

“The peaceful river floweth gently by”—usually

A Brief History of the Hoosac Valley

By Lauren R. Stevens and friends

Introduction: “One of the handsomest streams . . .”

The short history of the Hoosac Valley over the last 500 years: Largely forested, largely deforested, and now largely forested again. Along with, the larger forest animals are returning. The related history of the Hoosic River: From pristine to badly polluted, to being able, once again, to perform many of its ecological functions. All the rest is good stories.



The Hoosic River in New York, Vermont and Massachusetts. Credit: HooRWA

The main stem of the Hoosic River rises in Cheshire, Massachusetts, flowing through Adams, while the north branch descends from Heartwellville, Vermont, to join in North Adams, thence through Williamstown; Pownal, Vermont; and through the New York State towns of Hoosick Falls, Pittstown, and Schaghticoke before mingling with the Hudson at Lock Four of the Champlain Canal, some 70 river miles. (Schaghticoke means “mingling waters.”) Tributaries include the Green, Little Hoosic, Walloomsac, Owl Kill, and Tomhannock Creek. Mount Greylock, the Hoosacs, the Taconics, and the Green Mountains create 720-square-miles of watershed, the area that drains into the Hoosic. While Grace Greylock Niles published the charming and fanciful *The Hoosac Valley: Its Legends and History*, in 1912, the Hoosic did not sit for its portrait in the Works Progress Administration’s Rivers of America series during the Depression. The following is an effort to focus on its history a century after Niles.



Timothy Dwight. Credit: Wiki Commons

Dwight's uncommonly delightful trip

Timothy Dwight, president of Yale College, used his vacation time to travel in New England and New York, writing of it under the guise of letters to an imaginary Englishman. The letters, intended to correct misinformation about this country, were published posthumously. President Dwight introduces us to the Hoosac Valley.

Monday, October 14th, (1799) we left Hoosick and rode to Williamstown, in Massachusetts, sixteen miles. Our journey was in the valley of the Hoosic River, and was uncommonly romantic and delightful.

A pretty village is begun at Hoosick Falls, and in ten or twelve years has increased from a single house to forty or fifty. The inhabitants are principally from New England, and appear to be sober, industrious, and prosperous.

On the west of the river at no great distance rose the Taconic Range [an] eminence of considerable height and, as we advanced southward, [it] became a succession of mountains. On the eastern side ran a range of hills, at times mountainous also, a spur from the range of the Green Mountains, which commences its departure in Pownal or Williamstown. At the bottom of this valley ran the Hoosic River, one of the handsomest streams in the world, over a fine bed of pebbles and gravel. Its waters are remarkably limpid, like those of the Saco, and throughout the whole distance are a fine, sprightly current. Its borders are an almost uninterrupted succession of intervals, nearly as wide as those of the Mohawk, extremely rich, and ornamented with the most lively verdure. Through these the Hoosic winds its course, alternated with luxuriant meadows and pastures, green to the water's edge, fringed with willows, or crowned with lofty trees. The hills on either side varied their distance from one half of a mile to two miles, and were successively beautiful and majestic . . .

We forded the Hoosic about five miles from Noble's. The water was not more than knee-deep, although two days before it was impassible. Its course is between high mountains, and its currents rapid. Hence it rises and falls greatly within very short periods.

From Petersburg the road enters Pownal in Vermont. About six or seven miles before we reached Williamstown, the scenery was varied at once. The mountains extended their precipitous declivities so far as to form the banks of the river. Between

them stood a mill. Over its dam a sheet of water of great regularity and beauty spread across the river. Up these precipices, from the water's edge to their summits, rose a most elegant succession of forest trees, chiefly maple, beech, and evergreens. The deciduous foliage had already been changed by the frost to just such a degree as to present every tincture from the deepest verdure of the spring through all its successive shades to the willow green, and thence through a straw color, orange, and crimson to a reddish brown . . .

Soon after we had passed this spot, three eminences of white limestone rose on the left, almost from the river's bank. Their fronts towards the northwest are bold bluffs and served to change the smiling scenery through which we passed into rudeness and grandeur . . .

About a mile before we reached Williamstown, we turned into a field on the eastern side of the road to visit a medicinal spring in the neighborhood. This water rises in a basin more than twenty feet in diameter and perhaps three deep . . .

About twelve o'clock we arrived at Williamstown.

From *Travels in New-England and New-York*, vol. III, Timothy Dwight, published in 1822. Edited by Barbara Miller Solomon, Harvard, 1969.

Natural History: “A succession of intervals . . .”

The story of the Hoosic watershed begins with the mountains—and how the river shaped the valley. Then it moves on to the plants and animals—including the latecomers, the humans—that inhabit the landscape. In a watershed all precipitation drains to one point. In the words of explorer and geographer John Wesley Powell, it is “that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community.” Thus we all have a watershed address. (Portions of this section were adapted from “The Natural History of the Berkshires” website, by Henry W. Art, Williams College biologist.)



The upper Hoosac Valley. Credit: S.McMahon

The uplands that comprise the Hoosic watershed are part of the Appalachians, a mountain chain once of Himalayan proportions that formed millions of years ago when continental plates collided. This Taconic Orogeny (mountain building) caused offshore islands to be pushed west into what is now New England, which is why local mountains contain layers of rock formed under the ocean, such as quartzite, schist, and limestone. Wind and water erosion through time have reduced and continue to reduce their height.

The Taconics, along the New York-New England border, are comprised predominately of phyllite schist. The Hoosac Range, with a complex of phyllite, quartzite, and granitic bedrock, defines the eastern flank of the valley. Its summits form the Berkshire Plateau, at around 2,400 feet in the north, decreasing to about 2,000 feet in the south. The plateau merges to the north with the granitic Green Mountains of Vermont. The Valley of Vermont, extending from Pownal to Proctor, is based on erodible dolomite bedrock. Some geologists hold that the Taconics were originally the peaks of the Greens and Hoosacs, shoved across that valley. The Little Hoosic River defines the western edge of the Taconics. The Rensselaer Plateau, primarily greywacke—durable sandstone, with slate layers—rises 1,400-2,000 feet in the west. Mt. Greylock stands as a massif in the northern Massachusetts portion of the region, its summit, at 3,491 feet, the highest peak in southern New England. While the geographic position of Mt. Greylock aligns with the Green Mountains to the north, its bedrock geology is more closely related to the Taconic Range to the west.

The Hoosic cuts deeply through these old uplands. During the Pleistocene, some 18,000 years ago, a kilometer-thick ice sheet covered the entire region, scouring out the U-shaped valley as it crept southward toward Long Island. As the ice sheet receded northward through the region 4,000 years later, Lake Bascom filled the Hoosic River valley below the 1,000-foot elevation. The glacial debris dammed up the melt water at Potter Hill in New York, preventing its drainage to the northwest, while a smaller dam blocked the flow to the south, in Cheshire, Massachusetts. Lake Bascom persisted for about 800 years until it emptied toward the Hudson River in a series of dramatic flood events. The Hoosic is one of the few rivers in New York-New England that did not succumb to the north-to-south gouging of the glaciers, as it returned to its pre-glacial southeast to northwest riverbed. Traces of the lake are still visible as gravel and sand beaches, hundreds of feet above the river valley in northwestern Massachusetts and southern Vermont. A tributary, the Green River, is greenish because finely powdered rock left over from glacial rock grinding is still washing down from the hills.



Wetlands where the Walloomsac forms. Credit: T.Hyde

Following the Walloomsac

The Walloomsac begins where South Stream and Jewett Brook join in a wetlands area south of Bennington village. South Stream rises in Pownal west of The Dome, flowing through the wetlands east of Barber Pond and northerly into Bennington. Jewett Brook originates near Pownal Center, flowing northerly. The Roaring Branch, which enters the Walloomsac just north of the village, begins in Woodford Hollow, where Bolles Brook and City Stream meet. City Stream rises in Big Pond, beside Rte. 9 north of Prospect Mountain. Paran Creek flows southwesterly through Shaftsbury; is dammed to form Lake Paran; flows over several other dams to North Bennington, where it joins the Walloomsac. With its accumulated waters, the Walloomsac flows northwest from Bennington into New York, where it joins the Hoosic at Hoosic Junction.

The diversity of biological communities in the watershed is the product of the convergence of environmental variations, the human history of land-use, and regional species richness. The valley bottom has a great diversity of wetland types ranging from flowing and flooding rivers to ponds and lakes (many of which have been produced by human activities), to vegetative wetlands such as wet meadows, marshes, fens, swamps, and bogs. The Pownal Bog, north of Barber Pond, actually a fen, is a 2.5-acre peatland formed in a kettlehole depression. The marshes in Cheshire just downstream of the Reservoir are the most extensive in northern Berkshire County. Additional significant wetlands are found in Stamford.

The uplands support boreal coniferous forest of balsam fir on Mt. Greylock, above 3,000 feet, and red spruce from 2,400-3,000 feet above sea level. At lower elevations, deciduous forests typically populated by sugar maple, yellow birch, eastern hemlock, and beech dominate north- and east-facing slopes while deciduous oaks, hickories, and beech dominate south- and west-facing slopes. The Rensselaer Plateau supports eastern white pine as well as hemlock and red spruce. The warmest and driest sites may have species such as pitch pine, sassafras, and chestnut oak that are typical of the Mid-Atlantic region. Alkaline-preferring plants, some rare, enjoy the calcareous soil in the valleys and hillsides, such as at the old quarry and Quarry Hill in Pownal. The lime also buffers vegetation and waterways (some but not all) against the acid deposition from power plants to the west. Riparian areas grow black willow, sycamore, cottonwood, and giant ostrich ferns—as well as numerous invasive shrubs. Flood plain forests border the river near Cole Field in Williamstown and on the bend of the river below North Pownal.

The Hoosic and its tributaries are highly productive of fish, the critters fish live upon, and those that live upon the fish. The gravel reaches of the upper river are sufficiently cold for trout to spawn, especially brown and rainbow; the Hoosic is one of the few rivers in Massachusetts in which trout reproduce. Brook trout are stocked in the tributaries. There is a fishing advisory downstream of North Adams, due to polychlorinated biphenyls (PCBs) left over from Sprague Electric Company and bacteriological contamination. In its lower reaches the river is home to warm water species, such as pickerel, perch, and bass. Otter and bank beaver patrol the shores. Great blue and green herons fish the river, which is also home to ducks. Bald eagles maintain at least two nests in the valley.

While bacteriological contamination remains in the main stem, tributaries the Tomhannock, which flows from the City of Troy's reservoir, and the Little Hoosic, are two of the three remaining sparsely developed, free-flowing rivers in eastern New York State. Hopper and Money brooks, flowing from Mt. Greylock to the Green, are Massachusetts-certified Wild and Scenic Rivers. The six communities through which the 29 Hoosic miles in Massachusetts run have adopted it as a Local Scenic River. The Walloomsac is unimpaired.

