divert the carrying trade, particularly during the winter when the Mohawk froze. When the Erie Canal was dug through the center of Schenectady during the "eighteen teens" and "twenties," the bypassed former waterfront of the Binne Kill fell gently into ruin. This included boatyards to backyards in Schenectady's fashionable residential "Stockade District."

Bateaux for the British Army were built along this stretch of riverfront in Schenectady, now a city park and playground.

Captain John Bradstreet, 60th Regiment, Acting Assistant Deputy Commissary of the Northern Department; to Lord Loudoun, Commander in Chief of His Majesties Forces in North America.

"Albany Feby 13th 1758

My Lord

I have the honor to inform your Lordship a house of 960 feet long and 24 broad capable to set up 48 Battoes and eight Saw Pitts will be finish'd in two days should the weather be tolerably good and I have collected upon the Spot as Sufficient quantity of Boards, Plank, and Timber of all Sorts to set the two hundred men to work were they here, which I hope will not be long for it.

I hope by this day Se'nate to be able to inform your Lordship of the number of Battoes the two hundred Carpenter and Inhabitants of the Country will be able to finish by the last of April next whereby Your Lordship will be able to judge wheter they will be sufficient or not.

I am with great respoect

Your Lordships most obedient humble servant

Jn Bradstreet

His Exc. TheRt. Honl the Earl Loudoun"

Huntington Library Catalog #LO5575 Bradstreet Papers

Over nine hundred bateaux were built in four months in the winter of 1758!



Figure 7. New York state historical sign.

In late July of 1758, over 3,000 British & American soldiers camped on this site, today a quiet, dead-end street in Scotia, New York. Who would remember this, if not for this state historical sign (see Figure 7)? Over 9,000 soldiers camped or passed through this campsite in 1760.

THE RIVER

In August of 1792, General Philip Schuyler and a committee of four, plus a boat carpenter and a surveyor, left Schenectady on a survey of the Mohawk River (see Figure 8). The report stated that this was done "when the water therein was less than has been known within the memory of

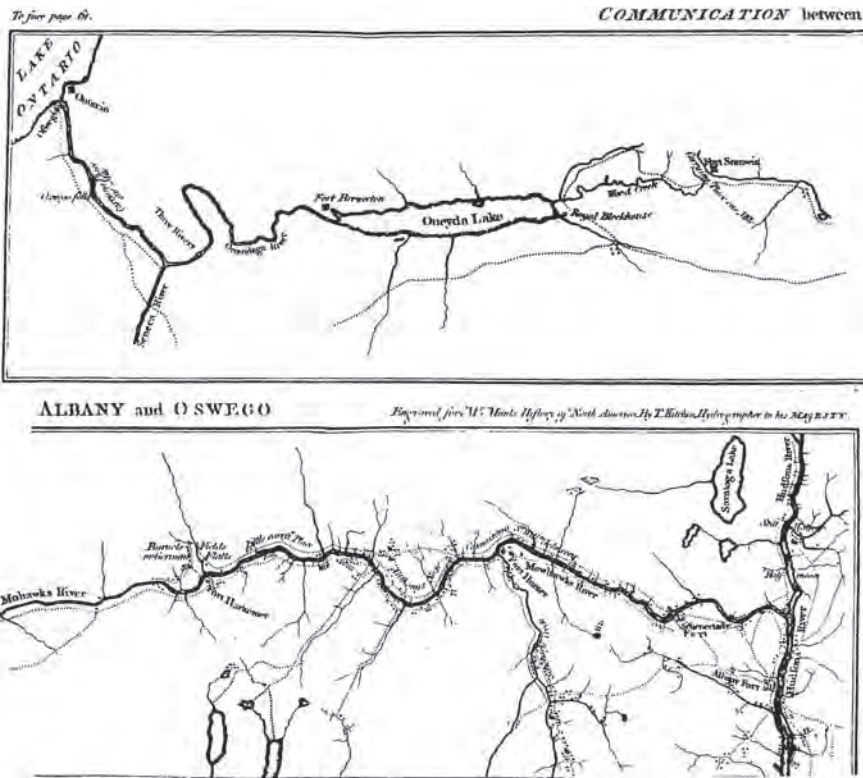


Figure 8. Route of travel between Albany and Oswego: the Mohawk River—Lake Ontario Theatre of War, 1755–1758.

the eldest person now living; and consequently the impediments to the navigation thereof, as great as they can probably be at any future period, without artificial aid.”

