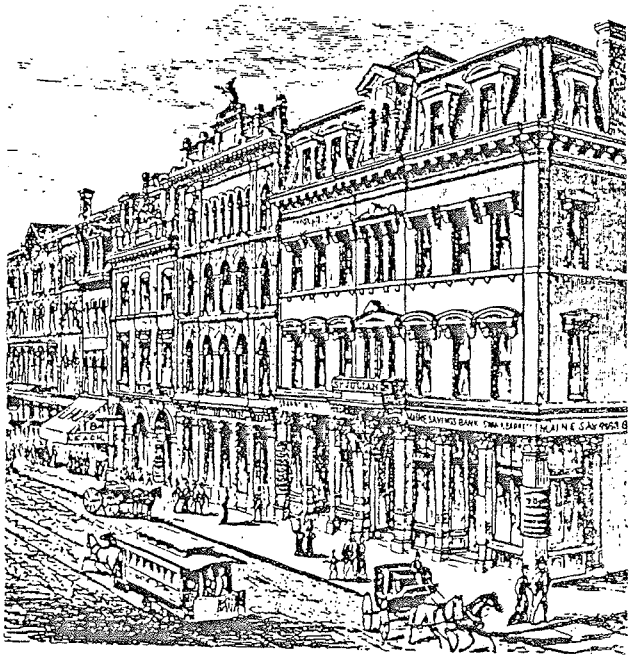
SOCIETY FOR INDUSTRIAL ARCHEOLOGY

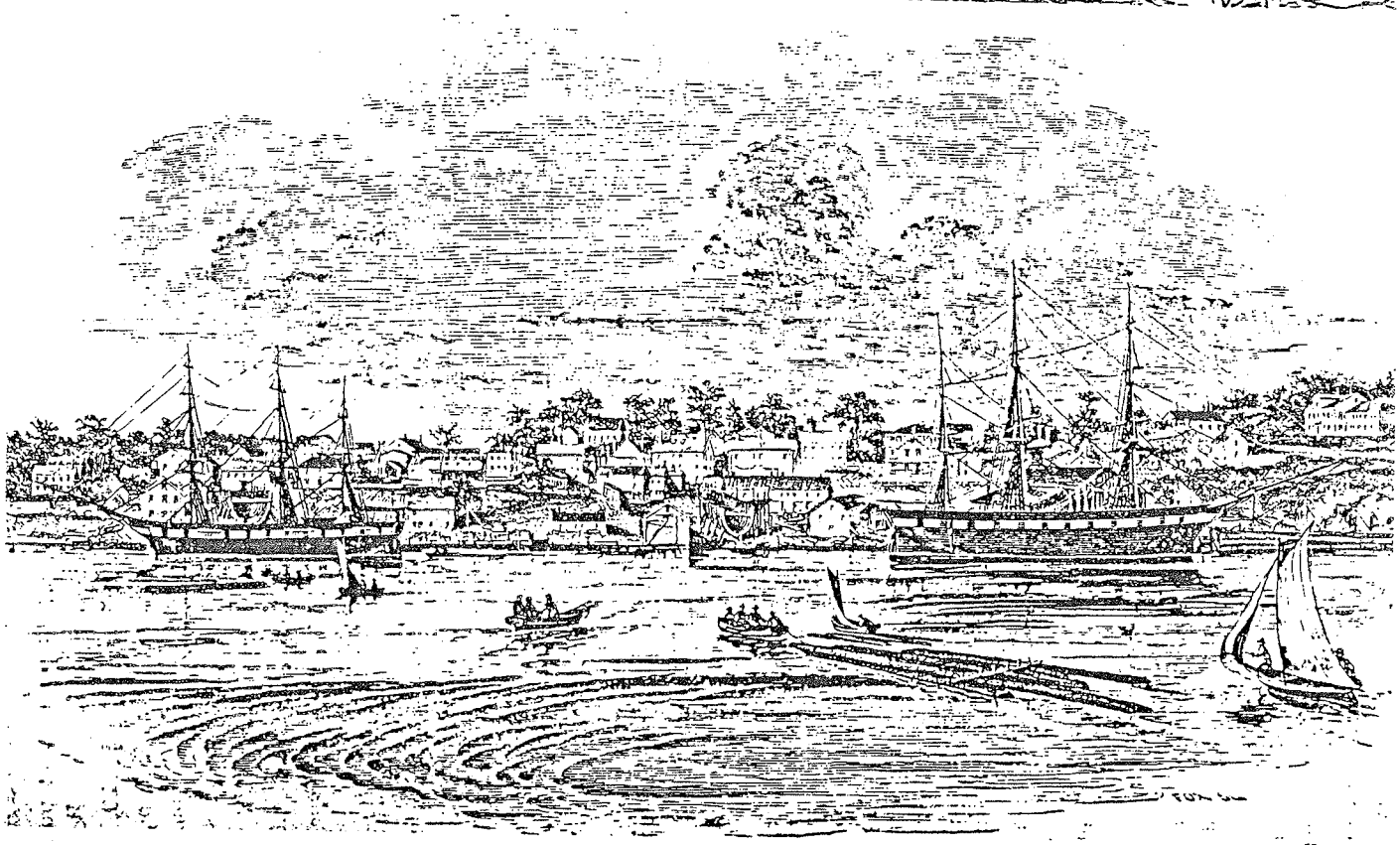
1982 FALL TOUR
COASTAL MAINE

PORTLAND

TO

BATH





NORTHERN NEW ENGLAND CHAPTER

ROYAL RIVER BRICK COMPANY
NORTH YARMOUTH

One of the oldest working brickyards in America, Richard and Roberta Hossman's Royal River Brick Company still produces water-struck wood-fired bricks. Clay from the brickyard's pits is mined, piled, and saturated with water. After preparation in the mill, it is molded in an 1880s New Haven horizontal press or an even older vertical press. Molds are then air dried in sheds which have roofs but no walls; the drying time is determined by humidity. Constructed of the bricks to be fired, the wood-fired kiln produces a beautiful range of colors. Darker bricks are those fired closest to the flame. The resulting bricks are in great demand for restoration projects.

YALE CORDAGE
Formerly ROYAL RIVER COTTON MILL
NORTH YARMOUTH

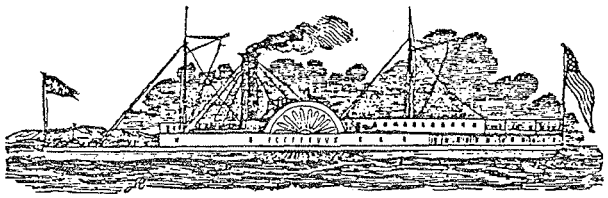
Yale Cordage braids synthetic fibers into ropes of various sizes, from giant winch cables for line trucks to yaught lines even heading twine for lobster traps. Research & development and tensile testing are also primary