

An Overview of Four Significant Adirondack Iron Mining Centers

By
Rudy Davison

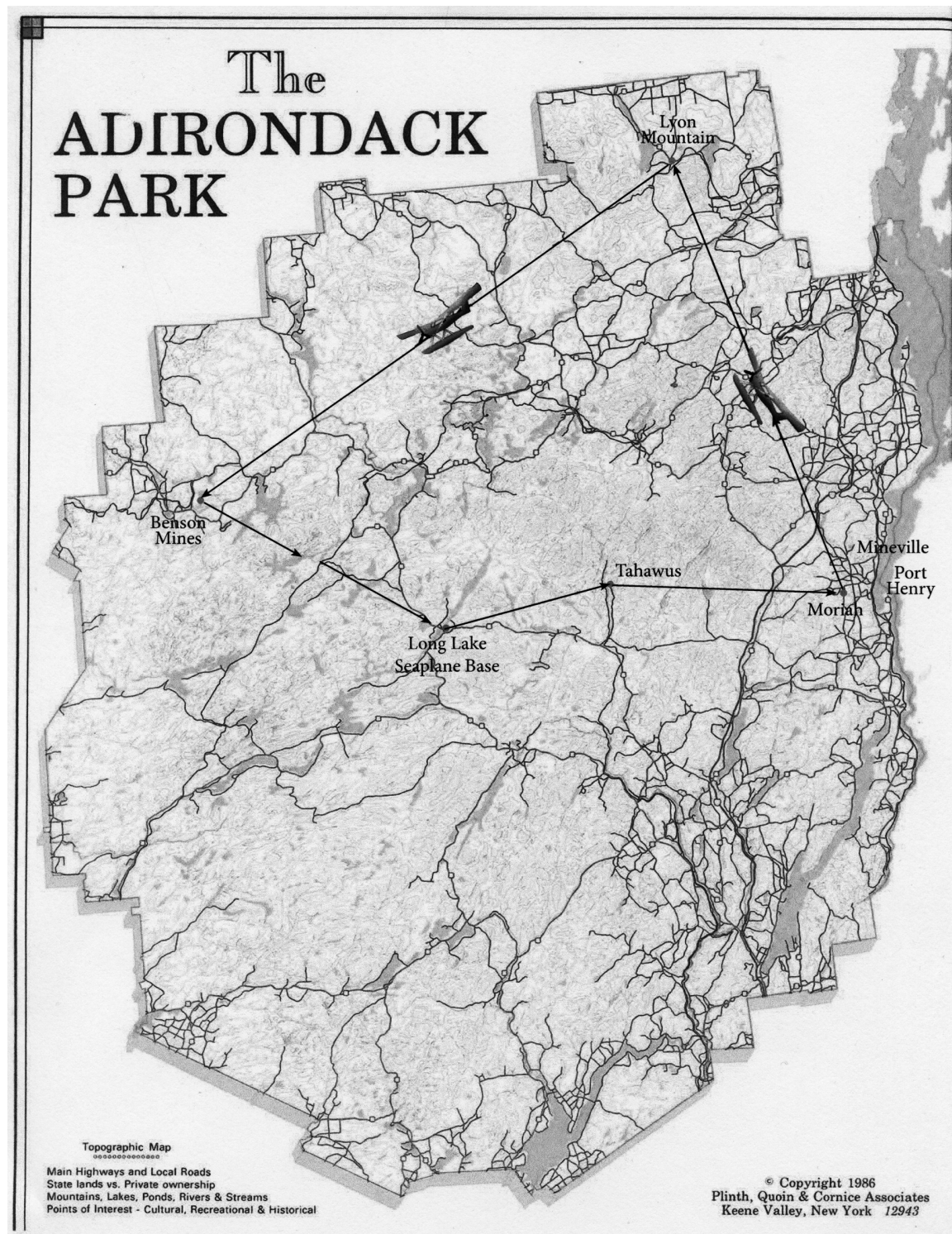
For the past few years, I have been corresponding with my cousin Bill McGarry about the history of the iron mining that took place in the northern half of Adirondack Park in New York, most notably at Tahawus, Port Henry, Lyon Mountain, and the Benson Mines. As a result, in September 2018 the two of us, along with Bill's wife, Pam, and another cousin, Laurene Lozoski, took four days to explore these four important iron mining sites.

We did this because I had aspirations that this could turn into another annual MHA conference centered out of Lake Placid, accompanied by field trip visits to perhaps three of these major iron mining sites. However, Bill cautioned me that Adirondack Park was as large as Denali National Park in Alaska and getting from Lake Placid to the iron mines could take hours. I also knew via other MHA members that there was not that much left to see.

Thus, our conclusion, after viewing these mining sites by air from a seaplane and then making a multi-day driving tour to visit three of the four locales, was that staging an MHA conference was a bit ambitious. The iron-mining areas were too far apart, too ruined, and Lake Placid was too pricy. However, our seaplane flight and driving tour were so enjoyable, that we recommend using the narration that follows as a guide for those who are interested in repeating this trip on their own.

A Seaplane Flight

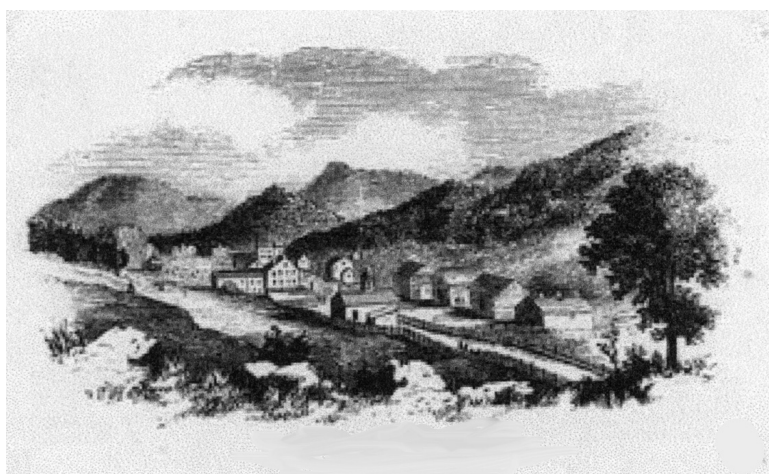
Bill organized a seaplane tour to provide an overview of the vastness of the northern half of Adirondack Park. Taking off from the Helms seaplane base at Long Lake, we headed east to Tahawus, where iron-ore mining flourished for thirty years beginning in the mid-1820s, failed,



Our seaplane tour began at Long Lake, from where we flew east over the Tahawus iron mining center to iron mines at Mineville, Witherbee, and Moariah near Port Henry and Lake Champlain. From there we headed north to Lyon Mountain and then southwest to Benson Mines before returning to Long Lake.



