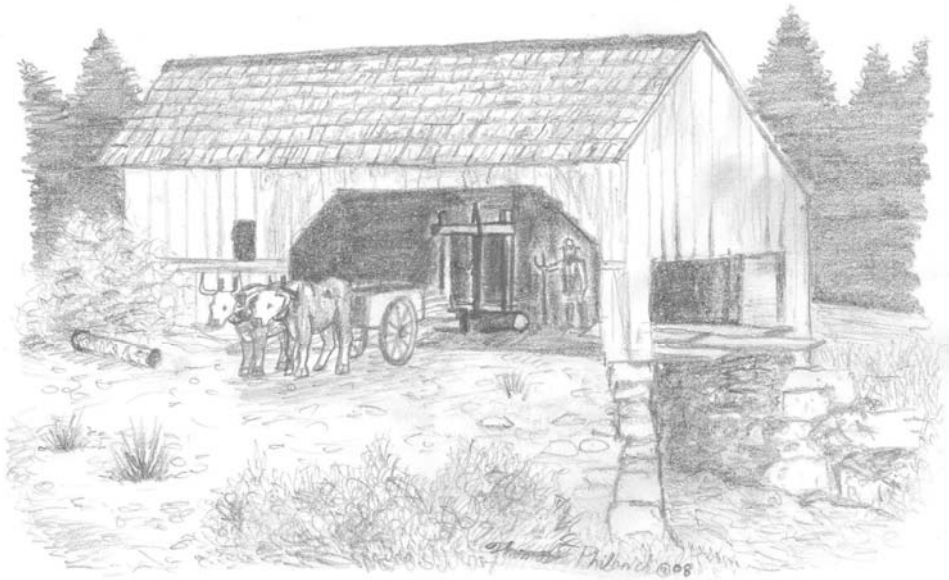


***WATER POWERED MILL SITES
IN
CANDIA, NEW HAMPSHIRE***



DOCUMENTED BY

DIANE PHILBRICK & JIM LINDSEY

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IMAGES OLD AND NEW

INTRODUCTION

The Eaton map of Candia published in 1852 showed several mill sites and the question arose, "Are they still there?" With the 1852 map as the tour guide, we set out to find, photograph and document the 2005 status of the mill sites. The Candia Heritage Commission wanted to create an historic map of historic sites and Jim Lindsey was involved with this project. We became an adventurous team. This is not, however, an equitable relationship. Jim does all the work and I have all the fun. Jim has done GPS mapping, historical research at the registry of deeds, record keeping, scanning and printing at his computer. I take my camera and often my grandchildren for splendid walks throughout our uniquely beautiful town. The third member of the team is my husband, Jim, whose career spanned over 30 years in the power industry. This project was home territory: water powered mills equated to hydroelectric generation; water wheels have their modern form as turbines; belts and pulleys created a simplified power plant. Jim approaches the project asking, "How did it work? How was it built?" Amongst us we have accumulated a great deal of information and a wonderful collection of images. All of this is too interesting and valuable to store away. We want to bring to Candia residents an awareness and recognition of these historic sites and thereby hopefully ensure their preservation.

These little-known archeological treasures await those who enjoy walking along abandoned or discontinued roads, wooded paths or the Portsmouth to Concord abandoned railroad bed. It is precisely the absence of paved and developed roads that has fortuitously allowed the preservation of archeological remains of an era of colonial settlement along the brooks in our town. Here we find the remnants of the dams and the stonework of foundations of water powered saw mills and grist mills that flourished from the days of original settlement before the Revolutionary War to the early 1900's. Abandoned today, the beautiful rockwork tells us of settlement and agricultural and industrial life in colonial Candia. The appropriate way to locate these sites is with the 1852 Eaton map of the town when this mill activity was at its height, a topographic map that clarifies the watersheds and the 1893 J. Bailey Moore *History of Candia*. With a bit of investigation and imagination we can revisit this era because of the endurance of our distinctive New Hampshire granite. If left undisturbed by development, sturdy dams, expertly built rock-walled raceways, and foundation stones of these mills endure today. Water held by dams and funneled through the rock sluiceways today is unhindered by water wheels that had converted its energy to mechanical power. Waterpower sawed lumber for dwellings, shingles for siding and roofing, ground grain for life-sustaining bread, cut nails for the carpenters and carded wool for the seamstress. Settlement, survival and industry all required the power of harnessed water. Mills in this narrative will be named as recorded on the 1852 Eaton map and in the Moore history. Because of multiple owners, mills were known by various names over time.

EARLIEST DAYS

A granite boulder with a bronze plaque marks the location of the first settler in Candia, William Turner in 1741. It is located on Route 43 about a quarter of a mile south of the Baptist Church. Candia, then part of Chester, would have been explored by that time so it is not surprising that our first resident would have chosen this most desirable lot. Here the North Branch of the Lamprey River provided water necessary for basic survival, soil enriched as a floodplain, and land less rocky than the surrounding hills. In addition, the river at this location had a natural drop that would become the site of a water powered mill.

The first dwelling must have been a primitive structure, for the construction of a substantial building required planks and timbers. Cutting these by hand was an arduous and very time consuming task. To hand hew a timber, a log was notched to a required depth with a small sharp axe and then chopped to that depth with the broad axe. One long framing timber could have taken an entire day to make.

Planks could be sawn by two men with a framed pit saw. The log would be elevated or the man on the bottom end could saw from a dug pit. Either way, the pit man had the difficult position of sawing on the down stroke which is the cutting stroke and then being the recipient of the sawdust, a slow and grueling process. (We retain the term pitman to refer to a rod in a machine that mechanically transfers power from rotary to up and down motion.) Harnessing the power of water to cut these planks and timbers was crucial to settlement.

The second necessity for these early settlers was the grist or grain mill. Hand grinding of grain with mortar and pestle to create flour was extremely tedious. Transporting grain to a mill in another village was not viable because of travel conditions and the time required. A local mill to provide this life-sustaining staple was essential.

Earliest settlers were likely to follow the waterways and choose the location that held most promise of harnessing the river or stream for waterpower. Roads would then be laid out to access the mill site. Homesteads would be established near by, until gradually a community would develop. Candia Village is exemplary. William Turner is cited as the first settler in 1741, but it would be several years before those early residents would have the luxury of waterpower. On March 27, 1753 a 1/8 interest, with irons in Turner's "New Gate Mill" was sold to Jeremiah Bean, Sr. This is the earliest record of mill ownership we have found. Stone and wood to build dam and mill were readily available, but the financial investment for the iron and grist stones was significant. This fractional interest tells us that the mill would require the joint effort of several settlers. After the first mill was built, the area that we now know as Candia Village would continue to grow and diversify in manufacturing activities thanks to the power of the North Branch River.



CONSTRUCTION AND OPERATION OF A WATER POWERED MILL

By the time Candia was settled, the design and operation of water powered mills were well understood. Mills had been in common use in Europe for hundreds of years so many settlers came to the colonies with knowledge and experience. An invaluable aid in construction was Oliver Evans' "Young Millwrights and Millers Guide", originally published in 1795 and reprinted several times. This handbook covered the physics of waterpower, the possible options for harnessing that power and the design of mills. The value of this book was expressed by the editor in the preface to of the ninth edition in 1836: "*There are few men whose mechanical inventions have contributed so much to the good of our country as those of Oliver Evans; for my own part, I could name but two, and they are Whitney and Fulton... The improvements in the flour mill, like the invention of the cotton gin, apply to one of the great staples of our country.*"

Most of a mill was constructed of wood and stone, two raw materials in unlimited supply in Candia. Acquisition of iron parts was more difficult and costly. New England foundries began to process natural iron ore and manufacture the parts that could not be fashioned from wood. Lynn Iron Works in Massachusetts may have been one source. An iron furnace can be seen today in Franconia, NH where smelting of iron was done as early as 1805.

The location of a mill on a stream had several requirements. A natural narrowing of the stream between rock ledges was ideal for the building of a dam. Behind this dam, a large flat open area was needed to create a pond. The pond assured an adequate water supply for the mill and a storage area for logs to be sawn. This dam had to be thick enough and high enough to withstand the continual erosive action of the water it held and the times of heavy rain. Release of water from the dam was usually done with hand operated wooden gates called sluice gates. Most dams had overflow trenches or a lower area to the side of the dam to release water during flood times.

Rocks walls, or sluiceways, were built to channel the water to the water wheel. The miller controlled the flow of water with an adjustable gate. The height of these walls would depend on the natural elevation change the mill would be able to utilize. The walls had to be able to withstand erosion from the fast moving channeled water, the effects of spring freshets, floods, the continuous abuse of frost heaves, the weight of the buildings and equipment, mill vibrations, the jostling of logs out of the pond and onto the mill carriage, the carts, horses and oxen arriving to carry off loads of lumber. It is a wonder any of these raceways or dams survived! Yet here in Candia we have numerous examples of the masterful rockwork done by our industrious predecessors.

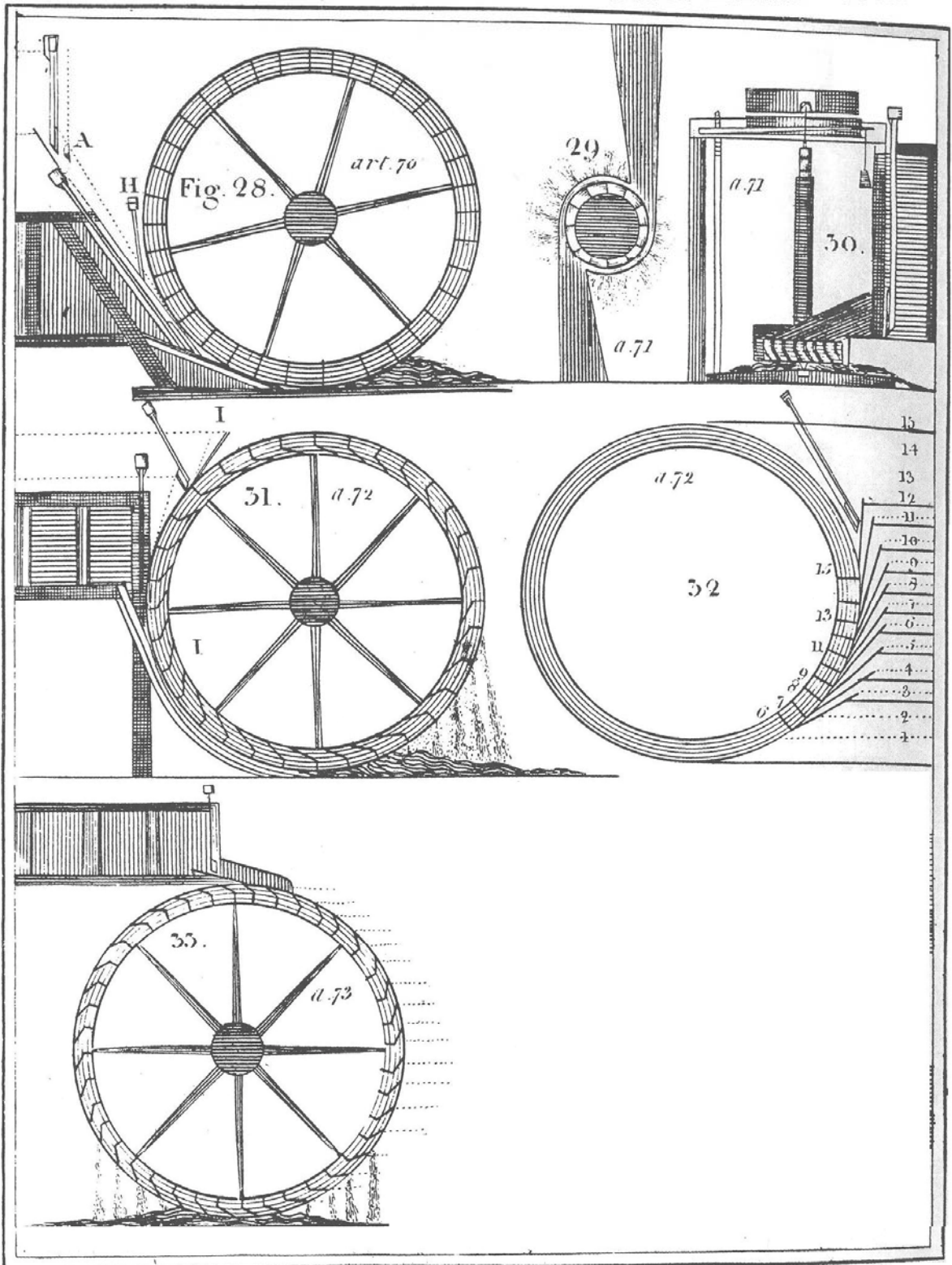
The water wheel, made of wood, was a circle of blades or buckets. The wheel turned both from the force of the water flow and from the weight of the water in the buckets. If the water flowed under the wheel, it was called an "undershot mill". An "overshot mill" was more powerful as the weight of the buckets full of water added great force. Water could also be directed at "breast height". The undershot wheel was least

powerful, but easiest to construct, required less head of water and was adaptable to many situations. There may have been no overshot wheels in Candia because of the high head of water they required. In a turbine style or tub mill, water was channeled through a wooden trough known as a penstock to turn a horizontal wheel that lay flat at the bottom of the water flow. Even a small flow of water could be used to operate a tub mill. The axle shaft of the wheel was supported by a stone foundation as was the mill building itself. We have included one of the plates from the Oliver Evans' book to illustrate the different types of water wheels.

Early saw mills operated with an up and down saw blade. The blade cut only on the down stroke and the log was clogged forward on the upstroke. It could take as long as ten minutes to saw through the log. It was said that the sawyer could ride the log and eat his lunch before he had to reset the saw for the next cut. The process was slow, but when compared to the same work being done by hand, it was an amazing improvement. The log was pinned at its end with iron spikes called *dogs*. The saw had to stop 4 inches short of the end so as not to hit the iron. The saw returned to the top of the log and was set at a measured width for the next cut. The up and down cuts of the blade and the split in the last 4 inches can be seen in lumber produced in these mills. Up and down sawing is demonstrated at the Taylor Mill in Derry, N.H. Owned by the State of N.H., restored and running for public education and enjoyment, this mill operates every other Saturday during the summer.

A gristmill ground grain into flour with two round stones, one stationary and the other revolving. Grist is a word for grain. The grain brought to local mills would have been corn, rye, oats and barley and some wheat. Although desirable for flour, wheat was not generally a successful crop in New Hampshire. The miller was generally paid with a percentage of the grain.

Grist stones were quarried in New Hampshire and Vermont, but the most desirable ones came from France. They arrived as ship ballast, cut into pieces. The local blacksmith would bind them back together with an iron hoop. These stones for a grist mill represented a significant financial investment. The surfaces of the grist stones, sometimes called burr stones, had to match perfectly. Grooves called furrows were cut into the stones, thicker at the center where the grain was poured in and thinner at the outer edge where the ground flour came out. Several grooving patterns were utilized. The miller would have to deepen or *dress* the grooves as the stone wore away. Millers' hands were often cut by the sharp edges. Fire was a constant danger due to friction between the two stones and the dry tinder potential of the grain they were milling.



Oliver Evans *Young Mill-Wright and Miller's Guide*
PLATE # IV

Figure 28 Undershot wheel

This wheel moves by percussion of the water and is only half as powerful as other wheels that are also moved by the gravity of the water.

Figure 29 Top view of the tub mill

Figure 30 Side view of the tub mill with the stone on top of the shaft.

The tub mill is less powerful than the undershot. "Their advantage is their exceeding simplicity and cheapness, having no cogs nor rounds to be kept in repair, their wearing parts are few; there is little friction, therefore is well fixed, it will not get out of order in a long time."

Figure 31 Breast Wheel. Acted upon by both percussion and gravity. The section of the wheel above the point of impact, called head, acts on percussion; all below, called fall, acts on gravity.

Figure 32 Breast wheel points of impact on inside; fall in feet on outside

Figure 33 Overshot wheel

EXPLORING CANDIA'S WATER POWERED MILL SITES

We will use the accounts in the J. Bailey Moore *History of Candia, N.H.* as our primary historical reference. Wherever possible, information is included from Dott Purington's book, *A Candia Collection*.

A logical way to study mill activity is to follow the streams and rivers. There are sites on two major watersheds in Candia: one flows to the Lamprey River and the other flows to the Merrimack River. Three of the streams we will investigate eventually flow into the Lamprey and one to the Merrimack. A watershed encompasses all the area of land that drains to the river.

The order in which we will tour these fascinating archeological sites will be:

The Merrimack watershed

Kinnicum Pond to Lake Massabesic:
GENESEE MILL
MAPLE FALLS MILL

The Lamprey River Watershed

High Street to Onway Lake:
CASS MILL
EMERSON MILL
PATTEN MILL
WARD BROOK MILL

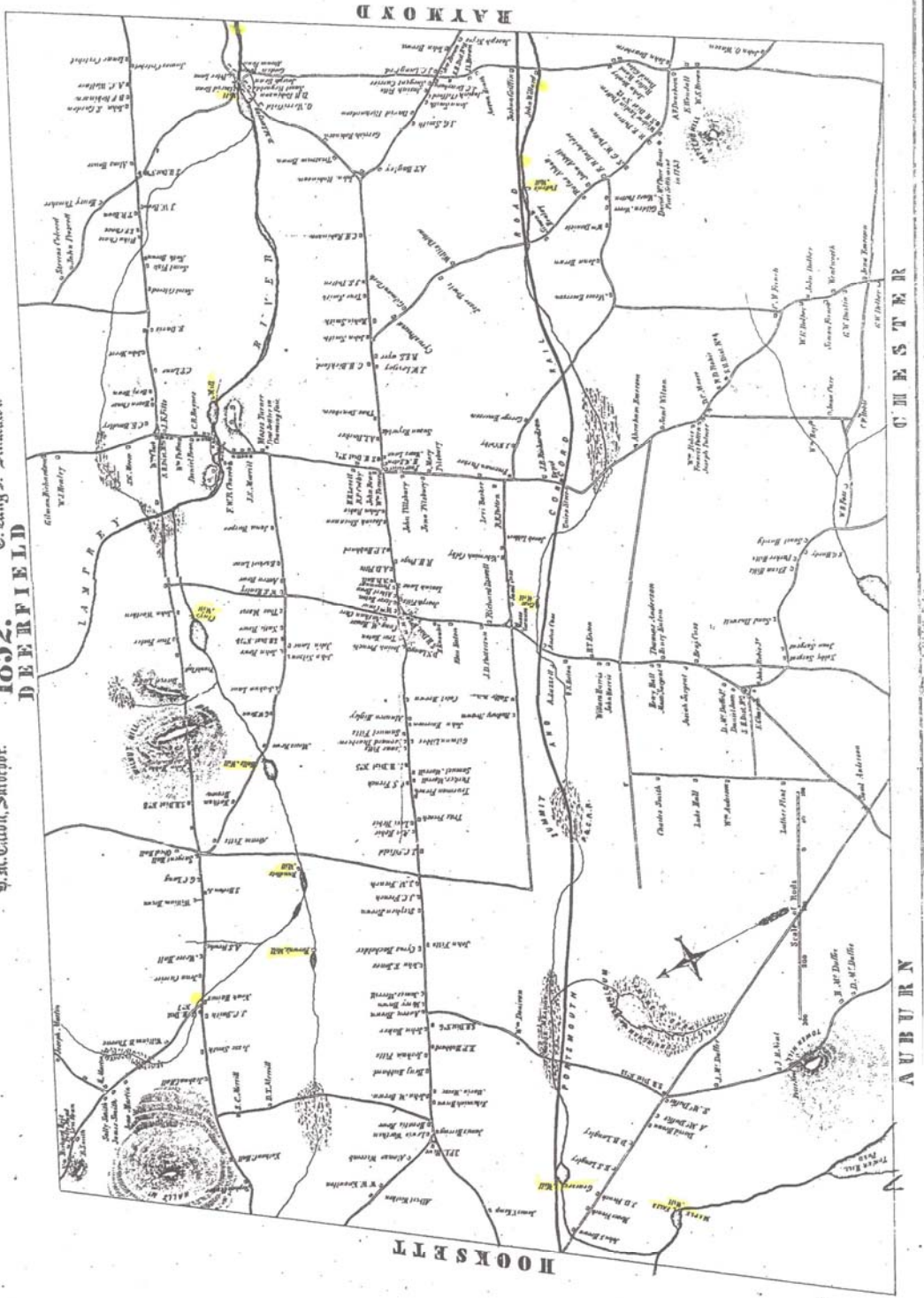
The Mill Stream flowing from Hall Mountain to the North Branch River:

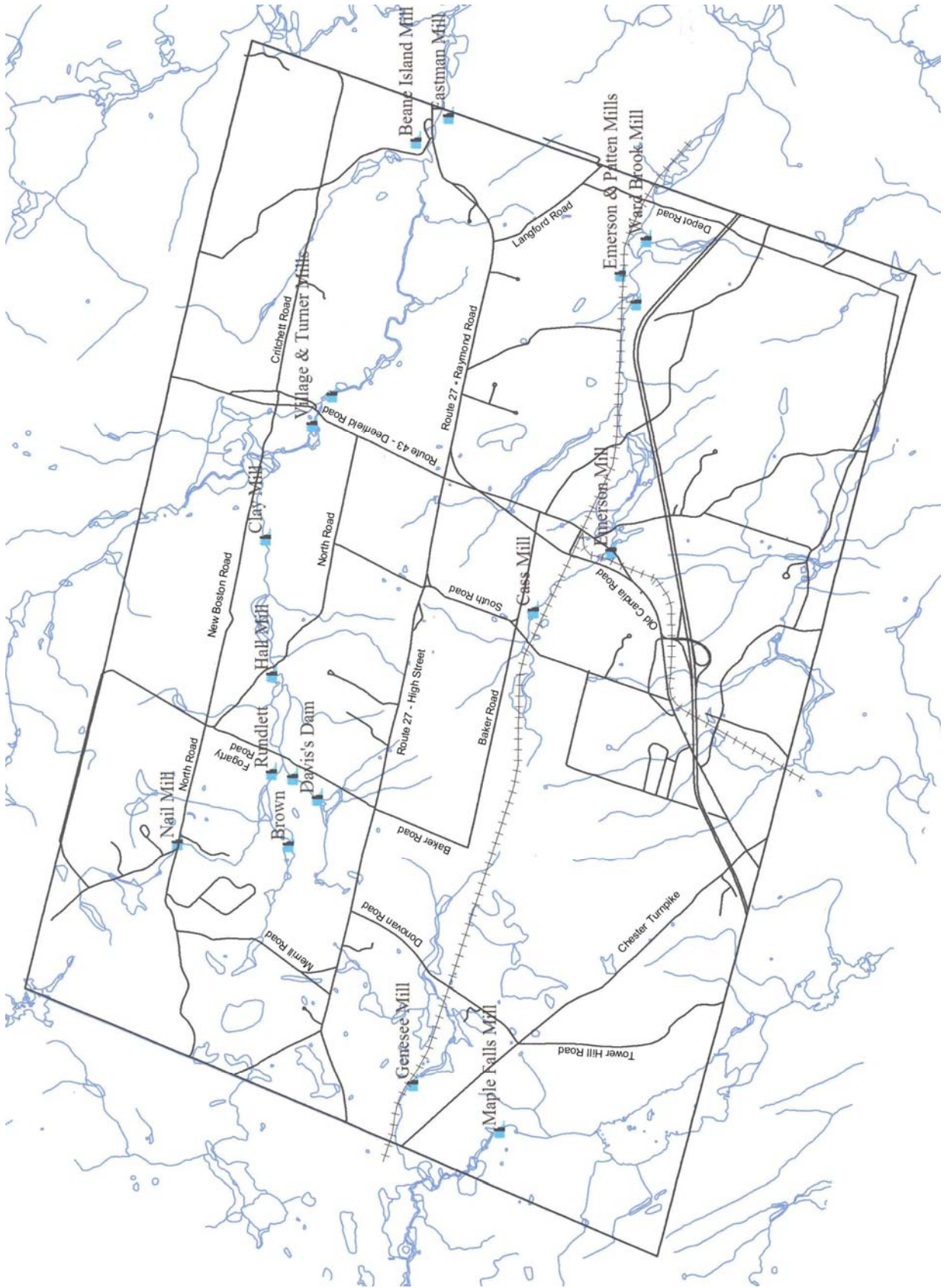
NAIL MILL
BROWN MILL
DAVIS MILL
RUNDLETT MILL
HALL MILL
CLAY MILL

The North Branch of the Lamprey:

VILLAGE MILL
TURNER MILL
BEAN ISLAND MILL
EASTMAN MILL

W A B
 OF THE
TOWN OF CANDIA.
 1852.
 G. M. Galton, Surveyor.







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KINNICUM POND TO MASSABESIC LAKE

A good mill stream which has its source in Kinnicum Pond and Moose Meadow, flows in a westerly direction about a mile and a quarter to the site of the Genesee saw mill. It soon after crosses the turnpike and empties into the Maple Falls stream, which is an outlet of Sargent's Pond and Sawyer's Pond in Hooksett. The latter stream once operated a saw mill which was situated on the Manchester road in Hooksett about a mile south of Rowe's Corner and flowed to Maple Falls, and from thence to Clark's Pond in Auburn, and through that pond to Lake Massabesic.

Moore page 39

The Genesee Mill

More than ninety years ago (therefore about 1800) a saw mill was erected on the stream which flows from Kinnicum Pond through Moose Meadow and across the (Chester) turnpike above the residence of Dearborn French and empties into the Tower Hill Pond. Among the original owners were Benjamin Hubbard, John Cammett, Stephen Fifield, Jonathan Brown, Dea. Samuel Cass and David Brown. A profitable business was done at this mill for many years. It was demolished about forty years ago.

Moore page 252

We will begin our tour at Kinnicum Pond, the only natural pond in the town. It is more accurately a bog. From here water travels through Moose Meadows, joins Maple Falls Brook and is the major feed to Tower Hill Pond. The outlet brook from the pond is next dammed at Clark's Pond in Auburn before it flows into Lake Massabesic and eventually to the Merrimack River. A sawmill at Clark's was still in use in 1938 when our Candia mills had been discontinued.

The Genesee Mill is easily reached from the abandoned Portsmouth-Concord railroad bed where it meets the Chester Turnpike. This is a short distance from Route 27, very near the Hooksett Town Line. The railroad bed is a particularly nice winter walk because the snowmobiles keep the snow packed. Frozen ground also avoids wet spots along the way that you generally need to walk around at other times of the year. Another advantage to a winter walk is the lack of foliage and unobstructed visibility. Within about a half mile you will be startled to see the stone work of the old mill that still confines the brook into a beautiful cascade. These enduring stonewalls are tall and straight, a testimony to the skill of the men who built them. The brook you have seen as you approached this site seemed so small and lazy, but here it gives a very different impression.

The watershed to this mill is dominantly swampland with minimum water flow. In order to reserve sufficient water to run the mill for as long as possible, two reserve ponds stored water. One dam is about 300 feet upstream from the mill and a second almost 4000 feet upstream. A maximum drop of about 12 feet from the top of the dam to the bottom of the mill provided a force of water to harness. Natural brook flow here is such that the use of this mill could only have been seasonal. The quality and quantity of

rock work tells us of the value of water power, even if it could be used only part of the year. To everything there is a season: growing, harvesting, making hay, sawing wood! The millers undoubtedly harvested and stored logs during the winter months and sawed out the lumber when the water was available.

William Duncan, the storeowner on South road, bought this site as a 48-acre parcel in 1824. When he sold it in 1834, he reserved sawmill privileges and the saw mill yard. From 1834 to 1857 varying interests in the mill were transferred several times to include the names given in the Moore account.

We would presume that the Genesee mill sawed the ties for the construction of the Portsmouth and Concord Railroad in 1851-52 because of its proximity. Pertinent to its success was that the rail could bring logs to the mill and export lumber from the mill. There was mutual ownership of the Genesee and Maple Falls mills further down stream and a common cart path from High Street accessed both mills. Because it was further from the railroad, logs and lumber were hauled to and from Maple Falls mill by oxen or horses. Business at these mills undoubtedly decreased after the closure of the railroad line to Concord in 1860. In a deed of 1870, the James Wiggins estate sold Nehemiah Brown a 1/3 part of the Genesee Mill, indicating that it was still in operation.

Maple Falls Mill

This mill was situated on the stream which runs from Sawyer's Pond and Sargents' Ponds in Hooksett. It was built on the reserve between the fifth and sixth ranges of lots in the third division. Among the original owners of this mill were Aaron Brown, Benjamin Cass Samuel Morrill, Theophilus Clough, Benjamin Hubbard, David Brown and Samuel Cass.