functions. Twisting, coating, and braiding take place here, with both may pole braiders and Wardell high speed braiders in use. The 1978 Fall Tour visited the Wardell Braiding Machine Co. in Pawtucket, RI.

Founded in 1847, and built on the site of an 1817 paper mill, Royal River Cotton Mill made seamless grain bags, one of only three such producers by 1926.

The main mill was built in two sections--1856 and 1871—following a serious fire in 1855. Only the 1847 picker house/machine shop ell survived the fire.

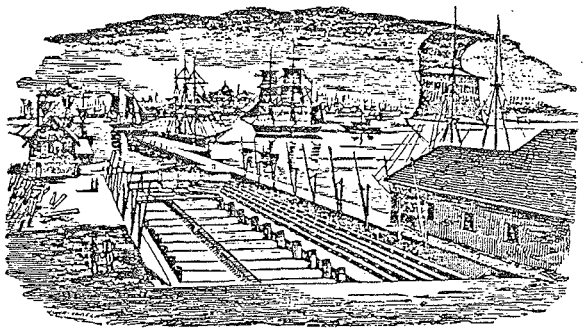
Portions of the water power system remain, including a Rodney Hunt turbine, power canal and trailrace. Bridge Street worker housing is also part of the former Royal River complex.

Yale Cordage began operations at the site in the mid 1950s and has extensively repaired and adapted the building for its new industrial use.



PORTLAND 'AND BOSTON LINE.

The splendid new sea-going Steamers FOREST CITY, LEWISTON, and MONTREAL will, until further notice,
Leave Atlantic Wharf, Portland, every Monday, Tuesday, Wednesday, Thursday and Friday, at 7 o'clock P. M., and Central Wharf, Boston, every Monday, Tuesday, Wednesday, Thursday, and Friday, at 7 o'clock P. M.
Fare, in Cabin, $1.25; on Deck, $1.00.



