

BEN AVON AREA HISTORICAL ASSOCIATION

NEWSLETTER

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www.benavon.com/BAAHA/
mailto: baaha@benavon.org

Editor's Note

This issue celebrates the 200th anniversary of the first steamboat on the Ohio and Mississippi Rivers.

The log house was moved in 1984 to allow redevelopment of the lot on which it was built. But it was kept within 100 feet of its original placement to maintain its connection with its history. It was placed on flat ground near a good stream with the Ohio River and an Indian path (to become Brighton Road) for access to Pittsburgh markets and stores

Native Americans sometimes considered the Allegheny and Ohio Rivers as one. The Allegheny begins near the Pennsylvania and New York border at over 2,200 feet above sea level and travels over 300 miles to reach confluence with the Monongahela at Pittsburgh. Beginning in Pittsburgh the Ohio starts about 730 feet above sea level and 981 miles later joins the Mississippi at Cairo, Illinois (about 315 feet above sea level). The Mississippi runs 1,000 miles from Cairo before reaching New Orleans and finally the water pouring into the Gulf of Mexico.

The Ohio borders five states, Ohio, Indiana, Illinois, West Virginia and Kentucky and its use in transportation supports three major (Pittsburgh,

Cincinnati and Louisville) and numerous smaller cities and towns.

The French explorer LaSalle first explored the Ohio River in 1669, but claims by France were ceded to Britain at the end of the French and Indian War in 1763. The Treaty of Stanwix in 1768 opened land south of the Ohio for settlement but reserved the land north of the Ohio as American Indian territory. In 1774 the Quebec Act returned that northern land to Quebec, then a colony of French speaking British subjects. This last was one of the Intolerable Acts leading to the American Revolution.

The Ohio River - Part 2 - Steamboats

by Gladys Phillips
(originally printed September, 1991)

An event in New York City in 1807 affected boating in Pittsburgh; it was the launching of Robert Fulton's steamboat, "The Claremont". This boat's successful trial runs meant that boats would be able to travel upstream against a river's current.

Nicholas Roosevelt and his bride came to Pittsburgh in 1810 and travelled down the Ohio and Mississippi on a flat boat taking notes on the width, the depth, and the snags prior to building a steamboat for these western waters. He was associated with Robert Fulton and the others who sponsored the building of

the first western waters steamboat, the "New Orleans". His report was excellent and so the Ohio Steamboat Navigation Company was formed. The Fulton group demanded exclusive rights to all steam navigation on the rivers. The people living west of the Alleghenies were angry and only Louisiana capitulated to their demands.

On St. Patrick's Day, 1811, "The New Orleans" slid down the ways from the yard at the foot of Boyd's Bluff on the Monongahela river across from Pittsburgh. Special woods were found for her keel, ribs, and beam, and 50 shipwrights, mechanics, and machinists were brought from New York City. The low pressure Watt and Bolton engine was freighted carefully over the mountains by ox teams. Robert Fulton came by coach to be part of this memorable occasion.

Masts were present for sails fore and aft which, when the wind was favorable, would increase the speed.

The pilot for this maiden voyage was Captain Andrew Jack (of Jack's Run, Bellevue) who had extensive experience with river boats. It was September, though, before they were ready to take off and January, 1812 when they arrived in New Orleans. Part of the delay was a long stop in Louisville waiting for high

water to get over the falls in the Ohio and time spent steaming upriver to Cincinnati.

Cargo was taken aboard for the return trip but they got no further up the Mississippi than Natchez. A strong current, tired engine and sitting too deep in the water changed the plans. This boat did continue to operate between Natchez and New Orleans plying the cotton trade.

This first boat to steam down the western water was followed by four more built by the Fulton group. It was their intention to have a monopoly and attack any boats attempting to reach New Orleans. Other boats were able to break the blockade long before the U.S. Supreme Court ruled that any grants were unconstitutional and freedom of the steam navigation was established.

The man who should be considered the most important contributor to western

water navigation was Captain Shreve. Not only did he get involved in breaking the blockade, but his boat and engine design were copied by all the other ship builders. By substituting fixed, horizontal cylinders for the vertical oscillating type, Shreve was able to place his engine on the deck and thus substitute a shallow flat boat-like-hull for the deep, keel-type used previously. Shreve's boats ran on the water rather than in the water.

Captain Shreve also developed a snag boat. It was two boats with double



1911 Centennial replica of the New Orleans

hulls held together by heavy beams and iron plated with a "cow-catcher" placed in the front of it. When a snag was discovered, the boat backed up and charged it under full steam. These snags were capable of ripping holes in a hull.

The first boats were quite small, but as the industry grew, so did the size and grandiose accommodations. For the poor folk, a corner on the lowest deck was shared with all the commodities being transported. These included industrial products, farm produce and animals. If an accident occurred, for it was not uncommon to have a boiler explosion, these people were the most vulnerable.