Moore page 252

About 1854, Dunlap and Houston of Manchester, bought the Maple Falls saw mill, and also bought a large timber lot situated between the lower end of High Street and Baker Road. This lot belonged to the heirs of the late Caleb Brown and the lumber was sawed at the Maple Falls mill.

Moore page 273

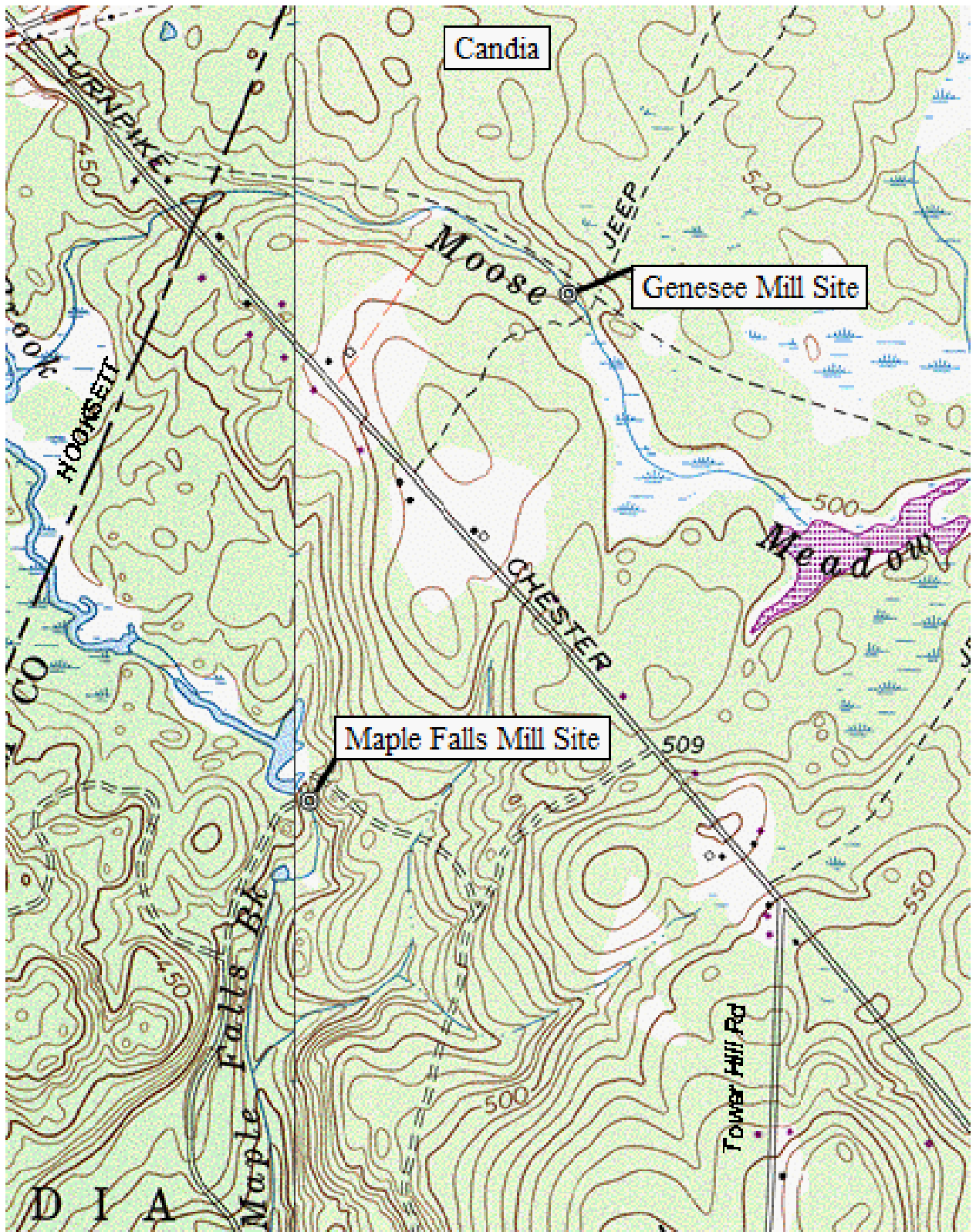
April 24, 1880 "Tower Hill- The Mill at Maple Falls has commenced running. They employ 8 hands. The capacity of the mill is about 10,000 {board feet} per day. They also manufacture lathes and shingles."

Candia Collection page 119

More effort is required to see the Maple Falls mill site. There are two approaches. The Southern N.H. Snowslickers have a clubhouse on Tower Hill Road, just beyond its junction with Chester Turnpike. This is a beautiful walk any time of year but try to go when the river will be at high water. It's downhill all the way to Maple Falls Brook, but prepare yourself for the steep climb back up! Follow the snowmobile trail that starts beyond the parking area, stay to the right when you come to two intersections. Listen carefully and you will probably hear the brook before it is in view. This site is a natural waterfall with water flowing over stepped ledges and was utilized as early as 1796, known at that time as Stevens' Mill. The dam, sturdy and holding water is on the south side of the brook. A jumble of rocks about half-way down the drop is the remnant of original rock work that may have been toppled by flood waters or may have been

knocked down in order to remove the iron from the mill. Rockwork at the lower edge of the drop would have served as foundation stones. The original cart path on the north side of the brook slabs the side of the hill but is still intact. It comes out on Chester Turnpike as a residential driveway, picks up on the other side and continues to High Street.

This site is Manchester Water Works property protecting the watershed at Tower Hill Pond and ultimately Massabesic Lake, the water source for the city of Manchester. One would presume that this ownership will also protect and preserve this mill site as Maple Falls Brook is the major inlet to Tower Hill Pond. To visit the mill site from Tower Hill, follow the Water Works road that encircles the pond in the counter-clockwise direction until you come to the northern end where Maple Falls Brook enters the pond. Two paths lead to the mill, one on each side of the brook. You can follow *Lennie's* path and take two left turns to reach your destination. An alternate path is on the far side (west) of the bridge over the brook that initially follows the brook and then takes two right turns. Look at the cliffs at the first intersection. Our glacial history has left us with so many interesting sights. The mill is a short distance beyond the second intersection. Depending on the water level, you may see a swift flowing meander in the brook just before you get there. The smooth ledge on this side gives quite a different impression than the steep descent and rock dam on the other. An extensive swamp and meadow now provide excellent habitat for a great variety of birds and wildlife. 150 years ago we would have seen this pond full of logs safely stored and ready to be sawn into lumber. When this mill became unprofitable, its land was abandoned as well as the mill itself and was taken by the Town of Candia for back taxes in 1933. At that time, this beautiful parcel of land was not worth even the tax dollars to own it! In 1947, the brook and the mill site were incorporated into the Manchester Water Works.



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Genesee Mill 2005
Candia, NH



Genesee Mill 2005
Candia, NH

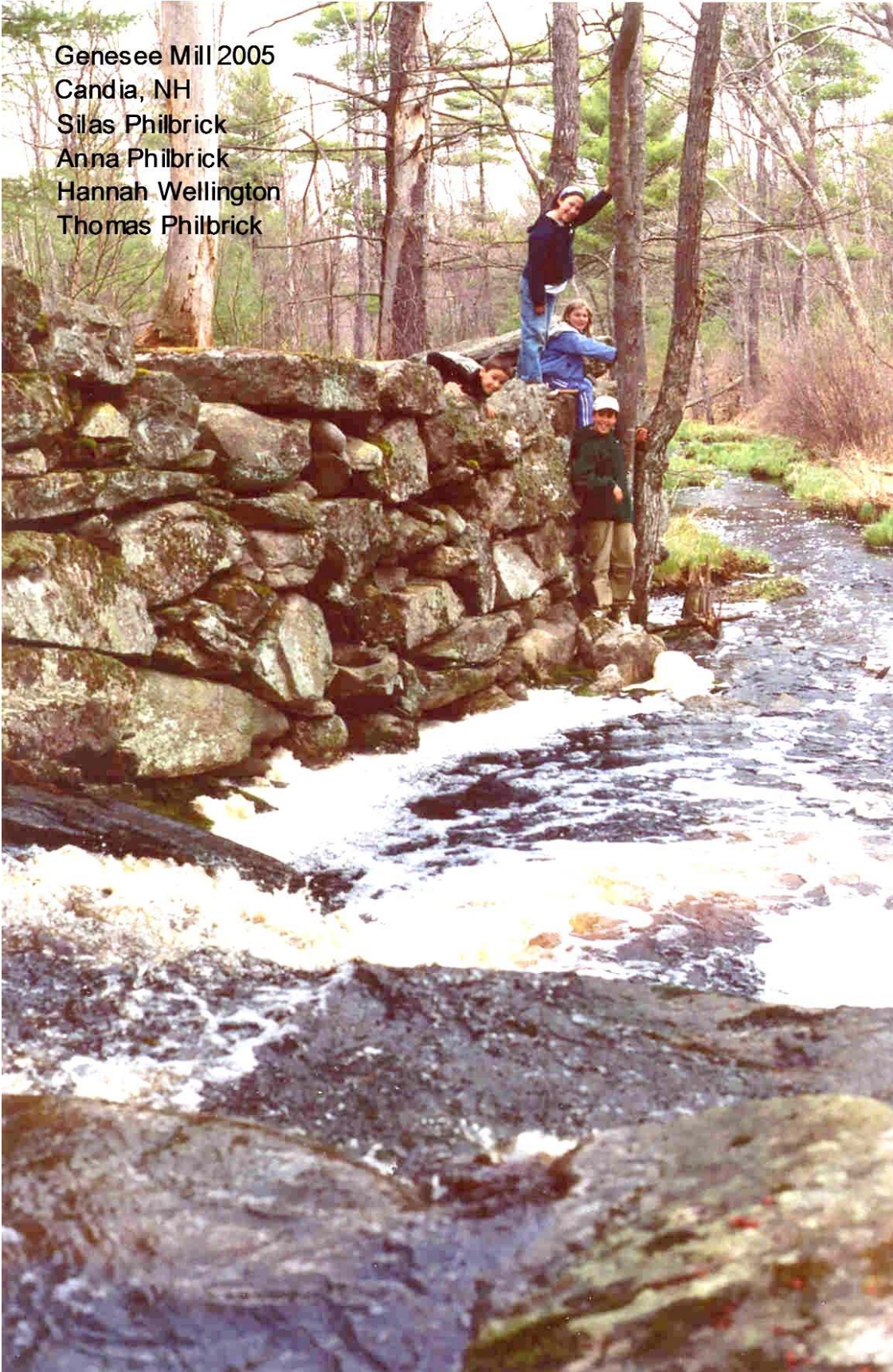


Genesee Mill 2005
Candia, NH



Genesee Mill 2005
Candia, NH

Genesee Mill 2005
Candia, NH
Silas Philbrick
Anna Philbrick
Hannah Wellington
Thomas Philbrick



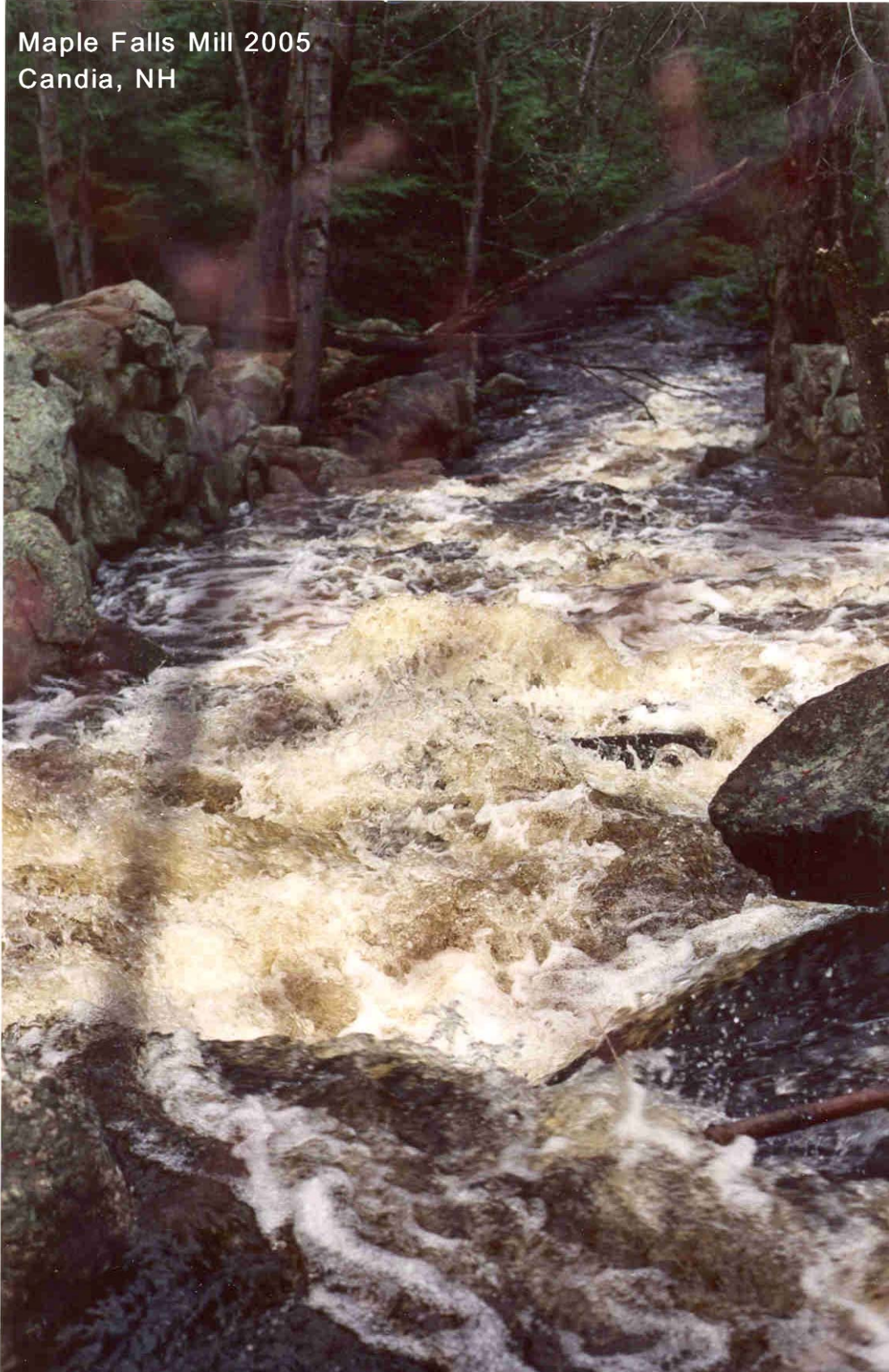


Maple Falls Mill 2005
Candia, NH



Maple Falls Mill 2005
Candia, NH

Maple Falls Mill 2005
Candia, NH



HIGH STREET TO ONWAY LAKE

A small stream of water rises in the hills near the old bed of the Portsmouth railroad, at the height of land between Portsmouth and the Merrimack River about a mile and a half west of the South road. The stream flows through Brown's meadow to Cass' grist mill. From that point it flows to Emerson's saw mill situated near Candia depot and from thence to a saw mill near East Candia depot, and about two miles farther down it empties into Jones' Pond.

Moore page 40

We can continue our search for historic mill sites by examining another watershed. Starting at the height of land along the appropriately named High Street, the terrain drops about 200 feet to the abandoned railroad bed. Run-off from the hill finds its way to a beaver pond on the south side of the Baker Road. This pond appears to have vestiges of an old rock and earthen dam that the beavers continue to fortify. As the water leaves the outlet of the pond, it becomes a small stream. This unnamed stream is again dammed by beavers at Adams Road at the Cass mill site and then continues to Main Street where the road itself becomes the next dam and creates what townspeople officially call "The Mill Pond". The water then feeds the Abe Emerson Marsh, our magnificent Audubon Wildlife Refuge. Moving on, getting bigger and more forceful, the brook now flows to the dam at Emerson Mill that has been reconstructed by Boyd Chivers near the East Candia Depot. At this point, it takes on the name Ward Brook and a small mill site by that name is found near Depot Road. The Ward Brook crosses into Raymond and soon flows into Onway Lake where it is again dammed before joining the Lamprey.

The Knowles or Cass Mill

Ezekiel Knowles, who was the first settler on Lot No. 110, 3rd. division, in 1777, built a grist mill on the stream which is formed by small rivulets flowing from the height of land situated near the southwest part of the town and Brown's meadow. The mill was rebuilt by the Knowles family in 1805. In 1825, the Knowles' place and the mill was sold to Col. Samuel Cass, who made important improvements in 1830. At the death of Col Cass in 1854, the mill came into the possession of his son, J. Quincy Cass. He died in 1878 and the mill was soon afterwards demolished.

Moore page 253

The Cass mill site at Adams Road has a rich history. The beautiful pond here was created by damming the brook as early as 1777 for the purpose of building a grist mill. A second dam further upstream may have increased the water storage for this mill. Beavers now create ponds at both sites. Ezekiel Knowles owned both locations and considering the minimal flow of water at this point, a reserve pond would have been very valuable. This was one of the earliest gristmills in the town, predated only by the mills in the Village.

We should make a few corrections to the account given in the Moore history. This was lot # 116 and its first settler was Mathew Ramsey in 1753. He sold it to Ezekiel Knowles' father, Amos, Sr., in 1768. Ezekiel bought ½ of the lot (40 acres) in 1770 and

the adjoining lot from his brother in 1809. J. Quincy Cass died in 1882 and the mill was demolished in 1900.

The diary of George Cass gives us tells of the closing of the mill with the sale and removal of the grist stones in 1883:

Nov. 23, 1883 A Mr. Wells Batchelder from Raymond came down here this pm with Geo. Patten and after looking over he bought the mill stones and cracker from us for \$55.00. He is to come and get them next Wed. -28. These stones are French Burr Stones and cost Quincey \$140.00 in Boston.

Nov. 27, 1883. In the afternoon Farther and I went over to the old mill and made some preparations so that we could get the stones out tomorrow.

Nov. 28, 1883 "At 9 o'clock went over to the old place with Farther. Mr. Batchelder accompanied by two men with two 2-horse teams soon arrived and then we commenced to get out the stones. This we succeeded in doing without much difficulty, and by noon both stones were loaded. Wells Batchelder and one of his men took dinner with me. Mr. Batchelder paid Farther \$55.00 for them. They got off about 1:30 p.m. after an extended use of the whip and an exhaustive flow of profanity for the benefit of 3 balky horses. Farther and I nailed up the place."

And so the Cass gristmill came to an end in 1883 and was finally demolished in 1900. There is minimal stonework to indicate the raceway or mill foundation at this site today to provide evidence of its workings and where the building sat that "Farther nailed up." It appears that any mill building must have been quite small. Two flat stones are strategically placed on one side of the stream and a possible rock foundation only about eight feet square is on the opposite side.

The dam is primarily intact and today is kept well maintained by the resident beavers. There is a double stone wall about ten feet wide extending on either side of the raceway, 60 feet to the west to a natural rise that holds the water and 30 feet to the east. Beyond this is a single rock retaining wall for another 60 feet to the east. Perhaps this was added to increase pond capacity. Along this single retaining wall are found two quarter pieces of grist stone. French Burr Stones often arrived as ballast on ships cut into pieces because of their extreme weight. A blacksmith reassembled the pieces with an iron ring. The pieces in the wall seem to be cut at a straight angle rather than broken. Moore tells us "important improvements" were made by Samuel Cass in 1830. We could speculate that these improvements included removing old grist stones, extending the dam to increase the water storage, and using the stone pieces as part of that wall.

The dam has an overflow trench dug from the pond, around the natural height of land on the west side and back to the stream below the mill site.

The Portsmouth to Concord Railroad bed is short distance from this mill site. Where the railroad bed crosses South Road was called Cass's Crossing and a railroad station was located there. There is a very deep cut for the railroad through a rock ledge near the mill site. During the railroad construction a fatality occurred when a man fell from a derrick that lifted large rocks to the top of a ledge (Moore page 246). This cut is

almost 30 feet high with many large rocks set on top that must have been raised by a derrick and might be the site of the fatality. The labor required to make this cut is staggering, and this is just one of several such cuts through ledge along the railroad bed. A short way beyond, the builders of the railroad were confronted with a pond. This pond was probably a dammed water reserve for the Cass mill as Ezekiel Knowles initially owned both properties. The pond remains today as a beaver pond and great blue heron rookery. The railroad bed disappears into the water and emerges again at the far side indicating that a trestle must have been built to span the pond that has long ago rotted away. The railroad labor crews were confronted with unyielding challenges. Despite the great investment of time and money in the construction of the Portsmouth – Concord railroad, it ran for less than 10 years. Built in 1851 and 1852, the section from Candia to Concord was discontinued in 1860 at a substantial loss to its investors.

An addendum to the writing of this account: the beaver dam at the Cass site was breached by flood waters in April 2007. We are now awaiting the industrious efforts of a new beaver family to restore the lovely pond.

Emerson's Mill at Main Street Depot

Sometime before the war of the Revolution Col. Nathaniel Emerson and several other persons, built a sawmill on the stream which operated the old Knowles' mill. The Emerson mill was located a few rods south of the railroad station at the Depot village. In the year 1805, the mill was torn down and another erected about twelve rods farther down the stream. When the new road from the Depot village was built, in 1852, a mill was erected still farther down the stream. A circular saw was put in at that time by Abraham Emerson and Coffin Moore the proprietors. Lewis Simons of Manchester owned the mill several years. The present proprietor is David Brown.

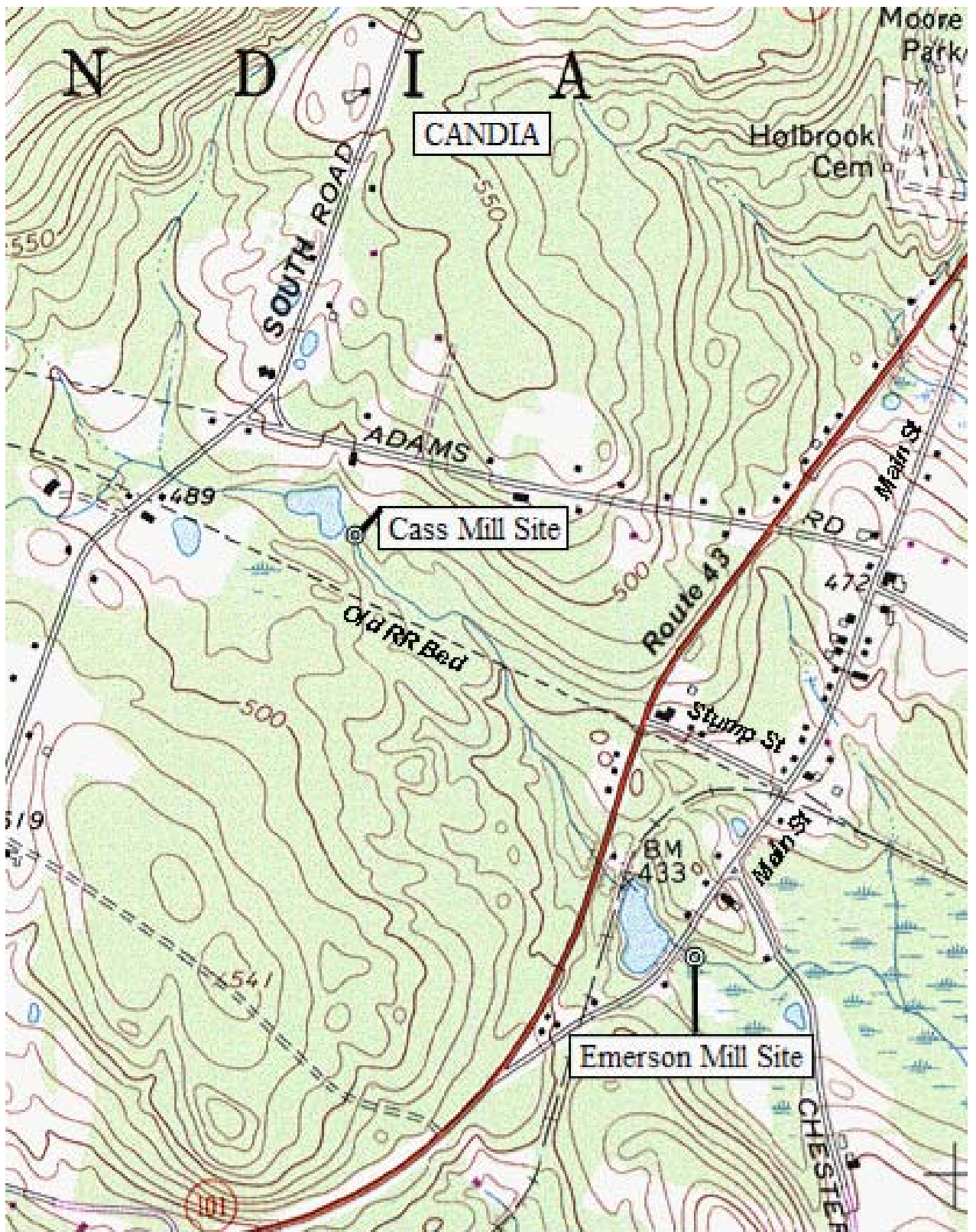
Moore page 253

Feb. 12, 1881 "Jesse Sargent is doing a good business this season in spite of the snow, teaming logs from the Island to Simon's Mill, Candia Depot."

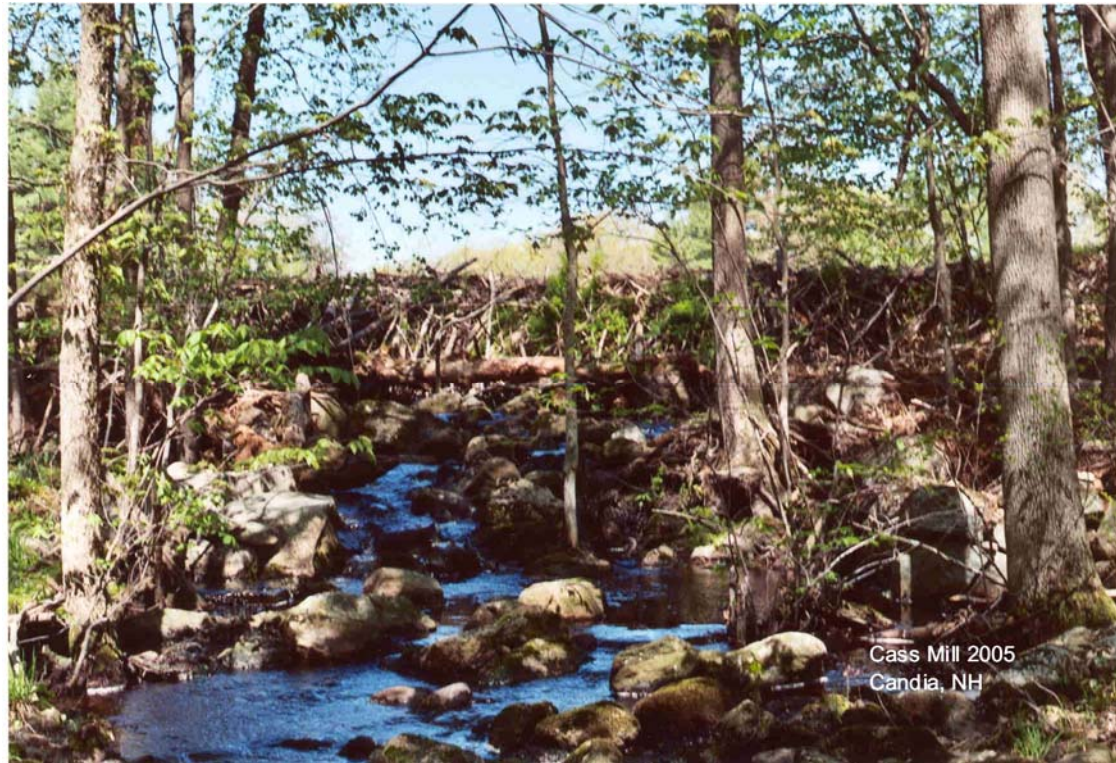
Candia Collection page 133

Candia has a pond on Main Street that is known as the Mill Pond. But ask residents the question, "Where was the mill?", and the answer (even from Mrs. Brewer who has lived most of her life by the pond!) is, "I don't know". Moore dates its beginnings previous to the Revolutionary War, making it one of the earliest mills in the town. It survived long enough to be converted from an up and down to a circular saw sometime after 1860 and the mill was still in operation in 1892 at the writing of Moore's history. Wooden remnants of that mill have long rotted away and the stone remnants presumably have been amassed into the road we call Main Street. This roadway had once been a narrow cart path horses and oxen had traveled to reach the mill from the Candia railroad depot. Photos of Candia Depot are included at the end of this section. Our present-day Main Street serves as the dam for our Mill Pond. But evidence of what had been a sawmill for well over a hundred years is gone.

