



NORWICH
Historical Society
and Community Center

HISTORIC DRIVING TOUR — NORWICH RIVERS & MILLS — *A Companion to the Norwich Historic Audio Tours*

Podcast Tour Transcript Rivers and Mills

Welcome to our Norwich Rivers and Mills Podcast Tour.

I'm Sarah Rooker, the Director of Norwich Historical Society.

I'm David Macaulay and Blood Brook is a regular stop on one of my daily dog walks.

and I'm Nelson Rooker. I used to live here in Norwich, not far from Blood Brook.

We'll start and end our tour here at the Norwich Historical Society.

There are Eight stops along the way.

As you listen, we'll give directions to each stop.

When you hear the music

pause the podcast until you reach the next stop on your tour.

You can also follow the podcast on the accompanying map.

Continents collided, mountains tilted up
Mile-thick glaciers carved through the earth
Millions of years of water contoured this place.

It's the origin story of this place we call home. On this podcast tour we'll take a look at how this ancient story impacted our more recent history and our lives today.

The Connecticut River is our signpost. It has flowed more or less in its current location for about two million years, but events much, much longer ago than that begin its story.

600 million years ago, way before the time of the dinosaurs, a continental collision left behind a portion of the African continent that is much of present-day New Hampshire.

That collision is still visible along the river bed and is detectable to a depth of 20 miles.

The collision also left great faults that created paths for water and erosion, over time forming channels for rivers. Norwich's Blood Brook and the Ompompanoosuc River are two such channels.

More recently, around 23,000 years ago, glaciers covered New England. In some places these large masses of ice and compacted snow were one and a half miles thick.

As the glaciers retreated, meltwaters flowed down the Connecticut River Valley and ponded behind a dam of debris and ice in what is now Connecticut.

The backwaters formed a long lake, known as Lake Hitchcock. It stretched at least 250 miles up to north of present-day St. Johnsbury, Vermont.

You can see vestiges of Lake Hitchcock on the "Norwich Plain" where the Marion Cross School playground is today. This large, flat terrace marks the level bottom of the lake.

Another legacy of glacial retreat is a landscape with waterfalls for hydropower and transportation corridors along valley floors, such as the one we are on here.

Our first stop is Blood Brook.

Turn left out of the driveway and left onto Elm Street.

Cross the bridge and stop on the side of the road where it's safe.

You might want to listen to the next stop while standing on the bridge.

Stop 1: The Mills at Blood Brook

Look down from the upstream side of the bridge at the ledge along both sides of the rushing water. That stone is from the early Paleozoic era and was formed horizontally probably 6 miles deep in the earth's crust and gradually changed direction as it was being forced upward.

The natural water falls you can see from both sides of the bridge are a legacy of glacial retreat and clearly illustrate the rapidly changing elevation along this stretch of Blood Brook. It's the difference between the water level above the upper falls and the level below the lower falls that makes this an ideal place for harnessing waterpower. Over the years a number of small industries took advantage of this power including gristmills for grinding grain, sawmills, cloth finishing mills and several tanneries.

At various times and locations along this brook, a number of dams were built to trap the water and form mill ponds. This water would be stored behind the dams at the highest elevation possible in order to maintain a consistent rate of flow to the nearby water wheels. This in turn helped keep the mills running during the summer months when water levels in streams and rivers were generally lower.

If you had walked down the road to Blood Brook in the years following the Civil War, in addition to the roar of the water, you would have heard the rumbling of the waterwheels, the grinding and clanking of various machines and the shouts and chatter of the workers who kept them all running. Upstream there was a brick mason working close to the brook. Downstream, you would have seen a busy sawmill that also produced wooden tubs and pails. Millhands from Massachusetts, New Hampshire, and Scotland all boarded near these mills. Unfortunately, you would also have smelled the tannery where animal hides were being processed into leather.

Building on the banks of any flowing water is not without its risks. Spring freshets and seasonal flooding swept away mill after mill, but the lure of inexpensive water power always drew the mill owners back.

Our next stop is at the end of Hopson Road. Drive to the top of this hill and turn right onto Hopson Road. Follow Hopson Road just to the end and find a spot to stop along the side of the road.