DRY-DOCK.

BRUNSWICK/TOPSHAM

The Androscoggin River provides two major power sites at Brunswick. The Pejepscot Falls (total height 41 feet at high tide) was surveyed by Loammi Baldwin in 1835, whose findings indicated a site of great potential. It was never fully utilized. The second power site, Quaker Mill Pond, 3 miles above the Pejepscot Falls, provided power for a number of saws, but only a small proportion of the Androscoggin's water power at this site was ever used.

The Cabot Manufacturing Company, located on the middle dam on the Brunswick side, began operations in 1857 as a cotton mill and changed to the manufacture of rayon in the 1930s.

The mill of today's Pejepscot Paper Company, located on the Brunswick Falls, Topsham side, started in the basement of a sawmill, using grinders from the machine shop of the Bath Iron Works to mechanically grind wood pulp for their paper. The earliest surviving example of Maine's 19th century wood pulp mills, it was constructed in 1868, the first to produce paper from mechanically prepared wood pulp. Pejepscot is the third corporate owner of this mill, and unusual Italianate structure with a gambrel roof. The early building is now used only for warehousing paper.

Lumbering, saw milling, flour milling and ship building were all important industries in Topsham/Brunswick.

LOMBARD LOG HAULER
BRUNSWICK

Steam powered haulers originated the track vehicle concept later used by Caterpillar and the U.S. Army tank. Lumbering was one of Maine's most important industries from Colonial times on, and the work of 19th century woodsmen was eased considerably by these mechanical haulers which dragged the huge logs from the woods. At first powered by steam, with small locomotives on caterpillar treads, the Lombards were later gasoline powered. Both types are present here.

STINSON CANNING CO., BATH

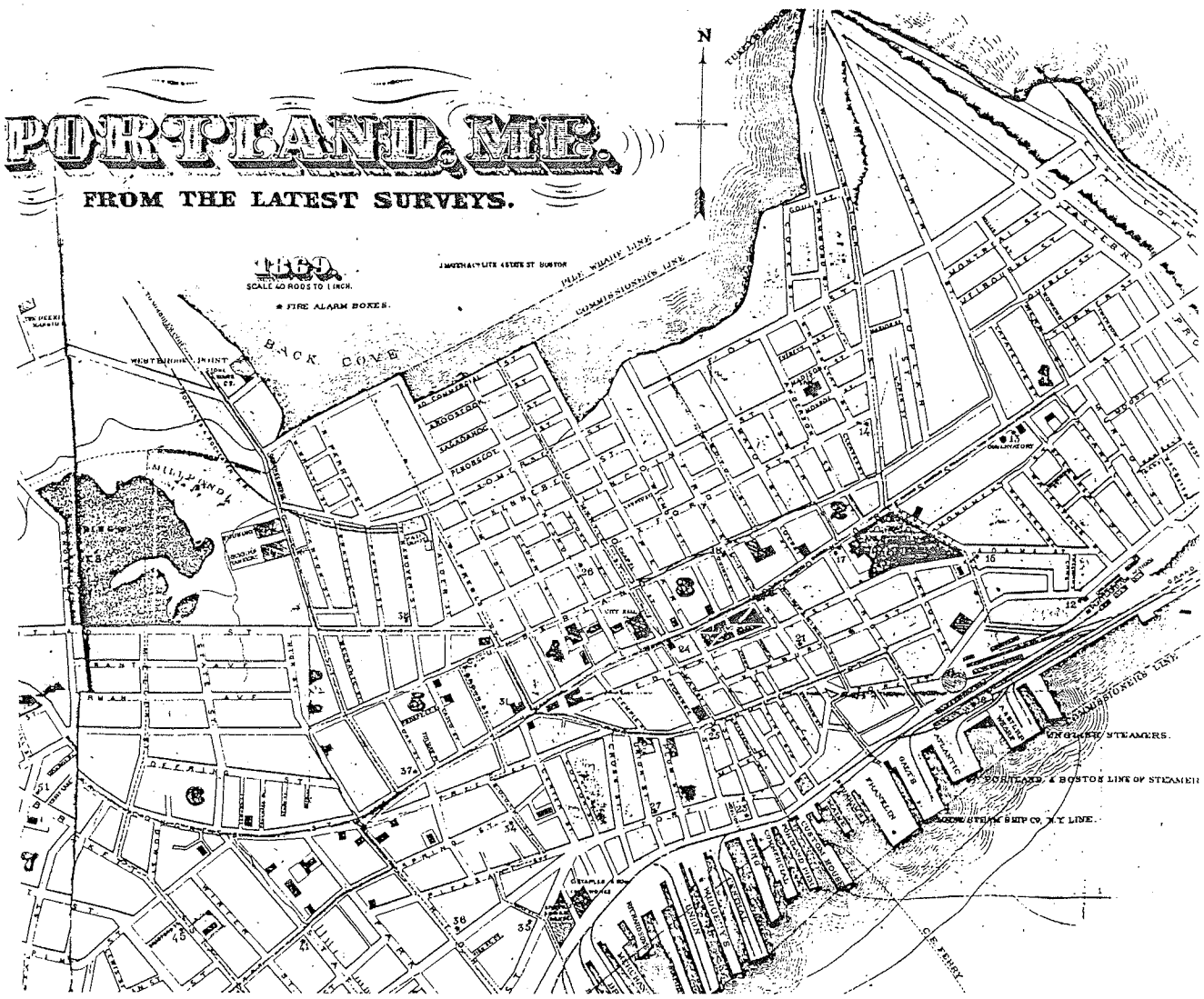
Stinson Cannery receives boatloads of sardines at their own dock and processes them to produce canned sardines, filets, steaks, marinated herring, and lobster bait (wasting nothing). Workers are called in when the fishing boats (both Stinson's and others) arrive and work long hours to process the refrigerated catch. Piece-work wages prompt fast, intense labor.