From Schenectady to the first rapids was only 1.5 miles—1.5 foot deep. This was Platts Rapid, followed by van Slyck’s very close beyond. The first sixteen miles of river was small rapids, gravel bottoms and low water, often no more than a foot deep.

The first ferry, at Sprakers, was two wing dams and four rapids later. A Rufus Grider watercolor shows a cable across the river. The ferry was rowed across the river and kept from drifting down river by being tethered to this cable.

“The beginning of deep water” began opposite the mouth of Schoharie Creek. And it was 5½ miles before the next rift: Caughnawaga—“deep but incommoded with large rocks.”

Fort Johnson, the home of William Johnson, was an important location for river travelers. Here was an informed source about conditions to the west. Perhaps also a dinner and bed for a traveler whose social or military rank, or fund of recent news was sufficient to warrant such a reward.

In 1758 Lt. Colonel Charles Clinton of the New York Regiment stopped here with his teenage son James, a Lieutenant in the same regiment and very sick after the raid on Fort Cadaraqui. Johnson’s house guests stayed 16 days! (James later became Brigadier General in the Continental Army and his brother Major General George Clinton became this state’s first governor.)

The Palatine German Church at Herkimer was another prominent landmark along the river. In the 18th century it’s main door opened towards the river—the main highway. The shore was only a few feet from that door. Captain John King, commander of one of the Independent Companies of British Infantry in the Colony of New York, is buried next to the South wall of this church. He died in May of 1756, apparently a victim of disease at Fort Oswego following the starvation and scurvy of the previous winter at that ill supplied post. His fellow commander of a New York Independent Company of Regulars was Captain Horatio Gates.

From Schenectady to the Little Falls was 53 miles, 16 rifts, plus “the Haycocks”—a place of many large boulders in the river.

I’m no geologist, but I’d say that the Mohawk River has two fall lines. First the Cohoes Falls, certainly an impressive impediment, but the second at Little Falls is also pretty impressive. Once again the surrounding uplands constrict the river valley to a very narrow passage.

In 1795 the Western Inland Lock Navigation Company began construction on their most ambitious project—a canal, three quarters of a mile long, dug on the north bank, often through solid rock, to bypass the Little Falls.

To quote Schuyler’s survey—“From the landing at the foot, to the landing at the head of the Falls, is about three quarters of a mile, the height 39 feet two inches, the ground stony, rocky and rough. . . .”

In the “eighteen teens” the Erie Canal was dug on the south bank of the river, but still having to overcome a narrow passage way and solid rock.

Today’s Barge Canal follows along the South Bank, but the height difference between the Canal and the river is great. I believe the Lock at Little Falls is the deepest on the canal.

It is 52.75 miles from the Little Falls to Fort Stanwix, also know as Fort Schuyler. Since the 1792 report seems to skip over the details, I will do the same except to quote the 1792 report: “the greatest obstruction is from timber in the bottom, and on the sides of the river.”

THE HEIGHT OF LAND

Fort Stanwix was built in 1758 to control the upper & lower landing places on the “Great Carrying Place,” or as the Iroquois called it: “De-oh-wains-sta.” It’s cannon could not fire upon both, but the garrison and outlying posts would protect the landings and roads (see Figure 9).