Stop 2: Mechanic Street, or Hopson Road

This area of Hopson Road was once named Mechanic Street. In the 19th century, most of the people living in this area were manual laborers.

The Census reveals a rich picture of what it would be like to be transported to 19th-century Mechanic street—you would have found yourself on a busy dirt road lined with houses and shops. There were two blacksmith shops.

The residents, some of whom had moved to Norwich from places such as New York or Canada, would be at work. You would hear anvils ringing, saws cutting, and hear others talking as they headed off to work on the railroad.

Our next stop is near the Ompompanoosuc River at Campbell Flats Road. Turn right and then left on Main Street. Travel 5 miles. Turn right onto Route 132 east. Cross the Ompompanoosuc River and stop across from Campbell Flats Road.

Stop 3: Pattersonville

The Ompompanoosuc River begins in Vershire and travels down through West Fairlee, Thetford, to this corner of Norwich before emptying into the Connecticut. Since early settlement, the river powered a variety of mills, turning out lumber, grain, linseed oil, and shingles.

In 1872 Leslie Spencer Patterson of Strafford purchased the sawmill and shingle factory that had been standing on the bank of the river. Known as Spencer, he quickly invested in upgrading the facilities, eventually expanding into full-scale chair manufacturing.

It was a good spot. There was a consistent flow of water, reliable transportation thanks to the railroad, and a ready supply of logs drawn to the factory not only by local residents but also from the springtime log drives on the Connecticut River.

If you look downstream from the bridge on the right you can just make out the remains of the dam which created the millpond that powered the factory.

Spencer, as he was known, quickly invested in upgrading the facilities and eventually expanded the business into full-scale chair manufacturing. A small but thriving company town developed around the factory which included eight tenements to house workers who moved into the area to take advantage of the opportunities. Among them was Chester Tucker, who in 1910 came to work as a sawyer at the tender age of 14.

That yellow house on your left belonged to mill-owner Spencer Leslie Patterson. The small white house was a tenement.

Just to the right of the yellow house there once stood a general store, the second floor of which sometimes served as a dance hall. Eventually the community became known as Pattersonville.

By the late 19th century the Patterson Chair Company had become a leading supplier of chairs. Made of pressed wood or rattan, they came in a variety of styles achieved through the use of interchangeable parts.

Not only were the chairs snapped up by homeowners, but they were also purchased for schools and churches. They were shipped via the Boston & Maine Railroad from the Pompanoosuc Station.

The mill turned out 8 to 10 carloads of chairs every year along with about 800,000 feet of rough and dressed lumber every year.

Spencer Patterson's son, Leslie, helped grow the business through innovative marketing. He introduced catalogs, hired salesmen to travel far and even created a wholesale distribution center in Springfield, Massachusetts. Leslie's success is reflected in the company's gross sales of \$61,500 in 1909, the approximate equivalent today is \$1.8 million.

Upon the sudden death of his father in 1909, Leslie Patterson returned to Pattersonville to run the family company. When he later learned of plans to build a dam downstream at Wilder that would have reduced the available water power upstream, Patterson sold the chair factory. Eventually the New England Power Association purchased the town and gradually sold off portions of the property. The Flood of 1927 washed out the mill dam. Fire consumed many of the structures.

Our next stop is Old Bridge Road.

Continue down Route 132. Turn right onto Route 5 South and almost immediately thereafter, turn right onto Old Bridge Road. Just after the houses, turn left into the boat ramp landing.

Stop 4: Old Bridge Road Boat Ramp

As you look across the river you will see the rock abutment from a former covered bridge that was built just after the Civil War. Beyond the abutment notice the remains of an old road. That was once Route 5, which was relocated in 1938.

In 1946 there were four bridges over the Ompompanoosuc—a railroad bridge, the new bridge over Route 5, the old covered bridge, and the bridge near Pattersonville.

At times spring thaws and heavy storms resulted in paths of destruction to downstream settlements along the Ompompanoosuc.

Between 1947 and 1950 the U.S. Army Corps of Engineers built the Union Village Dam to lessen the detrimental effects of floodwater for downstream cities like Springfield, Massachusetts, and Hartford, Connecticut.

