



December 2011



***The Iron Mine, Port Henry,
New York***

about 1862

Homer Dodge Martin

Born: Albany, New York 1836

Died: St. Paul, Minnesota 1897

oil on canvas mounted on fiberboard
30 1/8 x 50 in. (76.5 x 127.0 cm.)

Smithsonian American Art Museum

Gift of William T. Evans

1910.9.11

[Collections Webpage and High Resolution Image](#)

In investigating Martin's painting, researcher Liz learned about iron mining in Essex County, N.Y. She discovered that one scholar connected the iron mine depicted in this painting with the Bay State Iron Company. She thought there might be a reference to the painting in the company's records, so she decided to investigate.

What do we know about the history of the Craig Harbor mine?

Homer Dodge Martin painted this scene of an iron mine near Port Henry, N.Y. In her dissertation on Martin, Patricia Mandel identified the mine as Cragg or Craig Harbor located on the west shore of Lake Champlain slightly north of the center of the modern village of Port Henry. Mandel suggested that the painting may have been commissioned by Benjamin T. Reed of the Bay State Iron Company which owned the mine at the time.

I started my research by looking in the painting's curatorial file, which led me to Mandel's dissertation and a paper by Mark Zupatka, who cited Ebenezer Emmons' [Geology of New York](#). Emmons described the Craig Harbor iron ore as containing 65.23 percent metallic iron and as "extremely tough, and difficult to reduce to a state of sufficient fineness for the forge." Emmons noted the prime location of the Craig Harbor vein near the furnaces of Port Henry but conceded that "it has not proved so profitable as those more distant" (p. 236).

The Cheever Ore Bed in Port Henry (owned by Bay State Iron Company) and the Sanford and Old Bed mines located further inland at Mineville (owned by the Witherbee Sherman Company) were profitable mines (both Port Henry and Mineville are communities in the town of Moriah, N.Y.) An *American Railroad Journal* article of September 15, 1849 (p. 575) praised the magnetic ores “in the vicinity of Port Henry and near the Lake” The Craig Harbor bed on the lake shore and the Dalliba ore bed, one-and-a-half miles from Port Henry, belonged to the Port Henry Iron Company at that time. Since Benjamin Reed of the purchased the company’s property in 1852, it is assumed that the Craig Harbor bed was part of the transaction.

Searching online, I contacted the Essex County Historical Society in Elizabethtown, N.Y. The historical society has [selected images of mining artifacts online](#). The director of the historical society referred me to a colleague of the Moriah Historical Society, who provided me with some facts about the Craig Harbor mine: its ore vein, about 800 feet long, yielded 4000 tons annually and the mine employed 100 men. It was abandoned in 1869.

WorldCat searches yielded “pure gold” (or “pure iron” for that matter!). I found a report that the New York State Geological Association published in 2008 after a field trip for geologists to abandoned mining sites in Essex County, N.Y. I contacted the report’s co-author, a geologist with the New York State Museum. He noted that red streaks on the cliff face in Martin’s painting represent rust caused by the oxidization of the magnetite in the ore.

The geologist sent me a microphotograph of an ore sample from the Craig Harbor bed. The ore contained not only magnetite (iron ore; **shown as the black area in the photograph**), but also ilmenite (titanium ore). The historian from Moriah explained that the titanium and other impurities in the ore made it difficult to smelt.

What was the significance of iron mining to Essex County, New York in the nineteenth century? Why was iron so important?

The Port Henry iron ores were especially prized since their high percentage of magnetite facilitated the smelting process, and mining played a major role in the region for nearly two centuries. Essex County ore was utilized in forging iron hardware for American ships that participated in the Revolutionary War Battle of Lake Champlain in October, 1776. The construction of the Champlain Canal in 1823 greatly increased the ability of Essex County to exploit its mineral resources, since the canal linked the lake with the Hudson River, permitting the shipment by water of ore and pig iron to urban and industrial centers in the Northeast and in the Midwest (via the Erie Canal).

According to William T. Hogan in the *Economic History of the Iron and Steel Industry in the United States, Vol. 1*, between 1860 and 1880 there were seven principal industries that consumed iron and steel—railroads, machinery, construction, shipbuilding, agriculture, containers, and the oil and gas industry. In 1860, the railroad industry consumed 235,107 tons of iron, mostly in rails, but also for locomotives, axles, freight cars, and cast iron wheels. A postwar construction boom increased the total mileage of the nation’s railroads to 93,267 miles by 1880. The Port Henry and Moriah mines supplied the iron ore that was used in manufacturing thousands of miles of iron and later steel rail for the railroads. I found a lithograph in the Boston

Public Library that shows the [Bay State Iron Company's mill](#) in South Boston, Massachusetts, that made rolled and plate iron.

Other industries besides railroads consumed iron and steel products. The shipbuilding industry in Boston, New York, Camden, N.J.; Philadelphia, Wilmington, and Great Lakes region provided steady market for iron- and steel-hulled ships between 1872 and 1880. Agriculture became increasingly mechanized throughout the nineteenth century, and metals were needed for making cotton gins, plows, reaping and threshing machines, and combines.