Underlying generalities of distribution of plants and animals are the interactions of the landscape with a rich land-use history dating back to the Indian inhabitation of the region and the later advent of colonists of European extraction in the early 18th Century. During the 19th and early 20th centuries, much of the forest cover was converted to agricultural uses, and the vast majority of the residual forests were used as woodlots for timber, charcoal, fuel, and other forest products. The loss of vegetation on the slopes increased runoff and landslides that fouled the river; loss of riparian vegetation removed a natural barrier that held banks and strained out pollution. With the regional decline in agriculture and the dominance of a fossil-fuel-based economy in the 20th century, forests began to reclaim much of the land that was previously cleared for agriculture. Residential and commercial developments, including roads and parking lots, are also important features of the post-agricultural landscape.

Colonial Period: The Mahican

Europeans have spelled the river's name, from the Algonquian language, various ways. Hoosic is the usual spelling for the river itself. It might mean "beyond place," referring to Mahican territory "beyond the Hudson." The upper valley and mountains to the east are spelled Hoosac. In New York State spelling is sometimes Hoosick, as in Hoosick Falls. Mt. Greylock was once called Grand Hoosuck Mountain. We use the word "Indian." While it is Columbus's misnomer, it seems more satisfactory than alternatives such as "Native American" or "Amerindian." The Mahicans, often spelled Mohicans, have been confused with the Mohegans, an eastern Connecticut tribe. James Fenimore Cooper named Uncas, "the last of the Mohicans," after a Mohegan prince. We use Mahican for clarity. Algonquian refers to the language; Algonquin or Algonkin to the tribes. We use Mohawk, perhaps originally a derogatory term ("flesh-eater"), because it is customary and locates them in their homeland, the Mohawk River Valley. Mohawks were Iroquois.

The entire Hoosac Valley was Mahican territory. Many archaeological sites for the valley have been listed, dating to Colonial times and earlier. The segment between North Pownal and Hoosick Falls contains 10 known prehistoric sites. Forty-three others have been found before the Hoosic enters the Hudson. The Native American site at Schaghticoke is over 8,000 years old. River Bend Farm in Williamstown is said to have been an Indian camping place where travelers and hunters enjoyed the nearby mineral springs (where Dwight, too, may have bathed). Archeology is indebted to 19th century Pownal resident Alonzo Whipple and his 20th century Bennington successor Gordon Sweeney who, during his lifetime, uncovered some 400-500 points, pieces of pottery, and stone tools, mostly in the second terrace above the river in Pownal.

The Bennington area also contains important prehistory archaeological information revealed by two digs prior to the creation of the Bennington Bypass. The Silk

Road Site was located on two river terraces adjacent to the Walloomsac River. The many discovered artifacts documented how the Walloomsac was used by prehistoric Indians in seasonal annual encampments sporadically for 7,000 years between 5,000 B.C. and 1,500 A.D. The nearby Cloverleaf Site, a large archaeological location, preserved the remains of a prehistoric village dating almost exclusively to a brief span during the Late Archaic period, called the River Phase (ca. 1,000-1,800 B.C.).

As with all human history, what we know about the past often is defined by battles. Although culturally similar to other woodland Algonquin, the Mahican were shaped—or at least our knowledge was—by their constant warfare with the neighboring Iroquois. This is the story of the Mahican 200-year fall from dominance to subservience to dispersal, due to a combination of circumstances including Mohawk rivalry and manipulation—sometimes unwitting—by European powers and settlers. (The following material is based on Lee Sultzman, 1997. Sultzman has completed histories of the North American tribes.)

Dominance

The Mahican formed a confederacy of five tribes with as many as 40 villages, governed by hereditary sachems through matrilineal descent, advised by a council of the clan leaders. They had three clans: bear, wolf, and turtle. A general council of sachems met regularly at their capital of Shodac (Schodack) to decide important matters affecting the entire confederacy. Warfare, however, required a higher degree of organization. Then the Mahican council passed its authority to a war chief chosen for his proven ability. For the duration of the conflict, he exercised almost dictatorial power.

Mahican villages usually consisted of 20 to 30 mid-sized longhouses, located on hills and heavily fortified. Large cornfields were located nearby, such as the one at the union of Washtub Brook and the Hoosic in North Pownal. Most of the Mahican diet was corn and other agricultural products, supplemented by game, fish, and wild foods. For reasons of safety, the Mahican did not always move to scattered hunting camps during the winter like other Algonquin, usually spending the colder months inside their "castles" (fortified villages). They used copper, acquired from the Great Lakes through trade, extensively for ornaments and some of their arrowheads. Once they began trade with the Dutch, the Mahican abandoned many of their traditional weapons, becoming expert with their new firearms.

The Iroquois had organized into the Iroquois League, an alliance of five tribes (Mohawk, Oneida, Onondaga, Cayuga, Seneca; later, the Tuscarora became the sixth) thought to pre-figure the colonial confederacy, and were once again formidable. After 50-years of warfare they had driven an unknown Algonquian-speaking enemy whom they called the Adirondack from the mountains in northern New York and were in the process of reclaiming the St. Lawrence Valley from the Algonkin, Montagnais, and Maliseet. Thus the St. Lawrence River west of Quebec was a war zone blocking the expansion of the French fur trade to the west. Mohawk war parties made the Algonkin and their Huron allies reluctant to bring their furs to Quebec so, to win their loyalty, the French decided to help them against the Iroquois. In July of 1609, Samuel de Champlain and six other French accompanied a combined Algonkin, Montagnais, and Huron war party south into New York. At the north end of Lake Champlain they encountered a large force of Mohawk warriors massing for battle. French firearms broke the Mohawk formation killing several of their chiefs. Confronting a new weapon, the Mohawk broke and ran.

The Iroquois were saved from technological annihilation by the beginning of Dutch trade on the Hudson River. In order for the Mohawk to trade with the Dutch, however, they first had to cross Mahican territory. Relations between these two tribes had apparently been hostile for many years. A source of irritation appears to have been that the Mahican had better access to tribes in the wampum shell producing areas of Long Island Sound, which gave them control of the trade in this valuable commodity. In any case, the Mahican were reluctant to allow Mohawk access to the Dutch, while the Mohawk needed to trade for steel weapons if they were to survive their war with their northern enemies.

Henry Hudson, employed by the Dutch East India Company to search for the Northwest Passage, sailed through the Verrazano Strait and entered the Hudson River in September 1609, just two months after Champlain's visit. The Wappinger Indians on the lower river proved hostile due to previous contact with European fishermen and slave traders, but Hudson continued upstream until stopped by shallow water near the Mahican villages just below Albany. The Mahican were friendly and eager to trade. Hudson exhausted his trade goods and returned to Holland with a cargo of valuable furs, which attracted Dutch fur traders the following year to trade with the Mahican. Fur hats were all the style in Europe.



Beaver and other game in the Hudson Valley, Joan Blaeu, Amsterdam, 1635. Credit: Wiki Commons

By 1613 the fur trade on the Hudson River had grown sufficiently lucrative that the Staten Generaal granted a charter to the United Netherlands Company, a consortium of thirteen Dutch merchants. The Dutch arranged a truce to the fighting, then built Fort Nassau on Castle Island just south of present-day Albany. Prone to flooding, it was abandoned with the outbreak of another Mahican-Mohawk war in 1617. Dutch traders were inclined to favor the Mahican, but they had also ingratiated themselves with the Mohawk by arming them against the Munsee and Susquehannock. This gave the Dutch enough influence to negotiate another truce between the Mohawk and Mahican in 1618. The Dutch then built a new Fort Nassau on higher ground near its former location. The

terms of the new agreement gave the Mohawk unlimited access to the Dutch but required them to pay tolls to cross Mahican territory. The Mohawk endured this arrangement for six years.

Settlement had been secondary to the fur trade, but after the establishment of an English colony at Plymouth, Massachusetts, in 1620, the Dutch West India Company, successor to the UNC, began to encourage greater immigration. Thirty families under the direction of Willem Verhulst arrived from Holland in 1624. Most settled near Fort Nassau at a place which they called Maeykans, "Home of the Mahican," and began to construct new trading post (Fort Orange) on the west side of the Hudson at present-day Albany. After 14 years of supplying the Dutch with fur, both the Mahican and Iroquois had just about exhausted the beaver in their homelands, however, so the Dutch asked the Mahican to arrange trade for them with the Algonkin and Montagnais in the St. Lawrence Valley.

Subservience

Predictably, Mohawk would not tolerate trade with their northern enemies. They attacked the Mahican in 1624. To protect their trade, the Dutch tried unsuccessfully to arrange a truce. The struggle between the Mahican and Mohawk during the next four years signaled the beginning of Mahican decline. Since the Dutch lived near Mahican villages and often intermarried with them, they favored the Mahican. So, in 1626, the commander at Fort Orange and six Dutch soldiers joined a Mahican war party against the Mohawk. Running into an ambush, four were killed. The Mohawk warriors celebrated their victory by cooking and eating one of the dead. Rather than retaliate, Governor Pieter Minuit ordered the other Dutch to remain neutral and evacuated the families near Fort Orange to Fort Amsterdam on Manhattan Island, thus freeing the Mohawk to defeat the Mahican. By 1628 they had abandoned their villages west of the Hudson River.

The Dutch accepted this outcome. The Mohawk became their dominant trading partner. Peace not only bound the Mohawk and Mahican into an alliance, it required the Mahican to pay an annual tribute of wampum to the Iroquois. The worm had turned. The Dutch had become aware of the value that natives placed on wampum, so they began accepting it as a medium of exchange in the fur trade, greatly increasing its value. Using the wampum they were receiving from the Mahican, the Mohawk could purchase what they needed from the Dutch. The Mohawk still needed to find new sources of beaver, however, so they continued their wars against the Mahican allies in western New England: Pennacook, Pocumtuc, and Sokoki (western Abenaki), as well as tribes farther north.

In 1629 a British fleet captured Quebec and, for the next three years, French trade goods (and weapons) were unavailable to the Algonkin and Montagnais. The Iroquois seized this opportunity to attack their disadvantaged enemies. By the time France regained Canada in 1632, the Algonkin and Montagnais had been forced to abandon most of the upper St. Lawrence, and the Mohawk were close to cutting the vital trade corridor through the Ottawa River Valley to the western Great Lakes. To restore the previous military advantage, the French began selling their allies firearms for "hunting," which Dutch traders countered by similar sales to the Iroquois. The result was seventy years of intertribal warfare to control the European fur trade, known as the Beaver Wars (1629-1701).