BAILEY ISLAND CAUSEWAY
CRIBSTONE BRIDGE
HARPSWELL

Thought to be unique in all the world, the granite crib bridge connecting Bailey and Orr's Islands in Harpswell was built in 1927-28. The bridge, now on the National Register, is 1,120 feet long and 11 feet above high water. It crosses Wills Strait between Harpswell Sound and Casco Bay.

Twelve-foot granite slabs held in place only by gravity allow the strong tide to flow freely through the open cellular structure. Made of local granite from the ledge that runs through the North Yarmouth-Pownal line, the bridge was one of the last large contracts for local stone. It was shipped by wagon and then by stone sloop from Marsh landing.

Llewellyn N. Edwards, an engineer with the Maine State Highway Commission, designed the bridge's unusual structure. Aesthetics were considered in the choice of the natural rugged granite for the unspoiled coastline location. Practicality in the form of a channel opening permits the passage of fishing craft.



PORTLAND OBSERVATORY

Built in 1807 on the highest point on Munjoy Hill, the shingle-clad observatory was a vital communication center. Observers at its telescope could spot ships in distress or those returning to port. Ship owners had special flags flown to identify which ships had been sighted, so that cargo handlers and family members alike could meet arrivals on the wharf.

PORTLAND

Portland's first settlement dates from 1628. Originally called Falmouth, it was burned by the British in 1775 and renamed Portland in 1786. Following Maine's admission to statehood in 1820, Portland served as its first capital until 1832. The 1830s proved a prosperous time, with Portland's economy based on its natural resources—harbor, timber, fishing, ship building and shipping. The West Indian trade brought profits, molasses, and new industry, sugar refining and rum distilling. John Bundy Brown's Portland Sugar Company was the third built in the United States and produced 250 barrels of sugar per day. Brown was Portland's leading 19th century capitalist. It was to his brick sugarhouse, considered impregnable, that fire spread from a nearby boatyard on July 4, 1866, in its course destroying the central portion of the city's commercial district.

By the 1860s, Portland had become an important transportation and distribution center. As terminus of the Atlantic & St. Lawrence Railroad (later known as the Grand Trunk), it linked Montreal to the sea and provided a winter outlet for Canada's vast grain shipments. Commercial Street, built on filled land along the waterfront, was lined with warehouses and wharves. It connected two railroad depots, the Portland, Saco & Portsmouth on the western end, and the Grand Trunk (A & St. L) on the eastern end. The Grand Trunk line built massive grain elevators on Portland's waterfront, the last of which was demolished in 1973. Waterfront development included two huge piers built in expectation of Brunel's British steamship, the *Great Eastern,* which never arrived. The remains of these piers can be seen from the end of Fore Street at the Eastern Promenade, just beyond the Portland Company's buildings.