Wilderness comprises more than half of Adirondack Park, with pristine lakes and forty-five peaks taller than four thousand feet. (Author's photo.)



*The self-sustaining company village of Adirondac in the mid-1800s. (From Benson J. Lossing's *The Hudson from the Wilderness to the Sea*, 1859.)*

and then resumed again at the beginning of World War II.

After that, we continued east toward Port Henry and the west shore of Lake Champlain to look down on what was left of Witherbee, Sherman and Company's mines at Mineville, Witherbee, and Moriah, and of Port Henry Iron Ore Company's mines at Mineville and Fisher Hill. Then we turned north toward the northern-most part of Adirondack Park, where the Chateaugay Ore and Iron Company operated a deep underground mine at Lyon Mountain. Finally, we flew southwest to see the big open pit at Benson Mines near Star Lake before completing our seaplane circle and starting our driving tour.

From the air, it is apparent that considerable public and private wilderness remains inside Adirondack Park. Statistically, this combination of public and private wilderness ownership accounts for 53 percent of the entire park. Lakes galore shimmered below, some lined with an abundance of camps, while others had only a solitary residence, the remnant of a bygone era when wealthy city dwellers made Adirondack Park their personal retreat. And there were acres of swamps where we imagined that very few people had ever been. Another revelation was that we would be making a complete circle around the "High Peaks," a cluster of forty-six mountains at least four thousand feet tall. North of these peaks lies Lake Placid.

Tahawus

As we approached the Tahawus site, it was practically invisible. Dense forest obscured a clear view of any old workings that lay along the rock-strewn rapids of the Upper Hudson River. All we knew was that in 1826, an Indian from the St. Francis tribe led Archibald McIntyre and David Henderson to a location called Tahawus, where he showed them a magnetite vein that partially dammed this section of the Hudson. This prospect was then developed and operated for thirty years under the auspices of the Adirondack Iron Works primarily financed by McIntyre.

To sustain mining operations at Tahawus, the Adirondack Iron Works built a company village named Adirondac—probably a corrupted spelling of "Adirondack"—used synonymously with the name McIntyre to identify the original Tahawus location. The village accommodated as many as four hundred inhabitants, and due to its remoteness, was a self-sustaining community that provided its own food from two farms and operated a grist mill, sawmill, and brick kiln.¹

Mining operations included extracting the iron ore and then processing it using a puddling furnace, a forge, or blast furnaces. Charcoal made from the adjacent forest fueled the furnaces. Depending on the season, either wagons or sleds hauled pig iron over a crude plank road to barges at Lake Champlain more than fifty miles away.

Peak production occurred around 1843 from three small blast furnaces that produced from twelve to fourteen tons of pig iron daily. The reduction process however, was hampered by the existence of titanium oxide impurities in the ore. Even so, the high quality pig iron that resulted brought a purchase price of forty to forty-five dollars per ton, a bit more than double the price that other American or Scottish pig-iron producers received.

In 1849, the prospect of having a railway constructed closer to the mine encouraged the Adirondack Iron Works to increase production and build a larger blast furnace at a downstream location called the Lower Works.² Power to operate the furnace and its equipment was provided by constructing a dam and diverting Hudson River water to a wheel house. On 20 August 1854, after five years of construction that cost of \$43,000 (\$1,185,655 in 2018), the new furnace began operating, producing ten to twenty tons of pig iron every twenty-four hours.³

Unfortunately, the furnace only operated for a little more than two years before a flood in 1857 destroyed the wheel house. Far worse than this disaster, however, the cost of operating in a remote location finally became too much, especially after the anticipated railroad failed to materialize. In addition, a national recession occurred and the company's principal financial backer McIntyre died. Thus, in 1857 the Adirondack Iron Works ceased operations at the McIntyre Mine and Adirondac village became a ghost town.

But the settlement had a legacy. From 1876 to 1933, a string of prestigious hunting and fishing clubs that included the Preston Ponds

Club, the Adirondack Club, and the Tahawus Club leased a huge tract of land from the heirs to the Adirondack Iron Works so that wealthy New Yorkers had private access to prime hunting and fishing grounds in the heart of the Adirondack Mountains.⁴

As a result, old buildings in Adirondac were renovated and several new cottages built. Of historical note, Vice President Theodore Roosevelt was a Tahawus Club guest in September 1901, when he and an entourage set out to climb Mount Marcy, the tallest peak in the Adirondack Mountains. While Roosevelt was still on this trek, word came that he needed to hurry to Buffalo, New York, where President William McKinley lay dying after an assassin's attack.

In 1941, at the onset of World War II, iron mining was resurrected by National Lead (NL)



The large 1854 blast furnace at Tahawus, one of the best-preserved ruins in the historic Adirondack iron area, is still intact partly because it was little used. (Author's photo.)

Industries at Lake Sanford, about a mile downstream from Adirondack village. This site had already been mined as an open pit by the Adirondack Iron Works during its latter years, but now the titanium oxide that was a prior hindrance was needed for the war effort and the former transportation problem was solved when the U.S. Government financed a rail line to the mine.

Following the end of the war, titanium oxide continued to be mined for domestic products including bright white pigment in paint, a coloring agent in food processing, and an ingredient in sunscreen and cosmetics. In 1989, however, NL Industries shut down operations after extracting forty million gross tons of milling ore.⁵ Today the site remains unworked, but one can still see the flooded open pits and a very tall tailings pile.

The final legacy of Tahawus occurred in 1994, when the Open Space Conservancy, via its parent organization the Open Space Institute, acquired the Tahawus Tract from NL

Industries for public use. As a result, the story of iron-ore mining and Adirondack village have been preserved. In my opinion the site's 1854 blast furnace is the best historic iron-ore mining ruin within Adirondack Park.

Witherbee, Sherman and Company and the Port Henry Iron Ore Company

Our second seaplane destination took us east toward Lake Champlain, where we looked down on the flooded 21 Mine, a former open pit at Mineville, and the tailings pile and ruins of the No. 7 Mill near Moriah. Iron mining here was extensive, beginning in 1810 when a survey party headed by New York State Deputy Surveyor Silas D. Kellogg noted a presence of iron that affected the party's compass in Lots 21-25. By 1824, the first crude mines began operations on these lots, which became known as the "Iron Ore Tract."

By the mid-1800s, two dominant groups



After the Adirondack Iron Works ceased mining in 1857, the last house still standing at Tahawus became a residence for the Adirondack Club, an exclusive hunting and fishing camp for the wealthy from New York City. (Author's photo.)

were mining side by side at a site they called the "Old Bed" iron deposits. The first group was a firm comprised in 1849 of John A. Lee, George Sherman, and Silas H. and Johnathan G. Witherbee. It mined the west end of Lot 25. The second group, called the Port Henry Iron Ore Company, came into being in 1857 and mined the east end of Lot 23.