Candia resident Russell Seward told of his father hauling lumber from portable saw mills in Deerfield to the railroad depot on Main Street in Candia. A man by the name of Richardson bought the lumber and shipped it by train to Manchester. Mr. Seward had six pair of horses. The route from Deerfield was over "breakneck hill". It took two pair of horses to pull the wagon up the hill. On the way down, one pair was hitched on the back to act as brakes. Scales at the depot were big enough to weigh the wagon and the horses. Russ' family moved from Deerfield to Candia when he was young. They lived in what had been the railroad depot on South Road, attended South Road school through 7th grade and went to 8th grade in the new Moore School.



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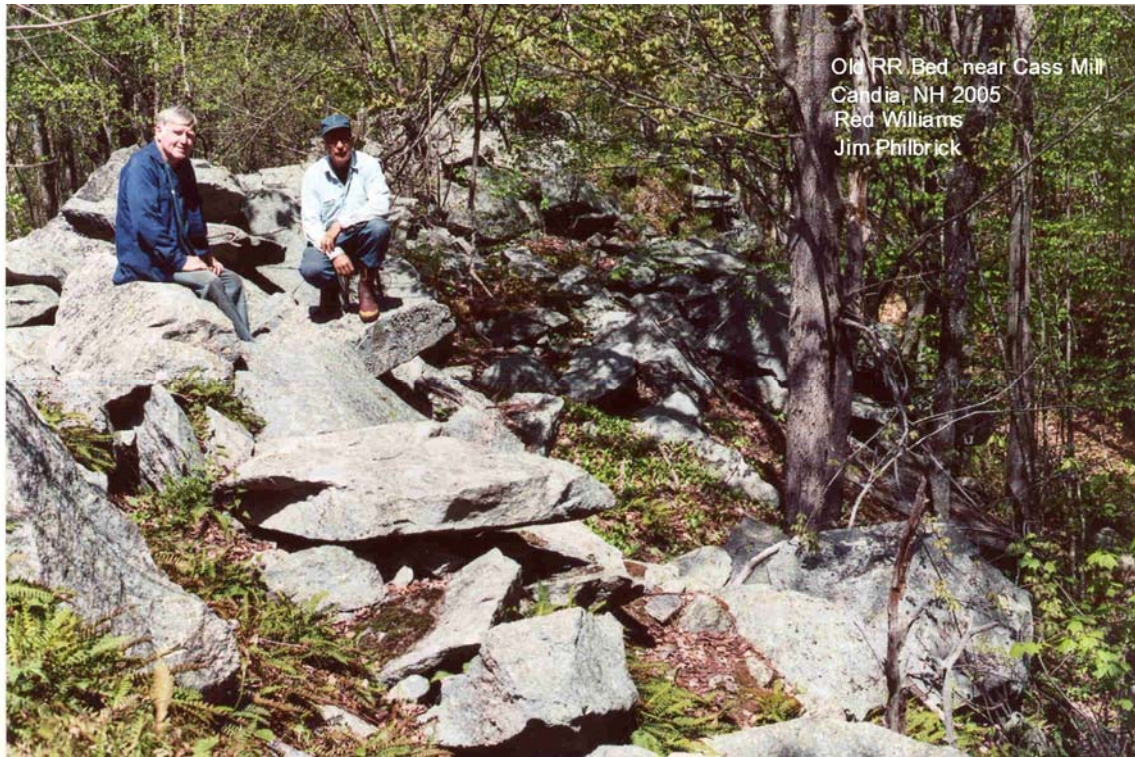




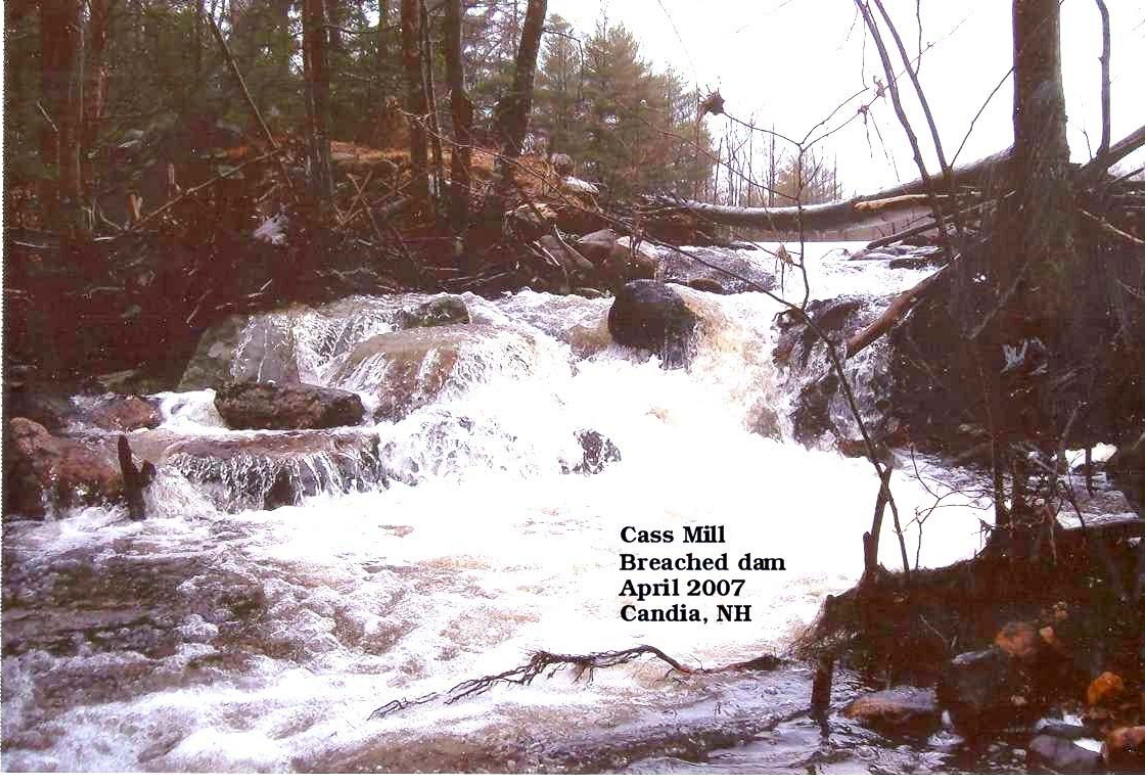
Cass Mill. 2005
Candia, NH



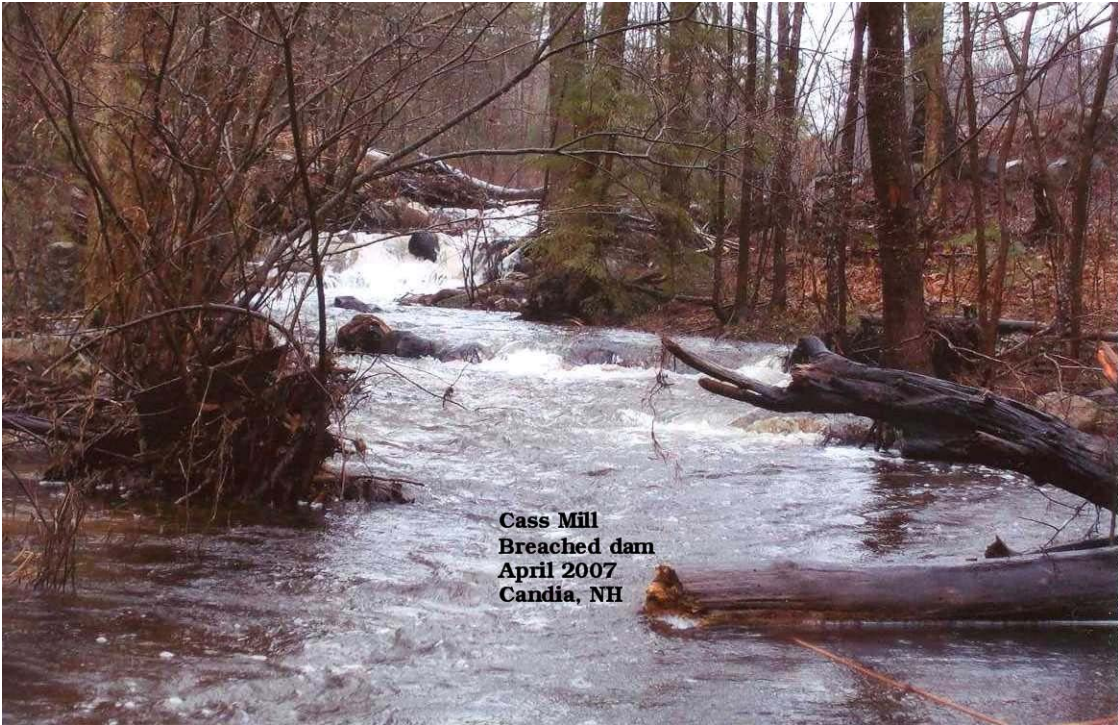
Cass Mill Pond 2005
Candia, NH



Old RR Bed near Cass Mill
Candia, NH 2005
Red Williams
Jim Philbrick



**Cass Mill
Breached dam
April 2007
Candia, NH**



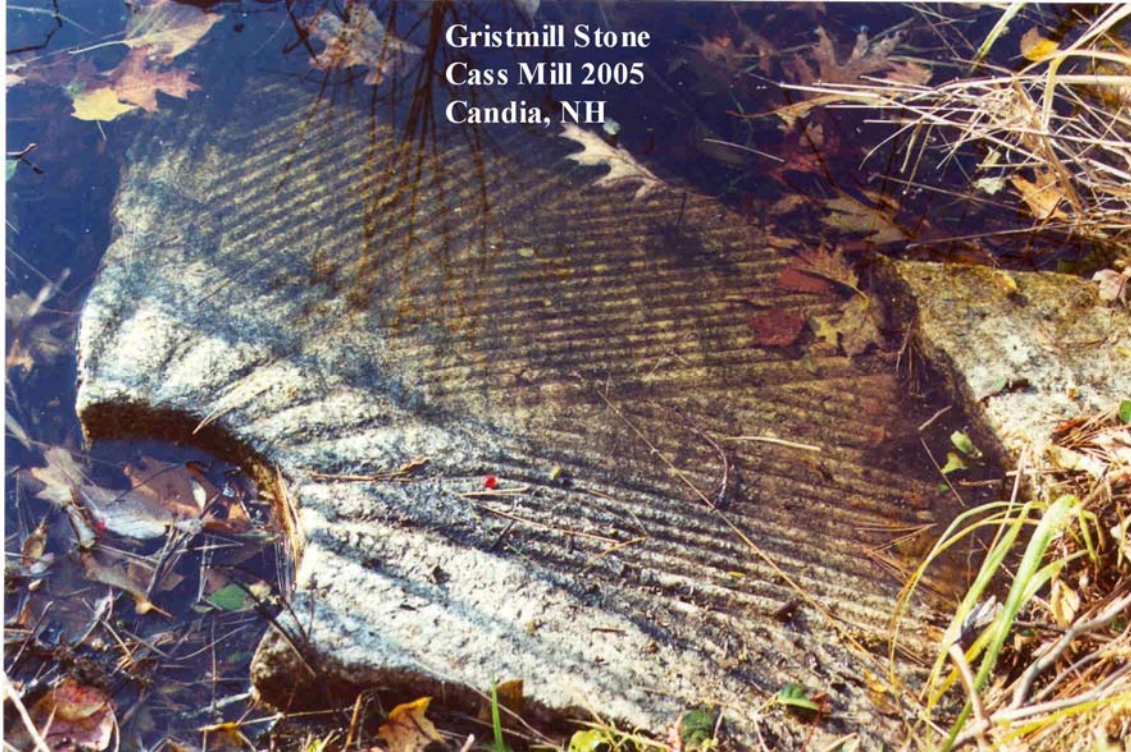
**Cass Mill
Breached dam
April 2007
Candia, NH**

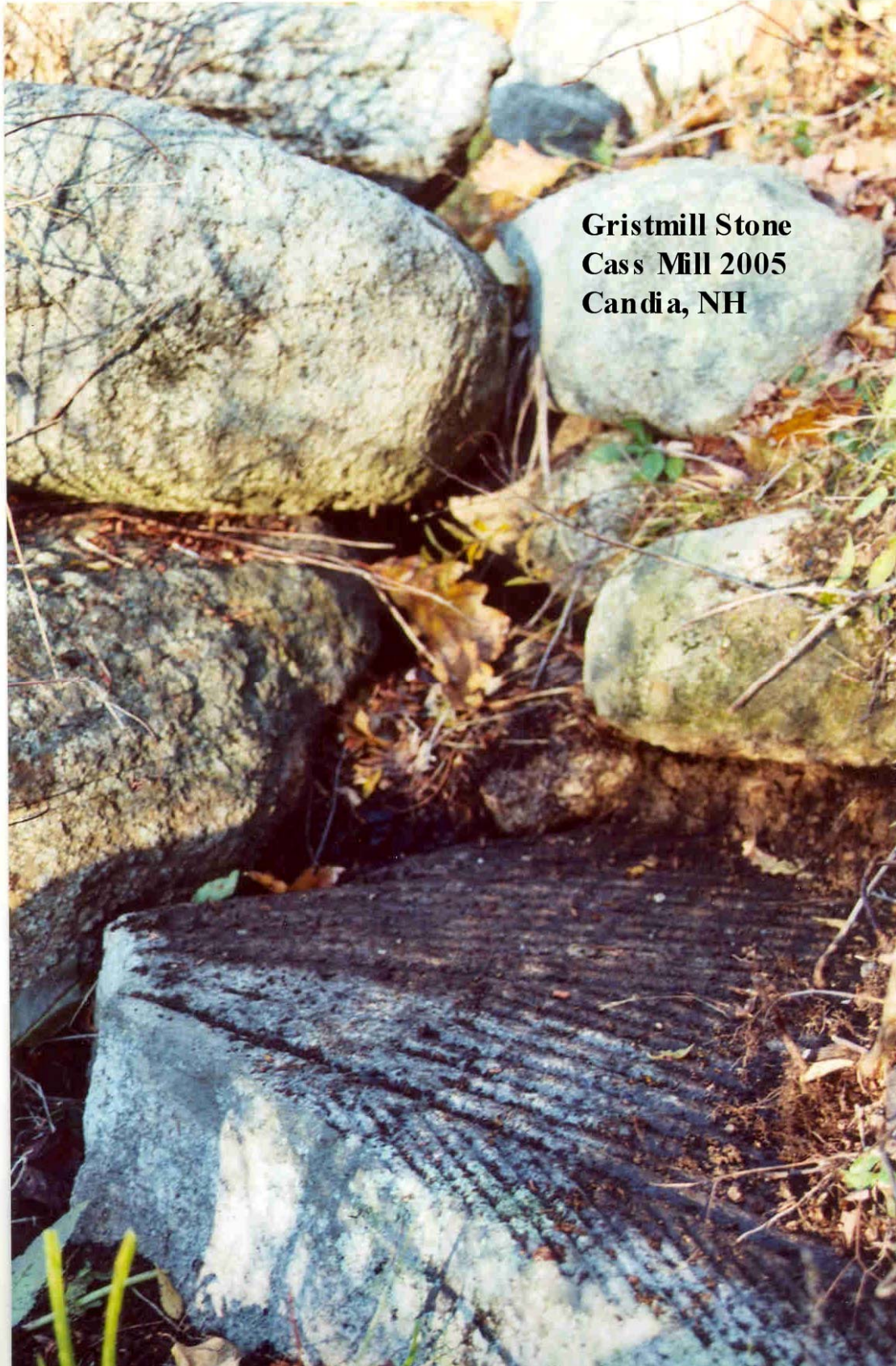


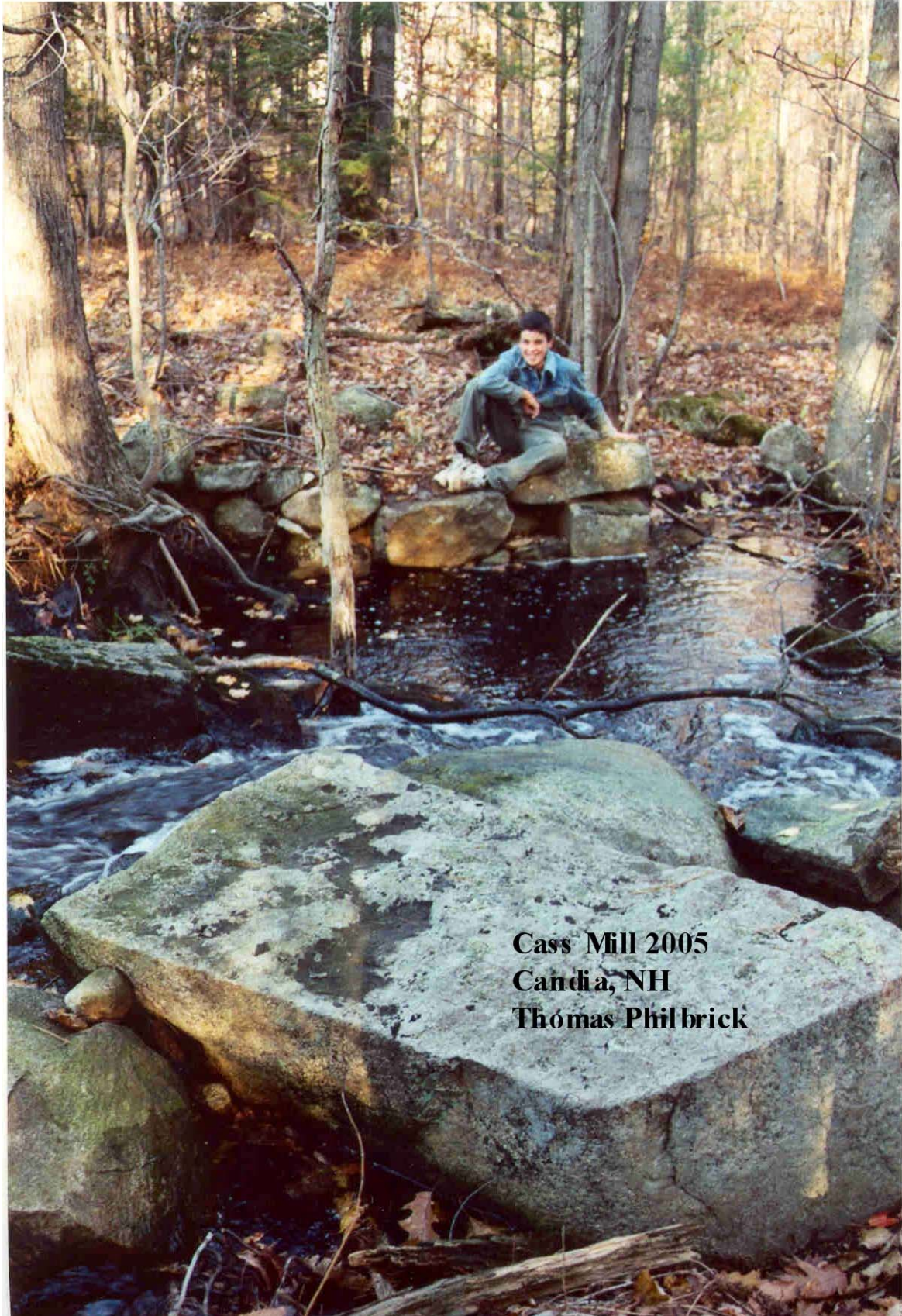
**Cass Mill
Breached dam
April, 2007
Candia, NH**



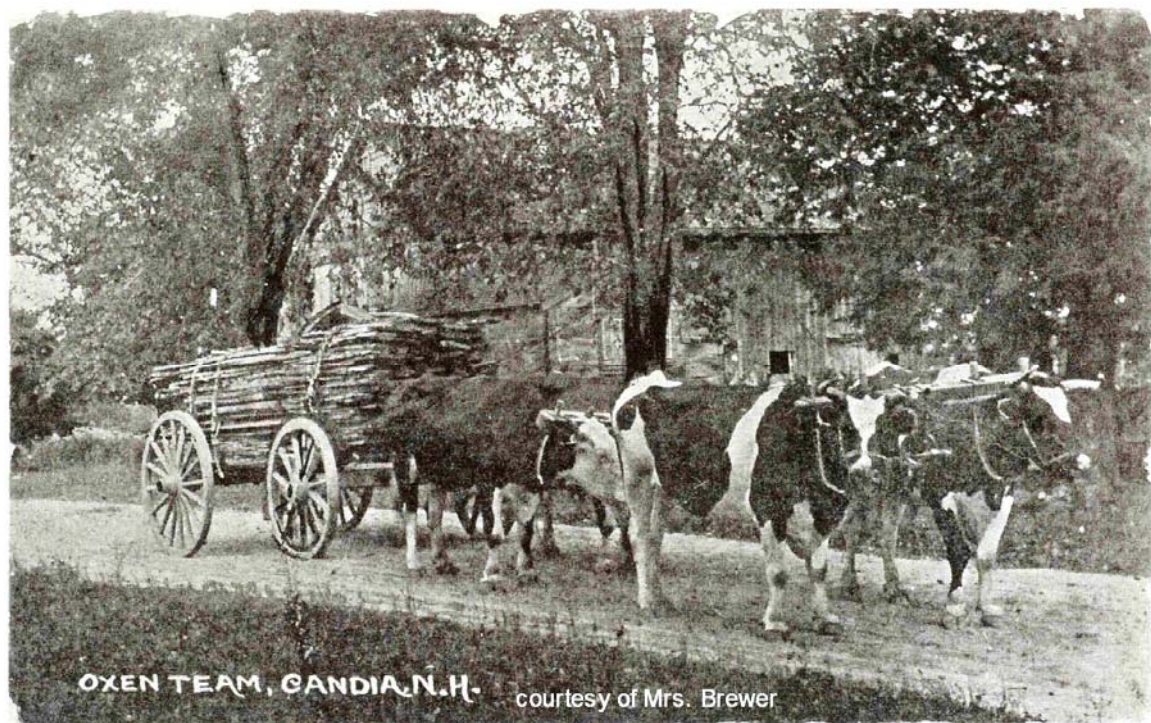
**Cass Mill
Grist Mill Stone
April, 2007
Candia, NH**





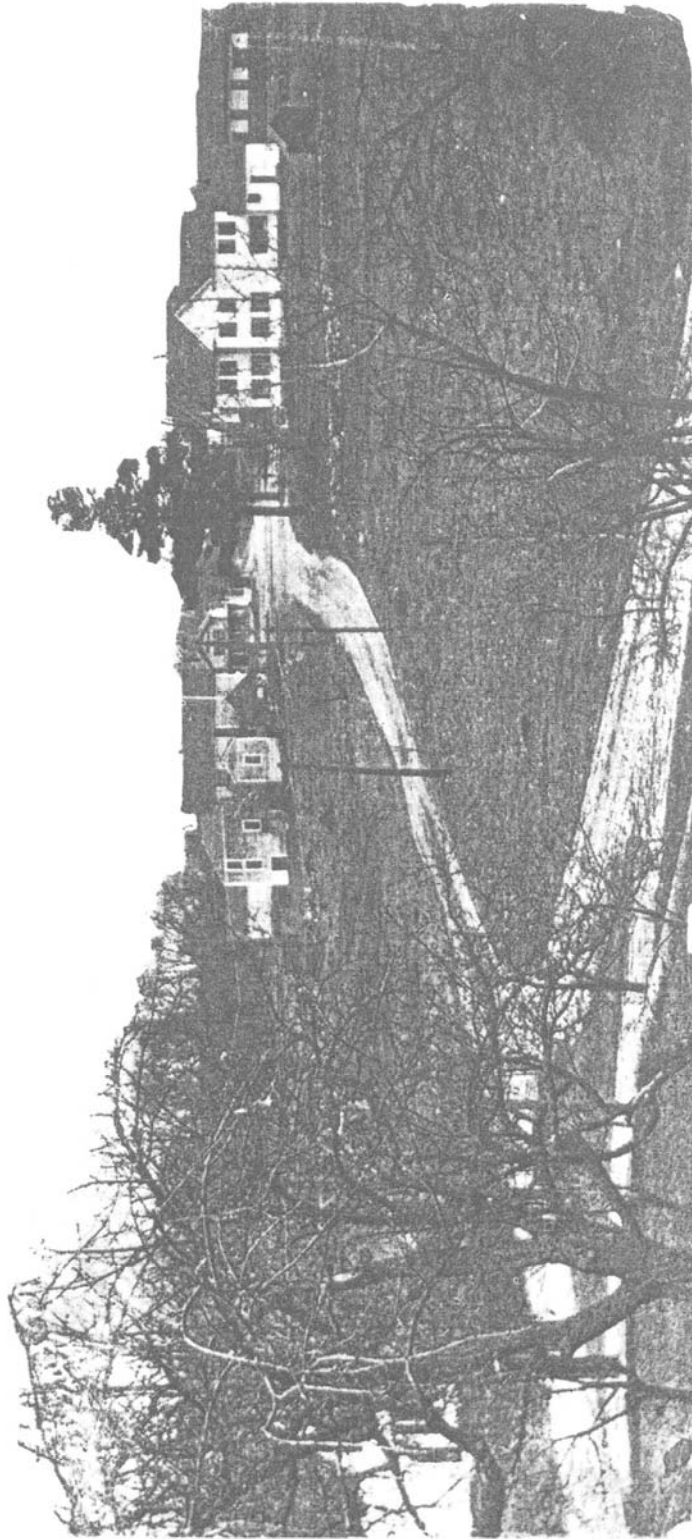


**Cass Mill 2005
Candia, NH
Thomas Philbrick**



Candia Depot, Candia, N. H. courtesy of Howard Swain

Candia Depot, Candia, N. H.



Emerson / Patten Mill at East Candia Depot

A Saw mill was built many years ago upon the stream which operated the Knowles mill and the Emerson mill at a point near the Concord and Portsmouth railroad, about half a mile west of East Candia depot. Of the first owners were J. Wason, M. Patten and Mr. Whittier; more recently were J. Osgood Wason, Col. Rufus Patten, George Brown, John Abbott, George Patten, Charles Emerson and David Gile. During the past six years but little business has been done at this mill.

Moore page 253

There was early a saw-mill on No. 128, 3d D., on the North Branch Stream. The precise time when, and the owners, are unknown, but it has always been owned by a company of the neighbors. This is said to be the fifth mill on this privilege. It was built in 1833.

History of Chester (1869) page 249

Mar. 19, 1881 "It has been quite active this season in town, on account of the 'boom' in lumber and wood. Several large lots have been cut off, and the teamsters have made the town quite lively through the past sledding months, there have been nearly for months of continuous sledding."

Candia Collection page 135

Apr. 2, 1881 "George F Patten and Charles Emerson have lately purchased a large amount of lumber of George B. Brown, which they are sawing out at the Patten Mill."

Candia Collection page 135

1997 The Chivers family had the dam rebuilt at the old mill site on their property. The new stonework that Dennis Lewis added to the old dam looks as if it had always been there holding back the water that forms a pretty little mill pond in the woods. Many thanks to the Chivers for restoring one of our town's historic places.

The last entry in Candia Collection page 257

The next mill site on this stream found on the 1852 Map of Candia and recorded by J. Bailey Moore in the *History of Candia* as the Patten Mill is located east of the East Candia Depot. This site today is known as the *Emerson Mill* as deed research has shown this to be the more accurate name. The dam at this site has been reconstructed by Boyd Chivers with the expert rockwork of Dennis Lewis. This beautiful dam and pond are easily accessed from the parking lot of the old railroad depot in East Candia and can be seen from the railroad bed.

There is a second site downstream that had been a shingle mill. This site remains in its unrestored condition.

A history of this mill site has been provided by Mr. and Mrs. Chivers:

The following is a summary of the chain of title to a site known as Emerson's Mill in Candia, NH based on a 1998 title investigation by Donald Wilson, LLS of Land and Boundary Consultants, Inc. of Newfields, NH.

While the mill is sometimes identified in Candia history references as Patten's Mill, the structure was erected by John Emerson in app. 1833 upon land originally granted to Luther Morgan of Chester, NH on Lot 128 3rd Division. The land, comprising 125 acres, was subsequently acquired by Rowell (Rowel) and sold to Nathaniel Sleeper in 1826. In 1835, Samuel Patten sold the land but reserved a mill and related rights and "privileges". There was no mention of this mill in the previous deed to John Emerson in 1832 so it is assumed that the mill was constructed between 1832 and 1835.

Samuel Patten then leased to Rufus Patten a mill in 1836. This mill, a shingle mill, was built 60 rods downstream from the mill identified in an 1851 conveyance (Book 344, pg. 175) as "situated on the Rowell Farm" and probably also known as the Emerson Mill. Evidence of this mill site are obvious today.

The mill site was acquired by the Chivers in 1990 and reconstructed in its original dimensions by Dennis M. Lewis of Candia, NH in 1997.