The Portland Company, founded in the 1840s to build railray locomotives and other equipment, established a world-wide market. One of the largest machine makers in northern New England, it fabricated an astounding range of products ranging from castings to engines, elevators, and paper-making equipment. Small components used in nuclear engineering are now made at the site which retains a number of the 19th century buildings but no foundry or machine shop equipment survives.

Other important industries which developed in Portland include spruce gum (for chewing gum), glass and stoneware, obstetric forceps and artificial legs, and canned food. The Portland Packing Company's great success and profits in the 19th century led to the philanthrophy of its owner, James P. Baxter, who improved the city's park system and its waterside promenades.

POST-PORTLAND

After leaving Portland, and between stops on both Friday's and Saturday's tours, we will be treated to glimpses of rural Maine and the scenic coast. (Larry's idea of the REAL Maine.) The villages around which Maine's long-lost agricultural economy was based retain evidence of the farm as business and total way of life. Lumber, hay, potatoes, poultry, dairy products, corn and blueberries all contributed to Maine's important rural economy. One of the most obvious changes is the loss of farm outbuildings. Barns, sheds, pigstyes, hen house, ice houses, etc. are modified or gone altogether. Saw mills, lobster trap mils, workshops for a trade other than farming often existed nearby, as most professional people also farmed to some extent.

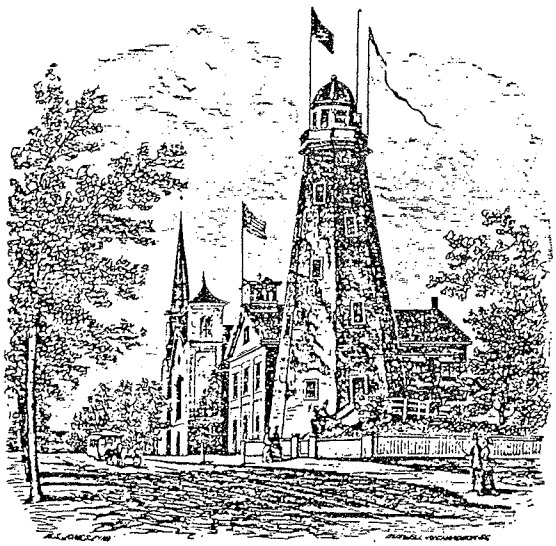
The coast offers a view of another of Maine's industries, tourism, the state's second largest. The railroad and the trolley brought visitors from far and near to enjoy seaside resorts and day trips to the beach. Casco Bay's islands saw regular steamboat service, and the development of amusement parks mechanized pleasure for many. We'll see many remnants and landscapes of Maine's version of agribusiness and touribusiness in among the IA on this tour.

Bibliography

PORTLAND: a 236 page illustrated guidebook to the city's history and architecture, prepared by Greater Portland Landmarks Inc. in 1972. A second edition printed in 1973 is still available. It is beautifully designed and printed, full of wonderful photos of buildings extant and not, and well worth the $6.95. Buy it.

Other sources of interest include William Robinson's *Abandoned New England* (Boston: New York Graphic Society, 1976; paper edition, 1978) which is arranged by industry but includes a state and town listing, with directions to sites. Some descriptions are incorrect, but the pictures are excellent. Charlotte Renner's "Water Struck Bricks," ***MAINE TIMES,*** August 15, 1980, describes the Royal River Brickyard with good factual information and stunning process photos. Lisa Fink's "An Industrial Landmark," ***LANDMARKS OBSERVER,*** Sept-Oct 1981, recounts the history and adaptive re-use of the Royal River Cotton Mill, now Yale Cordage, at North Yarmouth.

Special thanks to Lisa Fink, Maine Historical Society, Portland, and Arthur Gerrier, Greater Portland Landmarks, Inc.



THE OBSERVATORY.