In 1850, prior to the formation of the Port Henry Iron Ore Company, the Witherbees group was plagued by the same transportation difficulties that hampered early iron mining at Tahawus. However, being closer to Lake Champlain it improved this situation by constructing the seven-mile-long Moriah Plank Road so wagons or sleds could haul iron ore from the mines to the lake, where a furnace operator converted it into pig iron. During warm months when the lake was not frozen, the pig iron was then transported through

canals to the Hudson River and south to iron fabricators in Troy, New York. During cold months iron ore was stockpiled along the lake shore.

As the contiguous Witherbee and Port Henry mining operations continued to enlarge a common pit, the Port Henry Iron Ore Company's portion was called the 21 Mine. Throughout the lifetime of this company, this mine was always its premier producer, and during its operation through the Civil War years, it was one of the largest and most impressive iron mines in the world. The Port Henry Iron Ore Company and the Witherbees, Lee, and Sherman group, along with other smaller mines in the Adirondacks, accounted for about 25 percent of the iron needed by the Union during the war, with some of the Port Henry's ore used to build monitor-style ironclads.⁶

Railroad transportation between the mines and the lake finally arrived in 1869, when the



A 1915 photo of the pit in which both Witherbees, Sherman and Company and Port Henry Iron Ore Company mined iron from what were called the Old Beds. (Courtesy of the Iron Center Museum, Port Henry, from Through the Light Hole by Patrick Farrell.)



The titanium oxide plant financed by the U.S. government during World War II for NL Industries. (Courtesy of minedat.org.)

Lake Champlain and Moriah Railroad was completed. A major stockholder in this railroad was Witherbees, Sherman and Company, newly reorganized in 1862 after a buyout of Lee by Sherman and the two Witherbees. The Port Henry Iron Ore Company was another major railroad stockholder. Four years later, in 1873, the Delaware and Hudson Railroad arrived at Port Henry to complete rail service to the south. Depending on the cost of barges versus rails, both conveyances were used, although barge transportation was always hindered by winter closure.⁷

With bulk year-round railroad transportation available, interest in iron mining surged throughout the Adirondacks. In 1872, Port Henry Iron Ore Company opened a new mine at Fisher Hill a little more than a mile north of its 21 Mine. Witherbees, Sherman and Company concentrated on buying properties around Moriah and created a company town about two miles to the north called Witherbee, in addition to its already

established community of Mineville.

Hand in hand with this mining expansion, Witherbees, Sherman and Company built small blast furnaces in proximity to its mines until the early 1870s, when the company realized that it would be more advantageous to locate one large blast furnace on the shore of Lake Champlain adjacent to barge transportation and the main line railroad.

Thus, the company joined with other investors to form the Cedar Point Iron Company and build a new furnace at the southern edge of Port Henry. Three years later, in August 1875, this furnace became operational just one month after the Witherbees, Sherman and Company's new main office was completed at Port Henry.⁸ By then, Witherbees, Sherman and Company was the dominant iron-ore concern in the Adirondacks.

Advancing into the 1880s, Witherbees sank the Bonanza and Joker shafts at its original Old Bed workings to access ore that lay at depth adja-



The now-flooded open pit and remains of the plant where NL Industries mined titanium oxide during World War II. (Author's photo.)

cent to the neighboring 21 Mine.⁹ Not until 1908, however, did the Port Henry Iron Ore Company finally replaced its incline into the 21 Mine pit by sinking the Clonan Shaft to access its deeper ore. With both companies now mining underground, within the next year each company's drifts had broken through into the other's property.¹⁰

Witherbees, Sherman and Company had achieved its success by astute management practices conducted by the two founding Witherbees, as well as their commitment to live in the same community where they developed their business interests. Furthermore, company affairs were successfully carried on by the next generation of Witherbees, especially Frank S. Witherbee, son of Johnathan G. Witherbee.

Frank became company president following his father's death in 1875. His Ivy League educa-

tion at Yale and exposure to new business ideas provided him with a basis to align the company with the changing nature of the iron and steel industry and adapt to the economic forces that occurred during the final quarter of the nineteenth century. In particular, he placed his company in a position to take advantage of a growing demand for high-grade magnetite iron-ore products.

In contrast, Port Henry Iron Ore Company's management was mostly absentee and focused solely on the limited products that came from its 21 Mine. This cadre of successful business men failed to realize that, in addition to the lump and fine ore they traditionally supplied, future demand from the steel industry would be in high-grade Bessemer and non-Bessemer concentrates.

As a result, the Port Henry Iron Ore Company did not build a new concentrating mill that



In 1875, Frank S. Witherbee succeeded his father, Jonathan G. Witherbee, as president of Witherbees, Sherman and Company. His leadership propelled the company to become the dominant iron-ore concern in the Adirondacks. (Courtesy of the Iron Center Museum, Port Henry, from Through the Light Hole by Patrick Farrell.)

could produce these products, nor did it reopen formerly closed mines to increase its ore supply. Another advantage Witherbees, Sherman and Company had that contributed to its continued survival was its ability to handle its own ore sales, as well as those of the Port Henry company, from a sales office located in New York City.

In 1900, Frank Witherbee changed the company's name to Witherbee, Sherman and Company, with its singular "Witherbee," since he was then the sole remaining member of his family involved in its operations. He continued to serve as president. That same year, Lackawanna Steel Company from Buffalo, New York, bought out the Sherman shares and made an agreement to purchase two hundred thousand tons of iron ore per year.

In order to boost iron-ore production, the company sank two new shafts, Harmony A and Harmony B, to the southwest of the Joker and Bo-

nanza shafts on the east side of Mount Tom to reach another continuation of the ore body. As iron-ore and steel production increased through the first two decades of the twentieth century, the company expanded its mine holdings and upgraded its mills to become the largest producer of magnetically separated iron ore in the world. During this period, Witherbee, Sherman and Company outpaced the Port Henry Iron Ore Company in tonnage produced by a margin of at least three to one and sometimes as much as nine to one.¹¹

After Frank Witherbee died in 1917, however, the board of directors diverted from his emphasis on producing specialty iron-ore products in favor of constructing a new blast furnace at Port Henry to produce pig iron. This proved to be a poor decision that nearly bankrupted the company, because in 1921 the furnace was still under construction and way over budget when a fifteen-year downturn occurred in the Eastern steel industry. Furthermore, stiff competition from Michigan and Minnesota iron mines exacerbated the situation.

Unfortunately, the Port Henry Iron Ore Company did not survive because it had not positioned itself for changes in steel making. Mining stopped at the 21 Mine in 1924 and the company closed its doors for good once its iron-ore stockpiles at Port Henry were depleted. Thus ended sixty-six years of operation by the Port Henry Iron Ore Company. In 1929, Witherbee, Sherman and Company acquired the remaining securities of the Port Henry Iron Ore Company.