Upper decks became more palatial. There were block-long cabins, thick carpeting deep chairs, gilt mirrors everywhere, an oil painting on every door, orchestra music for dinner, and a brass band at the landings. Elegant meals were presented using fine linens, sterling silver tableware, and imported china.

Very few of us know that the grandest of boats was built in 1867 very close to us across the river at Shousetown, now called Glen Williard. Boat building began there in the 1830's. Each boat building company endeavored to produce a boat a little larger, a little faster, and with even lovelier appointments. This boat was named "The Great Republic" but in later years was renamed "the Grand Republic" under a new owner. A legend developed about this enterprise: That she was 52 feet wide, 12 feet deep (weeks and months in a year) and with seven decks (days in the week).

The building cost was \$365,000 which would be over many millions today and each trip used \$5,000 worth of fuel. The owner was bankrupt in two years and

the boat was sold for \$48,000 to a river boat captain.

When the "Republic" was launched it made its way down the river to its home port, St. Louis. The last sections of the tall stacks were added at Jeffersonville, for they would not have been able to clear under the railroad bridges on the Upper Ohio River. This meant that she could never return to Pittsburgh. She was destroyed by fire at the New Orleans Levee in 1877, ten years after its launching.

In the early days of settlement west of the Allegheny Mountains everything was made of wood: barns, houses, shops, churches, rail fences, plank roads, boardwalks, wagons, wharfs, and steamboats. By the end of 1835, 684 wooden steamboats had been built west of the Alleghenies: including 304 in Pittsburgh, 221 around Cincinnati, and 102 at Louisville. A survey in 1866 located 140 sunken boats. Many, many more were never found.

Wood was also used to fuel the earliest steamboats. It was not uncommon for a boat to stop at a cabin for "wooding". The wood would be stacked at the shore line and would be brought aboard. Wood yards were found beside every wharf or boat landing. By 1840, most of the virgin trees had been cut nearby the Ohio River. Stripping the land of trees made the use of coal (that was so plentiful in the Pittsburgh district) a more popular substitute fuel for boats. Unfortunately with its use came soot and smoke. It was not uncommon to have soot rain down on passengers out on the deck admiring the landscape.

Since the Pittsburgh coal seam was known so early, coal was in great demand to be floated down the river to other towns. The first steamboats tried

loading a flat boat and towing it behind the paddle wheel, others tied flat boats one on each side of the boat, but many of these broke loose or tipped over. More coal went to the bottom of the Ohio than was delivered. Then came the idea of pushing the flat boats in front of the vessel, so new boats designed included a square bow. [People must have liked the name because it remains in use. But the boats loaded with coal are **barges** (not tows) and these are **pushed** (not pulled) by a square bowed **tow boat** powered by diesel engines.]

Designers had to know for what area a boat would be used. The Missouri River was one of the least navigable rivers. To transport people and supplies up the Missouri River, a boat had to have a very shallow draft and a flat bottom. Or

said be light enough of draft to "run on a heavy dew." A boat for the Wabash needed an extra strong hull to meet the hardwood stumps. For the Kentucky, it needed to be short and narrow to execute the bends. To go up the Tennessee river the bottom must be well-planked to slide over the rocks. One author described the steamboat Blue Wing that was hinged in the middle and used on the Kentucky river, "Boat fast aground with her symmetrical nose six feet deep in the Kentucky mud waiting for the mail boat to come along and pull her out."



A view toward downtown Pittsburgh from Spruce Run in Ben Avon

Besides the snags and rocks not visible above the water, and the short period that the river was deep enough to navigate, a third problem was ever present that designers could not resolve. The river was always in a state of change: a clear channel in October could be sand bar in March and an island in August. Every pilot purchased three publications to keep apprised of recent changes in the channels' location.

The worst hazard, though, was steamboat racing. A pair of antlers was

given to the winner and proudly displayed above the pilot house. Racing was very dangerous, for the number of boiler explosions was phenomenal. The early boilers were like enormous tea kettles with the lid riveted down and the steam coming

out of the spout to power the paddle wheels. Safety valves might stick shut (or were held down!) to exert greater pressure. Exploding boilers hit deck hands and passengers with flying iron; scalded them or blew them into space. Fire usually followed. It was not until 1852 that a regular boiler inspection act was passed by Congress. Ironically at the same time, the U.S. Post Office offered \$500 to any boat that could get the mail from New Orleans to Louisville in a week instead of eight days.

Regulations did not end the rivalry between the Wheeling Union Line and the Pittsburgh & Cincinnati Packets. At one time, the rivalry was so intense that the crews sawed half-way through bracing timbers, for limber hulls ran faster. Engineers were known to tie down the safety valves and throw cakes of tar, lard, and bacon into roaring fires to increase the pressure.

