ANTH318
Nautical Archaeology of the Americas

Class 22

The Transportation Revolution on Inland Waters

Introduction

Native Americans established a network of canoe routes with connecting portages along the chain of waterways that link the Great Lakes.

European fur traders started to explore and utilize these waterways in the late 16th century, using birch-bark canoes.

From 1610 on, French-Canadian fur traders explored these rivers, lakes and portages, extending the routes further west along the shores of Lake Superior (Pierre Radisson and Medard Chouard, 1659-60).

In 1670, the Hudson’s Bay Company was formed by French traders, and soon English settlers followed. It established a series of trading posts on the coast, located at the mouths of the rivers that drained into Hudson Bay where the Indians would come to trade (Albany, Moose, York, and Prince of Wales forts).

But the French traders pushed forward to supply an increasing demand for fur, and in the late 17th century they were trading on Lake Superior.

By 1779, the English established the North West Company, once again following the French strategy in order to get better prices by trading in the interior.

Typically, the cargo was brought from the St. Lawrence to Fort William or Grand Portage on the west bank of Lake Superior on large 36 ft., 4 ton canoes called *canots the naitre* (later on sloops) and then transshipped to smaller 25 ft., 1.5 ton canoes called north canoes.

Frances Anne Hopkins made the journey and painted impressive scenes of it.

Artist Frances Ann Hopkins (1838 - 1913) paintings often depict her keen sense of observation which give her paintings a rare accuracy in every detail. Ann and her husband Edward, who served as private secretary to Governor George Simpson of the Hudson Bay Company, are often portrayed in her paintings. Anne was English and her husband was Canadian.

After the War of 1812, the English traders were replaced by American ones, and with the decay of the fur trade, lumbering became their major activity.

In 1909, President Theodore Roosevelt established the Superior National Forest.
In the 1960s, a group of researchers from the Minnesota Historical Society and the Royal Ontario Museum began a project to survey some of the most difficult spots along these routes and found an impressive amount of artifacts.

**Trade Routes**

After the end of the War of 1812, America saw a great revolution in its communications. Three main routes were developed:

The Northern Gateway- from New York to the Mohawk River, up the Hudson to Lake Champlain and the St Lawrence River, and westward across the Great Lakes.

The Northeastern Gateway- from Philadelphia to Pittsburgh and Wheeling on the Ohio River, was mainly an overland way.

The Southern Gateway- from New Orleans to New York, ran along the Mississippi and Ohio Rivers, or westwards along the Missouri River.

**Canal mania**

Canals are a good, cheap and effective way to transport goods. 4 horses can carry:

- 1 ton 12 miles when pulling a wagon;
- 100 tons 24 miles when pulling a barge.

On very flat and low land in the 16th century, the Dutch developed a very effective and cheap system of transportation using barges pulled through canals.

Towards the end of the 18th century, the French developed their own canal system, followed soon after by the English.

Canals were utilized by many different types of craft, including several types of bateaux.

In the New World, from the 1790s on, a few experiments were implemented, mainly regularizing the river beds and banks, but also opening narrow and short canals that were built and operated by small scale companies.

The first large-scale canal was the Schuylkill & Susquehanna Canal in Pennsylvania (1783).

It was followed by the Potomac Canal in Virginia, of which George Washington was a shareholder (1786).

Then, after the War of 1812, the Great Lakes were connected.

The Erie Canal: started in 1817-1819 to run from Ithaca to Rome. It was completed in 1825. The tolls were $5 per ton! It was a major financial success.

Between 1825 and 1845, there was a canal boom in the east. After 1845, it extended to the west.
Canals are very expensive. They require very good engineering. In some cases there are canals running over rivers on bridges. There are canals running through mountains in tunnels.

Canals would collapse. But the investments paid off quick and big. Many schemes appeared: many canals were built from nowhere to nowhere…

Between canals, boats would be transported on land. When the terrain was steep, other means were invented. To overcome steep slopes, locks were built. A system of locks would allow the water to flow slowly, and the boats could travel up or down.

Canals could transport people and goods. They are very cheap, but very slow (2 miles per hour)… Charles Dickens describes a voyage in a canal boat in the US. They are especially good for cargo: ore, coal, grain, stone.

Canals peaked by the 1880s. Ironically a series of works to enlarge them killed the business. Nobody was willing to invest to get newer, larger canal boats, and pay higher toll fees.

In the 1820s, the train had appeared as a potential threat…although it did not seem very threatening! But, in time, the development of trains – more expensive but much faster – pushed the canals to take on the cheaper bulk cargos. In the 1880s, it was not even more expensive.

Canal boats are mainly boxes! They are shaped in order to fit on the locks and accommodate as much cargo as possible.

Propulsion could be sail, animal power, or steam. Steamers would have propellers and tow other barges.

As they would reach the lakes, there were three alternatives: transshipment of cargo; to be towed by steamers; or to sail across the lakes.

Sailing canal boats are a specialized kind, with

• collapsible masts,
• center boards,
• shallow drafts,
• barn door rudders, and
• boxy sections.

Sailing canal boats were very bad sailors, and the bottom of Lake Champlain is full of then. The General Butler is a good archaeological example.

Many canal boats were manned by entire families. They would live aboard and work 365 days per year. Canal boats would typically last 12 years and would be paid for after 6 years. It was a hard life.

Today there are canal societies that try to keep the memories alive.
Readings for this class