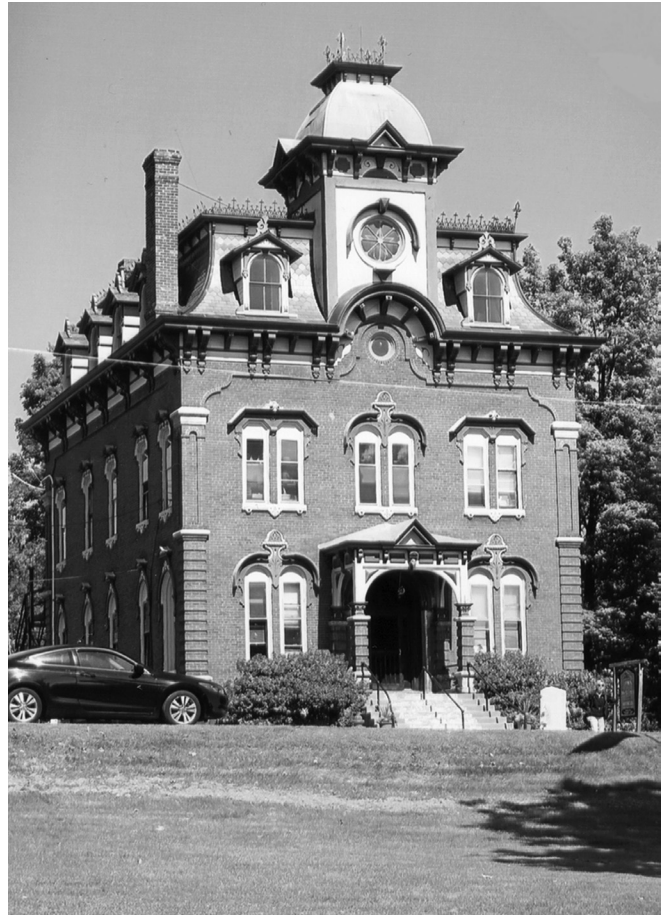
The Witherbees, Sherman and Company headquarters at Port Henry, built in 1875. Today these are Moriah's town offices, with the Iron Center Museum located next door in the former carriage house. (Author's photo.)

Beginning in 1936, demand for Eastern iron ore began to increase as witnessed the following year, when Witherbee, Sherman and Company's mines produced their highest annual tonnage in seven years, since the beginning of the Great Depression. Even though this up-tick staved off bankruptcy, the company's hefty borrowing from banks left it with serious debt. Fortunately, salvation arrived in 1938, when Republic Steel Corporation of Cleveland, Ohio, leased all of Witherbee's properties for a period of twenty-five years.

Republic was then operating several hematite mines in the Michigan and Minnesota iron ranges and desired to increase its reserves by accumulating another source of high-quality iron ore. A year later, in 1939, Republic made a similar lease agreement with the Chateaugay Ore and Iron Company, located in the northern-most part of Adirondack Park. It then combined both the Witherbee and Chateaugay entities into the Adirondack District of Republic Steel.

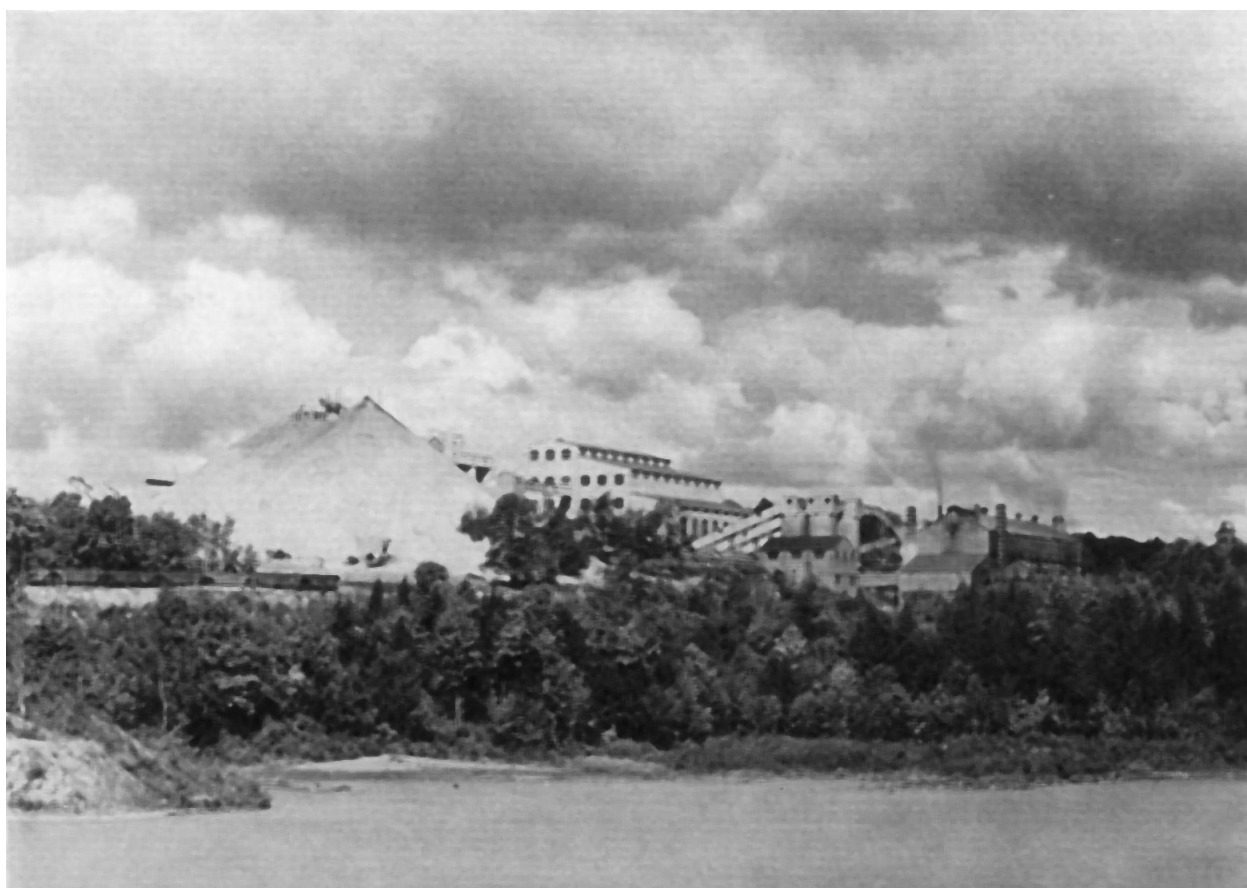
At the Witherbee properties, the insertion of a rough-edged, hard-charging Republic management team led by Joseph R. Linney was quite a shock compared to the former genteel paternalism that had existed. However, with the imminent approach of World War II, Linney wasted no time in reactivating old mines and developing new properties to increase iron-ore production.