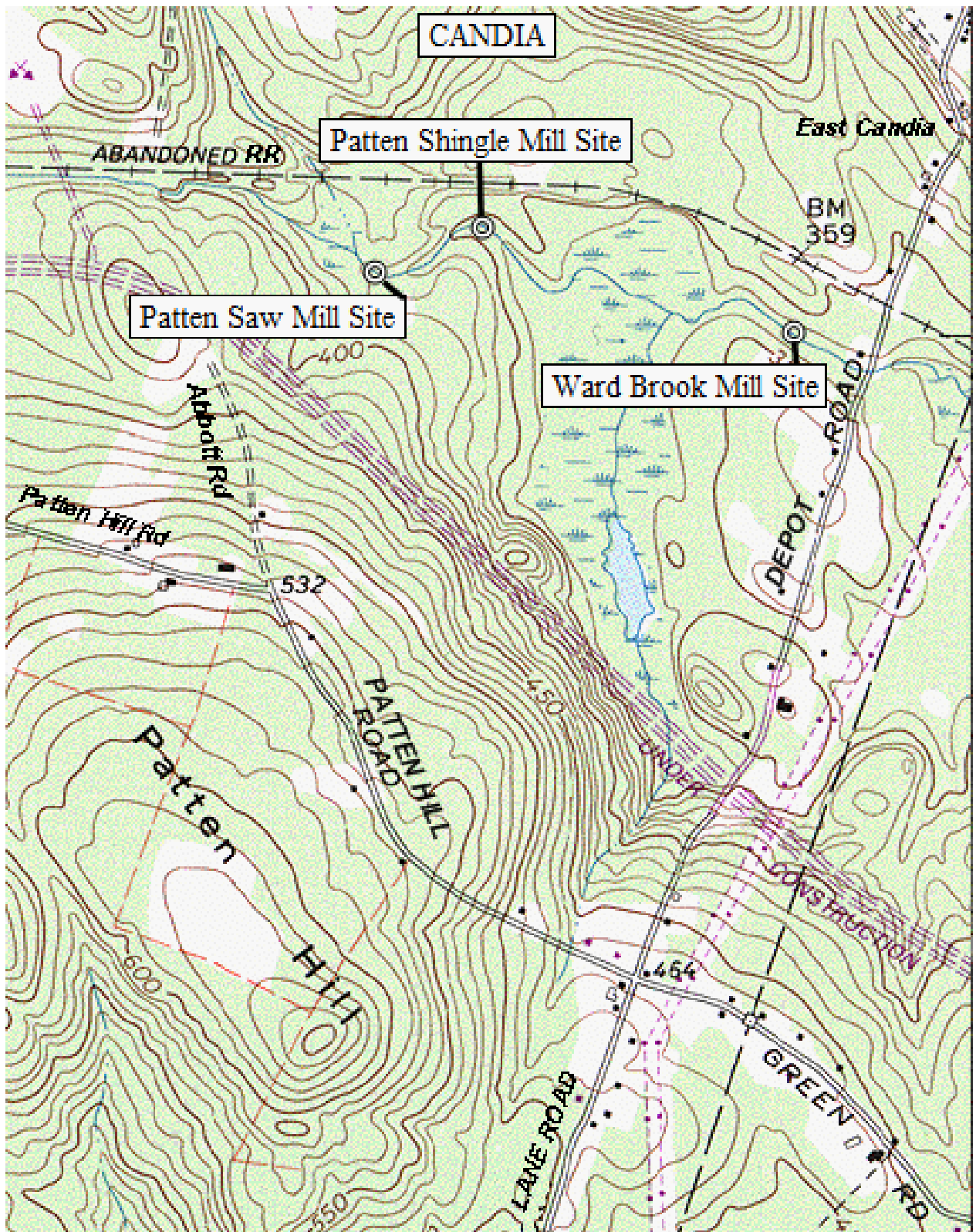
Note: a precise history of this site is complicated by the number of mills constructed on the same stream, the multitude of Pattens some of whom leased mills, other of whom operated mills and the sometimes inaccurate information in the Town history books.

The New Hampshire Historical Society has provided a photograph of "The Old Mill, Candia, NH" that appears to be a print of a negative resulting in a reverse orientation. When printed in reverse, the building appears to have correct dimensions and the foundation appears identical to the one at the mill site. The same photograph is also identified as "The Old Association Mill" which is also believed to be a mill constructed by John Emerson.

(This reverse photograph is included at the end of this section.)

Ward Brook Mill

One more mill is found on this brook just before it crosses the Raymond town line. Known as Ward Brook mill, it was not included on the Eaton map or in the Moore history, but remaining rock work is undeniable testimony of its existence. A deed from 1857 references a shingle mill and it is found on the Rockingham County map of 1857.



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Emerson Mill 2007
Candia, NH



Emerson Mill 2007
Candia, NH

Emerson Mill 2005
Candia, NH



Emerson Mill 2005
Candia, NH

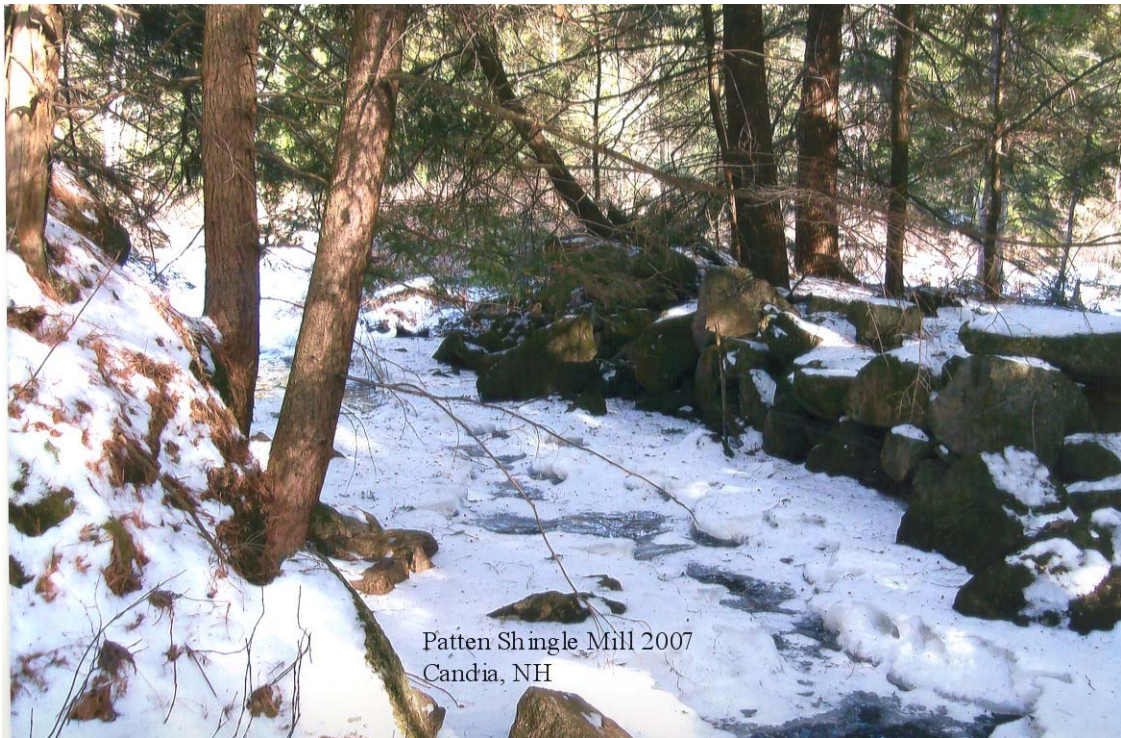




Emerson Mill 1991
Candia, NH
courtesy of Boyd Chivers



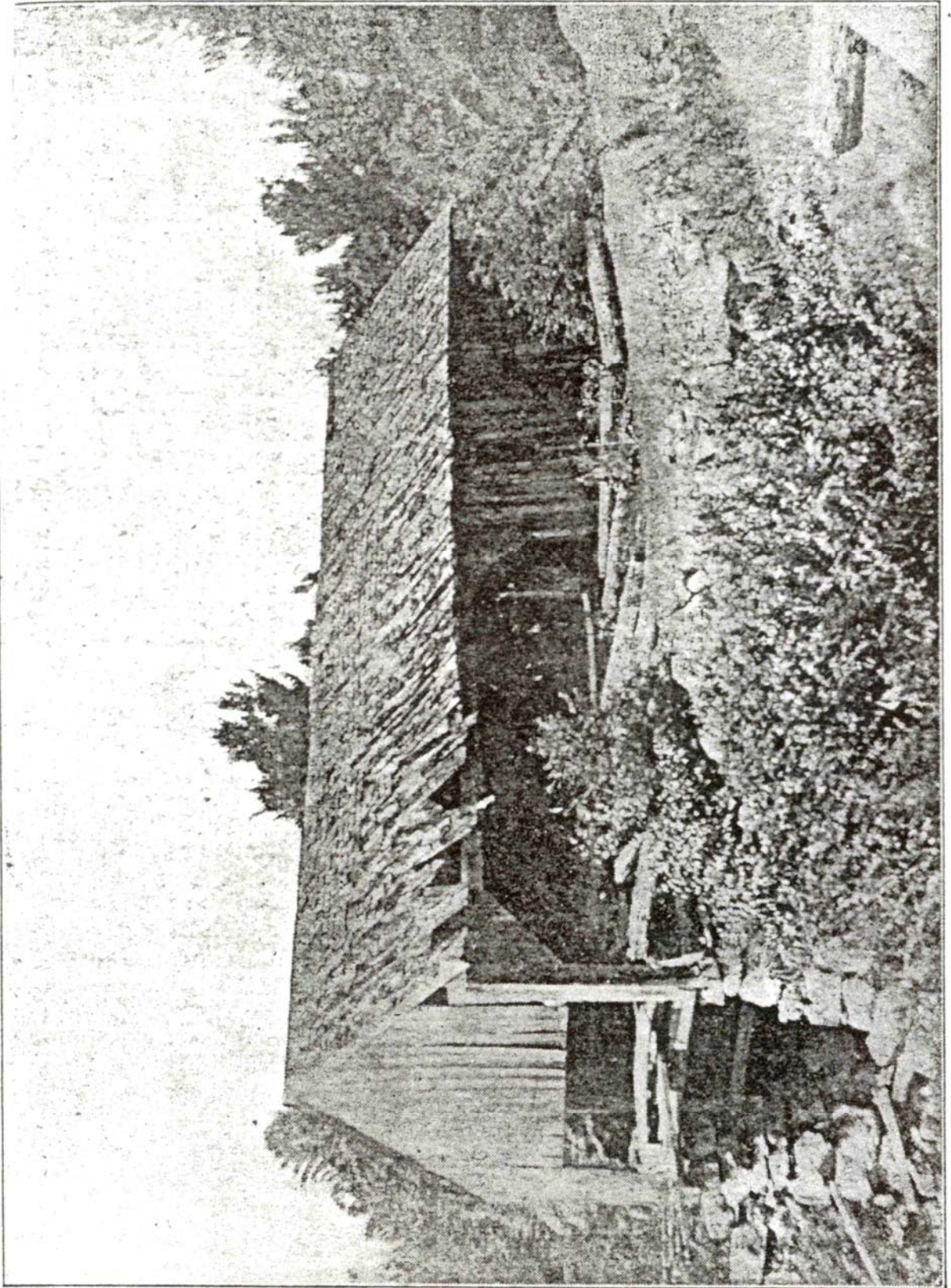
Emerson Mill 1991
Candia, NH
courtesy of Boyd Chivers



Patten Shingle Mill 2007
Candia, NH



Patten Shingle Mill 2007
Candia, NH



Candia, NH
courtesy of Boyd Chivers

JIM NOTAISOSA OLD ASSOCIATION MILL



Ward Brook
Candia, N.H.
2008



Ward Brook
Candia, N.H.
2008

MILL STREAM

A part of the Lamprey watershed drains Candia on the north side of High Street, its source on the town's highest elevation, Hall Mountain, and its destination, the North Branch. This brook has no name on town or topographic maps, but we will call it *Mill Stream* in this document.

A series of mill sites and dams are found on this stream, primarily undisturbed by the growth of the town. We find a unique nail mill, Brown's Mill, Rundlett and Davis Mills, Hall and Clay Mills on about 2 ½ miles of stream. Only the Hall site where North Road crosses the brook has been significantly altered. A new dam has been built and mill remnants are primarily gone. But upstream and downstream from here lies an historic district with a complex of wonderfully preserved sites. We have been assured of the importance of this area by State of New Hampshire archeologist, Richard Boisvert who visited the Rundlett-Davis site with us. He encouraged us to accurately measure, document and map the area so that it could be included in the State map of historic places.

There are no large streams of water in the town, but there are several good sized mill streams which have often been dignified by the people with the name of river. One of these rivers rises on the south side of Hall's mountain and flows through a meadow, crosses the Merrill road and from thence it flows to a saw mill situated half a mile north of the residence of J. Henry Brown and owned by George H. Brown, son of the late Aaron Brown. About a mile farther on it operates a saw mill owned by Samuel A. Davis. It then crosses the road leading from High Street to Deerfield South Road and from thence it runs to a saw mill situated on lot No. 42, 3rd division. It then crosses North road and flows about a mile and a half to lot No. 38, 3rd division, near the New Boston road where there was once a sawmill and gristmill. The stream then crosses the road which leads from the Congregational Church and unites with a stream which is an outlet of Martin's Pond situated in the southwestern corner of Deerfield, and near the Candia line. The stream then flows to Candia Village, thence to the Island and Raymond and unites with a stream from Deerfield and Nottingham and forms the Lamprey river.

Moore page 39

North Road Nail Mill

Nail Factory. It is said that about eighty years ago a small mill was erected on the small stream that crosses the North Road near the residence of the late Jonathan Currier, for the purpose of making wrought iron nails. The mill, which was furnished with a trip hammer is said to have stood over a fall in the stream near the north side of the highway. The most of the nails which were used a hundred years ago or later were made mostly by hand. When nails were cut rapidly by machinery, wrought iron nails disappeared.

Moore page 278

Town Clerk's Record Book, June 24, 1779

Agreeable to a vote of the Freeholders of the Parish of Candia at a meeting held in the meetinghouse in sd Candia on the tenth Day of June instant this Day laid out a highway of two rods wide. Beginning a little above the mill Damm upon mr Jonathan Curriers land and across the Corner of his land and across mr Dean Wadleighs land and across James Thorns land near where it is now trod in line of that Highway which was laid out across sd Wadleighs & Thornes land june 30th 1773 and for satisfaction for Said Highway we give one half of the Reserve Land at the Southerly End of Each ones land and further Satisfaction to mr. Wadleigh if any there aught to be we refer to an arbitration of three men to be chosen by the Selectmen and mr Wadleigh according to agreement with him this Day.

Nath'l Emerson, Abra'm Fitts, Isaiah Rowe, Selectmen of Candia.

We will begin our investigation of this part of the watershed at an interesting extra in town history. There is a record of a nail mill on a very small stream that feeds into our Mill Stream. It took little power to run a trip hammer that could cut nails from a sheet of iron. This inconspicuous drop in the stream is located near the intersection of North and Podunk Roads. Nails found in Candia homes built circa 1800 were probably made at this mill. A working nail mill can be seen at Strawberry Banke.

Brown's Mill

Aaron Brown, Jr., about fifty years ago built a saw mill on the north fork of the stream which flows from the west part of the town through the New Boston neighborhood to the Village. A large amount of business has been done at this mill. The present owner is George C. Brown, son of the first owner. Moore page 252

(1908) "There was only one thing left to do. Simply build a structure using the abilities and materials possessed by the Grangers themselves."

"So it started. Volunteers with teams hauled logs from the woods to a saw mill on the other side of town where the lumber was cut. Meanwhile, other volunteer workers were busy digging a foundation and erecting a framework. Then came the 'shingling bee'... ... 'hard work and perseverance' built the Grange Hall." Candia Collection page 250

The name Brown is associated with several of the Candia mills, but one specifically is called by the name and was operated as a sawmill by two generations of the family. A beautiful wood road leads to the site, but the road and access to it from High Street are on private properties so that permission would have to be obtained to visit. We explored the Brown Mill with Thelma Brown Weeks. She led us along a path from her home with which she had such familiarity, identifying plants, explaining stone walls, pointing with her walking stick to specific trees. She told us of visits to the mill in the winter on her old cross country skis. "It used to be all open; no trees obstructed the working area. The cart path circled up and around to load lumber on the wagons." She told us her father had hauled lumber from this mill to be used in the building of the Grange Hall (today the Masons' Hall). This would have been about 1908. "He was at the

McDonald Mill (Hall Mill) the day it burned" she related. She gave us two excellent photographs. One is of her father as a young man driving a team of horses with a wagon load of lumber at the Four-Corners. The Methodist Church can be identified in the background. He was probably hauling from the Turner mill at the village then called the Critchett Mill. This picture is included with other vintage photographs of the village mills. The photograph Thelma believes to be the Brown Mill is included at the end of this section.

We are fortunate to have a photograph of this mill building as it is undoubtedly representative of the buildings at other sites. We can see that it spanned the sluiceway. The mill would have had an undershot or breast wheel as an overshot wheel is external to the building.

Rundlett and Davis Mills

About eighty-five years ago, Benjamin Hall, son of the first Obededom Hall, built a grist mill on the mill stream a few rods above the cross road which extends from High Street to Deerfield. After a few years he sold out to Abraham Fitts, who operated the mill many years. Mr. Fitts was succeeded in the ownership of the mill by Joshua C. Hall, Mr. Randlett, and others, until about twenty years ago Samuel C. Davis bought the property. He changed the grist mill to a saw mill and erected a shingle mill. Moore page 252

At one time Fogarty Road connected High Street to New Boston Road and would have been used to access the multiple mill and dam complex on Mill Stream and a tributary that flows from High Street. The road which was closed on March 10, 1959 now provides a pleasant walking path. This dirt road leaves High Street opposite Baker Road. The trail descends to a pond and over a generally muddy pathway between the pond on your left and a marshy area on your right. Approach this spot quietly because you will often see ducks, herons or other birds. Beaver houses are visible on the far side. There is an old dam site for this pond, but today it is the beavers that are responsible for holding the water level and providing this beautiful spot. The road continues to descend and in about a half-mile, you come to a bridge that spans Mill Stream. Now there is another pond on your right. This water is held by the dam at the Hall Mill site located on North Road. Property at the north side of this lovely location is owned by the town of Candia. A pathway to the pond is found a short distance beyond the bridge with a pleasant cleared area to enjoy the view.

The road to the Rundlett Mill is also just beyond the bridge, but to the left, perhaps a bit muddy at first, but soon it gains elevation and comes to the rockwork of the dam. One hundred and fifty years ago this road, stone walled on both sides, would have been a well traveled by horse-drawn wagons. Walk along the dam, or even on it, to the rock walled raceway. The amount of water flowing through this man-made channel is very dependent upon the season of the year. During the summer it is easy to walk across the brook and you wonder how so little water could have been profitable. In the spring or fall, however, water gushes between the rockwalls and crossing is tricky. Several large rocks upstream generally provide adequate dry footing. When one considers the head of

water that would have been held by this dam that is about 9 feet high, one realizes the potential for power.

There is much rockwork to investigate at this site. Stones are set or stacked in different places indicating multiple foundations for mill buildings that were constructed on the site during its active history. The dam itself is a marvel. Its width and height assured the ponding of a sizable area even though the stream feeding it was minimal. The dam was built to securely hold back the weight and force of a large amount of water and today it still remains a monument to the skillful ability of men to work with stone. Every conceivable shape and size of N.H. granite is molded into a unit of service and beauty. Even the roots of trees growing on and around it have not pushed it asunder. A small sluiceway is found at the south end of the dam. This is a carefully walled opening in the dam that could have allowed an additional and probably simultaneous milling operation, perhaps the making of shingles.

This site is unique in that some of the metal parts from the mill are still here. A large gear that transferred the power from the water wheel to a saw is very visible. A long narrow shaft lies in the brook. Pulleys from this shaft probably ran various pieces of equipment. Other scraps of metal have also been found. Iron was sold for scrap metal during the World Wars so there is none remaining at the other Candia sites.

The unique character of this site continues. A hand-dug trench about 300 hundred feet long diverted water below the mill to a rocky ledge. The drop from here was sufficient to use the water yet again. At the bottom of this drop is a basin-like depression built of stone and likely held a tub mill. Water funneled into a wooden tub and set a horizontal wheel in motion. Water returned to the stream through a stone culvert. A path from the road we walked in on accesses this most interesting spot.

This is one of two major trenches dug to channel water. The second about 6 feet wide and 300 feet long, runs somewhat parallel to Fogarty Road. This trench connects the Rundlett Mill site pond with another, the Davis site. This dam is on the tributary stream that joins mill stream just below the Rundlett site and before the bridge. Here is a dam that would have held a 2 - 3 acre pond and a beautifully built raceway that has survived the ravages of time and water. Foundation stones indicate a mill building that probably straddled the stream. There is also a dam overflow, a trench dug at the far east side of the dam that could be used in times of flooding to protect the dam from being damaged. As small as this stream is, there was enough water to run a sawmill, feed the Rundlett site downstream and presumably require at least occasional overflow protection. This is accounted for by yet another dam that holds another pond of reserve water further upstream. Samuel Davis purchased this land in 1866. About 1872 he purchased the Rundlett mill from Joshua C. Hall. It had been a grist mill and he changed it into a saw mill and also built a shingle mill. With an extravagant amount of work, he dammed two reserve ponds, controlled the flow of water to the two mills, dug trenches to multiply the milling capacity. This whole complex is impressive to say the least. The wonder of it today is the endurance of the stone work that remains a monument to the expertise of 19th century Candia millwrights.

Deed research procured a record of the chain of ownership or mill privileges. This example of the passing of property and privilege would have been happening concurrently at all of the mill sites. The first deed found for the Rundlett site on lot 45 of the 3rd division is an 1819 deed of land from Joseph Palmer to Stephen Brown. The deed "reserves" the mill privilege that had formerly been conveyed to Obededum Hall by Deacon Stephen Palmer. Since Obededum Hall died in 1805 and Stephen Palmer died in 1790, we can assume the mill privilege was granted prior to 1790. Another reference we found was in the March 12, 1822 layout of "a highway two rods wide from the road leading from North Road so called to High Street in said Candia to Abraham Fitts' mill..." The NH Highway Department "Right of Way Source Records" # 4727 refers to the road as the Fitts' Grist Mill Road. Unfortunately we did not find deeds explaining how the mill privilege went from Obededum Hall to his son Benjamin Hall and then to his nephew Abraham Fitts Jr., the owner at the time of the road layout. Fitts sold the grist mill privilege to Nehemiah Brown in 1839. The Brown family sold various interests to the Rundletts in 1848 and 1854. Joshua C. Hall took the mill privilege from John Rundlett in an 1863 mortgage foreclosure and sold it to Samuel Davis in 1872.

In 1853, Michael Fogarty purchased the 12 acre lot south of the mill pond and on the east side of what would be called Fogarty Road. This is one of the two lots owned by the Town of Candia on the east side of the Fogarty Road (lot 405-69). The remains of a magnificent cellar hole are still there. In 1855 he purchased the 5 acre lot south of the Fitts' Grist Mill Road and in 1864 he purchased the 1 acre lot at the mill site. On September 9, 1885 he sold all three lots to Denis M Bradley and apparently left Candia as we have found no record of him after this date. On Jan 16, 1915, Charles A Brown purchased the mill privilege, the 1 acre lot at the mill site and the 5 acre lot east and south of the mill site and merged them into the site as we have it today.

Hall Mill

The saw mill on the North Road

Obededom Hall, the first settler on North Road, built a sawmill upon the same stream as the Clay mill about a mile and a half above the latter as early as 1770. This mill has been remodeled and improved at various times. Among its owners were Nathan Brown, Abraham, Nathan and Jesse Fitts, Sargent Hall, Obededom Hall, jr., Daniel and Samuel Fitts, Captain Abraham Fitts, Jonathan Hobbs and John Rowe.

In 1824 the mill was rebuilt and about the year 1840 a shingle mill was built just below. A large account of business has been done at this mill during the winters and springs for many years.

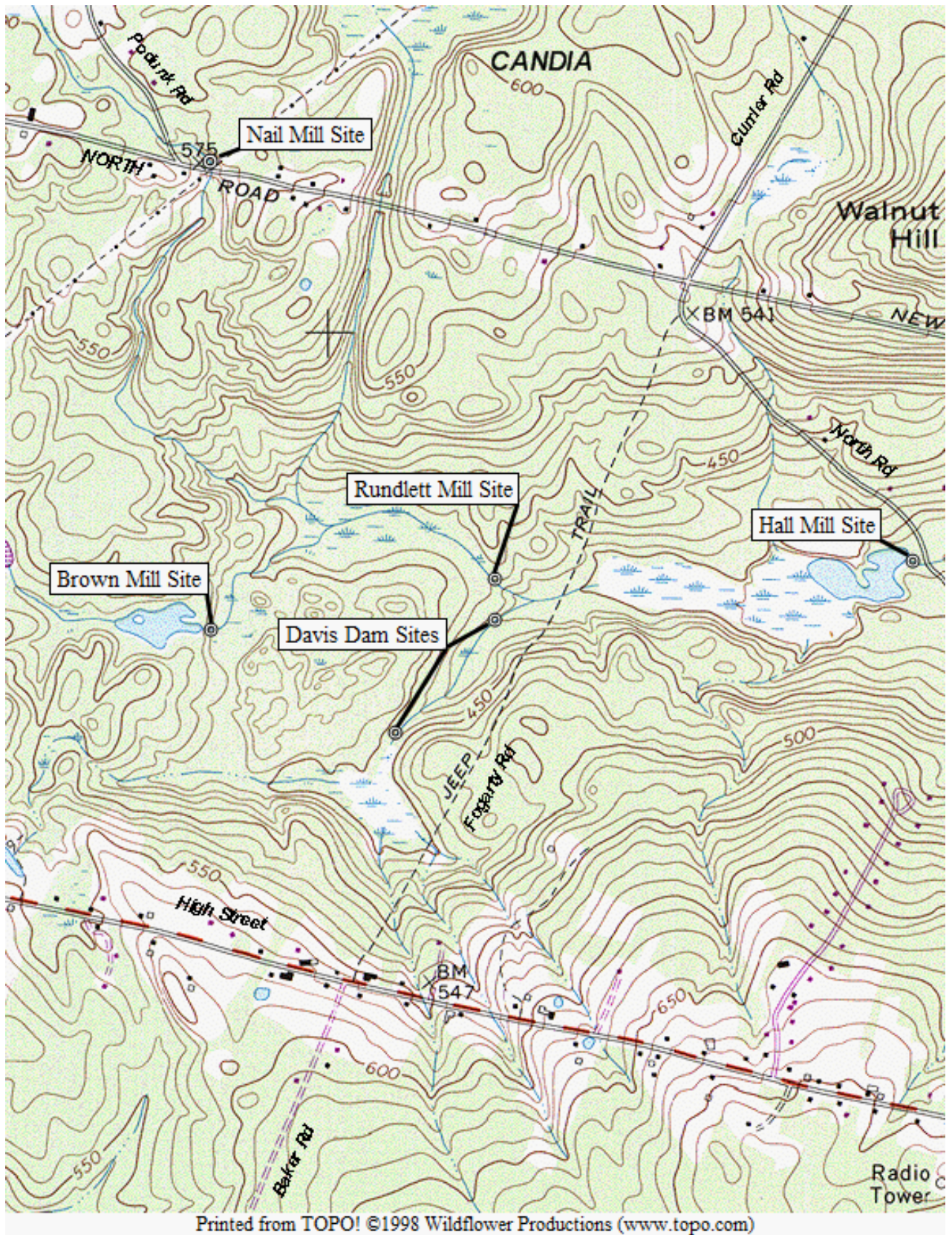
Moore page 251

April 24, 1880 "There is a saw mill at East Candia and one at North Road, at both of which several thousand feet of lumber have been sawed this winter."