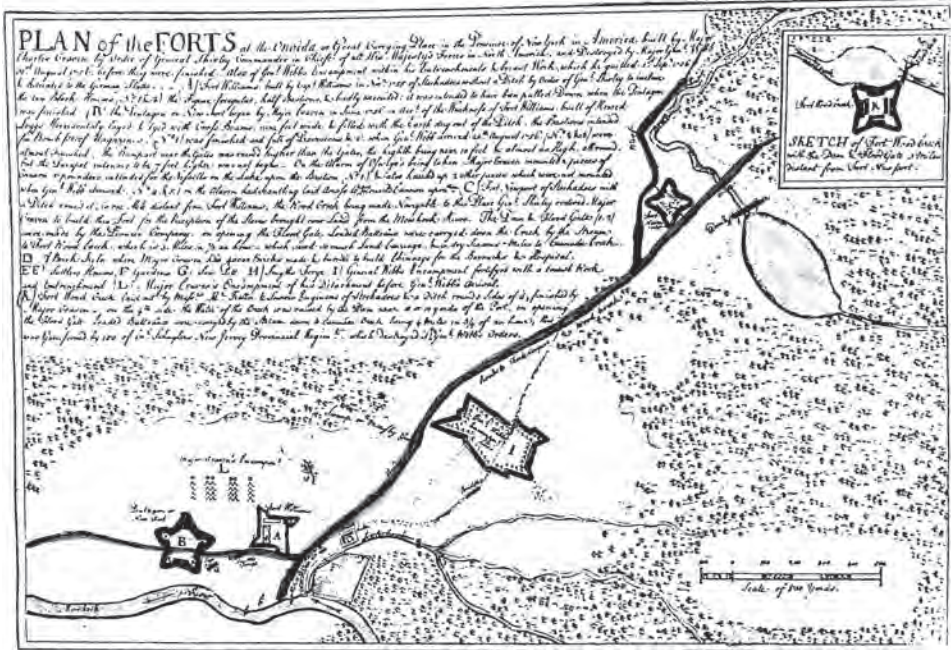


Figure 9. Plan of the forts at the Oneida or Great Carrying Place.

The ground was probably low by the river, and subject to flooding in the spring freshets. It was important that the fort was built in a healthy location on higher ground and thus away from the low river banks.

The forts guarding the portage across the Height of Land were numerous and important, although none were very impressive in size nor strength. The forts included: Fort Williams, 1732; Fort Bull, 1737; Fort Wood Creek, 1755; Fort Newport, 1756; and Fort Craven, 1758 and the most important and impressive, Fort Stanwix, 1758.

Of this portage the 1792 survey reports simply states a cryptic: "On a cross portage to Wood Creek, eighty-one chains, through level grounds and swamps, the Mohawk about two feet higher than Wood Creek." (see Figure 10).

Let me give the lie to all those critics of re-enactment and living history. In 1992 the staff at Erie Canal Village built an ox-drawn cradle-carriage so that the New York State



Figure 10. Oxen moving bateau and goods on a cross portage.

Museum bateau "Discovery" could be drawn over the Height of Land. Early one morning we met at the boat launch in Rome, NY, and once the oxen arrived (big ones—their shoulders at my eye level) it was a simple and quick matter to back the carriage into the water. The empty bateau was floated onto the cradle, and, holding our collective breathes, the oxen drew the carriage from the water effortlessly in a twinkling.

Thereafter, the oxen took off at a steady pace for the several miles of dry land between the Mohawk River and Wood Creek. We have all heard how slow and plodding these lumbering beasts are. I am here to tell you that as we passed through downtown Rome, I took the opportunity to duck into a filling station for a quick pit stop. I never did catch up with these "slow and plodding" creatures. It was only by dog trotting and cutting corners that I finally got close enough to see the oxen and carriage draw up to Eric Canal Village, and without further bother, back the bateau into the stretch of canal water there.

Some might say: "Yes, but you traveled on a hard-surfaced macadam." Yes, we did. Others might ask: "Could you have done that if the boat was loaded with cargo?" I don't know.

If traffic was sufficient, I am sure that two log, corduroy boat launches, two waterside cranes, a few men with carts and gravel to mend the road, and a sufficiency of wagons would easily handle the traffic—with exceptions for high water and the French and Indians.

Phil Lord of the New York State Museum launched a miniature bateau on the shallow, polluted waters of upper Wood Creek (see Figure 11). This act was the inspiration for this lecture. For as Phil pointed out—in the summer of 1760, down this ten foot wide, one foot deep creek, passed Major General Jeffery Amherst, 9,000 troops, a train of siege artillery and supplies for 10,000 men for three months. Just think about that. . . .

However, this is not the end of our journey, and the De-Oh-Wain-Sta or Great Carry or Height of Land is perhaps the most interesting stretch of the entire journey.

We now return to the 1792 report: "Mr. Schuyler descended Wood Creek in a bateau. He found the obstructions occasioned by timber, or rapids from the landing at the place where Fort Newport formerly stood, to that where Fort Bull was erected, quite trifling; but the creek is so shallow that the bateau could not have passed without the aid of water previously collected in Mr. Lynch's dam. From Fort Bull to where



Figure 11. Phil Lord of New York state launching the miniature bateau "Discovery".



Figure 12. Drained pool on Wood Creek.

Canada Creek enters Wood Creek, the rapids are many and sharp, with little water, the obstructions from timber trifling." (see Figure 12)

The "Height" of land looks a lot like flat Illinois. A plan shows Fort Wood Creek, built to guard the dam which backed up sufficient water overnight, to permit navigation down the creek every morning. A muddy swamp is similar to the Basin at Fort Bull, once the dam is emptied, or destroyed by the French, as happened in March of 1755.