Concurrently, Linney also authorized the building of a new concentrating mill and sintering plant called Mill No. 7, located between Mineville and Moriah along the Lake Champlain and Moriah Railroad. At the sintering plant powdered iron was combined with small particles of coke or



anthracite coal that ran along a moving grate. As this grate moved forward, a downdraft of intense heat (2,400° to 2,700° F.) welded these particles into one-inch diameter lumps called sinter. After cooling, this sinter was shipped by rail to a steel mill to be burned in the plant's blast furnace for conversion into steel.¹²

Completed in 1943, this mill processed ore from the Fisher Hill, Harmony, and Old Bed mines in separate milling units. It was the final mill built on Witherbee, Sherman and Company property because following the end of the war demand for iron ore lessened. This was especially true during the 1950s, when Republic closed all of its smaller mines to focus solely on the ever-reliable Old Bed workings. In 1971, however, the company deactivated this property and Mill No. 7.¹³ Four years later, in 1975, Mill No. 7 was gutted, and on 1 June 1979 all mining on Wither-



Republic Steel's No. 7 Mill near Moriah, built in 1943. (Courtesy of the Iron Center Museum, Port Henry, from Through the Light Hole by Patrick Farrell.)

bee's property stopped for good.

Flying over this area, one can see that reclamation has obliterated much of the industrialization that occurred at Mineville, but the ruins of Mill No. 7 still stand adjacent to its large tailings pile. If you visit this area by car, the mill and tailings are fenced off to any public access, but the tailings are quite visible from local roads. At least they will remain intact until they are disposed of for another use, such as road-base material, because their sandy composition has excellent compressive strength. Tailings piles elsewhere have already been used to build parts of the Northway (I-87) to the Canadian border, to construct local roads and highways, or have been spread on roads for winter traction.

An alternative to visualize what is hidden behind fences and forests can be accomplished by

visiting the Iron Center Museum in Port Henry. Inside is a large photo collection, excellent videos that focus on how the mills operated, and a detailed model depicting mining and milling at Mineville. For researchers, an upstairs library contains many records and other memorabilia from past mining operations. The museum occupies a carriage house built adjacent to Witherbees, Sherman and Company's 1875 headquarters. In 1959, Republic donated both of these buildings to the Town of Moriah.

Chateaugay Ore and Iron Company

We then flew toward our third and most northerly destination at Lyon Mountain. Along the way we looked into the heart of the High Peaks and the proposed conference setting at



The ruins of Republic Steel's Mill No. 7 and its tailings pile as they look today. (Author's photo.)

Lake Placid. It is beautiful country. Back in 1823, though, the landscape was wilderness that a trapper named Collins was exploring when he discovered iron. Although this discovery coincided with the beginning of iron mining at Tahawus in an equally remote setting, Collins' discovery languished until after the Civil War.

It was not until 1868 that a young Harvard-educated entrepreneur named Smith M. Weed and others bought thirty-five thousand acres of iron-ore and timber land adjacent to upper and lower Chateaugay lakes and commenced rudimentary iron-ore mining at an open pit. Five years later, in 1873, Weed and an able smelting man named Andrew Williams created the Chateaugay Iron Company.¹⁴

There is a story that the high-quality low-phosphorus content of Chateaugay ore that Williams

experimented with created such a demand from local forges that the success of the company was akin to the mousetrap adage: "If a man can write a better book, preach a better sermon, or make a better mousetrap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door."

However, a beaten path to Chateaugay iron was still years away. But the ball started rolling in 1875, when quantities of iron ore mined at the open pit were transferred via a plank road to a dock on Upper Chateaugay Lake, from where it was barged north to forges at Belmont at the southern outlet of Lower Chateaugay Lake. Iron blooms made at Belmont were transported by wagon or sled farther north to the town of Chateaugay, from where the Ogdensburg and Lake Champlain Railroad carried them to markets in

Pennsylvania and Ohio. Wire manufacturers especially desired the purity of Chateaugay iron for constructing the Brooklyn Bridge.¹⁵ In more modern times, Chateaugay iron would be used in the construction of the George Washington and Golden Gate bridges.

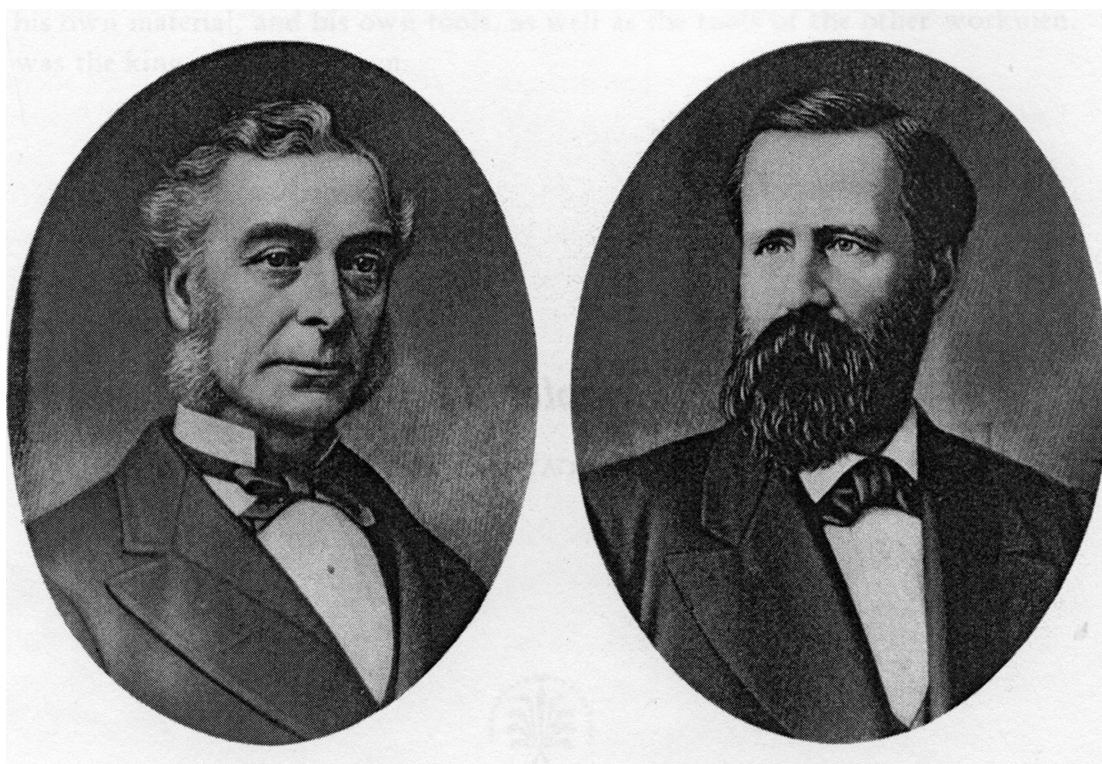
Although this roundabout transportation route worked, by the late 1870s Weed's close friend Thomas Dickson, president of the Delaware and Hudson Canal Company, convinced him to build a new rail connection east to Plattsburg, through which the canal company was completing its Delaware and Hudson Railroad line between New York City and Canada.