As the boats enjoyed prosperity in the middle 1800's, the railroads were developing in every direction. They could guarantee their time schedules much better than the unpredictable river stage for boats. Coal seams were discovered in Ohio, Indiana and Illinois and they no longer relied on the Pittsburgh area for this fuel. Boats would leave docks only half-filled with cargo. By the end of the 1800's, boat yards in this area were building vessels for the Volga, Congo, Amazon and Yukon. Rivers. There was quite a celebration in Pittsburgh in the centennial 1911 year. Forty-seven packet boats lined up side by side on the Monongahela river wharf as a replica of the New Orleans was launched to repeat the same journey as in 1811. The scene makes a spectacular picture.

Another spectacular event occurred on this same wharf in 1947. Before the upper and lower road decks we now see, the steep wharf was paved with bricks and filled daily with parked cars. The Island Queen was docked there, between

Smithfield and Market Streets. An engineer welding near combustible materials touched off an explosion. Nineteen crew members were killed and countless cars burned.

Now (1991) all we have left to remind us of the steamboat era are annual visits by the Delta Queen and the Mississippi Queen. The Delta Queen is the only wooden-hull boat on the rivers. It was destined to be destroyed after Congress

passed the Safety at Sea law until a special exemption was enacted. So every year when residents hear the calliope music, people hurry down to the Emsworth Locks to see this majestic boat once again and dream about that wonderful period long since passed.

BAAHA Links (#3): River Lore

by John Warren

Both the preceding and this issue of the newsletter call attention to the year 2011 as the 200th anniversary of the first steamboat voyage on the Ohio and Mississippi. Bicentennial activities are being organized by Hanover College Rivers Institute, which has a section of its website dedicated to the celebration. (<http://rivers.hanover.edu/steamboat2011>).

It is worth noting that the steamboat making that first voyage left Pittsburgh in October. From the earliest days of



settlement in this area, residents had to accept the fact that river traffic virtually ceased for several months in the summer, when the depth of the Ohio could often be measured in inches.

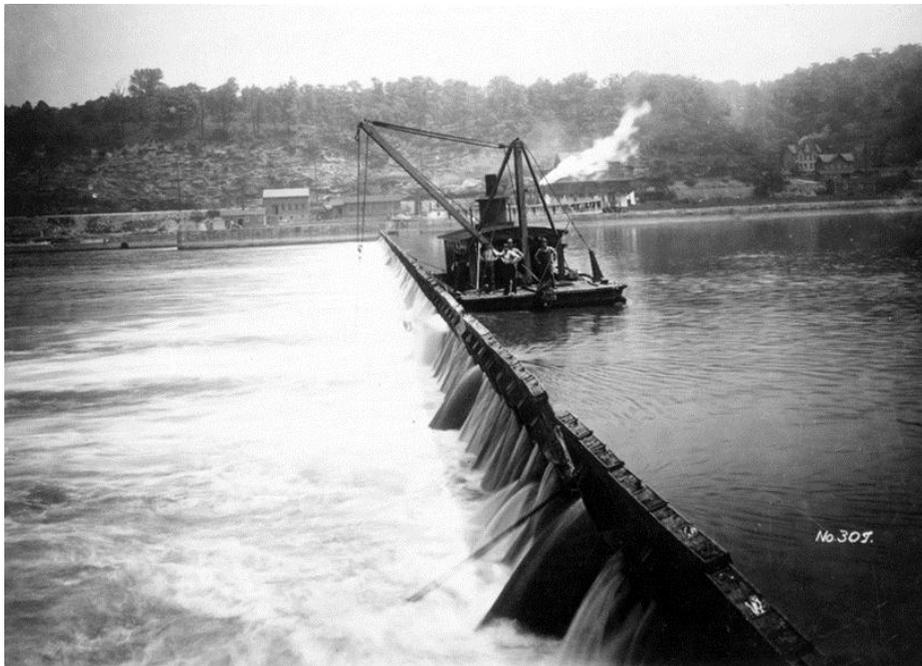
Stephen Ambrose (in his 1996 book, Undaunted Courage) vividly described the anxiety and impatience felt by Meriwether Lewis in August of 1803, as he watched the river grow shallower each day while he waited impatiently for the boat builder to finish work on the expedition's keelboat.

In the steamboat era, according to the Army Corps of Engineers, “during several months in most years, Pittsburgh’s steamboats, towboats and barges remained landlocked, unable to move until it rained and the rivers rose to navigable stages. Pittsburgh’s mills during those months sometimes closed for want of raw materials and fuel, commercial shipments piled up at riverside, business languished and unemployment became the lot of workingmen.”