In the latter half of the nineteenth century, iron mining in New York State was eclipsed by the expansion of iron mining in the Midwest around Lake Superior. Construction of the Sault Saint Marie Canal in 1855 allowed ships to easily travel between Lakes Superior and Huron, making it easier to transport ore to eastern markets. By 1880, one-third of all pig iron came from Lake Superior mines. The Port Henry mines continued to be worked, but by 1905, of the 7.5 million tons of ore produced in the U.S., the Mineville operation accounted for only 1.3% of national production. The Mineville mines stayed open until 1971, but never regained the prominence they had once held.

Did Benjamin Reed of the Bay State Iron Company commission our painting from Homer Dodge Martin?

In September, I went to the [Massachusetts Historical Society](#) in Boston to look at the archives of the Bay State Iron Company. I hoped to find payment documents relating to the painting. Unfortunately, most of the documents in the archive were from the 1880s and 1890s, not from the 1860s, when the painting was made. I did not find anything mentioning the painting or Martin. A few things were of interest, including:

- A check with a wood engraving on it showing the Company's iron furnaces in Port Henry.
- Lists of stockholders in the company.
- Tax valuations from the 1880s of Bay State's properties in Boston and at Port Henry, including estimated values of the ore from Port Henry mines, including the Cheever Ore Bed. The Craig Harbor mine was no longer worked at this date and was therefore not listed.

Since I need to move onto other works of art, I will not be pursuing *Iron Mine, Port Henry* any further.

If given more time, perhaps I would travel to upstate New York to search in local historical societies (Essex County and Moriah) for archival material and articles on the Craig Harbor Mine in local and regional historical newspapers.



Ore sample from the Craig Harbor mine, courtesy Moriah Historical Society

Bibliography: *Iron Mine, Port Henry, Homer Dodge Martin*

Carroll, Dana H. *Fifty-Eight Paintings by Homer D. Martin*. New York: privately printed, 1913.

Emmons, Ebenezer. [*Geology of New York, Comprising the Survey of the Second Geological District. Vol. 2.*](#) William Williams Mather, ed. *Natural History of New York*. Albany, NY: Carroll and Cook, 1842: 236.

Farrell, Patrick. *Through the Light Hole: A Saga of Adirondack Mines and Men*. Utica, NY: North Country Books, 1996.

Hogan, William T. *Economic History of the Iron and Steel Industry in the United States*. Vol 1: Parts I and II. 4 vols. Lexington, Mass.: Lexington Books, 1971.

Kemp, James F. *Report on the Mineville, Port Henry Mine Group*. David H. Newland, ed. *Geology of the Adirondack Magnetic Iron Ores. New York State Museum Bulletin 119*: 432 (April 1908): 5-8, 25, 33-36, 57-76.

Kudish, Michael. *Railroads of the Adirondacks: A History*. Fleischmanns, NY: Purple Mountain Press, 1996.

Lupulescu, Marian and Joseph Pyle. Mining History, Mineralogy and Origin of the Gneiss (Granite)-Hosted Fe-P-REE and Fe Oxide and Gabbro-hosted Ti-Fe Oxide Deposits from the Mineville-Port Henry Region, Essex County, N.Y. New York State Geological Association. *NY State Geological Association Fieldtrip Guidebook*. 80th Annual Meeting, Lake George, N.Y., September 26-28, 2008. 117-129.

Mandel, Patricia C. F. *Homer Dodge Martin: American Landscape Painter*. Doctoral dissertation. New York University, 1973: 30-31.

Martin, Elizabeth Gilbert. [*Homer Martin, a Reminiscence, October 28, 1836-February 12, 1897.*](#) New York: MacBeth Galleries, 1904.

Mather, Frank Jewett, Jr. [*Homer D. Martin: Poet in Landscape*](#). New York: privately printed, 1912.

Mining and Metallurgy: Special issue on Mining Iron Ore in the Adirondacks (November, 1943): 475-502.

Smith, Henry Perry. *History of Essex County, with illustrations and biographical sketches of some of its prominent men and pioneers.* Syracuse, N.Y.: D. Masson, 1885.

Warner, Charles B. and C. Eleanor Hall. *History of Port Henry, N.Y.* Rutland, Vermont: the Tuttle Company, 1931.

Witherbee, Frank S. *History of the Iron Industry of Essex County, New York.* 1906.

Rosenquist, Valerie. *The Iron Ore Eaters: A Portrait of the Mining Community of Moriah, New York.* New York: Garland Publishing, 1990. Introduction and Ch. 1 on "The Origins of a Concrete Industrial Village: Moriah, New York," 1-44.

Schneider, Paul. *The Mother Lode. The Adirondacks: A History of America's First Wilderness.* New York: Henry Holt & Company, 1997: 137-147.

"Iron Ores and the Iron Manufacturer of the United States." *American Railroad Journal* 22:699 (September 15, 1849): 575.

Untitled Article. *American Railroad Journal* 22:699 (September 15, 1849) 576.