Thus, in 1879, Weed began constructing the narrow-gauge Chateaugay Railroad through difficult terrain to link his new iron mining town, called Lyon Mountain, to Dannemora. From there, he obtained a lease from the State of New

York to continue rail service on an existing line to Plattsburg.¹⁶ It took seven months to connect all of these railroads, but with this work finished, the Chateaugay Iron Company had cost-effective continuous rail service south to its main markets.

In 1881, the Chateaugay Ore and Iron Company was created by merging the Chateaugay Iron Company, Chateaugay Ore Company, Chateaugay Railroad Company, and two furnaces under one corporate umbrella. In conjunction with this consolidation, the Delaware and Hudson Canal Company became a major owner of the reorganized company.

Four years later, in 1885, it was time to reorganize the old Catalan furnace system because the new and growing Bessemer steel-making process relied solely on pig iron rather than iron blooms. Thus, construction began on a blast furnace at the new town of Standish a few miles south of Lyon



An able smelting man named Andrew Williams (left) and an educated entrepreneur named Smith M. Weed created the Chateaugay Ore and Iron Company in 1873. (Courtesy of the Friends of Lyon Mountain Mining and Railroad Museum, from Chateaugay Ore & Iron Company, compiled by J. R. Linney.)

Mountain. To satisfy the diminished need for iron blooms, some of the old Catalan forges were also relocated here and Chateaugay Railroad narrow gauge tracks were extended to connect the mine at Lyon Mountain with the blast furnace at Standish.

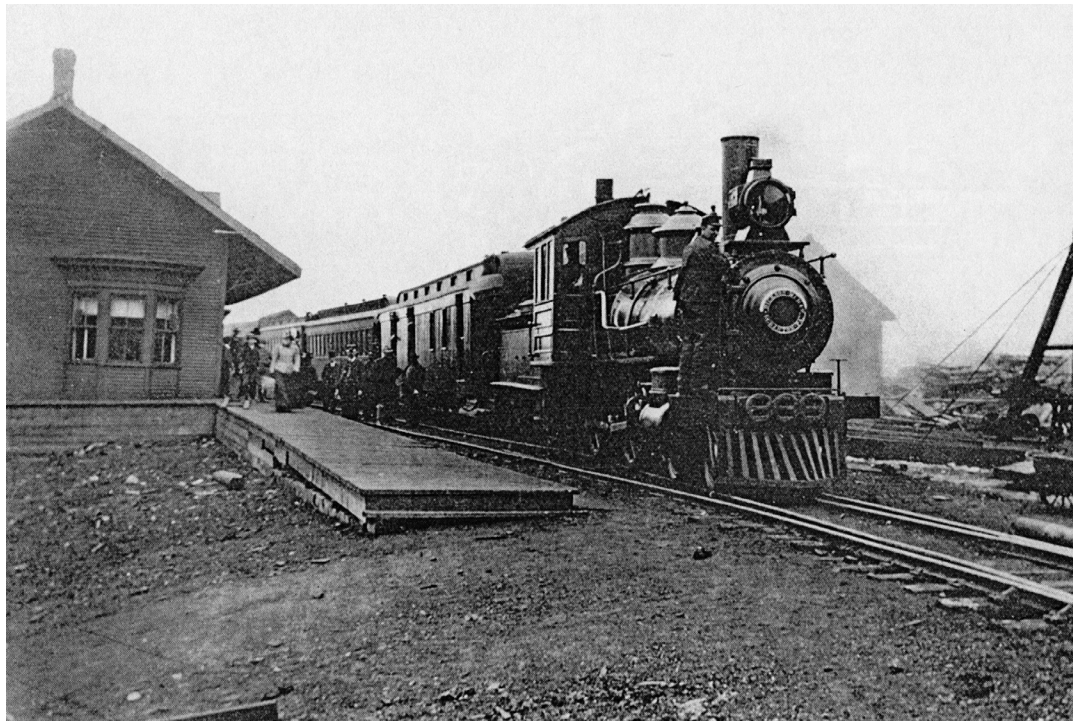
A change in ownership occurred in 1903, when the Delaware and Hudson Canal Company took control of the Chateaugay Ore and Iron Company. This new leadership undertook a comprehensive study of the company's iron-ore reserves, along with a detailed analysis of the ore-grade quality of the existing ore bodies. This review showed that vast quantities of prime iron ore still existed. As a result, the company implemented an increase in ore production, especially during the years that World War I raged.

The company also modernized the mill, installing magnetic iron separation and converting all rail lines to standard gauge, and converted the blast furnace at Standish from using charcoal

to burning coke. In 1921, a sintering plant was constructed to feed the blast furnace at Standish, with any surplus sinter produced sold as a separate product. Finally, in 1924, even though eastern iron mining had taken an economic downturn, the demand for Chateaugay Ore and Iron Company's products was enough to justify building a new and larger separator and concentrating plant. Thus, by the time the Depression occurred in the 1930s, all facets of the company's mining and milling were modern.

The Depression took its toll on the Chateaugay Ore and Iron Company, but, as mentioned earlier, Republic Steel leased the property in 1939 and continued to operate it until its closure in 1967.¹⁷ During its lifetime, the Chateaugay Mine became one of the deepest iron mines in the United States, at 3,500 feet, and its magnetite ore was considered the best for steel making.

With permission, the best ruins that remain accessible today are at the mill site, where an ore



A Chateaugay Railroad narrow-gauge passenger train at the Lyon Mountain depot in 1880. (Courtesy of the Friends of Lyon Mountain Mining and Railroad Museum, from Chateaugay Ore and Iron Company, compiled by J. R. Linney.)



With permission, one can visit the ruins of the sintering plant (right) and sinter-loading bin for rail cars at the Chateaugay Ore and Iron Company's mill area at Lyon Mountain. (Author's photo.)