This situation began to change in 1885, when the Corps completed the Davis Island Lock and Dam, which spanned the Ohio River at Bellevue. The lock, which was on the Bellevue side of the river, was

110 feet wide and 600 feet long. It was the largest lock in the world at that time.

As shown in the photograph, this was a “wicket” dam, composed of wooden bulkheads hinged on the river bottom. The bulkheads could be lowered when the river flow was high, enabling boats to pass down the river without using the lock. When the level of the river began to fall, the wooden wickets were raised to catch the water and create a pool behind



A modern wonder in 1885: Davis Island Dam

the dam, in order to maintain the level of the river for boats.

Using the Davis Island dam as a model, these wicket dams were eventually built for the entire length of the Ohio River, from Pittsburgh to Cairo, Illinois. The last one, Dam 53 at Cairo, was installed in 1929. It and Dam 52 are the only wicket dams remaining on the Ohio River.

The Davis Island dam was removed in 1922, when a replacement dam of a different design was completed in Emsworth.

A historical marker on Ohio River Boulevard near the Eat’n Park restaurant indicates the point on the river where the Davis Island dam once existed.

This information about the Davis Island

Lock and Dam came from a page (<http://www.lrp.usace.army.mil/pao/h-davis.htm>) on the website of Pittsburgh District of the Army Corps of Engineers. That site includes a page on each of the 23 navigation dams within the Pittsburgh District, and lots of other material of interest.

The photograph of the dam (taken on June 6, 1904) came from a remarkable website called Elizabeth Marine Ways (<http://freepages.history.rootsweb.ancestry.com/~jmohney/>).

The site was created by a man named Jay Mohney. His great-grandfather, J.W. Lynch, was a steamboat builder for a firm called Elizabeth Marine Ways, located on the Monongahela in Elizabeth, Pa.

Mohney began by transcribing a journal of daily activities that his great-grandfather maintained from 1898 to 1925. He then added hundreds of pictures of riverboats, dams, and various scenes along the rivers of Western Pennsylvania.

For anyone interested in our region's rivers (and our riverbank communities), Mohney's site is well worth exploring. Among those hundreds of pictures, you will find three more that show the Davis Island Lock and Dam.

No article about our local rivers should end without mentioning Captain Frederick Way, Jr. (1901 – 1992). Captain Way was a pilot of steamboats, large and small, and a leading authority on America's inland waterways. He served from time to time as the editor of the Sewickley Herald, and he was the first president of the Sewickley Valley Historical Society.

One highlight of Rick Sebak's wonderful program about our three rivers ('The Mon, The Al, and The O') is his visit with Captain Way.

Mim Bizic, a retired teacher and librarian from Quaker Valley, has a page about Captain Way on her website (<http://www.noretiredfromlearning.com>). The link to the page can be found in the list along the left edge of her home page.

Ms. Bizic was among the crowd who gathered along the river in

Sewickley on an evening in October 1992, when the famous steamboat DELTA QUEEN made an unscheduled stop to deliver Captain Way's ashes for burial in his home town. He had died several days before at the home of his daughter in Marietta, Ohio.

As Ms. Bizic relates on her website, every time the DELTA QUEEN passed Sewickley on its way up or down the Ohio, it would stop in front of Captain Way's riverfront home, drop anchor, and play 'Beautiful Dreamer' (his favorite song) on the ship's calliope.

Anyone interested in tales of our local rivers should read The Allegheny, which Captain Way wrote in 1942 for the Rivers of America series. There are at least a dozen circulating copies available from local libraries.

We can't do better than to end this piece with a sample of Captain Way's writing. He was ten years old when his parents took him to see an Ohio River steamboat called the QUEEN CITY. Many years later, he remembered it this way:

Your scribe fell for the wiles of the QUEEN CITY in 1911, standing in the forward end of the cabin gazing aft at her multitude of repetitions.

Repetition of doors, of shining brass oil lamps in their swinging brackets, of overhead lights coming from twined oak leaves of metal, of chairs soldiered in parade, and her dining tables the same way – all of these things as trim as West Point cadets, sweeping in a dip downward to the mid-ship gangways, then up again to the immense

mirror in the distance – an unbelievable distance – twice as wonderful as anything military.

A person could wear out his eyes looking for a single straight line; there wasn't one anywhere; all was cadence and curve,

an immense arc.

A lady at the grand piano played. She sang in a dusky voice 'Oh Beautiful Lady' and 'Chocolate Soldier'. She had too much powder and paint for my mother's standards, but I thought she was a blessed angel, and shall expect all honest angels to resemble her in the Hereafter.



Ben Avon station before Emsworth Dam Lower Ridge Ave., now closed and underneath a Boulevard bridge was access to trains.

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