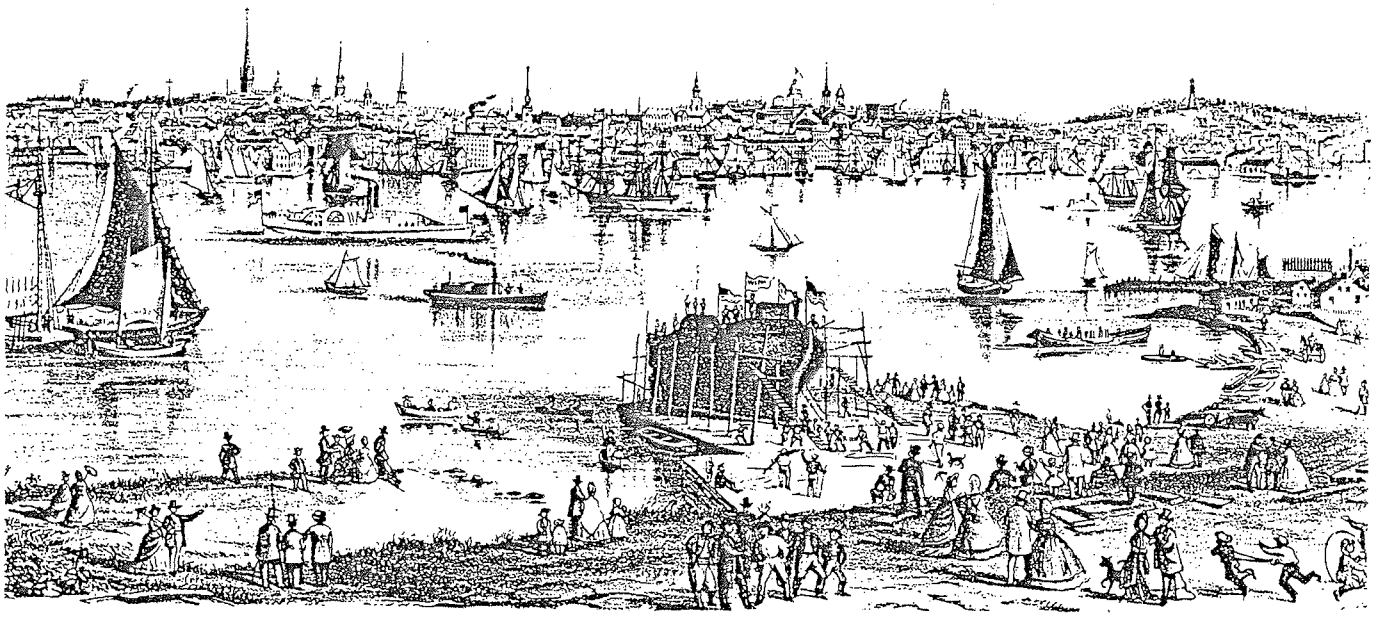
PERCY & SMALL SHIPYARD
MAINE MARITIME MUSEUM
BATH

The Maine Maritime Museum encompasses several sites: the Bath Maine Museum, Percy and Small Shipyard Complex, and the Apprenticeshop, 12 buildings in all. The Museum's programs include exhibitions of marine artifacts, small boats, models, tools, trade goods and seamen's possessions. The shipyard tour shows visitors the last surviving wooden boat building facility in America where large sailing ships were built. It includes the Restorationshop where trainees replicate traditional craft. The Apprenticeshop programs in half-modeling and boat building train students for 18 months in all aspects of classic Maine coast boats, building dories, pinkies, peapods, skiffs and sloops. Included in the tour is a Kennebec River boat trip from the Percy and Small Shipyard along the Bath waterfront to view construction of huge modern vessels at the Bath Iron Works.