It is located four miles above the confluence of the Ompompanoosuc and Connecticut Rivers, and is one of a series of 16 reservoirs and dams designed and built to control water flow into the Connecticut. It stands 170 feet high and cost \$4.1 million.

The Wilder Dam, built in 1950 between Wilder, Vermont, and Lebanon, New Hampshire, after purchasing flowage rights from most riverfront landowners, raised the level of the Connecticut River by 16 feet, wiping out much of the meadowland that was part of this hamlet.

Our next stop is just back at the end of this road. Turn right leaving the boat ramp. Stop at the end of Old Bridge Road and look across Route 5 and down Kendall Station Road.

Please do not drive onto this road, because there is no outlet and we wish to discourage people from using the driveways in this quiet community to turn their cars around. The railroad crossing has no safety gates.

Stop 5: The View from Old Bridge Road

If you look across Route 5 and down Kendall Station Road you will see a railroad crossing sign and railroad tracks. Route 5 originally crossed the Ompompanoosuc River where you just saw the bridge piers and ran along what is now Old Bridge Road and Kendall Station Road.

In 1848 the Connecticut & Passumpsic Rivers Railroad laid track between White River Junction and Bradford. White River Junction became the largest rail hub in the valley, with five railroads converging. Eager to get copperas ore to market in southern New England,

the Elizabeth Mine in Strafford erected the railroad station in Pompanoosuc. Large teams of draft animals took ore ten miles downhill to Pompanoosuc Station and brought back supplies and fuel.

The station agent, Hersey E. Kendall, was kept busy with many special shipping arrangements for the mining company, and the station eventually became known as Kendall Station. Copper was also mined at Waterman Hill in Pompanoosuc and shipped out.

The Patterson Chair Factory shipped chairs, tables, and other furniture as well as lath, lumber, and shingles.

From 1876 to 1902, Hersey Kendall was postmaster and station agent. He, his wife Cora, and their two sons, Warren and Leon, lived on the second floor of the station, which is the house on the left just after the tracks.

Both the Patterson Chair Company and the Elizabeth Mine built freight sheds at the station, which served as the hub for transportation and communication, including telegraph service introduced during the Civil War. You can still see the remains of telegraph poles—the poles with cross arms running along the east side of the tracks.

During World War II the demand for copper surged. Truckloads of ore were carried daily on newly paved Route 132 to be met by waiting trains at the station, or stored in the large freight shed, now part of the house at 38 Kendall Station Road.

Kendall Station closed in 1958. Advances in technology, making shipping by automobile and truck more viable, and the advent of the interstates contributed to a decline in rail traffic. Today the Vermont Rail System runs at least one train to Canada daily each way, along with summertime excursion trains out of White River Junction.

Our next stop is just .2 miles south. Turn right onto Route 5. Travel .2 miles and pull over at Hemlock Road, where you can see the railroad bridge.

Stop 6: The River as a transportation artery

Until the late 1790s the Connecticut River was the most important highway to the Upper Valley. Early settlers reached their new homes by canoes and rafts during open water seasons and by sleds, sleighs, and wagons during the winter. They visited friends, traded with neighbors, and visited with family back home.

At first travelers crossed the river by way of canoe and later by ferry. Early ferry landings were chosen based on the accessibility of the shoreline. The narrow place at the site of the current Ledyard Bridge had long been a crossing spot—it was even narrower before Wilder Dam was constructed. A rope ferry operated at the foot of Loveland Road enabling travelers to get from Norwich to what is still called Rope Ferry Road in Hanover today. A sturdy rope that stretched across the river helped the ferrymaster navigate a straight course. A ferry and winter ice road operated one mile south of the Ompompanoosuc River until around 1840.

Running alongside the Connecticut River are three more transportation networks: the railroad, Route 5, and Interstate 91 all following ancient routes trod by Native Americans. The river has crept closer to these roads with construction of Wilder Dam.

The railroad had a tremendous impact on Norwich, as did the arrival of the interstate. With the availability of automobiles, roads were improved and paved. The interstate opened the corridor to high-speed travel.

In 1922 the New England states adopted a numbering system for their interstate highways, just four years before the federal government developed its own system.