Efforts by the Dutch West India Company to increase immigration proved unsuccessful so, in 1629, they offered large land grants with feudal authority to wealthy investors (patroons) willing to transport, at their own expense, fifty adult settlers to New Netherlands. The patroon would own the land on which the settlers were tenants or sharecroppers; as opposed to settlement in New England, where farmers owned their own land. Five patroonships resulted, but since only the patroon profited, four ended in failure. The exception was Rensselaerswyck, the Van Rensselaer Manor, in the Mahican homeland that straddled both sides of the Hudson. Since Dutch law required the purchase of native lands, Kiliaen Van Rensselaer sent Sebastian Jansen Crol to Fort Orange in 1630 to negotiate the sale with the Mahican. His timing could not have been better. The Mahican still claimed their old lands west of the Hudson, but after their defeat by the Mohawk, they no longer maintained villages there. Besides the Mahican probably felt more comfortable about their new Mohawk "allies" with a Dutch settlement near them. Other purchases from the Mahican were added over the years, Rensselaerswyck eventually growing to nearly a million acres.

When Connecticut Valley English attempted to wean the Mohawks away from the Dutch with offers of firearms in 1640, the Dutch reacted by providing unlimited guns and ammunition to the Iroquois and Mahican. While a brutal war raged to the north along the St. Lawrence between the Dutch supplied Iroquois League and the French allied Huron and Algonkin, the Mohawk and Mahican along the Hudson were at peace with each other. Both tribes had become heavily armed, however.

The European presence in the Hudson Valley had also introduced a series of new epidemics that further destabilized the situation. During 1624, smallpox started in New England and devastated the native population that had no immunity. Measles, influenza, typhus, and a host of other diseases took a similar toll. The Mahican and Mohawk needed additional hunting territory, but due to their loss of population they were forced to compensate by cooperating in warfare.

Choosing sides

The Mahican and Mohawk respected each other as warriors. They subjugated the weaker tribes to the south and demanded tribute in wampum. While the Mohawk pressured the Munsee Delaware west of the river, the Mahican went after the Wappinger on the east side. By the summer of 1645, more than 2,600 had been killed. The treaty signed at Fort Orange that August made the Wappinger subject to the Mahican and required the Metoac on the western end of Long Island to pay them an annual tribute in wampum. Since the Mahican were required in turn to pay tribute to the Mohawk, they profited indirectly.

After Iroquois victories to the north, the French scrambled during 1650 to organize an alliance of the Pocumtuc, Sokoki, and Pennacook to oppose them. The Mahican couldn't resist the temptation. They and their allies exchanged raids with the Mohawk and Oneida across northern and western New England during the next three years. Following the murder of a Jesuit priest in 1658, war resumed along the St. Lawrence between the Iroquois and the French. At the insistence of the Dutch, the Mahican deserted their alliance with the New England Algonquin that year and made a separate peace with the Mohawk.

Trading disputes continued, however. After the Mahican ignored their warnings, the Mohawk attacked them in 1662. The Mahican were forced to abandon almost all of the Hudson Valley, including their ancient capital at Shodac. The fighting continued until 1672 but, after 1664, the Mahican council fire was at Westenhook (Wnahkutook or Stockbridge) on the upper Housatonic River in western Massachusetts.

In September of 1664, a British fleet arrived and captured New Netherlands. Stuyvesant surrendered Fort Amsterdam on the 6th. Fort Orange surrendered four days later. New Amsterdam became New York. Now it was the British turn to urge the Mahican and Mohawk to make peace. They signed treaties of trade and friendship with both tribes on September 24th. Although the Dutch briefly recaptured New York in 1673, the dominant role of the Dutch in the settlement of North America had ended. The Treaty of Westminster returned New York to Great Britain in 1674.

Little changed for the Mohawk. The British wisely allowed the same Dutch traders to continue trading with the Iroquois. Mahican influence waned. Pressed by the Mohawk, the Mahican entered into another alliance with the Pocumtuc, Pennacook, and Sokoki, but they had chosen the losing side. While the British stood by, the Mohawk gathered support from the Oneida, Cayuga, and Onondaga and drove the allies from western New England. Only the Mahican still opposed the Iroquois.

Because of the threat from the French, in April 1670 Governor Lovelace travelled to Albany to try to arrange peace once again between the Mohawk and Mahican. The peace that the Mahican finally made with the Iroquois League in 1672 was actually a total surrender. After 1675 the Iroquois League handled all Mahican negotiations with Europeans. Two years later, the Mahican became the first members of the Iroquois "Covenant Chain." Mahican warriors were recruited for Iroquois raids against tribes in Virginia and Carolina during 1681.

Philip was the anglicized name for Metacomet, leader of the Wampanoag tribe, who fought back against the invasion of Europeans in New England. When he came to Schaghticoke to recruit troops, Gov. Edmund Andros organized Mohawks to attack him. Then Andros, hoping perhaps that an Indian presence would stave off attacks on Albany from Canada, invited Indians to a sanctuary—the Mahican village at Schaghticoke. Two hundred fifty refugees from the King Philip's War (1675-76) arrived (to the displeasure of New Englanders) and others followed. They planted what was later named the Witenagemot Oak, the English word referring to a council of the wise. The peace did not last; the tree did. After being propped up with cement and steel bars for years, a 1948 hurricane finally felled the tree. By 1700 the number of refugees at Schaghticoke had grown to more to 1,000—enough so that they agitated for a second tree to shelter them all. With the approach of Queen Anne's War in 1703, Governor Edward Cornbury authorized the construction of a military outpost in the area. Fort Schaghticoke soon became headquarters for the Mahican and Mohawk scouts who formed a vital element in the defense system at the outermost reaches of the colony of New York. In 1709, Johannes Knickerbocker (Knickerbacker) I, son of Harmon Hans Knickerbocker, a Dutch emigrant, became commander of Fort Schaghticoke, obtained the first farmland in Schaghticoke, and initiated its settlement.



The remains of the Witenagemot Oak rest behind the Knickerbocher Mansion. Credit: L.Stevens

Dispersal

The Mahican continued to have difficulty protecting themselves and their lands from the colonists of New England, who began to settle in the upper Housatonic shortly after the King Philip's War, and from New Yorkers. The Mahican had sold their lands west of the Hudson to the Van Rensselaer Manor. In 1687 they parted with even more. Soon they sold other lands along the Hudson to Robert Livingston, followed by the surrender of their claims in northwest Connecticut. Europeans usually took the lands in between these tracts. Smallpox during 1690 reduced the Mahican to fewer than 800. During the King William's War (1689-96) between Britain and France, French attacks dispersed the Mohawk from their homeland. Faced with a possible French invasion from Canada, the governor of New York recruited Mahican, Wappinger, and Munsee warriors to join the Mohawk fighters. The Mohawk are said to have lost half of their warriors in this conflict; two-thirds of the Mahican and Wappinger who entered British service never returned.



Near White Creek, as well, 17th and 18th century forts. Credit: L.Stevens

Simultaneous with the Dutch or perhaps Walloon founding of the Fort St. Croix (Sancoick) colony in 1724, at the junction of White Creek and the Walloomsac River, tenants from Fort Half Moon (located at the junction of St. Anthony Kill with the Hudson River at Stillwater) and Fort Schaghticoke colonies pushed up the three branches of the Wanepimoseck Creek, leading towards Rensselaer's plateau, from Hart's Falls in Schaghticoke Village, Valley Falls, and Eagle Bridge. Philip Van Ness founded the Tiashoke Colony on the north bank of the Hoosic, below the junction of the Owl Kill, about this time, and later built a sawmill and gristmill. Walloons were French-speaking Belgians historians often lump together with Dutch. It is tempting to think that the name of the Walloomsac River owes something to them, although it is usually thought to be Algonquian.

As their land and number dwindled, the Mahican began to scatter. More and more English colonists moved into western Massachusetts. The Mahican began to sell their lands on the Housatonic River. Konkapot, their chief sachem, sold one large section in 1724 for £460, three barrels of cider, and three quarts of rum. After the sale, the only Massachusetts land that the Mahican had left was a small area along the Housatonic River between Sheffield (Skatekook) and Stockbridge (Wnahkutook).

After European settlement, game became increasingly scarce and alcohol a serious problem. Keepedo (known later as "Mohican Abraham") abandoned his lands and left Massachusetts with his people in 1730 to settle among the Unami and Munsee Delaware in Wyoming Valley in northern Pennsylvania. The departure of these Mahican left only 400 at Wnahkutook, the last official Mahican capital. Most of these were converted to Christianity by missionary work begun in 1707, most notably by John Sargeant (Sergeant) who arrived in western Massachusetts in 1734 and, the following year, built a mission at Stockbridge. Mahican from Schaghticoke and Potick (New York); Munsee; Wappinger; and several other New England tribes joined Sargeant's growing congregation during 1736. Although the population remained predominately Mahican, tribal identity became increasingly blurred and the native community became known as Stockbridge Indians. Most of them abandoned their traditional wigwams for frame houses, attended church on Sunday, sent their children to British schools, and resembled their white neighbors in other ways. This was, however, insufficient to protect them from the colonists who continued to encroach on their lands.



Sargeant's c. 1742 Mission House, Stockbridge. Credit: The Trustees of Reservations

Meanwhile Mahicans from Stockbridge had been providing invaluable military service in the defense of British settlements. They garrisoned Fort Dummer (Vermont) to protect settlements in western New England against Abenaki raids during Grey Lock's War (1724-27). They also served as British scouts during the King George's War (1744-48), but their white neighbors grew increasingly hostile. Turning the other cheek as required by their new faith, the Stockbridge chose to not to retaliate for the unprovoked murder of a Mahican in 1753 by two whites, even when their punishment by a Massachusetts court was exceptionally lenient. At the outbreak of the French and Indian War in 1755, a war party from St. Francis came to Schaghticoke in August and took its people back to Canada with them. The defection of the Schaghticoke made the British suspect the loyalty of all of their native allies. Distrust increased when some of the Schaghticoke returned and killed five colonists near Stockbridge. Yet 45 Stockbridge warriors joined Major Robert Roger's Rangers in 1756. Because of them, Abenaki and Schaghticoke raiders avoided English settlements along the Housatonic. Rather than receiving gratitude, the Stockbridge found themselves increasingly unwelcome in New England.

The Hoosic River provided a significant Indian trail, both for canoes and, on the side, for a footpath. Along with the Deerfield River, it joined the Connecticut and Hudson valleys; and the route up the Hoosic tributary Owl Kill was a major pathway to and from Canada. It was the universal warpath of colonial days. The English built Fort Massachusetts on the trail, in what's now North Adams, in 1745, to prevent the French from invading the area and as a warning to the Dutch not to encroach from the west. At the same time, entrepreneurs widened the trail to Schaghticoke for carting supplies to the fort. In 1746, 900 French and Canadian Indians captured the fort, flew the French flag above it briefly, and then burned it, taking its defenders over the trail to Canada. On the way, Captivity Smead was born in Pownal. The fort was rebuilt and successfully defended in August 1748. With Peace of Aix-La-Chapelle in October, the garrison dwindled.