When the French captured Fort Oswego in early 1756, Brigadier Webb (who later pusillanimously failed to march to aid the besieged Fort William Henry at Lake George in 1758) was in command at the Carrying Place, panicked. He ordered the destruction of the forts guarding the dams on Wood Creek, and commanded that axe-men fell trees across the Creek to prevent the French from advancing up the highway to attack the upper Mohawk Valley.

The Discovery was in a narrow, tree clogged stream where it would be impossible to row or sail. Again, what is the use of "living history?" I have seen axe-men trying to chop through partially submerged branches to clear the



Figure 13. Eking their way through clogged creeks.

navigation in this portion of Wood Creek (see Figure 13). My heart was in my throat: a slanting, slimy foothold, a precarious balance on a tree trunk, splashing water all over the place—the only answer would be a company of men on a rope, to pull the tree from the channel.

But now we approach the boggy flat land near today's Sylvan Beach, NY. Water in the bogs is a foot and a half or two feet deep. I was told that the water table in this area is just three to four feet below the surface. Our travelers, if traveling after 1758, could look forward to safety and hospitality at the Royal Blockhouse. Despite a State historical sign by the highway in Sylvan Beach, the actual site of the royal block house can no longer be seen. It was covered with dredged-up mud when the Barge Canal was re-routed from the older Erie Canal about 1915, and the stream was re-channeled. Let me point out: today you can visit the historic site, but that does not mean you are seeing what they saw.

Once we put in at Wood Creek, we traveled on waters which drain into the Saint Lawrence River. When Lt. Colonel John Bradstreet led his force of 3,000 troops across the lake in August of 1758 on his way to attack and capture Cadaraqui (today's Kingston, Ontario, Canada), he camped on one of the two large islands in the lake.

Oneida Lake is shallow and a strong prevailing westerly wind can whip up considerable and dangerous waves in very short order. These westerlies have blown sand to the eastern end of the lake, making the bottom particularly shallow, with a long shelf out from the beach.

I have been told by several inhabitants that it is not uncommon for ice flows to pile up on the shore 12 to 20 feet high, and even for wind-blown ice to cross the 200 yard town park to clog the main street in town.

Brewerton, New York—according to the state historical sign, this place has been welcoming visitors since Samuel Champlain visited in 1615, on his way to attack the Iroquois.

At the outlet of Lake Oneida, Captain Brewerton of the New York Provincial Regiment built and garrisoned Fort Brewerton in 1758. Just a few miles down the Oneida River, near a place called Three Rivers, standing on the highway bridge over the Oneida River, you can see the Seneca River draining the Finger Lakes, flowing from the west or left. Standing in the same place, but turning slightly to the right, you can see the Oswego River flowing to Lake Ontario.

Traveling down the Oswego River to today's Minetto, New York, on the left bank of the river, we pass Battle Island State Park. Here, on the morning of July 3, 1756 Captain John Bradstreet was leading a convoy of about 300 empty bateau upriver, having just delivered supplies to the British garrison at Fort Oswego. As he approached this small island he was fired upon by a small party of Canadians and Indians, part of a much larger body of about 450, commanded by the Monsieur de Villiers.

There can be no denying Bradstreet's executive drive and organizational abilities—nor his bravery. With six men in his boat, including Captain Philip Schuyler of the New York Provincial Regiment, Bradstreet landed on this island to oppose the 30 or so in ambush.

Bradstreet's determination must have been impressive, because he drove off the French and Indians. His men in the following boats drew up to this point, and once enough bateau-men had landed, Bradstreet led them up the east bank for about a mile, where he forded the river from the east to the west bank, and despite being outnumbered two to one, drove the French and Indians into a Pine Swamp which today is the Battle Island State Golf Course—adaptive re-use.

This is the British view of the battle, as reported to the New York City newspapers, probably by Bradstreet himself. You would be surprised, or maybe not, to read about the success the French enjoyed in this victory.



Figure 14. Map indicating Battle Island.

Please note that Battle Island is the small protuberance to the right of this island (see Figure 14). The larger portion of the island was separated from the mainland when the river was canalized early in the 19th century, and the spoil was used to fill in some of the channel which separated the original island from the mainland. Again, we can visit the site, but we may not see what they saw.

In today's Fulton, New York the river still flows over the falls which gave Bradstreet such difficulties when he passed in August of 1758, and later when he attempted to go upriver with the plunder from Fort Cadaraqui. Here Bradstreet had several bateaux upset, as you can well imagine, losing a brass cannon and a couple soldier's lives. Built after the French and Indian war, Fort Bradstreet was obviously intended to control the portage around the falls of the Oswego River. And if we are in Fulton, New York, can Lake Ontario be far distant?