The federal system used odd numbers for north-south routes and even numbers for east-west routes—the opposite of the New England system. The New England routes that did not become US highways retain their old numbers. So, across the river, Route 10 runs north/south. You are driving on Route 5, a federal highway running north/south. Even/Odd; NH/VT—there's always something marking the difference.

Construction of Interstate 91 began in the 1960s and the highway followed the path of earlier travelers.

Our next stop is Norwich's Water District pumping station. Continue down Route 5 for 2 miles and pull over at the pumping station.

Stop 7: Norwich Pumping Station

Before the era of electricity, food was preserved using ice harvested from ponds, rivers, and lakes. Usually harvested in February, blocks of ice were stacked and packed in salted hay and sawdust, and stored in icehouses or barns. Some of the ice came from the west side of the Connecticut River near Lewiston. In the early 1900s the Lewis family stored it in their barn and peddled it door to door throughout the summer. As lakes, ponds, and rivers grew increasingly polluted, their ice became less desirable.

Things didn't improve much until the 1930s and 1940s when ice could be frozen in refrigerators using sanitized water. By this time the finished product was being hauled by wagons to ice boxes in people's homes.

Unfortunately, the Connecticut River itself had not been making the same progress and by the 1950s it had earned a reputation as "New England's best landscaped sewer."

Tailings from copper mining, raw sewage from private residences, effluent from factories and slaughterhouses, the insecticide DDT, herbicides, oil, and other pollutants All found their way into the Connecticut River and its tributaries.

And adding insult to injury, the river was used as a dumping ground for household refuse. Long-time resident Bill Aldrich has childhood memories of sinks, refrigerators, tires, and other assorted trash littering the riverbanks in Norwich.

The Elizabeth Copper mine, whose ore was first discovered in 1793, became the largest operation in New England during World War 2. Although the mine closed in 1952, its waste piles continued to pollute the Ompompanoosuc. The mine was designated an EPA Superfund site and is now capped, significantly improving water quality and the return of life in the river.

But these pollutants and a series of dams along the river disrupted the natural habitats of fish, and some, like the migratory Atlantic salmon disappeared altogether.

The Connecticut River Watershed Council, formed in 1952, was an early player in promoting river cleanup. In 1972, the Clean Water Act was passed by Congress to strengthen and expand regulation of water quality.

Wastewater treatment systems, modern household septic systems, and new standards in farmland and manure management have helped further improve water quality although much work remains to be done.

Norwich's drinking water comes from a 170-foot-deep well that produces 250 gallons a minute. The aquifer stretches from St. Johnsbury, VT, to Middletown, CT, approximately the same stretch as ancient Lake Hitchcock. Today on average, Norwich uses 65,000 gallons of water a day. The aquifer has the capacity to provide a million gallons in a 24-hour period.

The pump you see here pumps the water 5 miles up to a holding tank on Dutton Hill. The tank is 100 feet long, 50 feet wide, and 12 feet deep. It can hold 500,000 gallons. That water is then pumped back down to serve people in the Norwich village Fire District.

Our next stop is at the old Lewiston Train station. Follow Route 5, bear left onto River Road and stop just before the lights. Turn right and pull all the way back in to the railroad station building. As you drive down Route 5, notice the steep outcroppings of ledge. That is where the continental plates crashed together.

Stop 8: Lewiston

If you can take the podcast with you, walk over to the river.

Imagine looking out onto the river and seeing it filled bank to bank with logs.

Since early settlement, logging was a lucrative business. Millions of long hardwood logs from Vermont and New Hampshire forests floated down the Connecticut River during the legendary log drives after the Civil War. In the Northern Forest, hundreds of men cut red spruce and other trees in the winter, and used draft animals to haul them to the tributaries and drove them on down the Connecticut. Dozens of dams were built on rivers and streams to hold back the water flow until the drive was ready, and then loosed to flush the timber downstream. The work was dangerous and required spiked boots and the ability to ride

logs in fast, icy water up to 16 hours a day. It was said that the women who kissed their men good-bye in the spring never knew whether they'd see them alive and whole again.