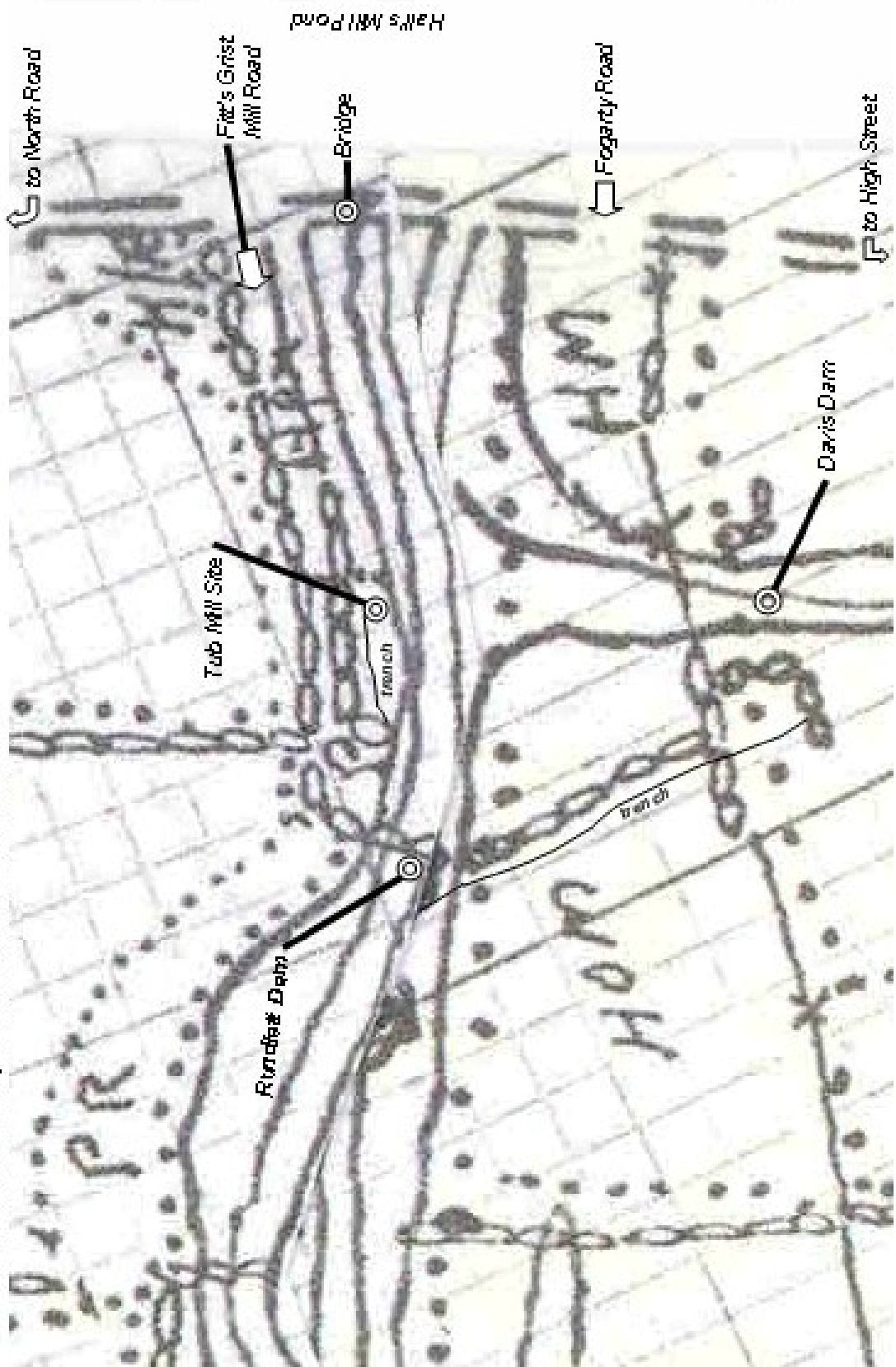
Candia Collection page 121

Downstream from the Rundlett site is the Hall site, known more recently as the MacDonald Mill. North Road passes directly by this site and was used initially as access to this mill from either direction. We are fortunate to have a picture of the mill building

that was destroyed by fire about 1910. Brush and debris were being cleared from around the mill when a brush fire got out of control and set the mill on fire. The site was later used by the Boy Scouts for activities and the pond was a beautiful place to ice skate. The dam is now rebuilt and holds a sizable pond that fills the meadow all the way upstream to the Fogarty Road and evidence of the original mill is altered by the reconstruction work.



Bisiter Rust Map #4A/B Redrawn 1960/1961



Rundlett & Davis Mill Sites

Nail Mill 2005
Jonathan Currier
Candia, NH



Nail Mill 2005
Jonathan Currier
Candia, NH





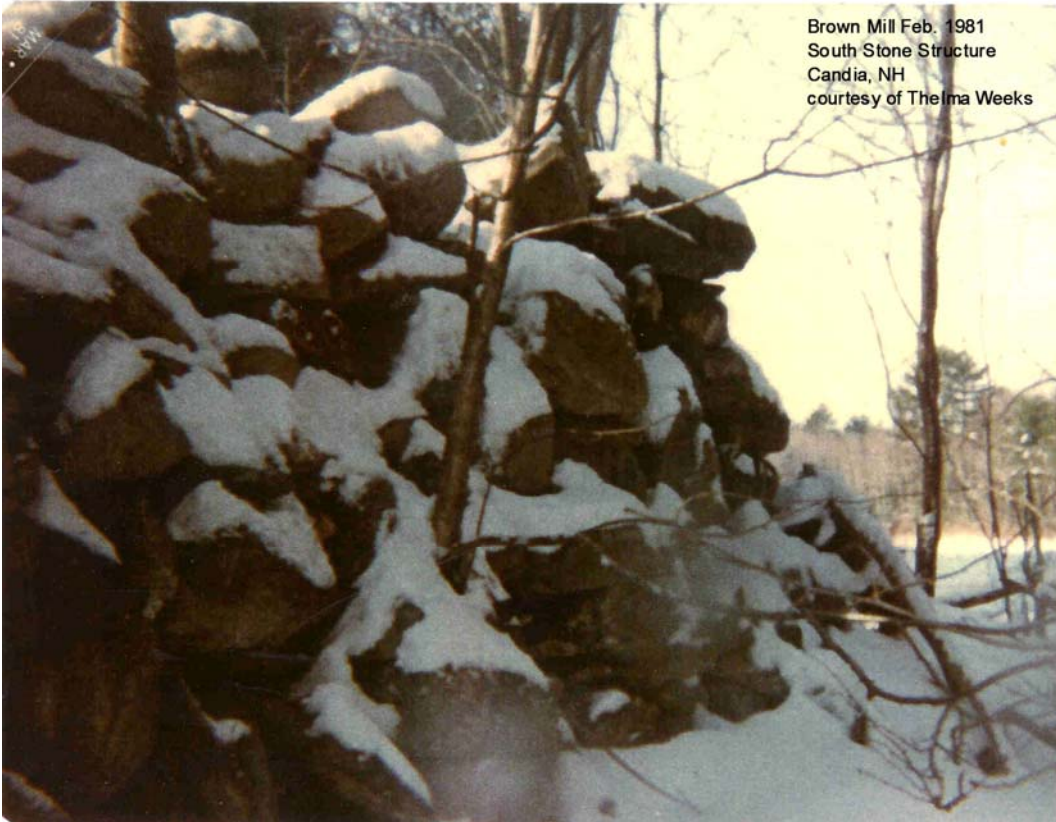
Brown Mill 2005
Candia, NH
Thelma Weeks



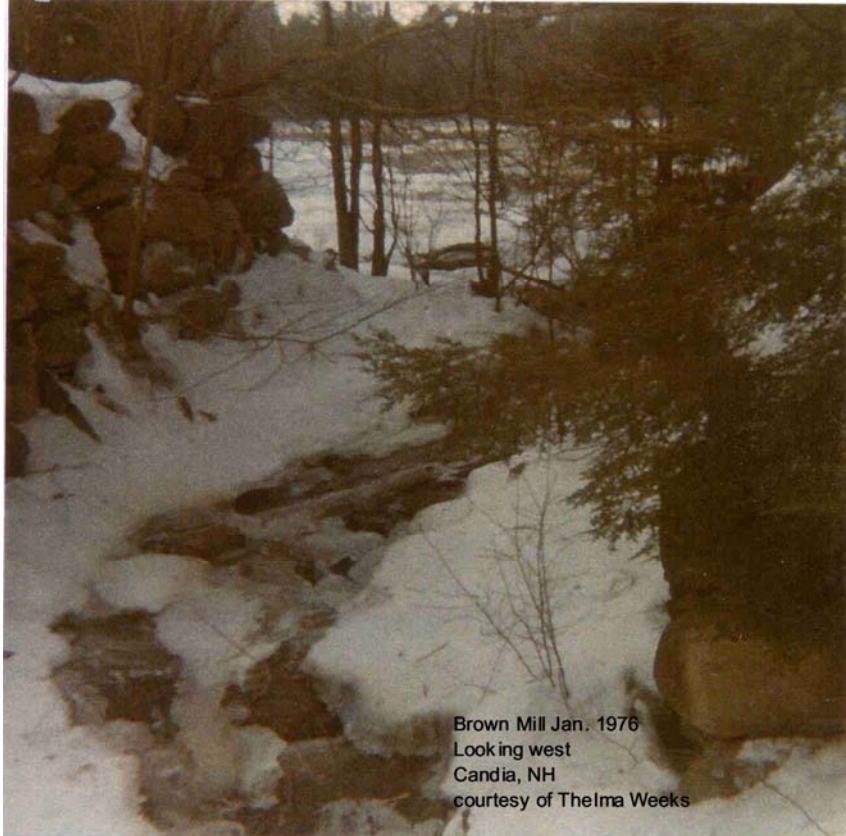
Brown Mill 2005
Candia, NH
Thelma Weeks
Jim Lindsey
Jim Philbrick



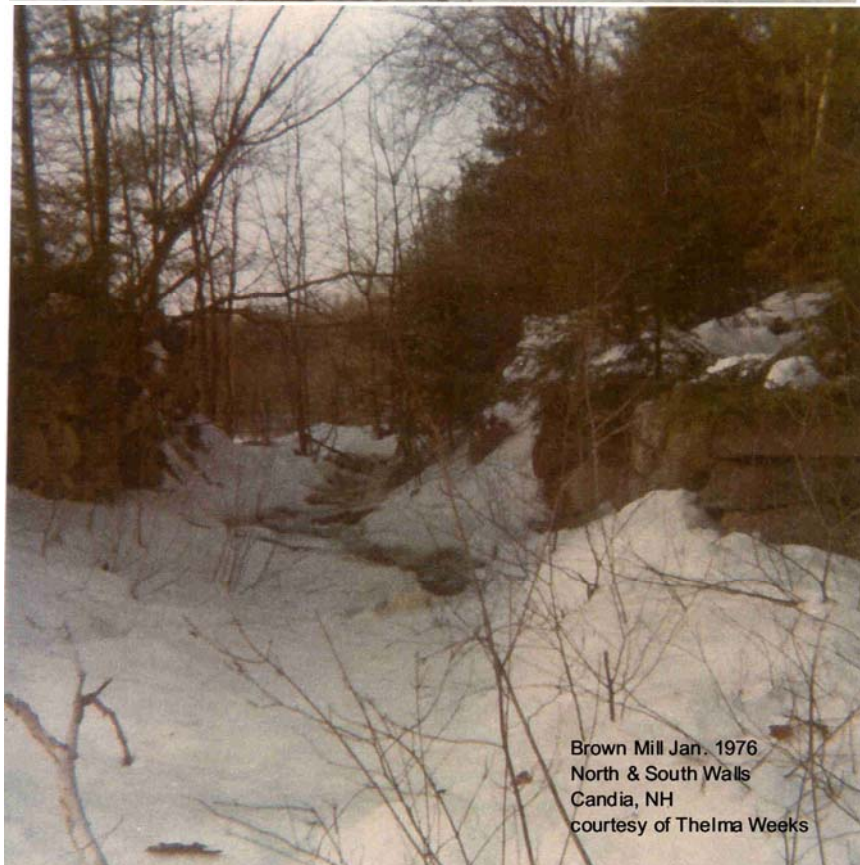
Brown Mill Feb. 1981
New Beaver Dam
Candia, NH
courtesy of Thelma Weeks



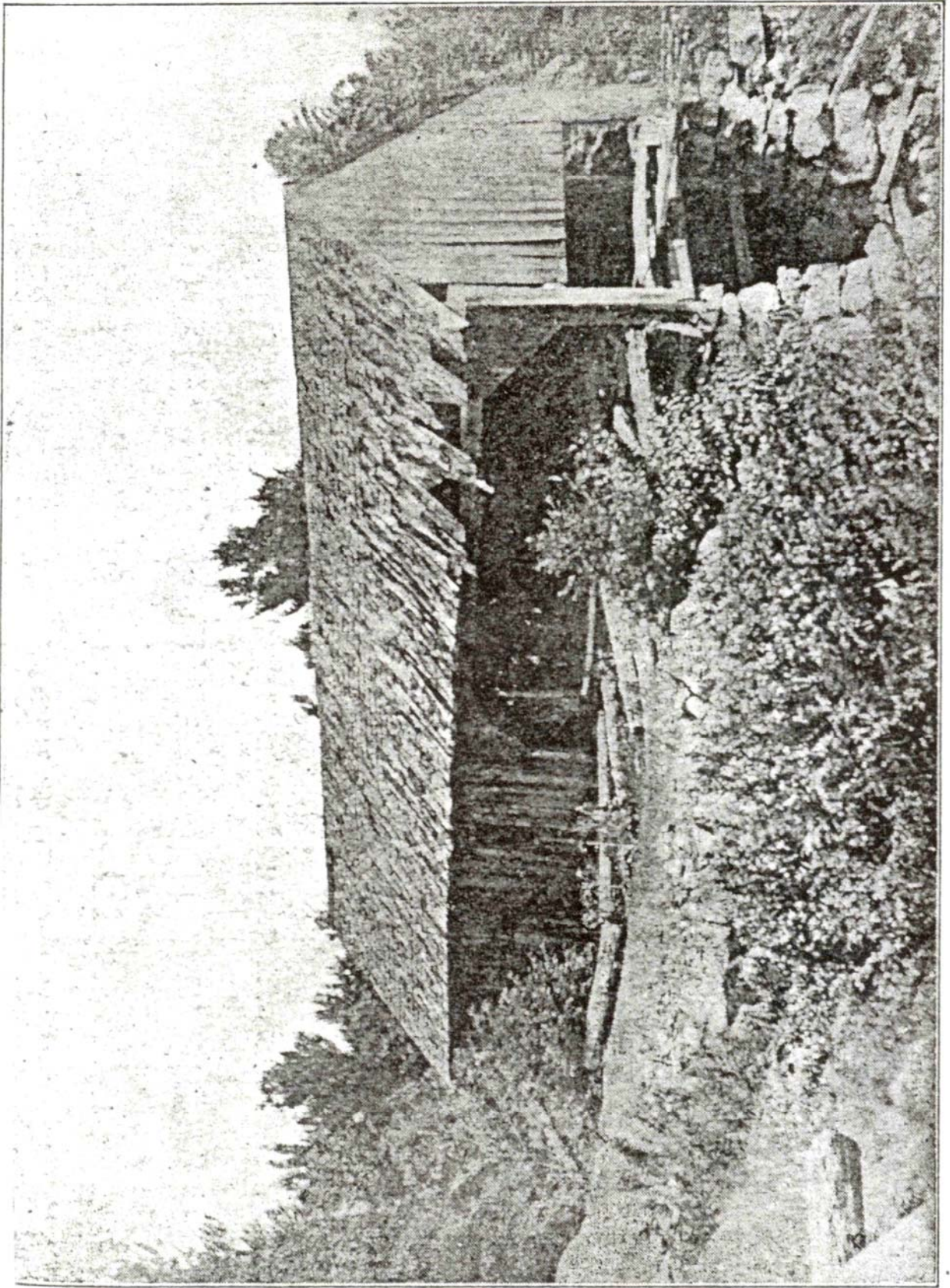
Brown Mill Feb. 1981
South Stone Structure
Candia, NH
courtesy of Thelma Weeks



Brown Mill Jan. 1976
Looking west
Candia, NH
courtesy of Thelma Weeks



Brown Mill Jan. 1976
North & South Walls
Candia, NH
courtesy of Thelma Weeks

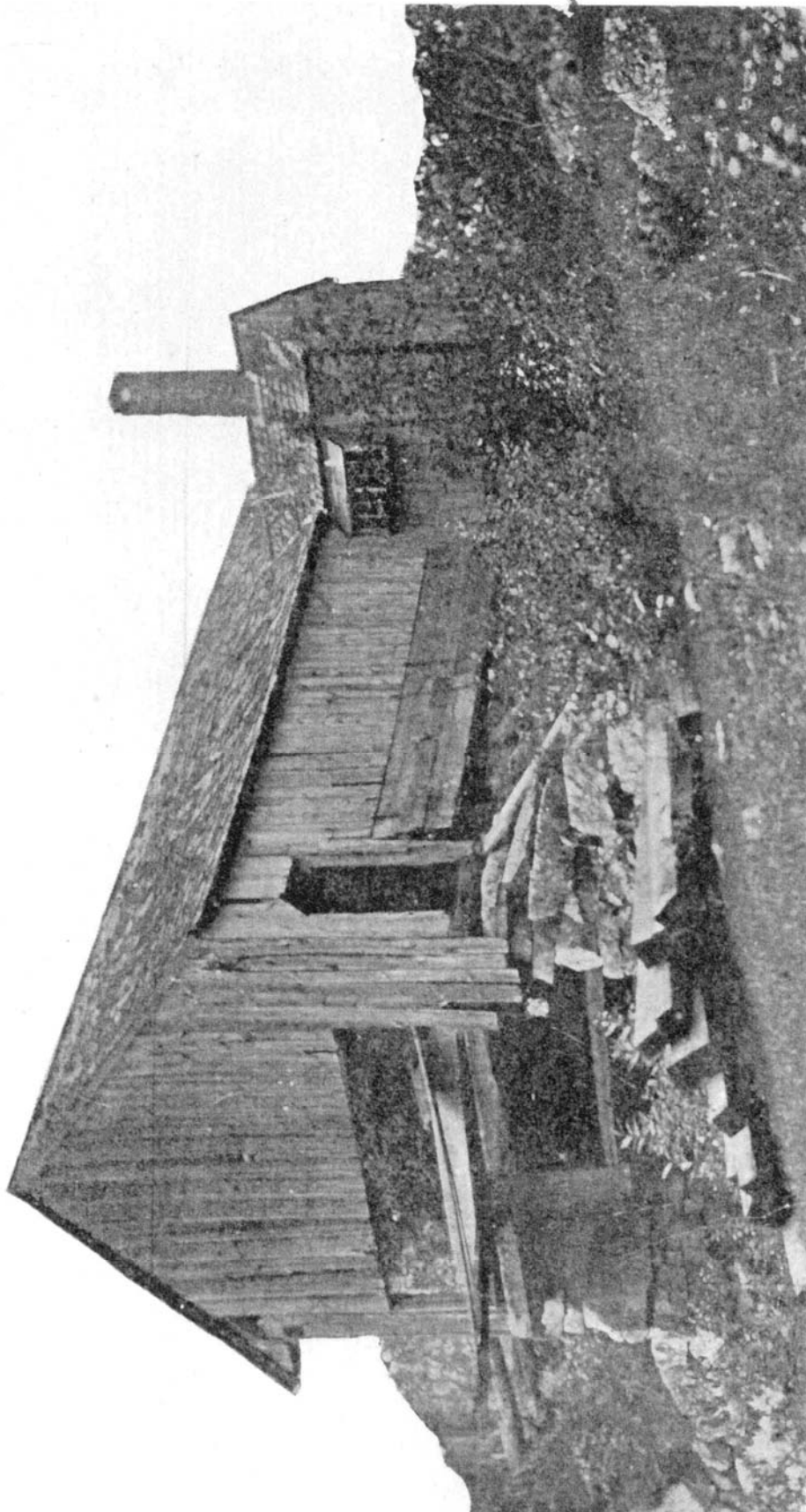


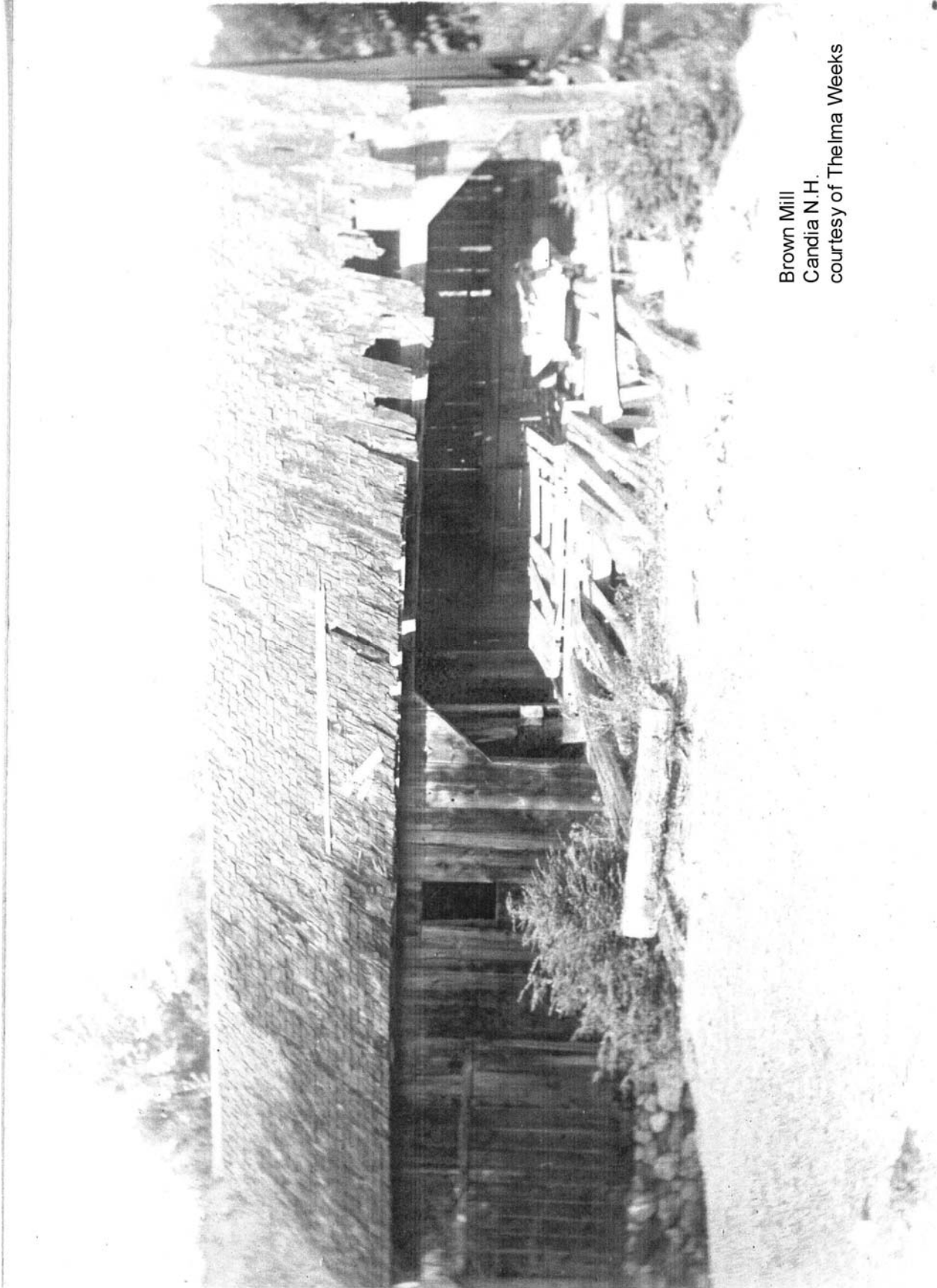
Candia, NH
courtesy of Thelma Weeks

CANDIA OLD ASSOCIATION MILL

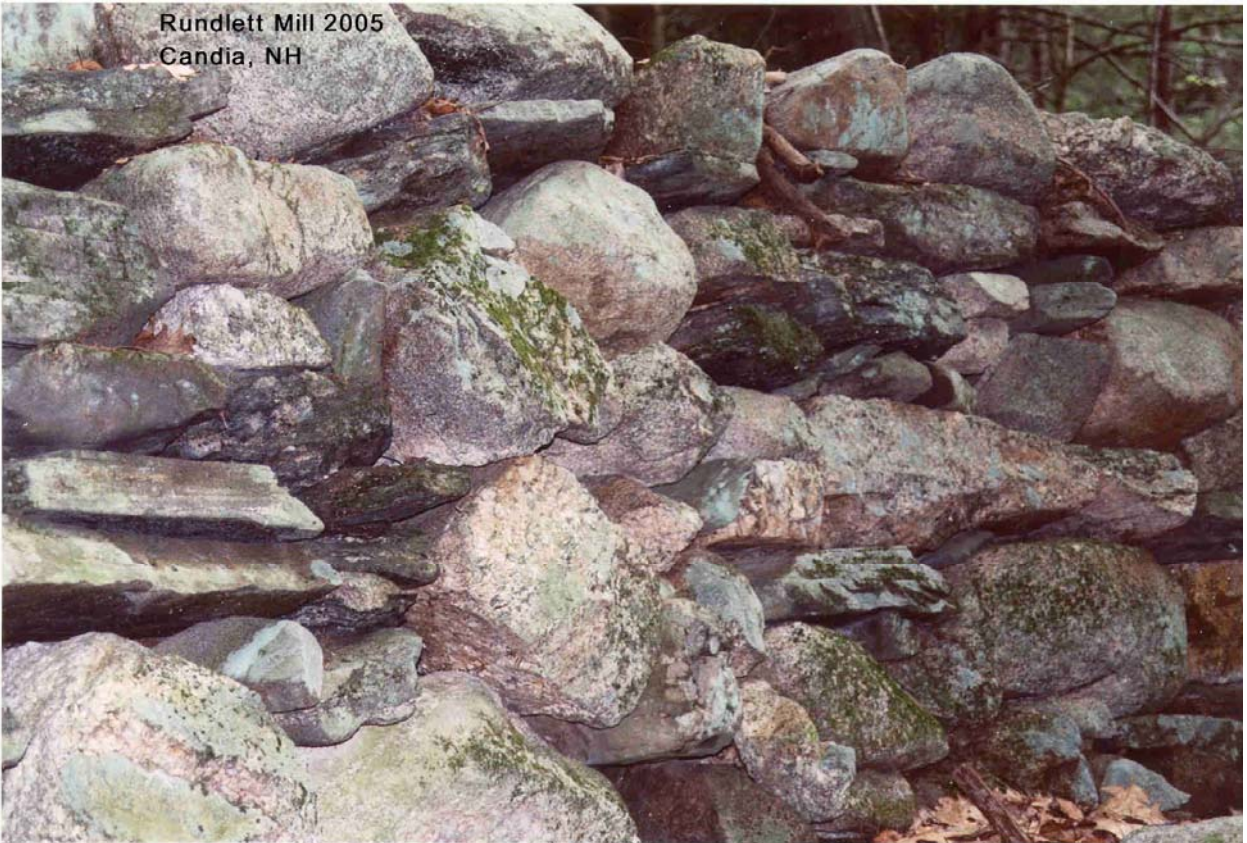
The Old Mill, Candia, N. H.