Photo of a 1930s reproduction of Fort Massachusetts. Credit: Williamstown Historical Museum

In 1753, the year of the first settlement in Williamstown, Elisha Hawley followed the trail to create a rough route over the Hoosacs to Charlemont. The next year Indians descended on Dutch Hoosac (Petersburgh), burning and scalping, including the Brimmer family on what is now called Indian Massacre Road; and the next day hit a settlement on the Walloomsac. The French and Indian War had begun—or, begun again. Both communities had previously been destroyed in the raid on Fort Massachusetts. Then, in June on 1756, soldiers from the fort were ambushed and the subsidiary Fort West Hoosac (Williamstown) was attacked in July. Ephraim Williams, Jr., commander of a string of Forts along what Massachusetts took to be its northern boundary, volunteered to fight the French at Lake George. He was killed September 8, 1756, although the British won the engagement. Of more lasting importance in terms of the feelings of settlers to the Indians, was the Marquis de Montcalm's siege of the undermanned British Fort William Henry, on Lake George. The day after signing an honorable peace, on August 10, 1757, the retreating British column was attacked by Indians from 33 different tribes, mostly from Canada, attached to Montcalm's troops, massacring soldiers, women, and children. The Peace of Paris, signed in 1763, largely ended France's claims in North America.

Although Konkapot and a few families refused to leave, many Stockbridge sold their Massachusetts lands in 1756 and, accepting the invitation of the Oneida, moved to upstate New York. After the fall of Quebec in September 1759, there was no doubt about the outcome of the war with the French, so a new wave of British settlers poured into western Massachusetts. To pay debts owed to white traders, Konkapot was forced to sell more land in 1763. By the start of the American Revolution in 1775 the Stockbridge holdings in Massachusetts had been reduced to fewer than 1,200 acres. Other than the lands provided to them by the Oneida, these were all the Mahican had left after years of loyal service to the Dutch and the British.

As the Revolutionary War approached, both the Mahican and Wappinger sent wampum belts to other tribes advising neutrality. However, after a meeting with the Patriots at Boston in April 1774, Captain Hendrick Aupamut changed his mind and decided to throw in with the rebels, and the Wappinger followed suit. The Stockbridge were one of the few tribes to support the American cause during the war. They participated in the siege of Boston and fought at Bunker Hill that June; saw service at White Plains in 1776; fought as a company-sized unit at the Battle of Bennington in 1777; served as scouts for the army of Horatio Gates at Saratoga; and were at Barren Hill in 1778. Whatever the gratitude of their white neighbors, it did not last after the war and certainly did not include citizenship. With most of their lands gone, the Stockbridge left western Massachusetts for New York, the last group in 1786. Occasionally Mahicans visit this area, as did Stockbridge-Munsee from Wisconsin in 1975. In 1990 The Trustees of Reservations, which owns the Mission House in Stockbridge, returned a Bible given to the Indians in 1745. A few Mahican descendents have returned to live in the Hoosac Valley.

Revolutionary: “Rudeness and grandeur . . .”

England and France squared off against one another in the middle of the 18th century in their competing quests for colonies and power. North America was one of the rings in which—and over which—the contestants fought and, as sometimes happens in

prizefights, the spectators, both Indians and European immigrants, were drawn into the fray. Fort Ticonderoga, several other sites along the shores of Lake Champlain and down the Hudson and Hoosic valleys, stand as monuments to the local eruptions of global events. (This section generally follows Richard M. Ketchum's *Saratoga*, Henry Holt & Co., 1997.)

The fighting lasted, under various names, from 1740 to 1763. History refers to the War of the Austrian Succession for the first eight years and the Seven Years War for the conflicts at the end of the period—which actually extended for nine years in North America. British colonists here tended to refer to the entire bundle as the French and Indian Wars. Actually, from a longer vantage point, one could talk about a period of European warfare that extended in North America from 1740 to 1812, the second battle of the English and the Americans.

Both France and England were looking beyond their borders for trade; whichever had control of the most colonies and of the sea was likely to be the heavyweight economic champion. In North America, the scales were in balance when the fighting began: The British colonies along the eastern seacoast of this country had more people, but the French had more land, better relations with the Indians, and more cohesion. The missionary work of Catholics was a major force on the French side. The British and other northern European people in America lived in colonies in conflict with the Indians and were jealous of one another rather than cooperative.

In its mercantile interests, Britain controlled what its colonists could manufacture, how they shipped their goods, and what they could buy from abroad. While the colonists didn't like these duties and obligations, they nevertheless sided with England in its attempts to claim the interior of the continent. In 1756 France and England declared war, the latter taking Fort Duquesne and the French fortress of Louisbourg, Cape Breton Island, in 1758 and, under Gen. James Wolfe, capturing Quebec in England's miraculous year of 1759. Thus in four quick years Britain wrested control of North America from France; the question was, could Britain retain its control over its own colonists?

Green Mountain Boys

South of what was to become Canada, inter-colony bickering at first overshadowed international issues, especially over the New Hampshire Grants: Land west of the Connecticut River now known as Vermont. The western boundaries to which New England aspired conflicted with the eastern boundary that New York, also an English colony although still populated extensively by Dutch descendants, regarded as its manifest destiny. While there had been talk of a line twenty miles east of the Hudson and on north, the Yorkers looked as far east as the Connecticut River and some in New England thought the Hudson could appropriately mark the eastern line of New York. In 1769, the Grants sparsely occupied mostly by land speculators from Connecticut with deeds (or "grants") from Gov. Wentworth of New Hampshire, Gov. Colden of New York sent surveyors into Bennington in order to deed some of the same parcels; or make the grants' owners pay twice for the same parcel. New Englanders attempted to stop the survey and several times, unsuccessfully from their point of view, to get King George III and his counselors to solve the problem. Meanwhile the Wentworth grantees were hauled into court in Albany—where, not too surprisingly, they lost their cases.

They asked fellow landowner, Connecticut resident Ethan Allen, to stand up for them. His feisty response: "The gods of the valleys are not the gods of the hills." Loosely

translated, he meant that those who exercised power in the Hudson Valley would be rudely treated in the Grants. He lived up to this threat.

Tensions grew when Sheriff Ten Eyck of Albany was prevented from arresting Bennington residents, almost coming to an inter-colony militia battle in July of 1770. Towns in the Grants formed committees of safety and young men formed quasi-military groups under Allen, who appointed himself colonel. As some found Allen a bit over the top, however, others formed up under Seth Warner's leadership. Both groups began harassing New York agents. Allen and Warner carried out a series of mischief raids on Yorker farms along the "border." Gov. William Tryon, newly installed in New York, professed disgust with these activities and thought the way to solve the problem was to take the land from the ruffians and to divide it among "men of weight and consideration," that is, Dutch Yorkers. New York authorities continued to suffer the most indignities, however.

In response to a perceived New York threat of force, the Hampshire Grants militia groups organized under the heading of the Green Mountain Boys, in honor of their uneven landscape. They portrayed the conflict as between the hard-working yeoman farmers of the Grants and rich landowners of the valley—forgetting for the moment that Allen and his friends were themselves non-resident land speculators. While calmer citizens kept searching for a peaceful solution, Allen honed his rhetoric—and the land investments of his Onion (Winooski) River Company. In March of 1774, Gov. Tryon issued a warrant for the arrest of Allen, Warner, and other leaders, including a 100-pound bounty for Allen and Remember Baker. In response, Allen conducted mock trials and sentenced Yorkers who came within his reach to undignified punishment. One was bound and hoisted high in a chair to sit for hours before and above the Catamount Tavern, the favorite Green Mountain Boy meeting place in Bennington.



The former Catamount Tavern, Bennington, in a 19th century photo. Credit: Wiki Commons

The only way to avoid an eventual shooting war, it appeared, was to have a serious common enemy arise. The British obliged. Early in 1775, twenty-five Vermont towns, meeting in Manchester, formed a compact to protect the land grants *and* to maintain good relations with New York in the face of a joint concern over the actions of the British government toward the colonies. On April 19, 1775, the British headed back to the safety of Boston after the encounter with the farmer-soldiers at Concord and Lexington. The Minutemen who had met them were also confused because until shots

were fired most people, even in New England, thought it would be possible to work out an accommodation with Britain. Now the blood shed raised the likelihood of a flood of blood before the issues were settled. The argument of conservative settlers, that all evil arose from the king being misinformed, that George III would eventually straighten everything out, became increasingly harder to maintain.

In the Grants, the compact explicitly supported the Continental Congress after the altercation at Lexington and Concord, working with the Albany Committee of Correspondence. As Allen and his ilk still hoped that the King would favor their grants, they were reluctant to force their complaints against him and, of course, to cooperate with New York. Nevertheless, Allen and other leaders agreed, after April 19, to join with New York in the colonial struggle for liberty. This was an extraordinary redirection, either a breakthrough of patriotism or a masterful job of diplomacy. The militias, conveniently, were already organized for battle and the Green Mountain Boys found the rhetoric they had employed against Yorkers equally applicable to the British.

So, although the Green Mountain Boys have been romanticized and prettied up, their existence as a group of ruffians ready to take justice into their own hands made it a lot easier for the forces at work to touch off a revolution. Just as much as the Minute Men at Lexington and Concord, the Green Mountain Boys were tinder that caught the spark of war.



Fort Ticonderoga. Credit: Timberlake Photos

As independence from Britain became a theme in the colonies, Fort Ticonderoga seemed a likely early target. Held by the British, it was a starting point for any attack south from Canada; held by the colonists, it might prevent the same. Colonists dropped by the fort, noting that the British held it rather casually. Benedict Arnold received a commission from the Bay State, hustling across the old trail along the Deerfield and Hoosic rivers.

All was peaceful until one evening in 1775, when volunteers from Connecticut and Massachusetts met up with Ethan Allen's Green Mountain Boys. Two hundred all told loitered at Hand's Cove on the east side of Lake Champlain, early morning on May

10. Why hadn't scouting parties returned with boats? It was almost too late to cross in the dark. At the last minute two scows were found. They ferried 80 men across the narrows before dawn. The men must attack now—or lose the element of surprise. They approached the fort three abreast and conquered the sleeping garrison with only one, ineffective, shot fired.

Rebound

But two years later the rebels had to retreat from Ticonderoga, fight a delaying battle at Hubbardton, and disperse in time to gather again in the area of Bennington. The American situation now sank to its lowest point, with the news, on July 17, 1777, that 500 or more Indians from north of the Great Lakes had arrived at Skenesborough (now Whitehall). As well as members of the Iroquois League of Six Nations, which had hitherto maintained neutrality, came Ottawa, Fox, and Ojibwa, recruited by St. Luc de la Corne, a Frenchman who had previously led the Indians against the British.