CARLTON BRIDGE
BATH/WOOLWICH

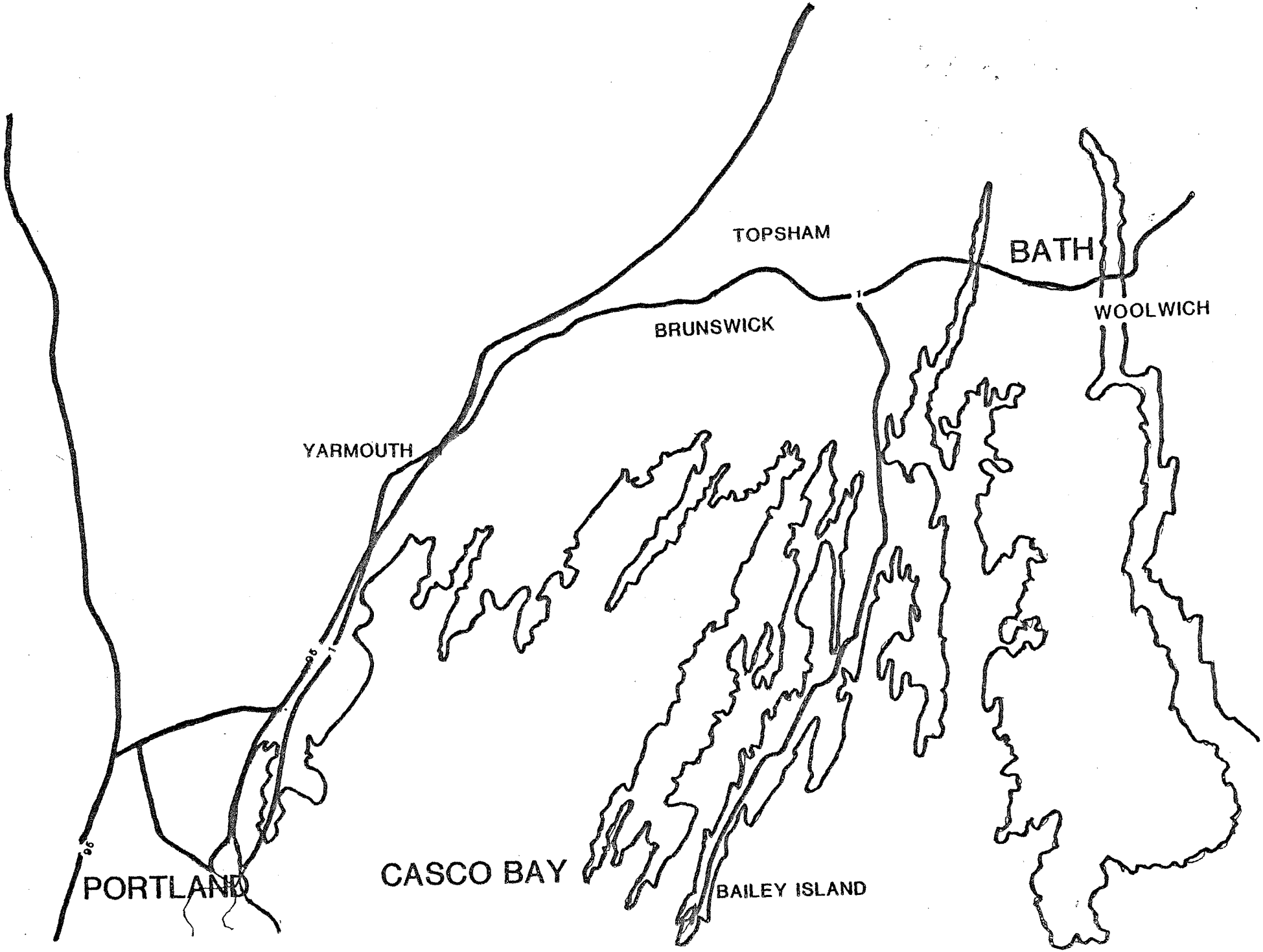
Bridging the Kennebec River from Bath to Woolwich, the Carlton Bridge (built 1927) carries railroad and highway traffic, replacing the ferries which had operated there for centuries. The Kennebec is especially wide and deep at that point, with strong currents, which explains the late date for building this bridge. Cost was a factor too; it had a price tag of $3 million, a lot of money in 1927 dollars, which explains why the railroad put up with the inconvenience of ferrying for such a long time.

Combined deck and through steel trusses carry the Maine Central RR on a single track at the level of the bottom chords and Route One highway traffic at the top chords, on a concrete deck. A vertical lift span of 234 ft. permits the passage of river traffic. There are six fixed spans. J.A.L. Waddell, a prominent engineer, designed the bridge, and Charles K. Allen of Kansas City was resident engineer. McClintic-Marshall Company of Pittsburgh built the superstructure.



SCHOONERS at WISCASSET

Derelict remnants of Maine's great coastal shipping fleet, these two schooners were abandoned in 1932. The *Hester* (built in 1918) and the *Luther Little* (built in 1917) were both 4 masted schooners over 200 ft. long. They plied the Atlantic Coast with cargoes of lumber, guano and coal. Forced by high mortality rates to sail without insurance, such schooners could not be adopted to engine power without adding more crew than profit allowed. Thus they were doomed. Part of an ill-fated railroad-sea link scheme that failed during the Depression, these two ships serve as a reminder of the former greatness of their kind. The *Little Luther* still carries her masts and considerable rigging, but the *Hester* is mastless beneath her decorated bowsprit.


TOPSHAM
BATH
WOOLWICH
BRUNSWICK
YARMOUTH
PORTLAND
CASCO BAY
BAILEY ISLAND