Candia, NH
courtesy of Thelma Weeks





Brown Mill
Candia N.H.
courtesy of Thelma Weeks



Rundlett Mill 2005
Candia, NH



Rundlett Mill 2005
Candia, NH



Rundlett Mill 2005
Candia, NH





Davis Dam 2005
Candia, NH



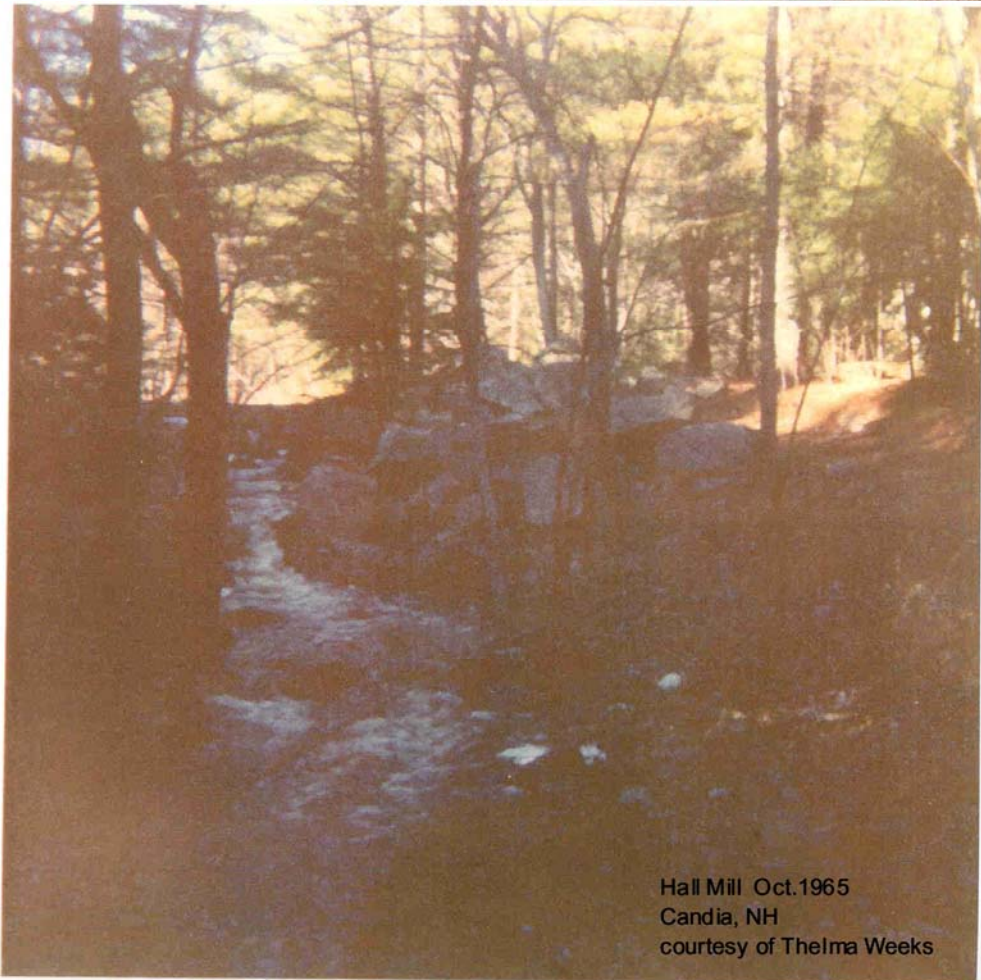
Davis Pond 2005
Candia, NH
Susan Wilderman
Jim Lindsey



Davis Dam 2005
Candia, NH
Jim Lindsey



Hall Mill 2005
Candia, NH



Hall Mill Oct. 1965
Candia, NH
courtesy of Thelma Weeks



Hall Mill
Candia, NH
courtesy of Thelma Weeks

Clay Mill

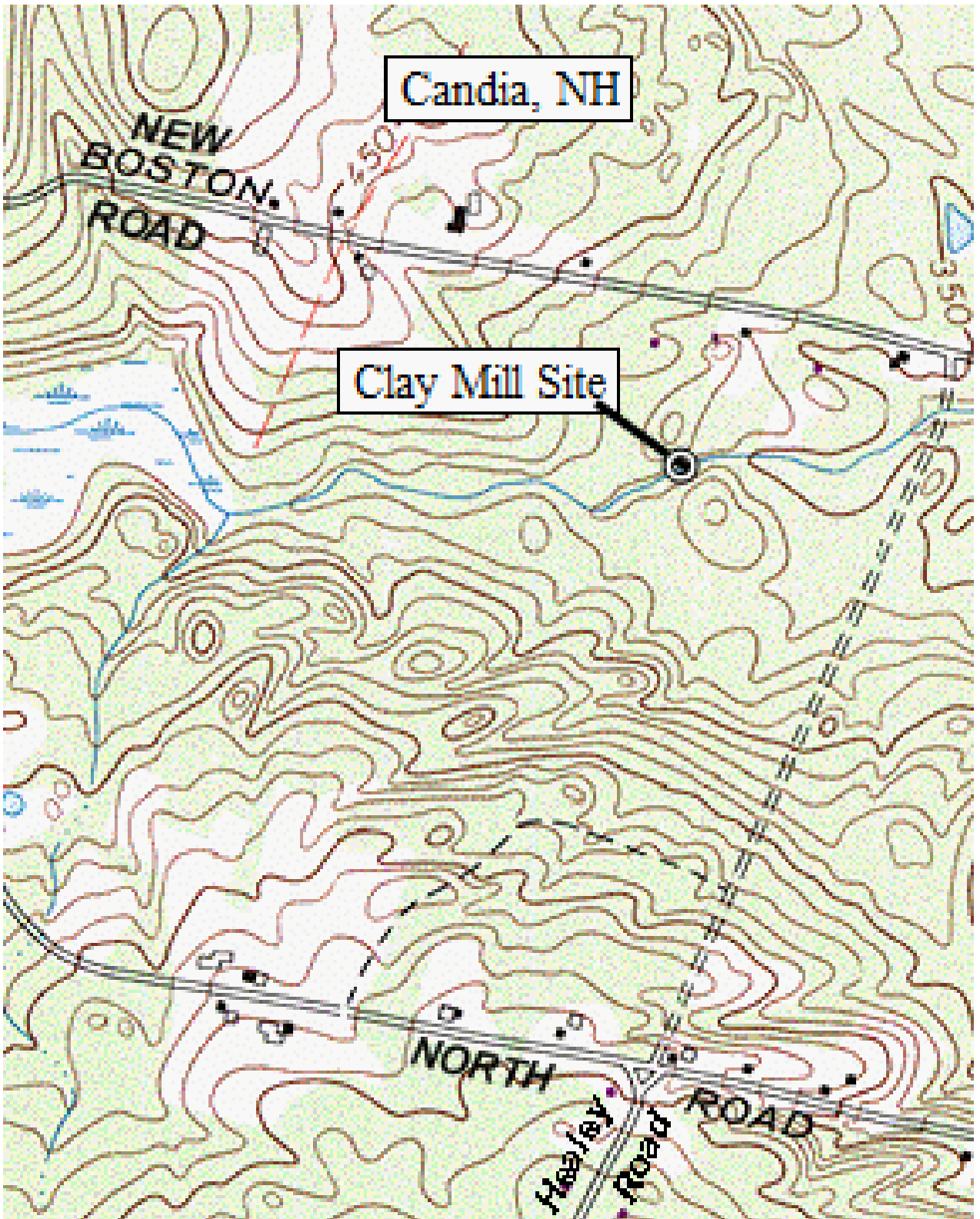
Mills in the New Boston Neighborhood

The first mill in this section of the town was erected by Ensign Clay, Benjamin Lang and others on the stream which flows from the west part of the town to the village and the Island more than eighty years ago. A saw mill was first built at this place, and a few years later a grist mill was erected at the same dam. A man by the name of Judkins was one of the owners. Abel Lovejoy had charge of both of the mills from about 1824 to 1836.

About the year 1846, Franklin Clay built a steam mill on a spot on the New Boston road near the residence of Isaiah Lang. He put in machinery of various kinds and employed a considerable number of hands in making tables, bedsteads and various kinds of furniture. The enterprise required considerable capital, and was not a decided success. The mill was burned about the year 1849. Several years afterwards he built a new and expensive dam and erected a new saw mill at the site upon the river in the New Boston neighborhood where his grandfather, Ensign Clay, owned and operated a saw mill many years previously. He carried on the business of manufacturing lumber of various kinds for several years, after which John E. Fitts, a resident of the village, had charge of the works. In 1874 the mill was totally destroyed by fire.

Moore page 251

The cart path to access the Clay Mill is now a private driveway on New Boston Road. A wide walled right of way leads to a beautiful rocked raceway and dam. This site is also close to the abandoned section of Healey Road. A rock foundation of a building is near the stream. Perhaps it was used to manufacture wooden merchandise. With the coming of the steam age to N.H., it is surprising that this first venture into steam power was not successful. The site of the mill and the cart path leading to it had been deeded to two different owners. In 2005 the two were reunited under single ownership with the intent of preservation of this historic site. The earliest record of mill ownership was a 1793 deed for "1/3 mill rights with a 1 rod right of way" to Benjamin Lang, Jr.



Map provided from TOPO! ©1998 Wildflower Productions (www.topo.com)



Clay Mill 2005
Candia, NH



Clay Mill 2005
Candia, NH

NORTH BRANCH OF THE LAMPREY

Mills at the Village

William Turner, who settled on Lot No. 35, 3rd division, built a saw mill on the stream at the village a short time previous to 1756, at the spot where the present grist and saw mills are located. This was the first mill built in the town.

Joseph Bean built a gristmill near by a few years afterwards and, from that time, a gristmill has been in operation at this spot.

There have been many owners of these mills during the past hundred and forty years, among whom were the late Judge Butler of Deerfield. At the present time there is a grist and shingle mill at this place, which is owned by Charles H. French and Oscar Hall.

Thomas and Moses Critchett carried on the business of carriage making many years in a building adjoining the grist mill, and were furnished with water power from the same pond.

Elder Bean had a small mill for grinding bark for his tannery at this place.

About the year 1806, a saw mill was erected on the stream at the village a short distance above the gristmill just described and a few rods from the present F.W. Baptist church.

Asa Ordway soon afterwards erected a building near this saw mill and put in a carding machine. Mr. Ordway died in 1812 and Elihu B. Cheney, who came from Deerfield, bought the carding machine and operated it many years. Mr. Cheney also bought the saw mill and operated it in connection with his carding machine. He finally sold the property to Enoch Brown of Deerfield. These mills were destroyed more than forty years ago.

Charles Bagley, who came from Goffstown, erected a clothing mill about sixty rods below the highway which extends through the village. In 1821, Freeman Parker came from Bedford to Candia and bought Mr. Ordway's mill to put in a new carding machine and machinery for dressing cloth for men's and women's wear. He also put in machinery for rolling sole leather. In 1846, Mr. Parker sold the mill to Jason Godfrey when it was converted into a saw mill. Mr. Godfrey operated the mill a considerable time, and then sold it to a man by the name of William Wall. In a year or two Mr. Wall sold the property to George E. Eaton and Charles H. French, who are the present owners.

Moore page 249

July 27, 1878 "Special notice- The subscribers, having bought the old mill at the village and built it over, put in a new wheel, corn cracker, burr stones, etc., give notice that they are prepared to crack and grind corn for all those who wish, in good shape! French and Eaton Candia Village NH"

Candia Collection page 107

May 29, 1880 "A room is being fitted up for us (the Candia Banner) over the grist mill in the Village, owned by French and Eaton. We expect to occupy it in a few weeks, when our presses will be run by water."

Candia Collection page 121

Feb. 19, 1881 "The grist-mill and saw-mill at the village, which have been idle the past few months for lack of water, have started up."

Candia Collection page 133

*1912 New Hampshire State Directory and Gazetteer, Classified Business List:
Grist Mills and Shingle Mills owned by Arthur Critchett* Candia Collection page 205

*Jan. 5, 1890 A hosiery mill started in the Village. Cass reports that twelve to fifteen girls
are employed.* Candia Collection page 159

April 11, 1890 The Village hosiery mill now employs 25 or 30 hands.
Candia Collection page 162

Aug. 20, 1890 The Village hosiery mill burned down.
Candia Collection page 162

*Aug. 1, 1893 The great Amoskeag mill has shut down and mills all over the country are
following suit.* Candia Collection page 170

*Oct. 9, 1880 "Elder Moses Bean, the most enterprising business man the town had ever
possessed. For the pursuit of handicraft of all industries, blacksmithing, tannery,
currying, shoemaking, wagon making with the intendant wheelwrights and millwrights,
building grist mill, saw mill, employing experts and all others necessary in carrying our
successfully the same."* Candia Collection page 49

Bean's Grist Mill

A short distance beyond the Clay site the Mill Stream flows into the North Branch of the Lamprey River. Early settlers at Candia Village captured potential waterpower from this greater flow and developed a prosperous industrial community. The North Branch flows behind the Baptist Church, under the Deerfield Road (Route 43), and on its continuing journey to join the Lamprey in Raymond. When you stand on the bridge or behind the Church, you see rockwork that is obviously man-made. Water divides into two streams and creates a long narrow island between natural ledges and erratic boulders. It appears a mix of natural and man-made rock forms.

The present appearance of the Village sites represents the remains of an extended history of settlement, milling and manufacturing. Because of the prominence of this mill complex and the variety of its productivity, this area became the most settled and industrialized community in town. The most significant change in the Village occurred in 1962 when our present Deerfield Road was straightened, bypassing what we now call the Old Deerfield Road. The bridge now spans the North Branch River on the exact location that had been the last and largest mill building in the village. Many older folks in town remember the building and the narrow road that passed by it and curved along the river to the homes of many villagers. "If you stood at the edge of the road you could touch the building", says Thelma Weeks. Because of the duration of the mill into the early 20th century, we have photographic documentation of the buildings and pond. More photos of this site have been acquired than at any other in the town.

Also well remembered is the demolition of the last mill building. The mill was vacant and rotting, although the mill stones and iron work were all still intact under the building. "It was Halloween night," said Don Seward. "We wrapped a long rope to the center beam." "There were 15 or 20 of us," said Sis Richter, "and we all pulled". The whole building collapsed and the dust rose up like a cloud was Don's description of the scene. The building was soon to be totally demolished with the straightening of the road through the village. Times had changed and Candia's obsolete mills had come to an end.

This had been Candia's flourishing industrial and commercial center. The first mill here was a gristmill that may have been built as early as 1760. Soon there would be a gristmill, sawmill and a shingle mill at the village. At one time, a shop for carriage making was powered by the same water that sawed the boards. A small mill ground bark to use in the tanning of leather and at another site, leather was rolled to make soles. Several shoe shops opened to take advantage of these materials. A carding machine processed local wool and a clothing manufacturing business began. There was a blacksmith, a millwright, a wheelwright, a coffin maker and a harness maker. A commercially vibrant future seemed assured. The village was blessed with a continuous water supply that allowed mills to operate in all but the coldest weather that could freeze the water wheels. The area behind the church was a sizable millpond. This location offered natural rock ledges and drop in elevation to direct the flow of water to multiple milling uses. These good people built their church in the center of this community and their prosperous homes along the road. Dudley's general store served the residents. Improving travel conditions and even a railroad depot pointed to a lucrative commercial future. The headstones in the beautiful Village Cemetery document the families who lived and labored here.

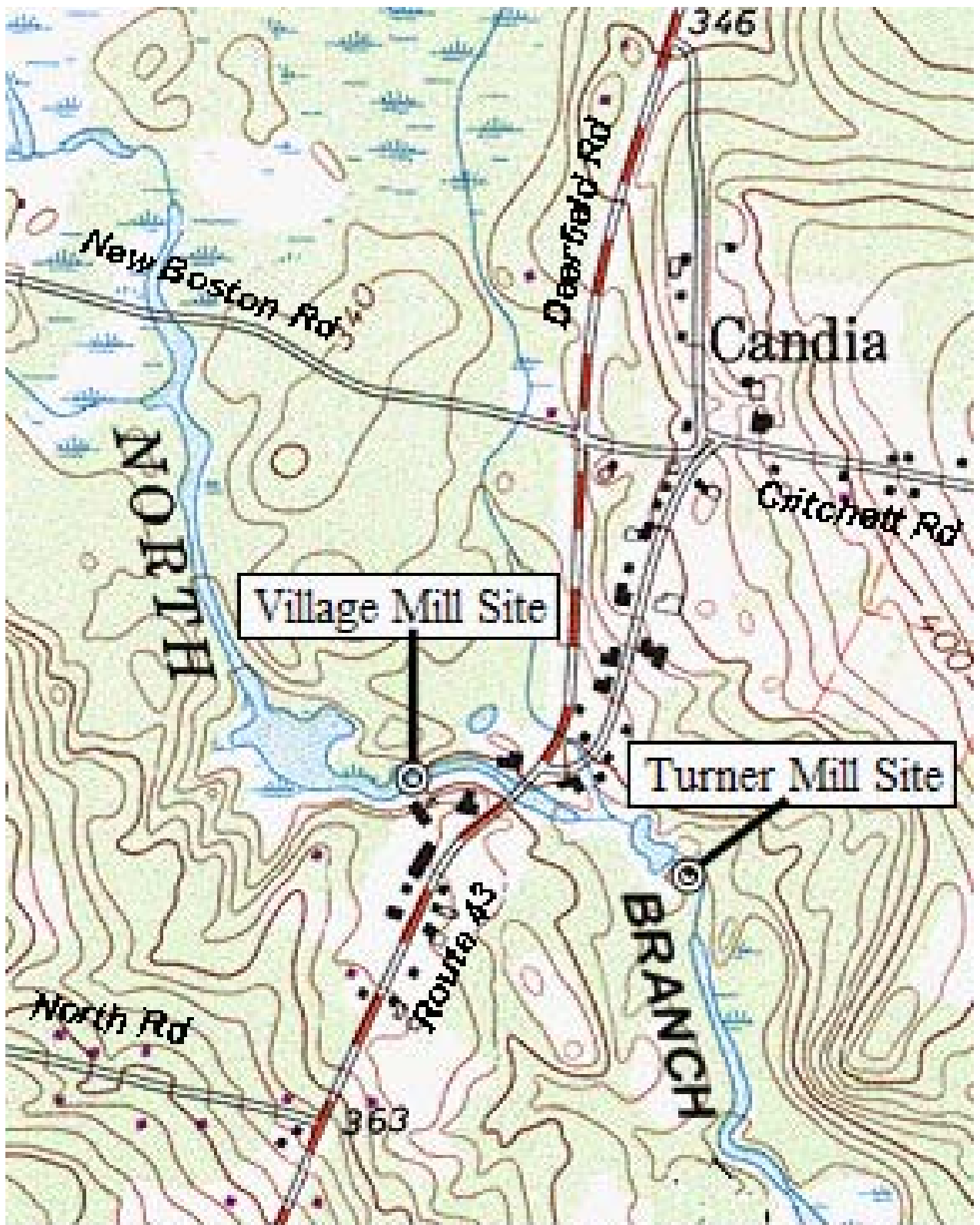
Turner Mill

A bit further downstream on the North Branch, the village area offers another mill site, and unlike the sites west of the road, it is remarkably intact and undisturbed. It takes us back to the pioneer settler of Candia, William Turner, 1741 and the first milling activity in Candia. Interestingly, this may also be the site of the last working mill in Candia. The photograph (found at the end of this section) of the wagonload of lumber at the Four-Corners was probably sawn here.

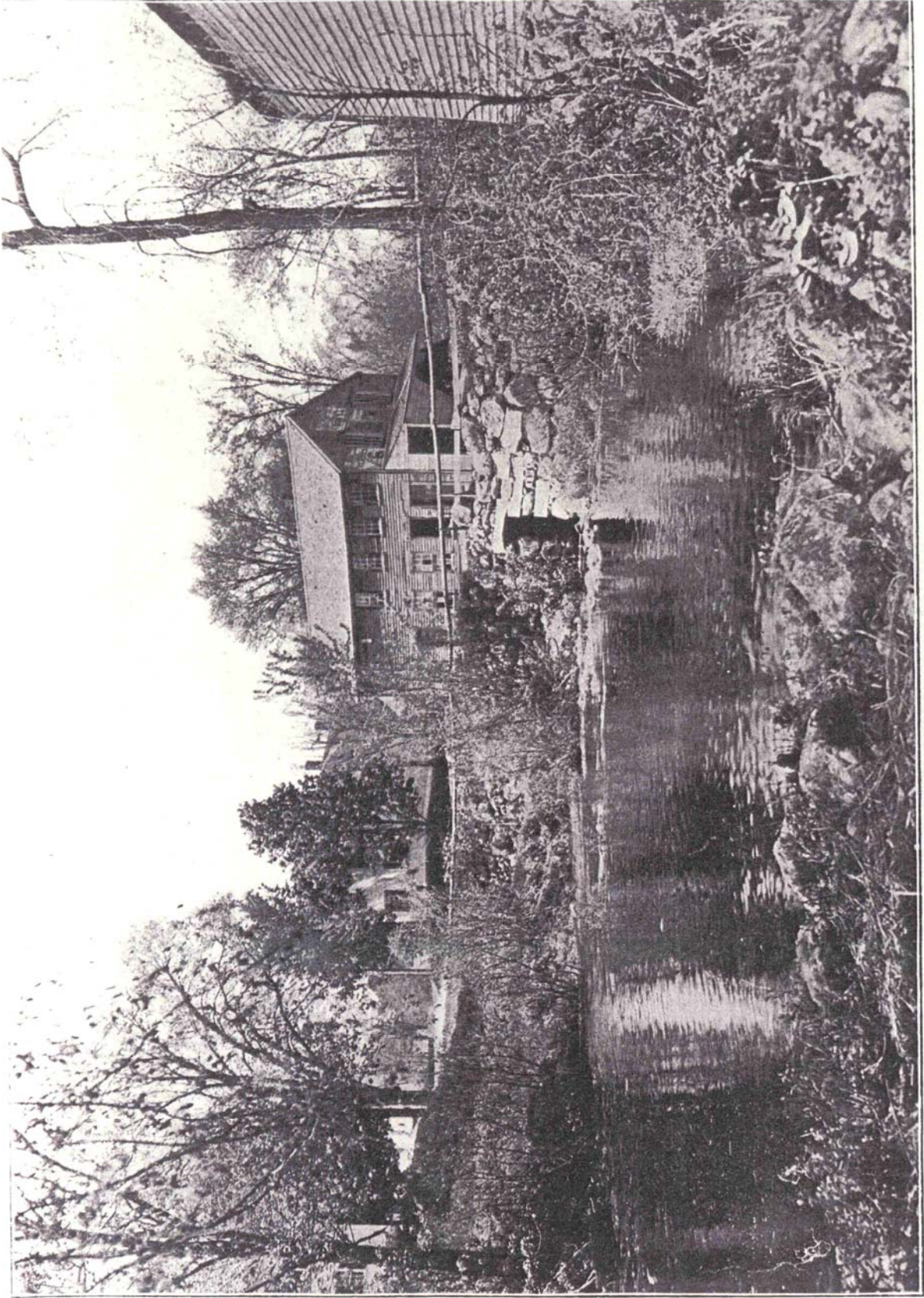
Try to imagine the wilderness in the mid 1700's that Turner entered. The river offered water essential for daily survival, fertile agricultural soil, and a somewhat level area in a very hilly region. Oh, the task of cutting massive virgin timber to clear even a small parcel for planting. An initial crude cabin might have been constructed of logs, but the need was for timbers and planks. So essential was a sawmill to the settling of any area, some land grants were given under the condition that a minimum number of acres be cleared of forest and that a sawmill be built. Settlers were well acquainted with saw mills and timber frame construction, so their mill was of the utmost priority.

Turner settled on the east side of what we call the Deerfield Road, at that time a mere pathway through the woods. His mill site is the earliest mill in Candia, as early as

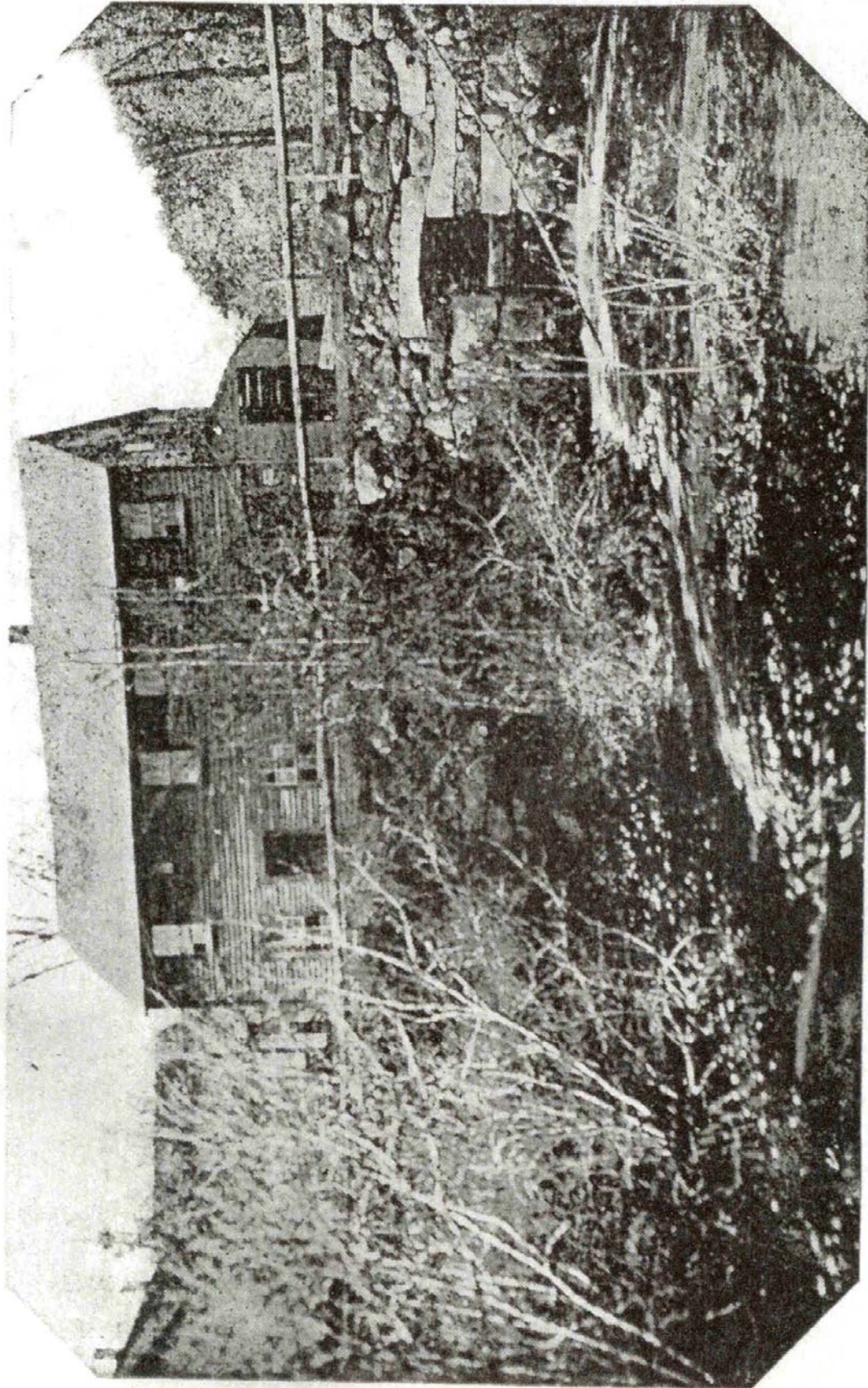
1753. Although the site has undergone change and expansion, it can be found today behind the Village Cemetery. A short excursion through the woods to the river is well rewarded when you find the beautiful rock work that has been preserved for so many years. A dam still holds back a good sized pond, but the water runs freely through the rock walls of the raceway that would have been harnessed to turn the water wheel. An interesting rectangular opening in the north wall appears to be original. Perhaps the water wheel axle shaft lay through it and spanned the brook. The iron was removed from all of these mill sites as scrap metal during the World Wars for by then the mills were abandoned and presumed useless. One side of the rockwork was damaged in the removal of the iron. A tree has fallen across the river downstream of the mill site which allows a river crossing for the adventurous or nimble visitor. One caution at the site, however, is the abundance of poison ivy.



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COMPLIMENTS OF THE CANDIA CLUB. THE VILLAGE MILL, CANDIA, N. H.



Village Mill
from 1936 postcard
Candia, NH

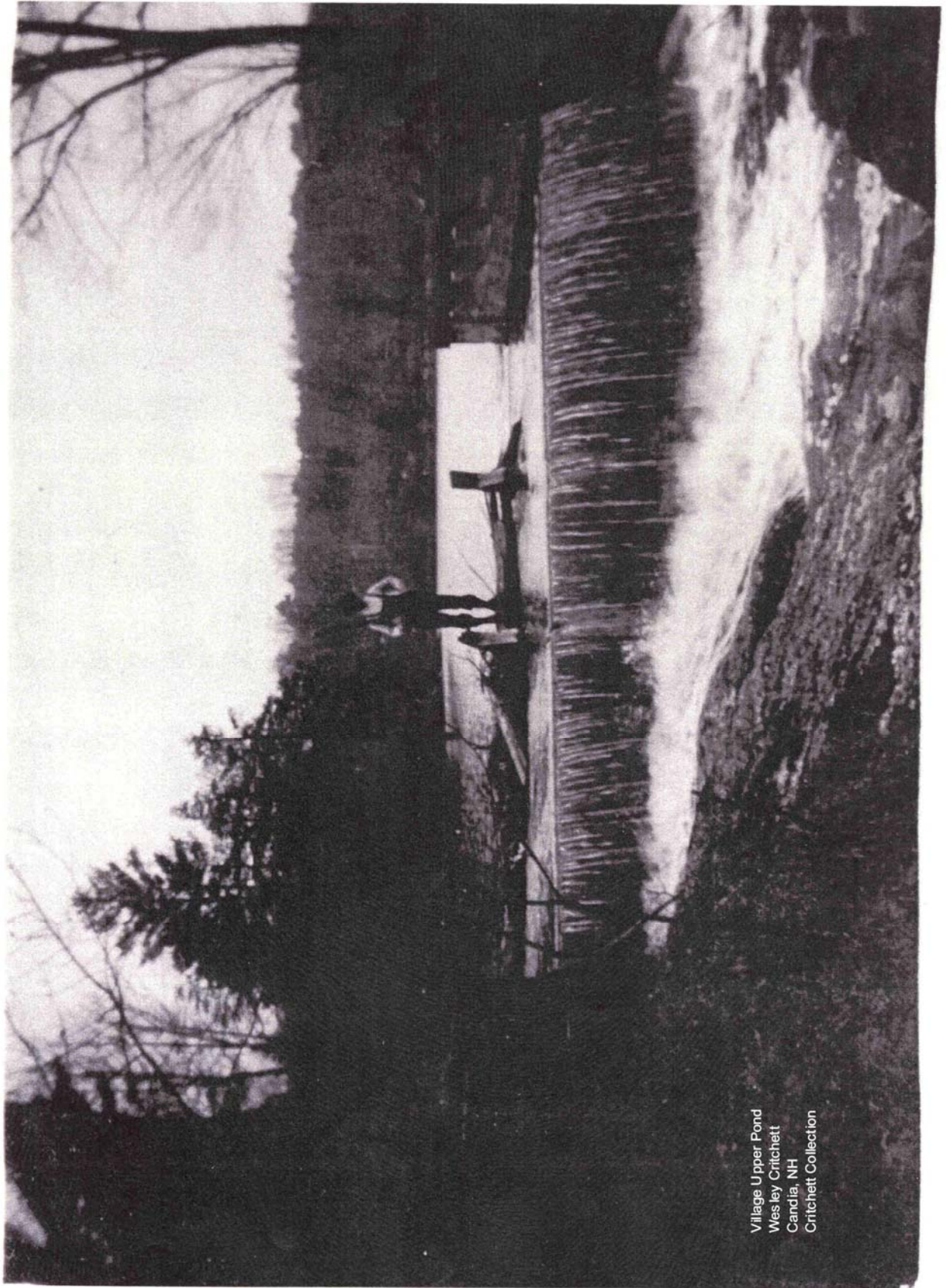
River and Mill, Candia, N. H.