Some of these Indians were the same as those who massacred British soldiers and colonists after their surrender at Fort William Henry. Their reputation preceded them. St. Luc had lured them with promises of scalps, prisoners, and loot. Many of them were young men, looking to establish their reputations as fighters. When British Gen. John Burgoyne publicized his threat to “give stretch to the Indians,” the inhabitants of the Champlain Valley and surrounding area listened—and fled. St. Luc argued that the British needed to “brutalize” the war and delivered the way of doing so. Burgoyne tried to set limits at a ceremonial meeting with the tribes, such as scalping only those killed in battle, but not prisoners, old men, women, and children. Fear was rampant throughout New York and New England.

Jane McCrea, the daughter of a Presbyterian minister, in her early twenties, was engaged to David Jones, a loyalist who went to Canada to join the American Volunteer Corps, i.e. Tories. The blooming Jane, with reddish hair so long it nearly reached the floor, was staying near Fort Edward with Mrs. McNeil, a cousin of British officer Simon Fraser. Hearing that Indians were in the area, the two women were in the act of descending through a trap door to seek safety in the cellar of a cabin when a war party caught them. The women were separated. Indians with Jane began to quarrel over whose captive she was. One shot and scalped her, stripped off her clothes, and mutilated her body.

When he paraded through Burgoyne's camp with her scalp, David Jones recognized the long locks of his beloved. (Widow McNeil was later brought in, alive.) Burgoyne demanded that the Indians execute McCrea's murderer; however, British officers and St. Luc dissuaded him. They feared the Indians would leave, possibly going on a rampage in Canada on their way home.

The news spread rapidly that the British could not control the Indians, even from attacking those on the British side. The western Indians continued to pick off colonists, including one who had the soles of his feet sliced off, perhaps before he died, and another who was drawn and quartered. American Gen. Philip Schuyler continued to retreat, first from Fort George and now to Saratoga. Scores of men were scalped.

Burgoyne realized the Indians were a mistake, trying once more in a formal meeting to set boundaries. They appeared to agree but the next day began leaving, loaded

with loot. Their departure surely was a break for the Americans, who now began to rebound. Many rebel officers felt that the western Indians' arrival helped the rebel cause. Because the country was terrified, enlistments were up. Either fight united or be picked off. Jane McCrea's lovely locks were a potent recruiting tool—especially after most of the Ottawa, Mohawk, and Ojibwa had left the British camp.

Bennington

The Battle of Bennington was pivotal in the military events connected with Burgoyne's expedition of 1777. About the first of August, the British army reached the Hudson and took possession of Fort Edward. For several weeks it had been engaged in repairing the bridges and in clearing the roads from the impediments left by the retreating Americans; and, upon its arrival at the Hudson, Burgoyne congratulated himself that his troubles were at an end. Yet his greatest source of embarrassment was in securing provisions for his army and in obtaining means of transportation. With 15 days' hard labor he was only able to bring 10 bateaux and four days' provisions from Lake George. Learning that the Americans had collected a large quantity of military stores, cattle, and horses at Bennington, he was persuaded by Tory Major Philip Skene, against the advice of his most experienced officers, to send a party to capture them. The detachment consisted of 500 Brunswickers, Canadians, and Tories, under the command of Colonel Friedrich Baum. They were instructed to "try the affections of the county, to mount Reidesel's dragoons, to complete Peters's corps [of Loyalists], and to obtain a large supply of cattle, horses, and carriages." This accomplished, they were to scour the country from Rockingham to Otter Creek, go down as far as Brattleboro, Vermont, and join the main body by the great road to Albany.

The detachment left the camp at Fort Edward on August 13; and on the evening of the same day they surprised and captured five Americans at Cambridge. On August 14, they advanced down the Owl Kill as far as the mill near the Hoosic River, in the northeastern part of Hoosick, within 12 miles of Bennington. Gen. John Stark, learning of the approach of the enemy, took immediate measures for defense. He sent an order to Col. Warner, at Manchester, to march with his regiment of Green Mountain Boys; he rallied the neighboring militia, many of whom arrived via the old Indian trail along the Hoosic. On August 13, he sent out an advance guard of 200 men, under Lieutenant-Colonel William Gregg, to impede the progress of the enemy. On the morning of August 14, he marched with his whole force to support Gregg. About five miles from Bennington, he met Gregg in full retreat, with the enemy within one mile. Both armies chose strong positions and threw up temporary entrenchments. Baum, alarmed at the number of Americans, sent for reinforcements.



Bennington Battlefield. Credit: NYS Office of Parks, Recreation and Historical Preservation

On August 15, a heavy rain set in, and the day was spent in skirmishing and in preparing for battle. Col. Warner's regiment arrived at Bennington in the evening, and stopped to dry their powder and rest after their fatiguing march. Warner himself continued on to the Walloomsac. Stark, fearing that the enemy might receive reinforcements, resolved to attack them the next day. Previous to the signal for attack, he told his men: "See there, men! There are the redcoats. Before night they are ours, or Molly Stark will be a widow." The attack was simultaneous at all points. The Tories were soon driven from their posts, leaving the Brunswickers to sustain the weight of the engagement. After two-and-one-half hours of hard fighting, they gave way, commencing a disorderly retreat

That morning 500 British reinforcements under Col. Heinrich Breymann got an early start from Cambridge after a miserable day and night in the rain. As an officer who went by the book, he moved slowly, halting regularly to dress ranks. After all, Baum's last message to Burgoyne had been confident. Besides, the horses pulling his guns were weak and slow. At 4:30 p.m., his advance guard arrived at St. Croix Mill, where they met Philip Skene. Not a rebel in sight. Breymann said later he didn't hear the firing. A captain and some Indians showed up to report, misleadingly, that all was well. Skene and Breymann rode forward to a group of men whom they took for loyalists, who were lounging at the end of a rail fence. The men suddenly aimed and fired a volley, killing Breymann's horse from under him.

By this time Stark's men were tired, drunk (they brought their own in their canteens), or busy collecting German loot. So Breymann's approach could well have reversed the outcome. Indeed, as at Hubberton, a relief party could have lead to British victory. Still, Stark rounded up enough militia to form a skirmish line, which fired back at Breymann, all the while retreating.

Relief came to the American side this time. The Green Mountain Boys, under Major Samuel Stafford, got off from Bennington about noon. They arrived at Stark's camp just in time to see in the distance Baum's troops running for it. When they came to the bridge over the Walloomsac on the Bennington Road, where Baum had taken his stand, the fighting seemed to be over—except that Warner rode up to inform them they

were needed immediately to help the militia. Stark rallied his broken forces behind the fresh troops, and soon the battle again became general. At sunset the British fled toward the Hoosic and were pursued by the Americans until dark.

The Americans lost about 30 killed and 40 wounded. The British loss, in killed, wounded, and prisoners, was 934. While a small battle, it was an important one. It deprived the British force of supplies that they needed and provided the colonists with their first victory in the Northern Campaign, thereby contributing more than any other event to Burgoyne's final surrender at Saratoga—which marked an important turning point in the entire war.

Border

The remainder of the Revolutionary War was fought to the south, but a prerevolutionary piece of business remained: Where was the New York-New England border? What was to become Vermont was claimed by New Hampshire and New York. In December 1781, allies turned on each other. Grants militia from the Schaghticoke area mutinied, taking their officers captive. Other New York troops hastened to their rescue and to “quell the insurrection.” The rescue party met the dissidents at Fort St. Croix. Outnumbered, the New Yorkers backed down rather than firing and the would-be Vermonters decided to go to the new Congress for a legal settlement. In 1790 Congress chose the 20-mile line, approximately half way between the Hudson and Connecticut rivers, for the New York boundary. Most of Dutch Hoosac ended up in New York State, land claims were adjusted and, incidentally, one of the provisions of Ephraim Williams' will, that the township west of Fort Massachusetts be in the Bay Colony, was fulfilled, enabling the founding of a free elementary school in what became Williamstown. In short order, that school became Williams College.



West was the original Williams College building. Credit: Williamstown Historical Museum

Farming and Industry: “Over its dam a sheet of water . . .”

Wheat

Indians grew native corn in the rich alluvial soil beside the Hoosic and its tributaries. White men came to grow wheat, which they brought with them from the old country. Most of the first-generation barns in the valleys were built close to rivers, often in fields that had already been cleared by Indians. There the farmer grew a crop to make bread, on which, with meat and some vegetables, his family subsisted. Wheat was cut early in the field, before it became so dry it would fall off the stalk as it was being cut. After being gathered into small bundles, it was loaded by hand into a wheat cart and brought to the barn. There it was stored on top of a layer of loose hay spread over poles

that lay over the beams. When it dried, it was dropped to the threshing floor below, the large, opposing doors allowing the prevailing wind to blow away the lighter chaff, while the raised thresh-hold contained the wheat. The farmer thrashed the wheat with flails, two sticks fastened together with rawhide.



Barns at Nipmose. Credit: C.Kheel

Farmers were eventually crowded out of the bottomlands necessary to sustain wheat crops and moved to the higher lands on the valley walls. There, although they disassembled their barns and took them with them, they were forced to change their focus to grazing animals, which they could raise when the soil was not as good. In fact, even those who stayed beside the rivers eventually exhausted the soil for wheat. Most farmers in the Hoosac Valley changed from wheat to dairy or sheep soon after the Revolutionary War. Then they grew corn and hay to feed their animals. So now the farmers had barns originally designed for wheat storage they were using to house animals—and, as time wore on, the barns became less and less relevant to the farmer's occupation, with 20th century regulations for sanitary milk production being the final blow. Wooden barns, the emblem of European farming, started some 250 years ago the long decline still evident on today's Hoosic landscape. Most agriculture continues to decline, as well.

In 1709, Johannes Knickerbocker I became Commander of Fort Schaghticoke, obtained the first farmland in the area, and initiated its settlement. (The family appears to have changed the spelling of its name from Knickerbacker to that of Washington Irving's fictitious Deidrich Knickerbocker—and of course a beer.) Johannes Knickerbocker II was colonel of the Schaghticoke Militia based at the fort during the French and Indian War. Johannes II put up the first structure on the site on the Knickerbocker Mansion. Johannes III, at the age of eighteen, in 1769, petitioned the city of Albany to be granted all the remaining un-leased Albany land between his father's land and the Hudson River. This was allowed, in exchange for a yearly feast at his home for the Albany Common Council. By 1788, his holdings far surpassed his father's. About that time he constructed the current Knickerbocker Mansion, a half-timbered, brick house still located on Knickerbocker Road in Schaghticoke. The father and son were among the wealthiest men

in Schaghticoke. There were six Knickerbocker farms on the ca. 1790 map of the Albany Corporation Lands. The 1790 census lists father and son each owning nine slaves, the most of anyone in town. Slaveholding was common in the Dutch culture, a necessity for building the enormous barns and managing the immense plantations. Johannes III went beyond farming to invest in the second bridge over the Hoosic River in 1799, which facilitated both agriculture and the developing industry in the gorge of the Hoosic.