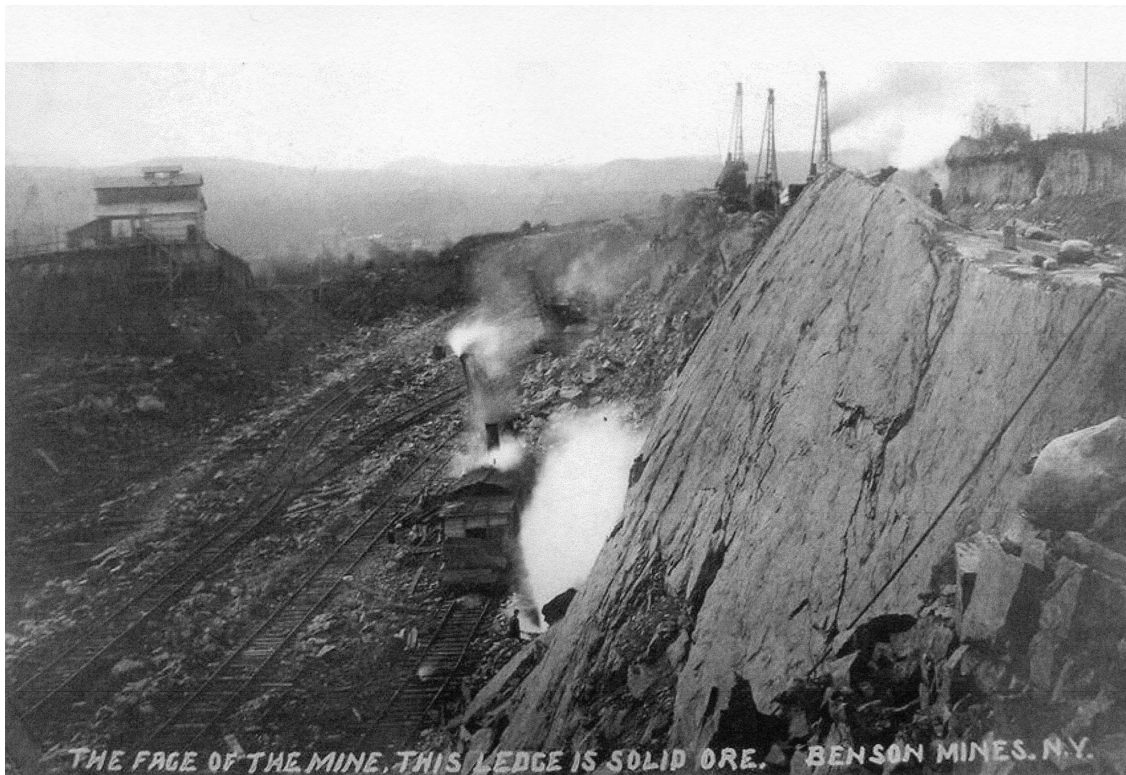
concentrator building, sintering plant, and railroad loading bin still stand. The first two structures are solidly constructed out of New York state granite and date to World War I. Most of the old buildings are totally vacant, but a few relics remain, such as a giant hook suspended from an overhead crane, foundations where heavy machinery and motors were mounted, and assorted roadbeds where rails once ran. A formerly tall tailings pile is now diminished because its material is being hauled away for road construction.

Outside the mill area rows of former company houses stand along the highway that runs south to Standish, where a monument memorializes the site of the former blast furnace. Today all of these homes are privately owned. A short distance away, where the highway curves toward the center of town, sits the former Chateaugay Railroad depot, now occupied by the Friends of Lyon Moun-

tain Mining and Railroad Museum. Its interior walls are covered with old photographs, and the museum contains memorabilia and another excellent mining model built by the same modeler whose replica of Mineville is displayed at the Iron Center Museum in Port Henry.

Benson Mines

Only one more mining area remained to fly over: Benson Mines, located about sixty air miles to the southwest. As we traveled toward our destination, it was obvious that Benson Mines was too far from Lake Placid to make this a viable field trip. I also learned later that the mine and mill sites would be difficult to access due to the area's ongoing contamination problems from an oil spill at the former mill site and because planning for public use of this property is incomplete.¹⁸ How-



Mining operations at Benson Mines during World War I. (Courtesy of miningartifacts.org.)

ever, the three previous mining areas we had flown over were all field trip possibilities.

Once on our way to Benson Mines, it meant that we had almost made a full circle around the northern half of Adirondack Park and its impressive geography. The High Peaks loomed in the near distance like the hub of a wheel, and we had flown around its rim. In between, the terrain was configured by a series of northeast-trending graben valleys, where numerous streams meandered from their beginnings at a gleaming lake. Although signs of civilization were present, much of the setting looked as impenetrable today as it must have appeared to those early pioneers who found the iron deposits.

As our seaplane approached Benson Mines, we saw that the former open pit was completely flooded, looking more like a lake due to its considerable size. Any tailings piles had either been

removed or re-contoured to blend into the landscape. However, it was easy to see that the ruins of the abandoned mill—a mill that played a key role in northern Adirondack Park iron mining during World War II—mimicked those we had seen near Moriah and at Lyon Mountain.

In this case, the year was 1941, when the U.S. Department of War, via the Defense Plant Corporation, bought fifty-four acres from Benson Mines Company and built an iron-ore processing mill that it leased to Jones and Laughlin Ore Company, a subsidiary of J and L Steel Corporation of Pittsburgh, Pennsylvania. This arrangement allowed J and L Ore to ship sinter via railroad to J and L's steel mills in Pittsburgh to manufacture war materials.¹⁹

In 1953 J and L Ore Company was merged into J and L Steel Corporation as its New York Division. During the 1950s the company greatly



A seaplane view of the now-flooded Benson Mines pit. It measures two-and-a-half miles long and one-half mile wide and was the largest open-pit iron mine in the world during the 1950s. (Author's photo.)

expanded its mine at Benson, creating the largest open pit iron mine in the world. From 1953 through 1965, the company shipped 25.5 million tons of sinter to J and L's steel mills in Pittsburgh, as well as to plants in Aliquippa, Pennsylvania, and Cleveland, Ohio. Much of this J and L steel went into Chrysler automobiles. After 1965, a decline in steel manufacturing in the United States led to the Benson Mines' closure in 1978. This was the last iron mine to operate in Adirondack Park.²⁰

This property's earlier history dovetailed with the discovery made during the 1810 survey by Silas D. Kellogg of the Iron Ore Tract, the area eventually mined so extensively by Witherbee, Sherman and Company and the Port Henry Iron Ore Company. During the same year as the Kellogg Survey, another New York State survey party, plotting a military road to connect Albany with Ogdensburg, encountered the same compass reaction that suggested a presence of iron. This fact was duly noted, but as with the Iron Ore Tract,

it would take decades before iron mining began. During the interim, New York State Geologist Ebenezer Emmons pronounced that the iron was composed of grains of black magnetite embedded in quartz.