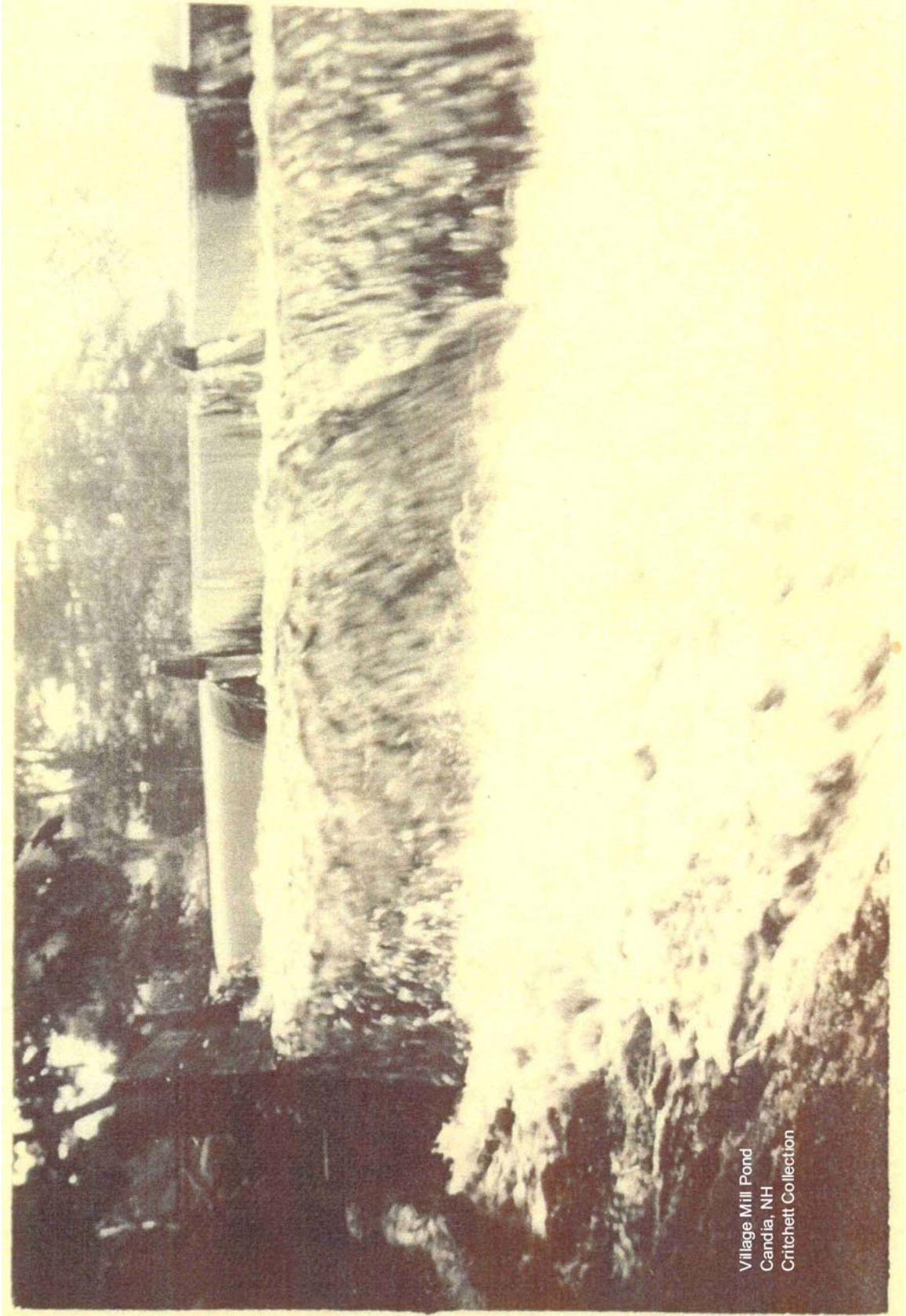
Village Grist Mill, Candia, N.H.



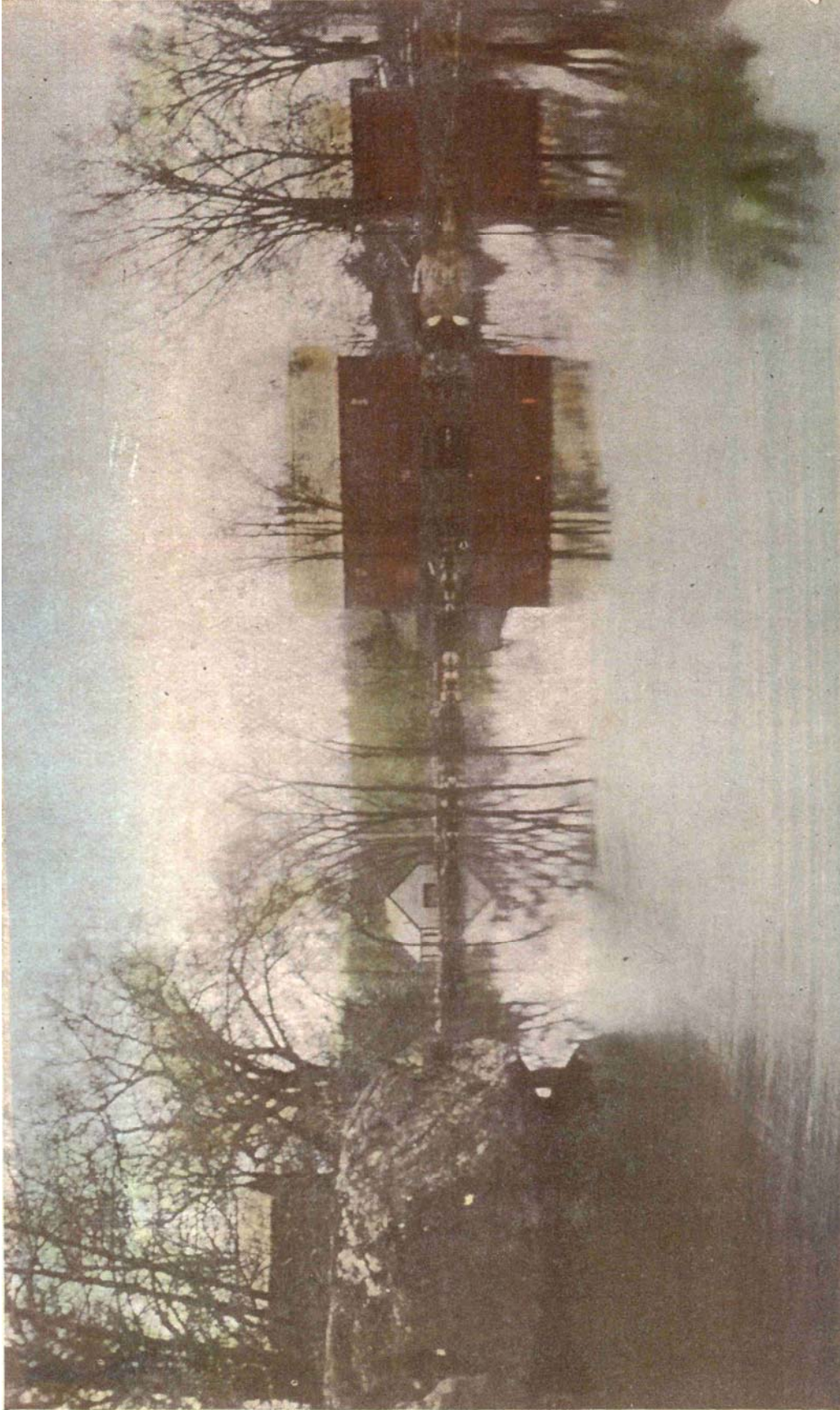
Village Pond
Wesley, Ethel, & Gertrude Critchett
Candia, NH
Critchett Collection



Village Upper Pond
Wesley Critchett
Candia, NH
Critchett Collection



Village Mill Pond
Candia, NH
Critchett Collection

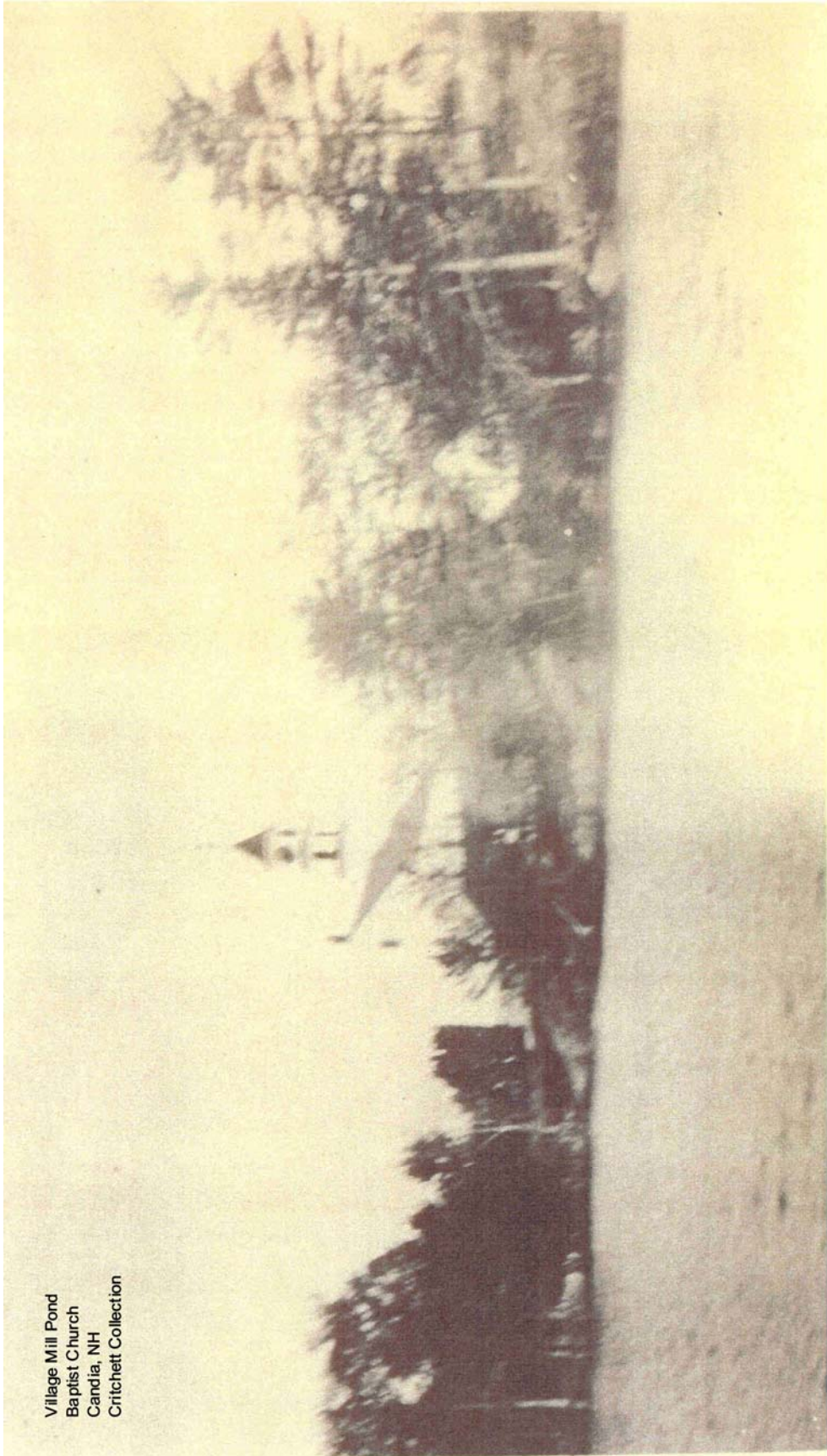


Published by C. W. Phillips & Co.

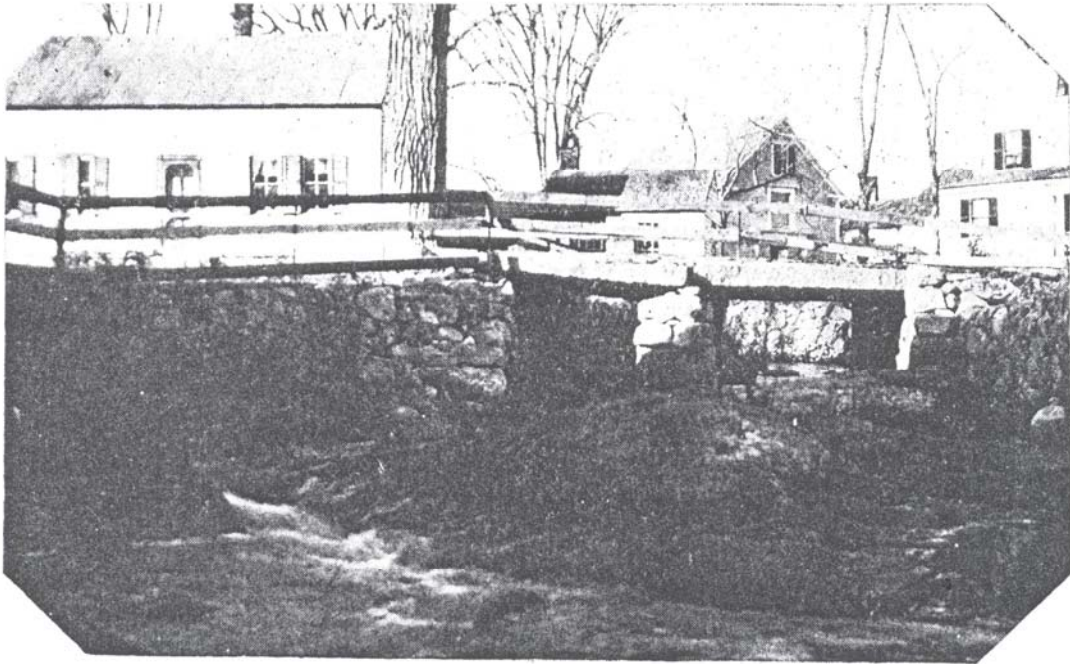
Old Mill, Candia, N. H.



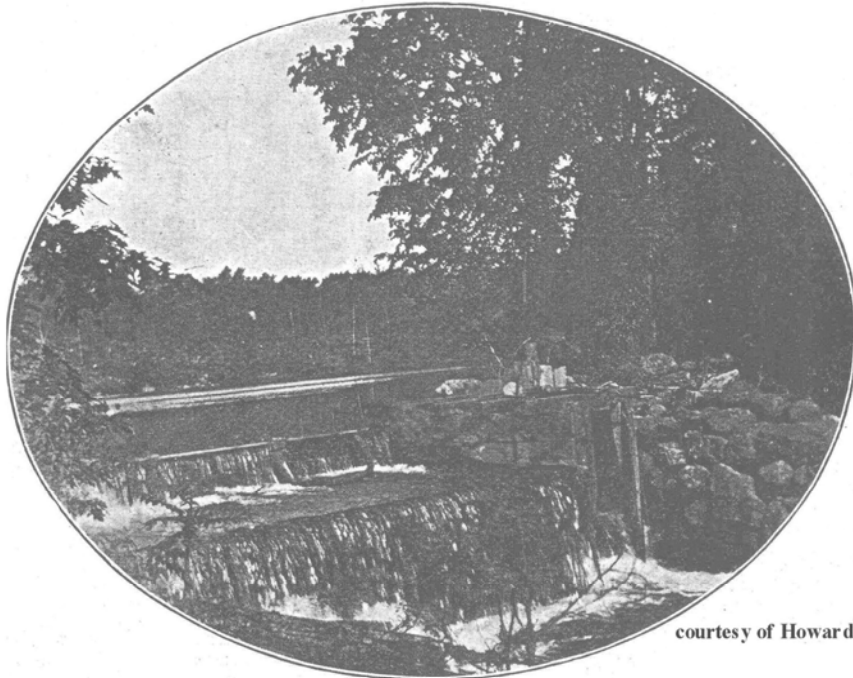
Village Mill
Critchett Collection
Gertrude Critchett
Candia, NH



Village Mill Pond
Baptist Church
Candia, NH
Critchett Collection

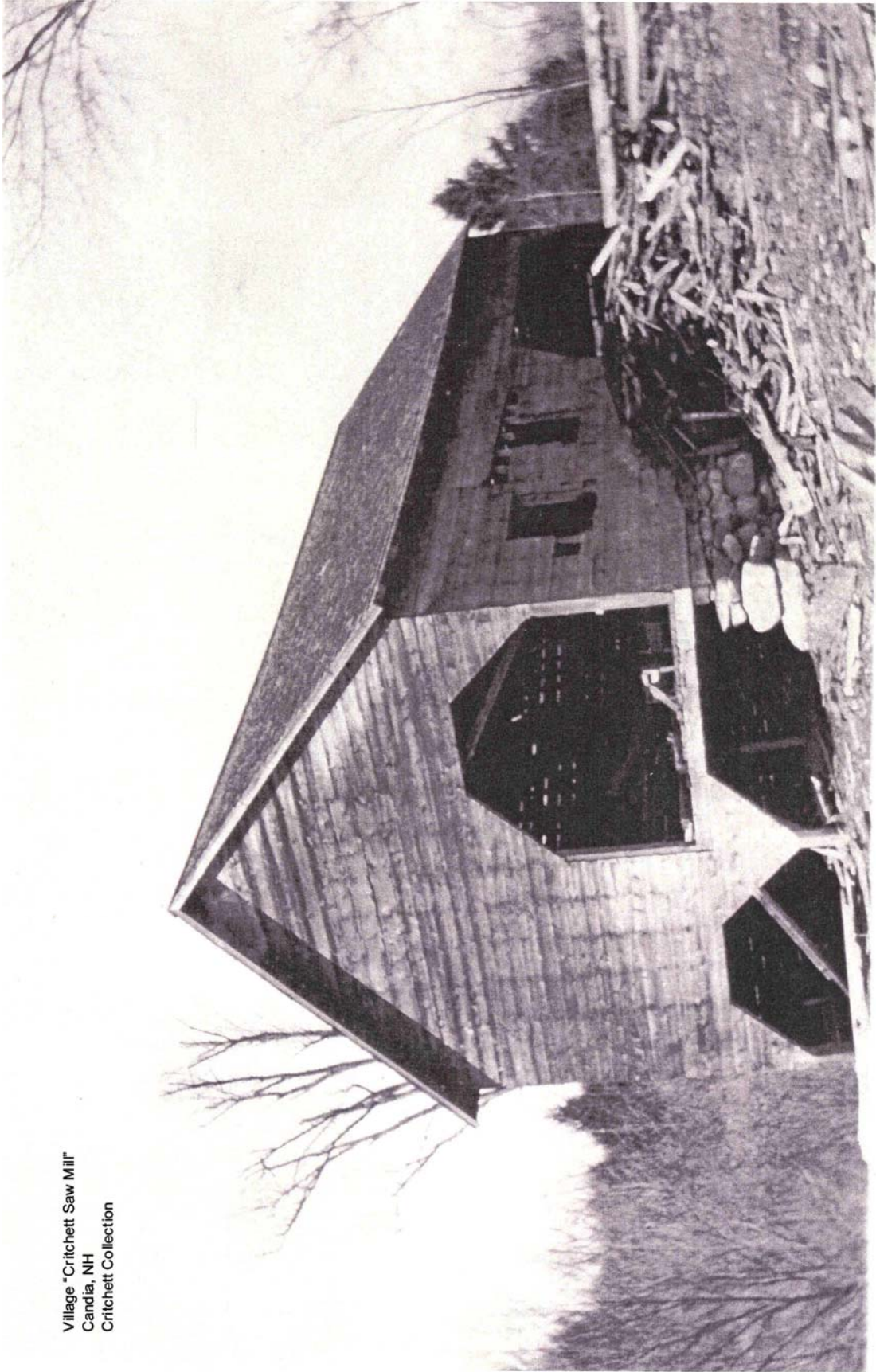


Double Arch Stone Bridge, Old Deerfield Road, Candia, N.H.
courtesy of Howard Swain

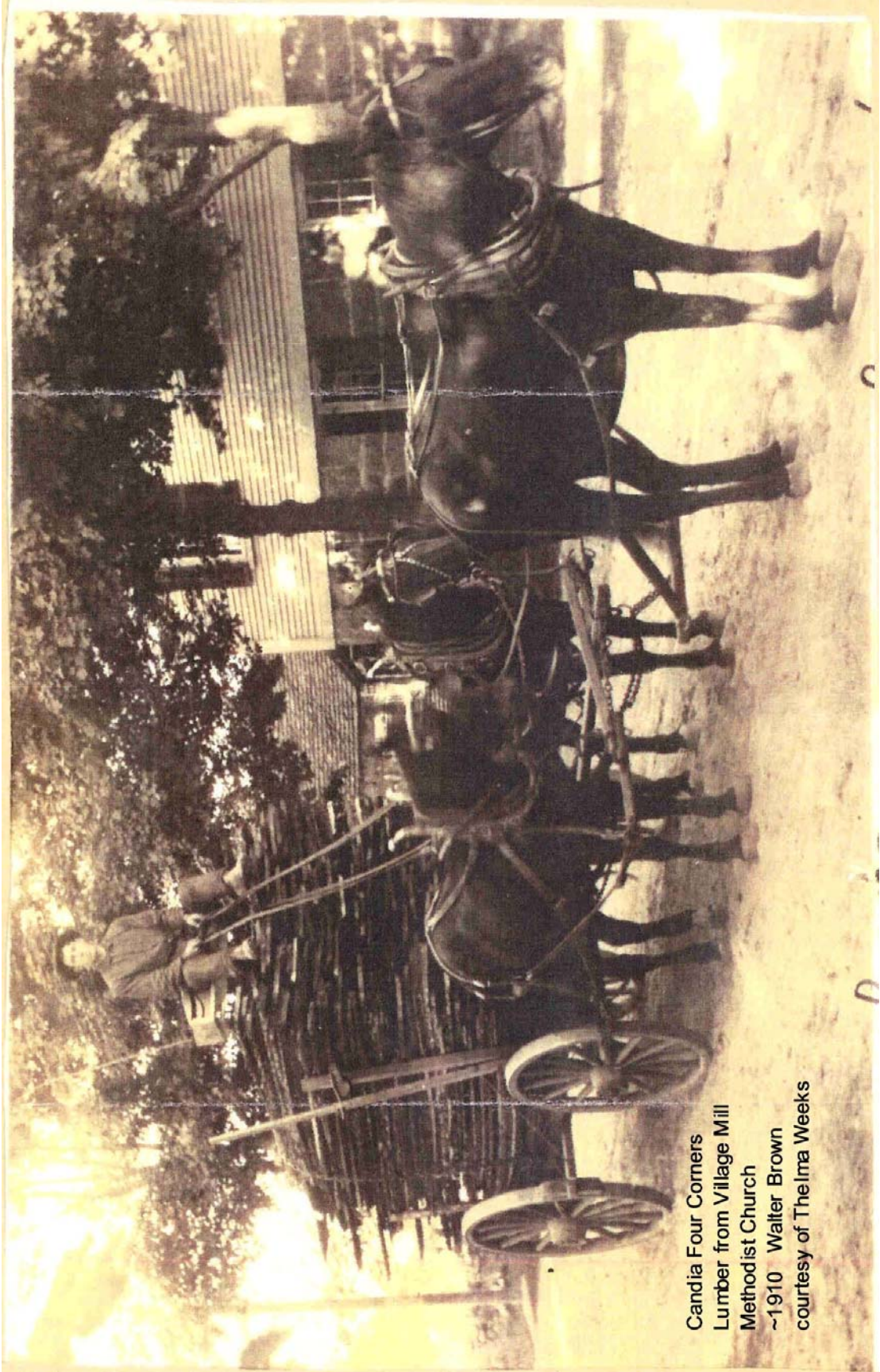


OLD MILL POND, CANDIA VILLAGE, N. H.

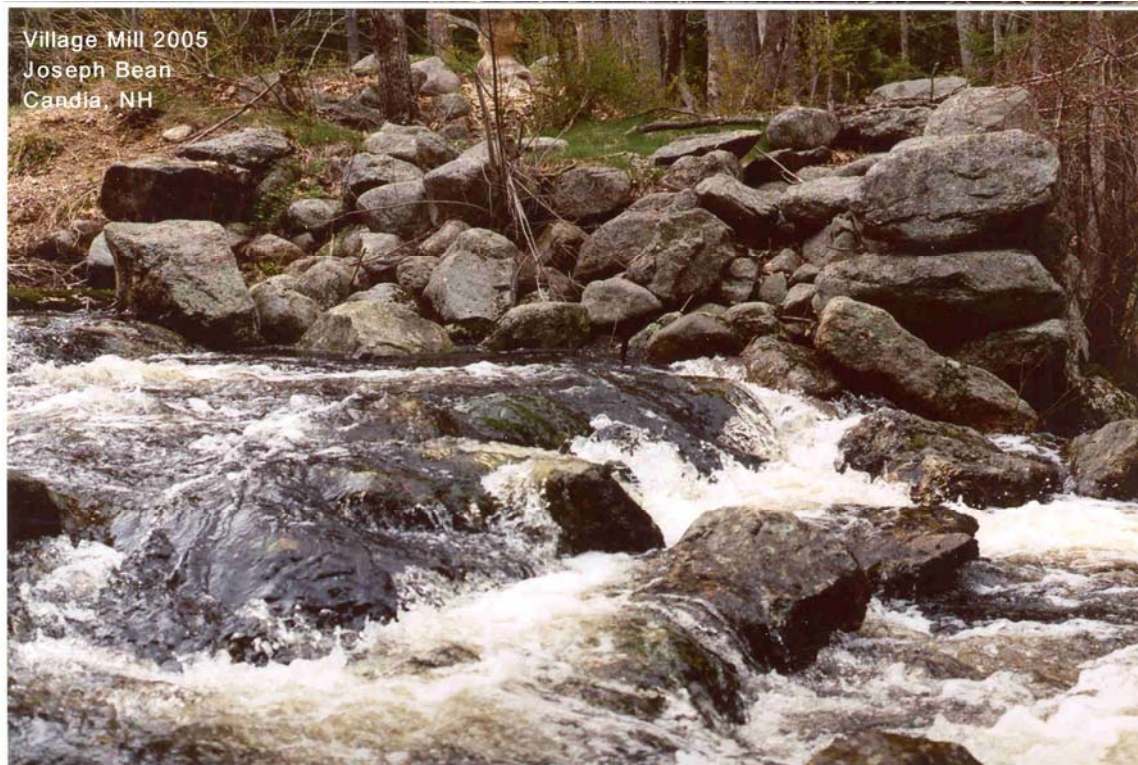
courtesy of Howard Swain

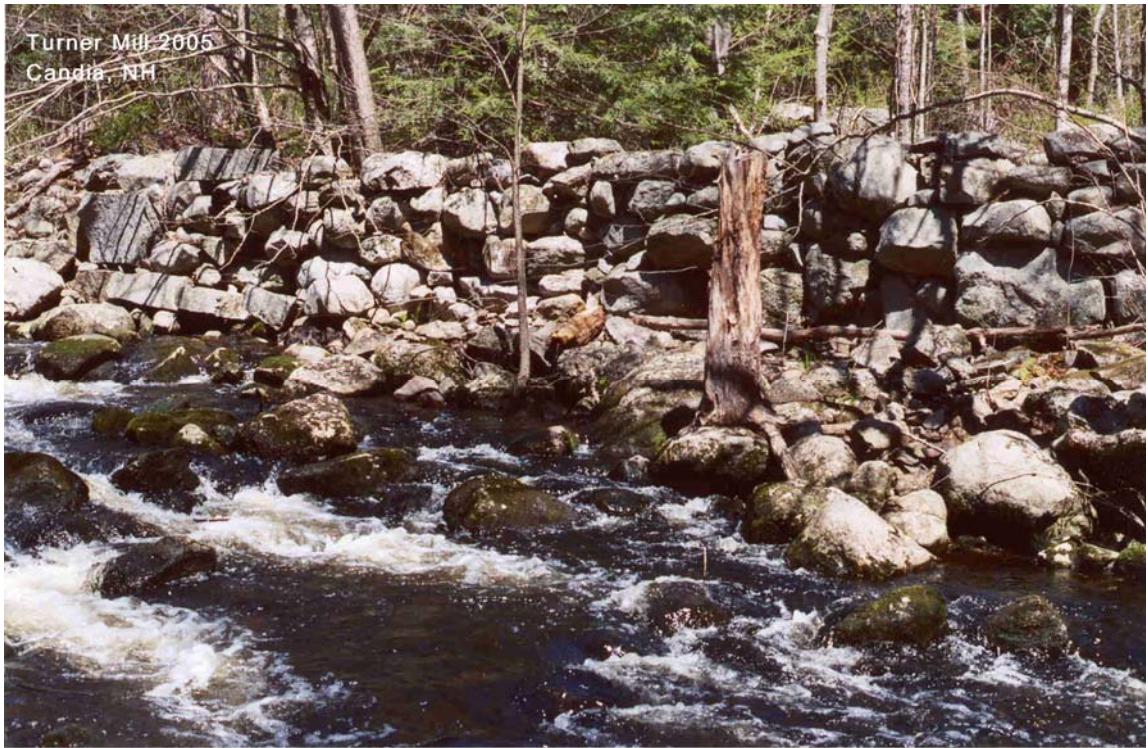


Village "Critchett Saw Mill"
Candia, NH
Critchett Collection



Candia Four Corners
Lumber from Village Mill
Methodist Church
~1910 Walter Brown
courtesy of Thelma Weeks





Mills at the Island

In 1757, Samuel Eastman and Samuel Eastman, Jr., who came from Kingston, bought part of Lot. No. 78, 3rd. division, which is situated in the east part of the town near the Raymond line, and built a saw mill and dwelling house. In 1759, the property was destroyed by fire, and a new mill and dwelling house were erected about forty rods further up the stream.