The c. 1788 Knickerbocker Mansion as rehabilitated in Schaghticoke. Credit: L.Stevens

Mills

Some farmers, like Philip Van Ness of the Tiashoke colony, near St. Croix, were establishing water-powered mills on their land to grind flour, saw wood for construction, and create cloth. Neighbors brought their raw materials by for manufacture, paying with a portion of the produce. Gradually the mills took on a life of their own, their owners becoming more millers than farmers. By the mid-1800s there were mills and factories throughout the valley, using the river as a source of waterpower and as a way to get rid of waste. Because flow in the Hoosic and its tributaries was irregular, mill owners often dammed up reservoirs, either upstream or on the sides of the valley, to impound water and then let it out during periods of low flow. Cheshire Reservoir, otherwise known as Hoosic Lake, impounded the river to provide an upstream head for downstream mills. Man-made Windsor Lake, in North Adams was piped to the Windsor Mill. Now both impoundments are used for recreation. Often a system of canals, as in Adams, connected reservoirs or tributaries to mills. Industry continued to build along the Hoosic throughout the 1800s and much of the 1900s. New England and New York became world leaders in manufacturing, especially textiles.

Hard working Quakers established a forge and trip hammer, four cotton mills, a paper mill, and five factories on the Hoosic in Adams before 1850. By then, more of the town's residents were manufacturers than farmers. At first farm girls came into town to work at the mills. Dormitories were built for them, but there weren't enough young women. Soon came immigrants, sometimes as the result of recruiting trips, at first Irish-

Catholic, then Scots, French-Canadians, and Germans; and, in the 20th century, Poles, Jews, and Lebanese.

The War of 1812 boosted production, because Americans were unable to buy textiles from England. The need for uniforms during the Civil War set off a textile boom in the entire valley, benefitting the Arnolds. President William McKinley, a friend of the major mill owners in Adams, the Plunketts, established a high tariff policy that benefitted U.S. textiles. McKinley visited in 1897 to dedicate Berkshire Mill No. 1 and again, in 1899, to lay the corner stone for Mill No. 4. In 1901, after he was assassinated, the town erected a statue to him.



Dwight saw a dam at North Pownal; the mill later became a tannery and then a Superfund site.
Credit: L.Stevens

If women were scarce, mill owners turned to children, who were small enough to scoot between the machines and whose hands were sized for several jobs. Lewis Hines' 1910 photograph of 12-year-old Addie Card, "Anemic Little Spinner in the North Pownal Cotton Mill," graced a 1998 U.S. postage stamp commemorating passage of child labor laws. Bennington used waterpower in its early days, for gristmills, sawmills, and forges. Moses Sage set up a blast furnace in 1800. The mills evolved through the 19th century to textile, gunpowder, shoes, paper, charcoal, brick, pottery, and underwear manufacturing. By the 20th century electronics, lubricating devices, steering wheel columns, and of course culture, including Bennington College, were the staples of employment.

From earliest days, Hoosick Falls' settlers built dams above the cascades for which the town was named, in order to increase the volume and energy of the waterpower. In 1774, Isaac Turner and Joel Abbott rigged a trip hammer in their blacksmith shop. A decade later, Joseph Dorr found power for carding, fulling, and cloth dressing; two years later Benjamin Colvin built a gristmill. In 1917 Walter A. Wood replaced the wooden dam with a concrete one for his Mowing and Reaping Machine Company, which had become the largest manufacturer of farming equipment in the world by the 1890s. Other businesses and factories were drawn to Hoosick Falls and the

population swelled to 7,000 as the village boomed. But the Wood Company failed to take the plunge to producing self-propelled farming equipment. Unable to compete with the like of International Harvester, the factory closed in the 1920s. The Army Corps removed the dam to create the flood control project in the 1951-52. In the 1970s, the vast, vacant plant was torched.

By the 1920s the textile mills began to head south, nearer their suppliers and cheap labor, beginning a long industrial decline in Hoosac Valley that lasted through the 20th century. Dwight noted that a dam and mill harnessed waterpower in North Pownal in 1799—a dam is still there, the remains of Addie Card's mill only recently dismantled. Dams to provide direct power to manufacture cotton cloth on the Hoosic became dams to create electricity. A hydropower site was developed below the falls in Hoosick Falls in the 1880s. That site remains a small-scale electric generator.

In Schaghticoke, Chase's bridge over the Hoosic, built in 1788, led to a second bridge, built by Johannes Knickerbocker III and others, led to Charles and Benjamin Joy's carding machine, grist mill, and sawmill; in 1850, Lewis Pickett built a paper mill at the sawmill site. All these and many other mills, including the Rensselaer Woolen and Cotton Manufacturing Co. of 1810, turned the 100-foot falls into power to run machinery. Other mills were installed nearby on the Tomhannock Creek, including the Masters family's black powder mill, which may have provided the percussive force in the War of 1812. The mill moved to Valley Falls later to become Hercules Powder in service of the military, the taming of the West, fire works, lifesaving services, harpoon guns, and signaling through the Civil War and World War I. William Johnson came to the nearby hamlet he later named, building a brick gristmill and sawmill. From 1859 to 1907, the Johnsonville Axe Manufacturing Co., purveyor of axes to the entire nation, occupied much of the gristmill. The company later moved to Jamestown, New York.

Appropriately, the Hoosic forms a giant S in Schaghticoke, while dropping 150-feet over cascades and falls in a distance of about two miles. The Schenectady Power Co. took advantage of the geomorphology, building dams, diversions, and holding ponds between 1907 and 1910 at Johnsonville, Valley Falls, and Schaghticoke for hydropower generation that ended up totaling 18.5 megawatts. At Schaghticoke water is drawn from behind a 680-foot-long concrete dam, which replaced five older dams, on the upstream curve into a reservoir and then by siphon across the mid-portion of the river's S into a surge tank and thence through five penstocks, four to the turbine generators and the fifth to the exciter turbines (used to maintain voltage), before exiting into the lower curve. A second holding dam was built at Valley Falls and another, including turbines, at Johnsonville. General Electric made the machinery. Niagara Mohawk operated the facility until selling it to Brascan, which became Brookfield Power. When one of the penstocks burst, flooding the powerhouse, Brookfield sold the facility to Orion Power, which completed major replacement of penstocks and surge tank in 2000.



Putting in below the powerhouse at Schaghticoke. Credit: T.Hyde

Steinmetz and alternating current

Thomas Alva Edison's General Electric was committed to direct current (DC), used in the 1870s and 1880s, which could power factories or downtowns, like Great Barrington's, but could not be transmitted distances; whereas George Westinghouse was committed to German-developed, three-phase, alternating current (AC). Charles Steinmetz helped GE catch up by using mathematics to explain how AC worked—and improving it. Steinmetz built a three-phase plant in Mechanicville, the oldest still in operation. In 1908 he experimented with a new kind of transmission line, monocyclic, intended to rival Westinghouse's system. The line traveled eight miles from Schaghticoke to Mechanicville, where it joined the line to Schenectady, home of General Electric. While the two customary wires carried electricity for lighting, a third, "teaser" wire, enabled starting an electric motor without using a starter clutch, thus allowing for smaller motors with fewer failures. It was a current constant line, so that as power was withdrawn it was replaced. It did not handle lightning strikes well. While Steinmetz's brand of three-phase power triumphed, Westinghouse transmission won out.

Transportation

As a result of increasing manufacturing coupled with the uncertain condition of carting roads, by the early 19th century the young nation went on a spree of canal digging, including the Erie, west along the Mohawk River. As a companion, following a proposal initially put forward by Revolutionary War Gen. Schuyler, the Champlain Canal, a way of moving past the shoals and falls of the Hudson up to Lake Champlain, opened in part in 1819; and entirely by 1823. As rebuilt for wider vessels, it became known as the Champlain Barge Canal, only closed to commercial traffic in the 1980s and still available for recreational use. The Hoosic enters the Hudson at Lock Four, Schaghticoke, in the largest park (91 acres) in New York State's canal system. Construction included removing high, shale bluffs, and reconfiguring two islands to become part of the shore, along with two dams, a bridge, and the canal cut.



The Hoosic River, right, enters the Hudson via Lock 4, Champlain Canal. Credit: Marinas.com

Canals preceded railroads; a proposed canal would have gone over the same Hoosac Mountain the railroad later went under. The first railroad to serve Hoosick Falls was the Troy & Boston, chartered in 1852, connecting Troy with North Bennington—and with North Adams by 1869. A line north from Pittsfield also served North Adams. None could get through Hoosac Mountain to Boston, however. After much delay involving financing and the failure of two steam-driven digging machines, the pioneering use of nitroglycerin created the breakthrough—literally, as the tunnels that progressed from each side were only one-eighth of an inch off when they met in the middle in 1875. The Hoosac Tunnel, at a cost of 195 workers' lives, connected the Deerfield watershed to the Hoosic watershed. At 4.74 miles, it was the longest tunnel in the world. Initially it brought the Boston, Hoosac Tunnel & Western line, formed in 1878, from Mechanicville to Boston. The Fitchburg Railroad soon acquired both that line and the optimistically named Troy & Boston. Later the Fitchburg became the Boston & Maine, now PanAm Southern. Passenger service ended in the 1950s, although freight service continues.



Hoosac Tunnel. Credit: Williamstown Historical Museum

Settlers needed wood to build their homes and outbuildings; they burned 20 cords or more annually to cook their food and warm their hearths. They cleared for crops, for sunlight, and to provide separation from whatever people or animals were lurking in the forest. They began the job of denuding the landscape. As the farms moved upslope, away from the alluvial land, they cut farther toward the ridgelines. Then their livestock, notably the sheep, summited. Manufacturing needed wood, too, especially as converted to charcoal for smelting iron. Charcoal burners combed the hillsides, hauling their product to the furnaces. Lime burning similarly ate trees. The demands of railroads—early on—for fuel and all along for poles, crossties, and buildings, finished the job of deforestation.