The last big drive of long logs on the river took place in 1915, when 65 million feet of lumber was driven down the Connecticut by 500 men from all over New England and Canada. With pulpwood rather than hardwood in greater demand, trucking roads providing alternative transportation, and power companies harnessing the river for energy, the logging era ended.

Now cross under the Ledyard Bridge and into Foley Park.

The Connecticut River has hundreds of tributaries.

During heavy rains, spring thaws, and extraordinary weather events of the past, such as the flood of 1927, these tributaries emptied swollen bodies of water into the already engorged Connecticut River.

Between 1948 and 1950, New England Power Company built the Wilder Dam. It raised the water level 16 feet, flooded slightly over 3,100 acres on both sides of the river, and created a reservoir that extends from Wilder to Newbury, Vermont. Residents either sold their land to the power company or granted the company flowage rights. Thanks to the new dam, a large section of what was once Lewiston is now under water.

Today's Connecticut River is a very different river than the one navigated by Native Americans and early English settlers. Flatwater ponds cover what were once strong rapids and steep waterfalls. During summer droughts it would have been possible to wade across the river at some points.

Have you ever canoed upstream on the Connecticut River? Well imagine being in a birchbark canoe with all your belongings, making the journey from Connecticut to Norwich.

It would have taken 12-15 exhausting days of hard paddling, poling, and portaging. Some of those first determined settlers wintered near here on the banks of the river in 1765.

Two years later in 1767, Dr. Joseph Lewis arrived from Old Lyme, Connecticut (probably not in a canoe), and settled on the Vermont shore. At just 21 years old, he became the area's first doctor and official entrepreneur. In addition to his practice, he established an inn and began a rope ferry service, which was toll free to clergy and Dartmouth College officials, as well as people who used his gristmill. He also had a sawmill on Blood Brook.

Anyway, let's head back to the train station to hear about the town that would not surprisingly bear the good doctor's name.

Lewiston has always been a transportation hub. Its fortunes were always linked to transportation. Ferries and bridges provided a link to Hanover. This train station, originally called the Norwich/Hanover stop, was built in 1884. In 1898 a post office was built in Lewiston and the mail arrived by train twice a day.

Families took the train to White River Junction and back to shop, and on Saturdays took the "peanut train" down to the picture shows.

Dartmouth always had a close relationship with Lewiston because of the railroad and the freight and passengers it carried. Not only did many Dartmouth students alight from the trains, but so did the trains carry much freight for the college. In 1907 Dartmouth received 4,000 tons of coal to heat its buildings. In 1902 you could take 5 trains a day north and 4 south from Lewiston. By 1959 the station had closed after cars and trucks began to supersede trains.

Today you see the train station, freight terminal, the old Thompson mill, and the brick Ransom Lewis house.

The very tall building was once the Thompson Grist Mill. Early photos of the Thompson Mill show a handsome structure with large painted wall advertisements for "J. D. Thompson, Flour.Grain.Feed" and "Occident Flour...Costs More, Worth It".

Other buildings in Lewiston included a general store, shoe shop, and many homes on both sides of the road leading up the hill.

The building we see today has been covered with metal siding to preserve its utility. Inside remain massive timber beams and joists, said to have been salvaged when an early bridge over the Connecticut was replaced."

In 1964 a proposal was made to build an interchange in Norwich for the new Interstate 91 coming north. Some in town wanted the interchange further north, others wanted no interchange. A vote in favor of the current location was taken in August 1966, with a tally of 347 to 311. In April 1967 five homes and several other buildings were leveled to widen the road.

The story of Lewiston exemplifies the significance of rivers big and small in Norwich's history.

Humans' interactions with waterways are always changing, and you've probably heard the old adage, "you can never step in the same river twice."

We hope you enjoyed your tour. You can find photographs and more stories of Norwich's rivers and mills at the Norwich Historical Society website, as well as links to more podcast driving tours and walking tours.

The impetus for this podcast came from an architectural and archaeological survey conducted by Hartgen Archaeological Associates.

Much of the information for this podcast was drawn from the writings of Brian Dade in *Norwich, Vermont: A History*, and in *Proud to Live Here in the Connecticut River Valley of Vermont and New Hampshire*, by Richard Ewald with Adair Mulligan.

Thank you!