This product was viable but isolation stalled any mining until 1850, when crude mines appeared at a remote camp called Jayville. However, meaningful progress did not occur until 1889, when two events finally made iron mining sustainable. First, an extension of the Carthage and Adirondack Railway reached Jayville. Second, Magnetic Iron Ore Company was founded after a large surface deposit of high-grade iron ore was discovered a few miles east of Jayville.

Unfortunately, the Depression of 1893 ended iron mining at Jayville and forced the Magnetic Iron Ore Company to shut down until 1900, when improved economic conditions allowed the mine to reopen. Even so, keeping the mine open was a fitful endeavor until 1910, when a success-



A seaplane view of Lyon Mountain today. The rows of former company houses are now privately owned. (Author's photo.)

ful oil entrepreneur named Byron Benson from Titusville, Pennsylvania, decided to branch into iron mining.

Benson purchased the Magnetic Iron Ore Company and reorganized it as Benson Mines. This name would thereafter be used to identify the property even though mining was spotty until 1918, when Benson threw in the towel and shut down all operations.²¹ By that date, however, Benson Mines had become the rather impressive open pit that the Defense Plant Corporation would revive at the start of World War II.

An Adirondack Adventure

If you want to see what is left of iron-ore mining in the northern half of Adirondack Park, you should definitely spend a couple of hours with a seaplane pilot to get a bird's eye view of the mines and of the region's exceptional geography. Follow that up by taking a two- or three-day driving tour

to the iron mining locales.

Doing so will reveal that the most interesting historical site is at Tahawus, where the blast furnace and abandoned housing from Adirondack village speak to both past iron mining and the community's subsequent renaissance as a wealthy sportsman's paradise. Newly erected interpretive signs bring the area's interesting history to life.²² They might even inspire you to follow in Theodore Roosevelt's footsteps and make the long hike up adjacent Mt. Marcy. A visit to Port Henry on the west shore of Lake Champlain will reward you with a town filled with an architectural treasure trove of Victorian buildings and fine homes that are complimented by a stop at the Iron Center Museum, where the area's iron-ore past is presented in film, mine and mill models, and an assortment of historic relics. Although it is not possible to see much of the mill ruins near Moriah, you will be able to explore a good number of abandoned mill buildings at Lyon Mountain.

But before doing this, be sure to visit the Friends of Lyon Mountain Mining and Railroad Museum located in the old Chateaugay Railroad depot. I would not recommend making a long driving trip to Benson Mines because the property is still off limits due to contamination. It is best seen from the air. Instead, be sure to spend at least one night at Lake Placid, the setting and ambience of which are world class. There are no mines or mills to explore, but poking around the Olympic venues or visiting the bobsled run and ski jump are excellent side trips. When all is said and done, there is

plenty to see and do to make your own field trip a worthwhile adventure.

Rudy Davison has been a Mining History Association member and frequent presenter since 2005. He serves on the board of directors for the Telluride Historical Museum, produced "Uranium Mania" and the upcoming "Colorado Labor Wars" for Rocky Mountain PBS's Colorado Experience series, and narrated the Colorado Experience programs "Hydro Power" and "Ladies of the Mines." He and his wife Andie live in both Durango and Telluride, Colorado, with their two cats.

Notes:

1. Lee Manchester, "Adirondack Ghost Town Awaits its Future," *Lake Placid [NY] News*, 29 Aug. 2003.
2. Don Seauvageau, "Tahawus History: An Early Adirondack Railroad," *Adirondack Almanack*, 29 May 2017, 1.
3. Harold K. Hochschild, *The Macintyre Mine: From Failure to Fortune* (Blue Mountain Lake, NY: Adirondack Museum, 1962), 9.
4. Hochschild, *Macintyre Mine*, 16-19.
5. "Town of Newcomb, Essex County, Historic Tahawus Tract," *New York State Adirondack Park Agency*, 2003 (www.apa.ny.gov/Press/OSI_Tahawus.htm).
6. Patrick F. Farrell, *Through the Light Hole: A Saga of Adirondack Mines and Men* (Utica, NY: North Country Books, 1996), 18-24.
7. U.S. Department of the Interior, National Park Service, "The Historic and Architectural Resources of the Town of Moriah, Essex County, New York," National Register of Historic Places Multiple Property Documentation Form OMB No. 1024-0018, 17 Apr. 1995, "Section E: Statement of Historic Contexts," E-4.
8. "The Cedar Point Iron Company," *Lakes to Locks PassagePort: A Guide for Exploring Lakes to Locks Passage*, No. 27 (<http://passageport.org/iron-story/27-the-cedar-point-iron-company/>).
9. Farrell, *Through the Light Hole*, 60, 229.
10. "Historic and Architectural Resources of the Town of Moriah," E-16, E-17. My research discovered no litigation between the two companies after the underground breakthroughs occurred. Apparently both companies knew where each boundary was located and respected that fact.
11. Farrell, *Through the Light Hole*, 66-8.
12. "Sintering," *Encyclopaedia Britannica*, 1998 (www.britannica.com/technology/sintering).
13. James C. Dawson, et al. (State University of New York, Plattsburgh), "Iron Industry of the Eastern Adirondack Region" (unpublished, 1988, 160 (<https://www.nysga-online.net/wp-content/uploads/2019/06/NYSGA-1988-A7-Iron-Industry-Of-The-Eastern-Adirondack-Region.pdf>)).
14. J. R. Linney, *History of the Chateaugay Ore and Iron Company* (Brushton, NY: TEACH Services, Inc., 2008), 23-7.
15. Linney, *Chateaugay Ore and Iron Company*, 17, 31.
16. State Assembly of New York, "Steam Railroad Corporations: The Delaware and Hudson Company," Documents of the Assembly of the State of New York, One Hundred Thirty-Seventh Session v. V, no. 11, pt. 2 (Albany: J. B. Lyon Company, 1914), 6.
17. Dawson, "Iron Industry of the Eastern Adirondack Region," 160.
18. U.S. Environmental Protection Agency, "Reuse Framework: Jones & Laughlin Steel Site, Clifton, New York," Final Report, Dec. 2017, 1-3 (<https://sems-pub.epa.gov/work/HQ/100000969.pdf>).
19. Marian V. Lupulescu, et al., "The Benson Mines, St. Lawrence County, New York: History of the Discovery, Mining, and Minerology of the Deposit," *Rocks and Minerals*, 89, no. 2 (2014): 120-1.
20. Jerry Jenkins and Andy Keal, *The Adirondack Atlas: A Geographic Portrait of the Adirondack Park* (Syracuse, NY: Syracuse University Press, 2004), 220.
21. Lupulescu, "Benson Mines," 120.
22. Philip Terrie, "The Tahawus Blast Furnace," in *Adirondack Almanack*, 15 June 2011 (www.adirondackalmanack.com/2011/06/philip-terrie-the-tahawus-blast-furnace-ruins.html).

...