The trains ran right along the river, jostling the roads for position. And so did the trolleys. Early on, horses pulled the cars, often with some help from the passengers, but in 1884, Frank Julian Sprague came up with the first, practical method for combining electric power with a spring-loaded trolley pole, a wire-and-wheel suspension system, and an electric motor he designed to create trolley service in Richmond, Virginia. By the late 19th century, a welter of 170-miles of track linked Hoosick Falls, Bennington, Pownal, Williamstown, North Adams, Adams, Cheshire, Pittsfield, and on south to Canaan, Connecticut; and from Lee east nearly to Springfield. Frederick Billings, who founded the Northern Pacific Railroad, was also a partner in founding the trolley line from Bennington to New Lebanon. (He later moved to the former Woodstock home of George Perkins Marsh—hence the current Marsh-Billings National Park.) Generally the tracks ran in roads but occasionally they took off through the woods. Workers were able to commute. The Hoosac Valley and the Pittsfield lines both built and served dance pavilions and amusement parks. Dance bands came to Meadowbrook, near Hodges Cross Road in Adams. The lines had open cars for recreationists, parlor cars for the well-to-do, and freight cars. The Berkshire Street Railway was formed in 1901 from lines previously owned and operated by the Hoosac Valley Street Railway, Pittsfield Street Railway, Pittsfield Electric Street Railway, Hoosick Railway, Bennington Electric Railroad, Bennington & Hoosick Valley Railway, Bennington & North Adams Street Railway, Hoosick Falls Railroad and the Vermont Company. The only thing BSR didn't do: Make money. Automobiles stole its thunder. By the 1920s trolleys were being replaced by buses, a less-elegant way to get there.

Arnold to Sprague to art: triple play

In 1925, Robert C. Sprague, son of the trolley developer, invented a tone-control device for the radio, which he and his wife marketed from their home in Quincy, Massachusetts. The next year he and friends anted up \$25,000; such devices came to be called capacitors and led to the Sprague Electric Company that, by 1929, outgrew available space in its hometown.

Three weeks before the stock market crash Sprague, with the aid of individual North Adams shareholders and banks, purchased one million square feet of the vacated mills in North Adams formerly owned by Arnold Print Works. By 1931, due to competition and the Crash, the company nearly foundered, to be saved by augmenting the line of products it developed—and by World War Two. Sprague Electric's capacitors helped develop the proximity fuse and radar, and triggered the atomic bomb at Nagasaki. With the continuing cold and hot wars of succeeding decades plus the advent of television, Sprague grew to being the nation's largest manufacturer of capacitors.

With state-of-the-art equipment, Sprague was a major research and development center, conducting studies on the nature of electricity and semi-conducting materials. After the war, its products were used in the launch systems for Gemini moon missions. By 1966 Sprague employed 4,137 workers in a community of 18,000, the largest employer in the area and the mainstay of several generations. From the post-war years, Sprague produced electrical components for the booming consumer electronics market, but competition from abroad led to declining sales and, in 1985, the company closed operations on Marshall Street, leaving behind PCBs, which the company used for lubrication before they were suspected of being carcinogens. They washed into the river.

The closure devastated the local economy. Unemployment rates rose and population declined. In 1986, the business and political leaders of North Adams were seeking creative ways to re-use the vast complex. William College Museum of Art director Thomas Krens, who would later become director of the Solomon R. Guggenheim Museum, was looking for space to exhibit large works of contemporary art that would not fit in conventional museum galleries. When Mayor John Barrett III (serving 1983-2009) suggested the vast Marshall Street complex as a possible exhibition site, the idea of creating a contemporary arts center in North Adams began to take shape.



Mass MoCA. Credit: Wiki Commons

The campaign to build political and community support for the proposed institution, which would serve as a platform for the creation and presentation of contemporary art and develop links to the region's other cultural institutions—such as Jacob's Pillow, Clark Art Institute, Williamstown Theatre Festival, Williams College, and the Massachusetts College of Liberal Arts—began in earnest. The Massachusetts legislature announced its support for the project in 1988. Subsequent economic upheaval in Massachusetts threatened funding, but broad-based support from the community and the private sector, which pledged more than \$8 million, ensured that it continued to move forward.

The eventual proposal utilized the scale and versatility of the complex's industrial spaces, while establishing a dialogue between the facility's past and the new life it would have as the country's largest center for contemporary visual and performing arts. Since the opening of the Massachusetts Museum of Contemporary Art, MASS MoCA has

provided the catalyst and anchor for a larger economic transformation in the region centered on cultural, recreational, and educational offerings, although reciprocal development in the city has lagged.

Post Industrial: “Waters are remarkably limpid . . .”

During the industrial period, the people and the river were both destructive. Since industries and households used the river as an open sewer, the Hoosic became offensive and a source of disease. The North Adams newspaper cautioned annually on people’s habit of dumping their garbage on the frozen river, where it stayed until the spring thaw swept it away. Mills dumped directly into the river, so that it ran different colors depending on what dye was being used. Even after water-powered mills were history, the river remained the site for industry—and dumping—because factories, highways and railroads all lined the river valley. Occasionally the river turned the tables, visiting towns with devastating floods. After heavy rain or snow, especially after vegetation was removed, the narrow, steep sides of the upper valley acted as a funnel. Floodwaters rushed from the hills into the valley bottom and destroyed homes and businesses. Floods in 1927, 1936, 1938, 1945, 1948 and 1950 were particularly destructive.

As a result, the Army Corps of Engineers built flood control structures in Adams, North Adams, and Hoosick Falls in the 1950s. Transforming the Hoosick cascades involved widening the channel, creating an earthen berm and concrete wall, removing the Wood Company dam, and related projects, similar to the Corps’ approach in Adams and North Adams. Their first real test came in August of 2011, with Tropical Storm Irene. The chutes put an end to the most destructive flooding. They also created a sterile environment in which fish and other aquatic life struggle to survive. As the river was out of sight behind concrete and fencing, people forgot that what was once a living organism flowed by. At that time they were installed, people didn’t mind very much because the river was foul with pollution.



Tropical Storm Irene, Aug. 28, 2011, provided the first test for the North Adams chutes. Credit: L.Stevens

Cleaning water

While the states and the federal government had taken some action previously, Congressional passage the Clean Water Act in 1972, offering funding for sewage treatment and penalties for dumping, began substantial improvement of water quality. In the Hoosac Valley, it was not a case that residents rose up demanding a cleaner river; they had come to accept the notion that having jobs required mistreating natural resources. Rather government action led to a gradual change in residents' attitudes towards their rivers from utilitarian to more recreational, aesthetic, and health conscious. Families remembered foul smells and flooding, but gradually many came to realize that a cleaner river could improve living conditions and could expand the economy.

The City of Troy closed three smaller drinking water reservoirs and placed an earth dam across Tomhannock Creek to create one reservoir, five and one-half miles long, containing 12.3 billion gallons, under construction from 1900 to 1905, and incidentally realigning the lower portion of the creek. Fishing from the bank and ice fishing are the only recreational activities permitted on the largest water body in the watershed. As a result of the federal Safe Water Drinking Act of 1974, and amendments, the city also treats the water. North Adams, faced with the same regulations, installed a treatment plant on its Mt. Williams Reservoir; Williamstown took the other prescribed route, relying now on wells rather than reservoirs. Since wells can fail if the power goes down, their use required installation of a water tank. In conjunction with the Clark Art Institute, the tank was buried near the ridge of Stone Hill.

The Water Pollution Control Act, 1972, raised the goal, not yet achieved, of eliminating the discharge of all pollutants into navigable rivers by 1983. Both Williamstown and North Adams had primary wastewater treatments plants that needed updating in the 1970s; in addition the Widen Tannery in the Blackinton section of North Adams was dumping directly into the river. The Berkshire Regional Planning Commission suggested secondary treatment at a joint plant, also including the smaller town of Clarksburg, to be located downstream in Williamstown. The state supported that plan, as did the federal government. An interceptor sewer line connecting North Adams and Williamstown was completed in 1973. The new plant was completed in 1976 and the North Adams plant phased out. Widen Tannery created pre-treatment facilities but soon went out of business. Several decades passed before part of Clarksburg was sewered and connected, however. The Hoosac Water Quality Plant has been updated several times since.

The plant serving Pownal was likewise the result of seizing the moment. Prior to it, waste either went directly into the river or into tanks or often-failing septic fields. The former North Pownal mill, once producing cotton cloth and more recently a tannery, due to extensive contamination became a federal Superfund site. The Environmental Protection Agency worked with the Hoosic River Watershed Association, the town, and the State of Vermont in 2006 to construct a treatment plant on top of one of the former tannery waste lagoons, terminating a major source of river pollution.

Although much of the pollution from pipes has been eliminated, the difficult task remains of reducing runoff from agricultural fields and lawns as well as impermeable surfaces such as roofs, roads, and parking lots. Controlling non-point pollution, as it is

called, is to a large degree a matter of public education, requiring at once more patience and more imagination.

A watershed association

On a memorable summer evening in the late 1970s, legendary balladeer Pete Seeger, founder of the Hudson River sloop *Clearwater*, came to Cole Field, Williamstown, to sing at a fundraiser for the locally organized Hoosic River Basin Citizens Environmental Protective Association (HRBCEPA). That group hired a lawyer to apply the tools created by Public Law 92-500, the Clean Water Act, in order to force polluters to desist. Although this group had faded by the 1980s, its litigious work and the departure of certain industries from the area meant that the water quality of the river was becoming an asset rather than a liability to its communities. It also meant that from the Hoosic River Watershed Association's (HooRWA) founding, it was free to look at a broad range of river issues rather than concentrate on tracking down polluters. Several people active in HRBCEPA were among the early HooRWA board members.

The establishment of a watershed association that would look out for the Hoosic River was recommendation No. 1 of the Hoosic River Action Plan, written by the Berkshire Regional Planning Commission. The board was established in 1986; the following year a canoe cruise on the Hoosic in which officials from Massachusetts, New York, and Vermont participated, coincided with a major spill. Paddlers were amazed at the number of dead suckers and trout—testimony to the toxicity of the spill and also to the fecundity of the river. Restocked from upstream and the tributaries, the river rebounded quickly. Tracking pollution and organizing cleanups became important HooRWA activities. It has assessed the Hoosic, Green, and the rivers in Bennington. Volunteers and interns keep a constant check on river water quality.



Canoeists approach the Buskirk bridge. Credit: Bob Landry

The cruise established a land base in 1989, leading to an annual Riverfest. Hoosic River Bike Ride, an opportunity to view the watershed in up to three states, began in 2004. These events and other outings have enabled HooRWA to introduce the river to thousands who may not have known it was there; and to relate the river to outdoor enjoyment. HooRWA has also worked in the schools to foster river-based learning.

In cooperation with HooRWA, towns have put in car-top boat launches. Ongoing watershed association projects include a greenway in Hoosick Falls; a canoe portage and trail in North Pownal. The watershed association has always had an interest in trails. In 1990 it intervened when the Boston & Maine Railroad proposed to sell off its holdings between Pittsfield and Adams, giving the state the opportunity to purchase the abandoned rail line and create the Ashuwillticook Rail Trail. In 1992 Williams College students in a Winter Study Project proposed a hiking trail to link the Connecticut and Hudson Rivers by following the Hoosic and the Deerfield, the route of the old Indian trail. Most of the Massachusetts segment of the Mahican Mohawk Trail has been completed.