After a few years David Beane, who came to Candia from Epping, bought the place and operated the mill a considerable time, when it was destroyed by a fire which was running in the woods near by. Mr. Beane erected another mill on the same site. The property descended to his son, Abraham Beane, and in 1812 the latter built a new dam about sixty rods above the old mill and erected a saw mill and grist mill.

The stream which flowed from the mills and another stream which came through the raceway united at a point nearly a quarter of a mile below and formed an island It was from this circumstance that the neighborhood is called "The Island".

Deacon Beane operated the mills many years with success. He died Oct. 29th, 1833.

Joseph Beane, son of Deacon Abraham Beane, was the next owner of the property. After his death there were various owners, until finally it was sold to Joseph A Johnson, who came from Derry in 1863. He is the owner at the present time.

Moore page 250

Eastman Mill

A very rudimentary early mill site can be found near the Raymond town line that would have been the original Eastman site referred to in the Moore history. The lack of development there verifies Moore's account that the rebuilding of the mill after the fire was upstream. William Eastman sold William Clifford the east ¼ of lot 78 and a 1/12 interest in the mill on Jan. 20th 1758. William Clifford sold Humphrey Hook the west ¾ of lot 78 on May 6th 1768. David Beane moved to Candia about 1765. The 1770 lay out of Aunt Mary Brook Road has William Clifford on the east side of the road and David Beane on the west side. David Beane deeded Abraham Beane 52 acres on the west side of lot 78 and a 1/12 interest in the saw mill and buildings on Jan. 21st 1793. Two of David's 11 children, Abraham and Reuben, settled in Candia. David died in 1793, aged 68. He and his wife, Mary, are buried at the Hill Cemetery. His descendents to the fifth generation resided in Candia to the time of the writing of the Moore History (1893).

Beane Island Mill

A millstone dated 1784 was uncovered by Dennis Lewis as he was doing back hoe work on Route 27. There had been an old Cape Cod style house on the property that had burned. The stone was in two pieces, one half was evident, but Dennis had to dig to find the other half. It is the bottom stone of a set of grist stones that property owner, Mrs. Carr, said had come from the Island. Dennis bought the stone and donated it to the Fitts Museum where it is displayed on the back lawn. The surface seen is the bottom side that was anchored to the ground by iron hooks. This is a remarkable artifact of the earliest days of milling on the North Branch River.

A ledger newly acquired by the Fitts Museum is a remarkable account recorded by Gordon Beane, the son of Abraham, of the activity of the mills, the families in residence and their business arrangements. Entries provide a picture of life in Candia in the mid-1800's, an era when oxen transported logs to the mill and milled lumber to residents in exchange for days of labor, goods or services. Blacksmith, wheelwright, leather, carpentry work or garden produce was used as capital exchange.

Gordon was a detailed keeper of records. He was also *"thoughtful, practical and deeply religious man, for many years a Deacon of the Freewill Baptist Church"* (Lang history). The 1200 pound bell in the tower of the church was a gift of Gordon, valued at \$300. He also donated \$1000 to a fund, the interest from which was to be used to support the gospel ministry. Moore pages 219-220

The history of the Beane family and the Free Will Baptist Church in the Village are intertwined. Amongst its earliest members were Abraham and Reuben and their wives. Reuben was the father of Moses Beane, the first ordained pastor. In 1815 a meeting house was erected at the village mainly through the influence and energy of the Elder Moses Beane. Moore tells us that Moses lived in the village, and that Reuben Beane lived on Colcord Road.

A rather extensive account of the Beane family can be found in the Lang History of Candia. There are three copies of this beautifully hand written and illustrated book. The page numbers vary from one volume to another, but families are recorded alphabetically and are easy to access.

"Moses learned tanning and shoemaking and set up in Candia Village, and may be considered the founder of the place... Moses built beside his own residence several houses in the village, one of them occupied by Thomas Lang, the village blacksmith..."

"...Elder" was a man of note in the town as well as in the village."

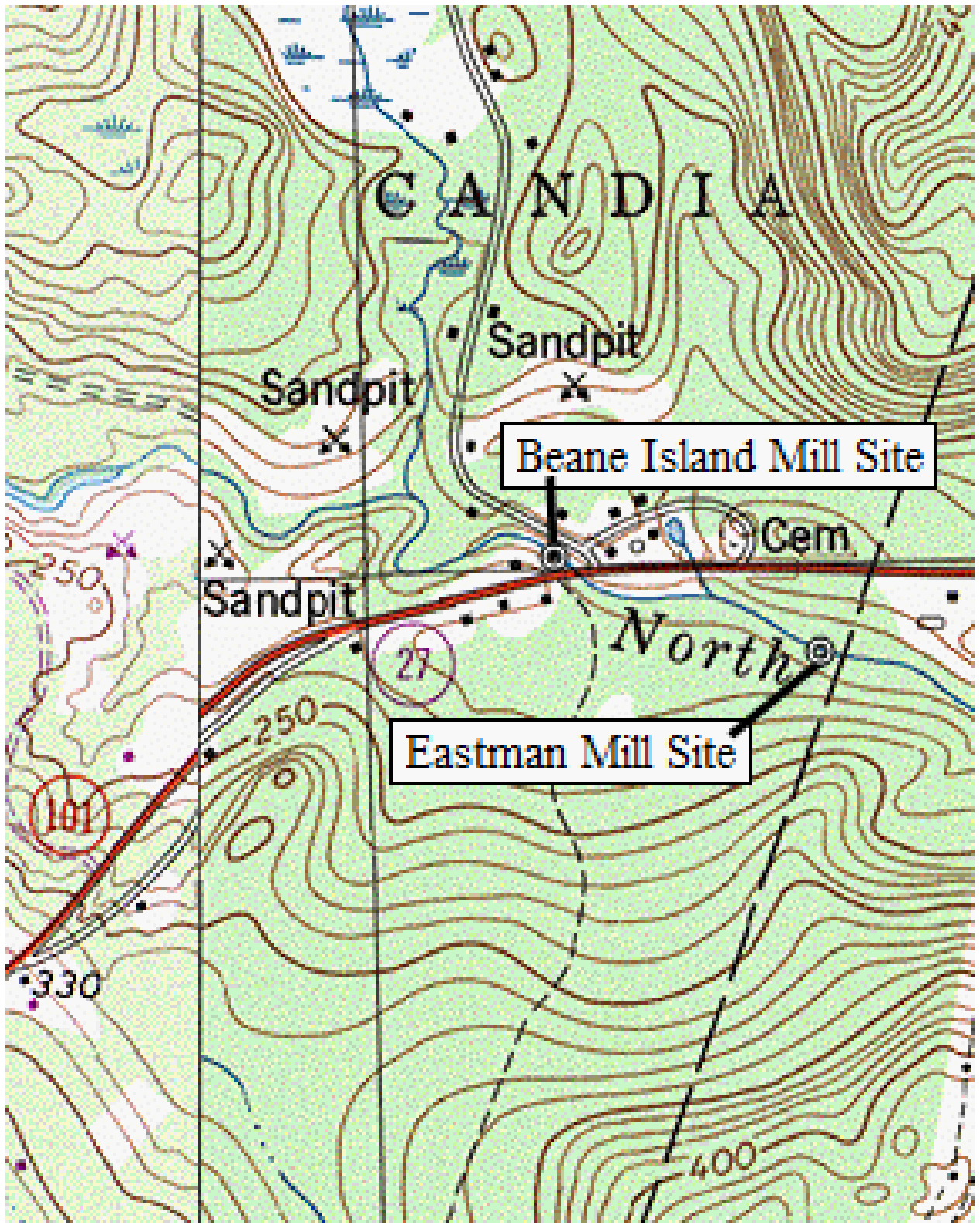
"His business was multifarious, tanning and currying, the manufacture and sale of shoes, organizing, running and maintaining stage-lines, routes, etc. and inducing tradesmen and mechanics, blacksmiths, wheelwrights, etc. to take up their residence and occupy or build shops in his village. Some years after his resignation as Pastor, he went "West" with his wife and unmarried daughter and died in St Joseph Michigan in 1838."

Lang History

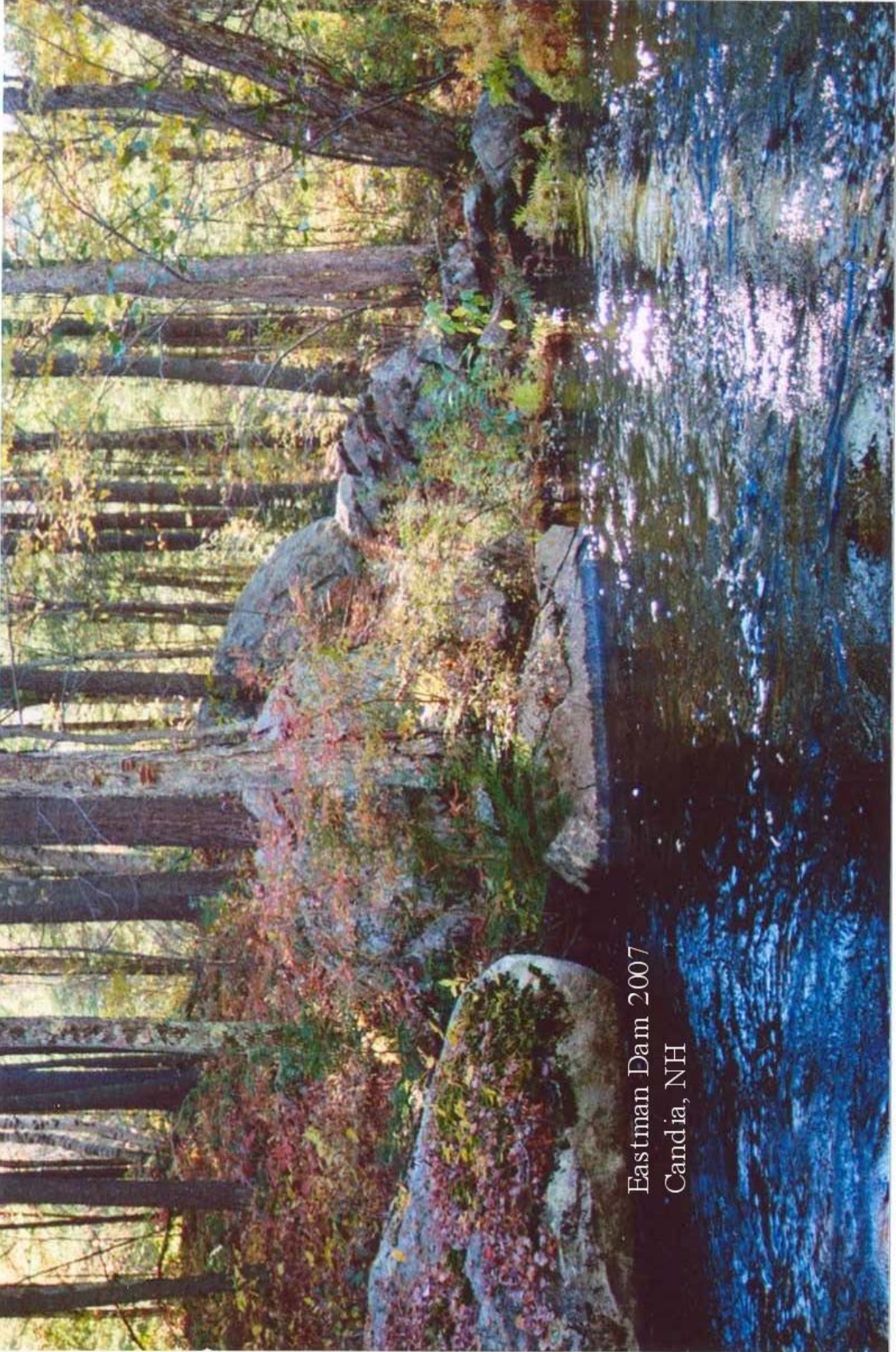
The Beane Island Cemetery gives clear evidence of the multiple generations of the family that lived and worked here and is well worth a visit by those interested in Candia history. *The lot, which contains about an acre of land, is well laid out and walled in. Many of the monuments erected in this cemetery are very beautiful in design and finish.* Moore page 110

The cemetery is located at the height of land and from here the drop into the river valley is steep. Obelisk monuments elevate the impression of height. The cemetery is walled by beautiful stonework, some of the stones being of great size with triangular

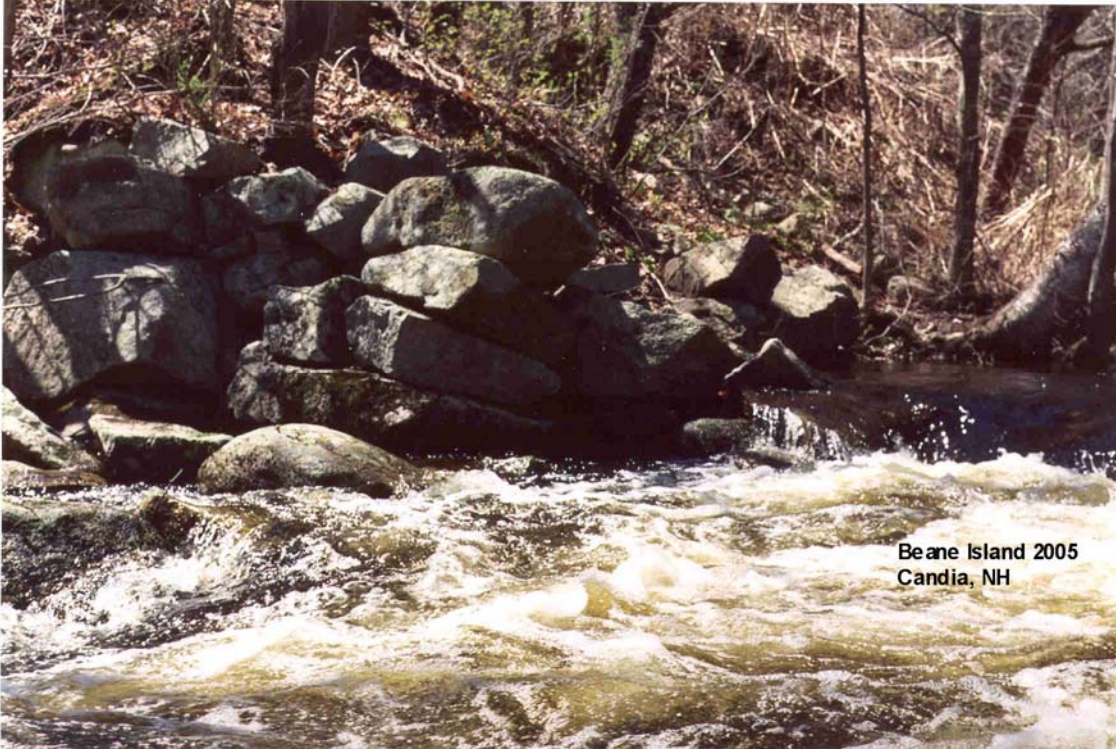
stones set in the corners. The gravestones, primarily marble, are placed in orderly fashion and the lots are defined by stone boundaries. Walkways are clearly evident. Granite stairs allow entrance to walkers and a large gated entrance would have accommodated the horse-drawn hearse.



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Eastman Dam 2007
Candia, NH



STEAM POWER

Before the year 1852, cordwood and timber for building purposes had to be hauled by teams in small quantities to Manchester. Many years previous to that date, small quantities of boards were taken to Methuen and Newburyport. In 1852, when the Concord and Portsmouth Railroad was opened to Candia, various parties ...bought timber lots in the town and transported the lumber to Concord, Manchester and else where by cars. When the Candia Branch Railroad was opened to Manchester in 1861, there was a considerable increase in the business.

Moore page 273

Water power was a prosperous enterprise until the coming of the steam powered engine. James Watt patented the first high performance steam engine in 1769. By the early 1880's it was widely used in England in the textile industry. Here in New Hampshire, timbering was forever changed with the introduction of the steam engine. Steam was more powerful and was portable. Transporting logs long distances was prohibitive, so moving a mill to a logging site was greatly advantageous.

Dr. Moses Hill of Manchester, in 1853, bought a large timber lot situated in the Southwest part of the town between the Concord and Portsmouth Railroad and the Turnpike. Dr. Hill set up a portable steam mill on his lot to saw the logs into boards, frames for buildings, etc. This was the first steam mill which was operated in the town.

Moore page 273

Lumber could now be hauled to Concord and Manchester by steam powered locomotives. It was steam power that had built the railroad bed that revolutionized transportation. The Moore history enumerates about 25 timber lots sold between 1853 and 1887, priced from \$300 to as much as \$10,000. We can only imagine what Candia's virgin forests were like, the beautiful white pine and chestnut trees that would have been harvested for their lumber. By 1900, almost 80% of the state of NH was deforested. This was undoubtedly true here in Candia.

It is probable that not a single tree which was growing on the soil when the first settlers came here is now alive, excepting the old chestnut trees which are still standing on the old Col. Carr place near the Congregational Meeting House. They had reached their full maturity when white men came to the town. These trees are still in a bearing condition.

Moore page 44

Steam power allowed the use of the circular saw blade which was much faster than the up and down blade. The Bessemer steel process was introduced in England in 1856. This made possible the production of high quality steel for large circular saw blades. Compressed air was blasted through molten iron that forced out excess carbon and other impurities. Previously, a circular blade strong enough to use would have been so thick its cut would have wasted much of the log. Our Candia water powered mills with their up and down saws, usable only seasonally, were adequate for local custom sawing but were not going to be competitive by the late 1800's. A major change in manufacturing was also taking place at this time. Local cottage industries or small shops

were being replaced by large factories and mass production. As N.H. entered into the industrial revolution, our village mills became out-dated. The mills gradually succumbed to disuse and eventual abandonment when water power was obsolete and unprofitable.

July 26, 1886 I notice that the steam mill on the Henry M. Eaton lot has started up.

Candia Collection page 150

Jan 6, 1888 Henry French estimates that over 3 ½ million feet of lumber will be cleared off from the town this year.

Candia Collection page 154

Grave Forest Situation Follows September Hurricane

Woodland problems of timber salvage and fire control created in many towns by the September hurricane are of the greatest importance. Good citizenship calls for personal and widespread action! The salvage of every thousand feet of logs which can be sold means money for landowners, wages for workers, employment for trucks, teams and machinery as well as reduced forest fire hazard for all.

Candia Town Report 1939

Candia Collection page 231

Fletcher Perkins was part of a crew that removed beautiful pine logs from Moore Park that had been toppled by the Hurricane of '38. They were sawn at Clark's Pond Mill. Don Seward also remembered going to the Clark Pond mill with his father to get sawdust to use as bedding for their animals.

GEOLOGY OF CANDIA

The bedrock, surficial geological deposits and water have influenced the geology of Candia, which has helped to determine the location of the mills. The relatively hard bedrock formed the hills of Candia with the predominant bedrock being from the Massabesic Gneiss complex. This rock was formed during the late proterozoic period (650 million years ago) and is a migmatite rock consisting of a gneiss intruded by a granite. The surficial geological deposits in Candia started to form 2 or 3 million years ago during the Ice Age of North America. The last ice advance came through New Hampshire about 24,000 years ago. It reached as far south as Long Island with the ice completely retreating from New Hampshire approximately 13,000 years ago. The ice left behind three different surficial geological deposits in Candia. The deposit covering most of the town is a gray, sorted to poorly sorted, mixture of clay, silt and sand and glacial stream deposits composed of cobbles, pebbles, sand and silt. The glacial stream deposits were deposited in a glacial meltwater stream that flowed southeastward from Lake Bear Brook to 2 miles east of the Candia Four Corners. These deposits basically follow the current North Branch River location. When water flows from the higher elevations of Candia and reaches the relatively flat areas that are surrounded by higher ground, either the impervious soils or shallow bedrock keep it from infiltrating the subsurface allowing it to spread out creating the swamps and marshes of Candia. The mills were located in areas where these swamps or streams could be dammed creating larger ponds to power the mills. The largest quantities of mills were located along the glacial meltwater stream known today as the North Branch River.

KEY TO MAP OF SURFICIAL GEOLOGY OF CANDIA

Surficial deposits are labeled (Qt), (Qs), (Qc), (Qa), (Qcb)

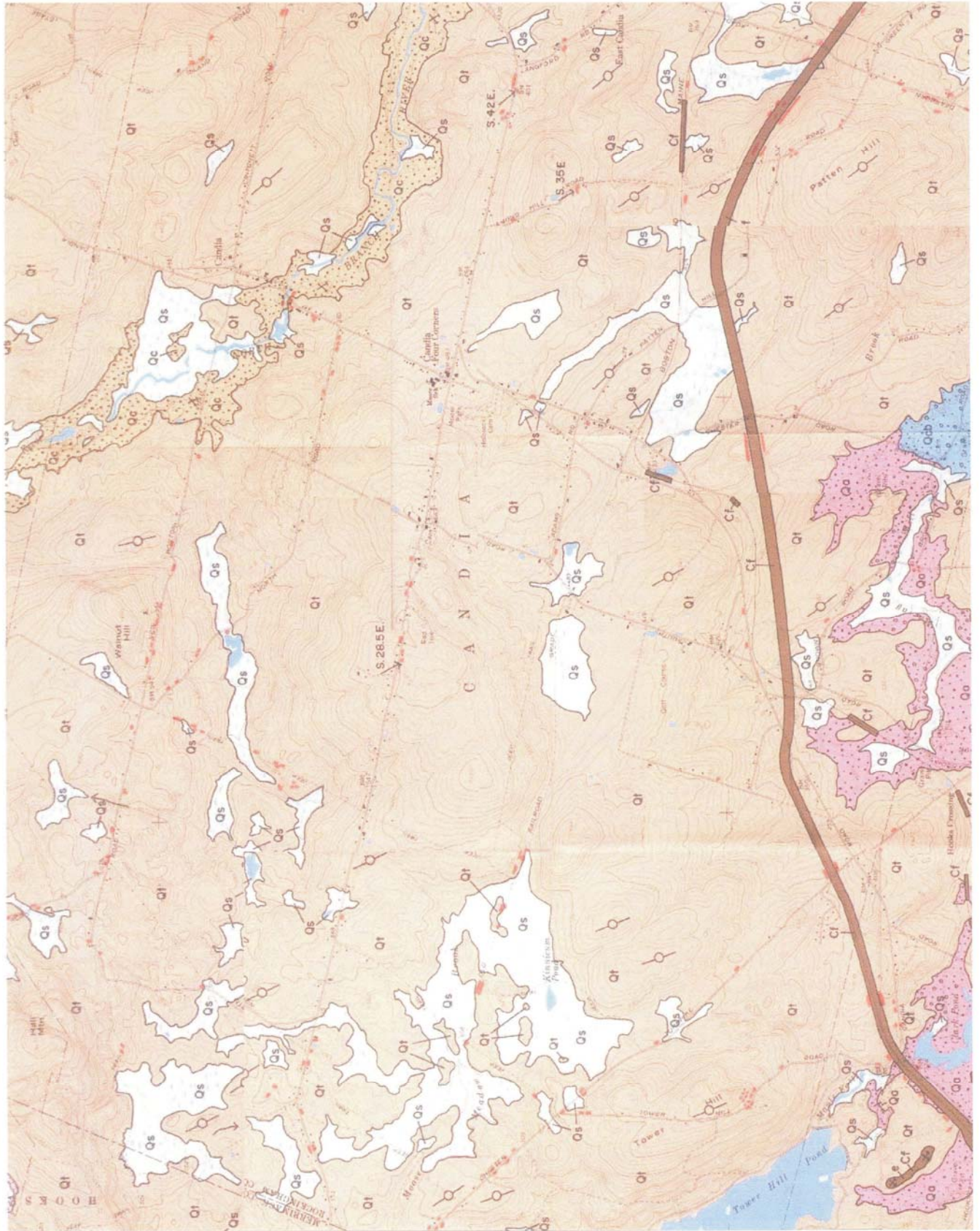
(Qt) are a light to dark gray, sorted to poorly sorted mixture of clay, silt, sand, pebbles, cobbles and boulders that contain some gravel and is called glacial till. These deposits cover most of Candia.

(Qs) are swamp deposits, composed of muck, peat, silt and sand. They are generally 5-15 feet thick but may be as much as 30 feet thick.

(Qc) are glacial stream deposits composed of cobbles, pebbles, sand and silt which range from 0 –30 feet in thickness.

(Qa) In the southern part of Candia there are some glacial stream deposits and deposits from Glacial Lake Auburn. These deposits consist of mostly stratified cobbles, pebbles, sand and silt with minor amounts of clay. They range in thickness from 0 –40 feet and were deposited in, or graded to, glacial lakes and meltwater streams that flowed south to southwestward to the present day Lake Massabesic.

(Qcb) In the southeastern part of town there are some additional meltwater stream deposits. These are stratified cobbles, pebbles and sand with minor amounts of clay and are as much as 60 feet thick. These are mostly delta deposits from an extensive system of glacial lakes and meltwater streams flowing southward and eventually into glacial Lake Merrimack.



CONCLUSION

This tour of Candia has hopefully been unlike others you may have taken in the past and has brought into view places you have not previously seen. We have uncovered evidence written in stone that allows us to more clearly see a vital part of life here in Candia that began at the time of the earliest settlement and developed for well over a hundred years. Now, another hundred or so years later, we are still privileged to explore and admire this heritage.

We believe the proximity of the several archeological sites on Mill Stream that have survived these many years has given to our town an historic district of significance. We urge the recognition and preservation of this valuable historical resource as our town grows. We apologize for errors and omissions in this account, as definitive historical documentation has been very hard to establish. Hopefully, others will supply additional information or corrections and add those to this document. Historical research is an ongoing process.

Mills have always been privately owned and with the exception of Maple Falls, this is true today. Responsibility and any decision making concerning the future of these site lies with the landowner. The town officials would have no jurisdiction to insist on preservation, even if this were to be declared a noncontiguous historic district of significant archeological value. Rather, as historians, it is our responsibility to raise awareness and appreciation of the value of preserving the heritage of our town. This has been the ultimate purpose of this documentation.

Diane Philbrick

Jim Lindsey March, 2008

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