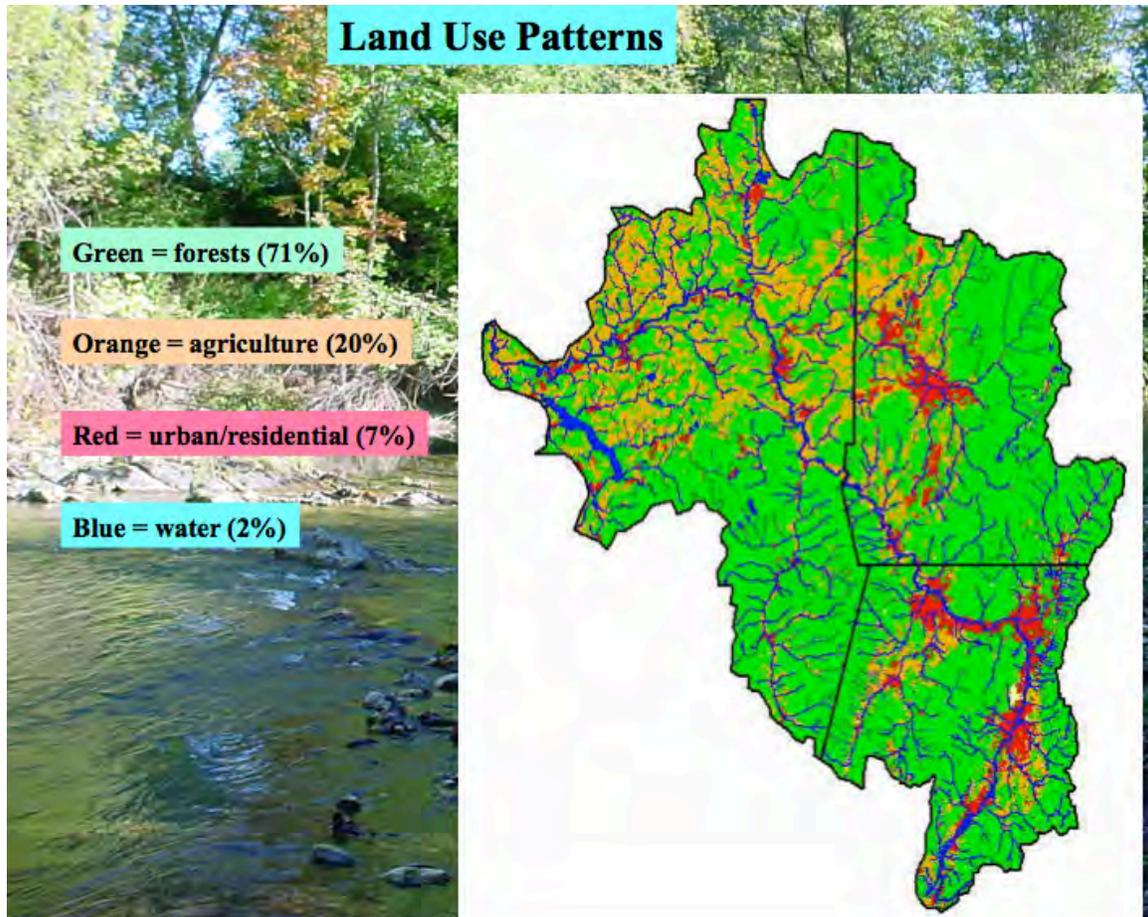
The Mahican Mohawk Trail crosses South River on old railroad abutments. Credit: L.Stevens

A literary trail

That trail, established by Indians in time immemorial, travelled by Benedict Arnold and Revolutionary soldiers, has more recently had literary associations. In 1799 Timothy Dwight, after arriving in Williamstown on the old trail along the river, rode horseback up Greylock with Williams College President Ebenezer Fitch and farmer Jeremiah Wilbur. In July of 1844, Henry David Thoreau left Concord on foot, climbed Mt. Monadnock in southern New Hampshire, hiked west, crossed the Connecticut River, spent the night in Charlemont, and followed the old Indian trail over the Hoosac Range into North Adams. Then he climbed Mt. Greylock via the Bellows Pipe Trail and by compass course. He awoke to a brilliant sunrise above the clouds the next morning, his intimation of what a transcendental world might be like. He describes the trip in *A Week on the Concord and Merrimack Rivers*. Other writers associated with the Hoosac Valley include: William Cullen Bryant, Oliver Wendell

Holmes, Washington Irving, James Fenimore Cooper, Herman Melville, and Nathaniel Hawthorne.

Over the years HooRWA has been involved in other advocacy. HooRWA played a significant role in the Massachusetts Watershed Initiative and a leading role in the Hoosic Watershed Team, beginning in 1996 until the state eliminated funding in 2003. HooRWA has worked on several successful dam removals from Clarksburg to Cheshire, an unsuccessful effort to naturalize the flood chutes in Adams and an ongoing effort, with Hoosic River Revival, to improve the chutes for fish and people in North Adams.



Credit: Richard Schlesinger

Future

In the Hoosac Valley the trend, like the flow, has seemed to be downhill, like running water. Since the time of the first Europeans, in this region the Mahican, the Dutch, the French, the English, farming, and manufacturing have all declined. The Erie and associated canals provided a means for marginal farmers to light out to the Mid-West; the Civil War drew off much manpower; loss of manufacturing jobs led families by train and automobile to hit the road to cities and the South. The combined effect is to leave the area with fewer people, more trees, and a cleaner river.



Credit: Tiashoke Farms

In the Schaghticoke area small farms have consolidated, yielding large dairy operations, apparently viable, of 1,000 head at the Tiashoke Farms, employing immigrant labor, milking around the clock. Great sweeps of cultivated or hayed land surround serried rows of milk sheds. In other parts of the valley, as milk prices became too low to sustain small farms and as sons and daughters become painfully aware that most people don't work 12-hour days year around, remnant farm families no longer breed future farmers to carry on the dairying tradition. Their properties are divided up for residential development, often for retired city dwellers, and often with large lots. Thus the former fields, no longer hayed or producing corn, fill with trees, subdivided or not. Land trusts and state programs attempt to preserve the rural quality of communities by buying development rights or outright purchase, ensuring more wooded land. With the numerous federal and state properties, such as Green Mountain National Forest and Mt. Greylock State Reservation, land in the watershed is 71 percent forested and a declining 20 percent in agriculture, the ratio opposite that of 100 years ago. Although a few specialty farms, such as community-supported ones whereby annual investors receive vegetable dividends, buck the trend, in general an aerial view shows far more forested land than at any time since Timothy Dwight visited over 200 years ago. With the trees come wild animals: Most obviously a large deer herd and an active beaver population; a modest influx of moose, bear, bobcat, coyote, feral pigs and possibly even a cougar. Birds, too, flock. So, in some ways in the Hoosac Valley, downstream may also be upstream.

Access

Public access for car-top boats and fishermen exists at Farnam's Causeway and the north end of Cheshire reservoir, in Cheshire; Ashton Avenue in North Adams; Lauren's launch at the Williamstown DPW site off Rte. 7; Clayton Park in Pownal; Strobridge Recreational Site in North Pownal; Treatment Plant Rd. north of Hoosick Falls; above and below the Buskirk Bridge; above the Johnsonville Dam; below Johnsonville; near the Valley Falls bridge; Power Station Rd. in Schaghticoke; Lock 4 Champlain Canal Park.

The Manomet Center for Conservation Services, of Plymouth, Massachusetts, in 2012 reviewed the considerable research on the effect of a warming climate on trout, the indicator of the health of cold-water ecosystems and prize game fish of our area. Together with the destruction of suitable habitat by dams, flood chutes, the removal of

riparian vegetation, and pollution, by mid-21st century higher temperatures may severely limit the viability of trout, which are generally unable to survive in water that gets above 70 degrees F.

Historically, brook trout in the eastern United States have found homes in New England, New York, Pennsylvania, and on south in higher elevations of the Appalachians. Human activities have already reduced that range by some 20 to 25 percent, especially in central and southern Appalachians, and including western New York. Imported brown and rainbow trout, as well as native brookies, are largely limited to unpolluted, cold, well-oxygenated streams. Warmer water kills eggs, fry, and adults and therefore trout “might be among the more sensitive fish in the U.S. to climate change,” according to Manomet. Although more study needs to be done, as a species trout do not seem to be particularly adaptable. Brown trout are more tolerant of higher temperatures than brookies or rainbow, however.

Many variables are in play, beginning with the issue of just how much the climate will warm, which in turn depends on the steps that we take to reduce the carbon we emit. Some additional possibilities exist that may limit the negative effects. More recent studies Manomet reviews have emphasized that conditions for trout need to be assessed on a site-by-site rather than regional basis. The relationship between air temperature and water temperature is not automatic. Other factors may buffer stream temperatures, such as tributaries flowing from the hillsides, the addition of groundwater, stream shading, angle to the sun, and adjacent land use. Blacktopped parking lots and roads by rivers; dams; concrete or stone walls, all increase heat.



Lucy Bridges Prindle caught Hoosic trout. Will we always be able to? Credit: Williamstown Historical Museum

Certainly the erosion of trout fishing areas in the northeast will continue, working from south to north and from lower elevations to higher. Nevertheless the future for the Hoosic may not be as grim as earlier studies predicted and there are ways that we, the culprits in climate change, can modify its outcomes and even manipulate stream environments to prolong the life of what we correctly perceive as a prime indicator of our river's vitality. HooRWA is doing its best to determine and protect stream segments most likely to retain cold-water qualities. Our river would be significantly poorer without the trout.

Williams College recognizes its neighbor, the Hoosic, in its alma mater with the words: "The peaceful river floweth gently by." Early in the 21st century, people in the valley may be looking to education, recreation, and culture, the MoCA model, for inspiration in plotting the future. The Hoosac Valley is home to numerous art venues and academic institutions. Perhaps culture, which includes the area's rich natural history and human history, is the valley's way to provide for its creatures, human and otherwise. A clean, cool river benefits both and is part of that post-industrial economic strategy. Businesses and homeowners are now attracted to riverside property. We canoe, kayak, and tube on the riffles of the upper river and sail or motor on the deadwater above the Johnsonville dam. We can even get locked through the Champlain Canal when the keeper's in a good mood. Except for a stretch in Hoosick Falls, the Hoosic is categorized as fishable and swimmable, although also listed as impaired—meaning that we are reluctant to eat the teeming fish or to dive in. While it has not yet returned to its limpid state, changing public perception of the river drives further improvement. Improvement means ever more closely approximating the way it was—including the upper river's character as a cold-water fishery. That is the history of the valley.

*Time present and time past
Are both perhaps present in time future,
And time future contained in time past.*
T.S. Eliot, "Burnt Norton"



Enjoying the Hoosic. Credit: T.Hyde

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