Chapter II: Landscape History

2 Introduction

- The oldest verifiable evidence of metal working in North America is a nearly 7,000 year
- 4 old spear point found in Minnesota.¹ It was made of copper from the Lake Superior region, as
- 5 were many beads, awls, bracelets, fishhooks, and other items that have been found in Native
- 6 American archeological sites throughout North America. Based on the number of prehistoric
- 7 mining pits on Isle Royale National Park, it has been suggested that there were as many as 3,000
- 8 on the Keweenaw Peninsula itself.² Several of those pits were located in what is now the
- 9 Quincy Unit of Keweenaw National Historical Park.

¹ Susan Martin, Wonderful Power: The Story of Ancient Copper Working in the Lake Superior Basin (Detroit: Wayne State University Press, 1999), 143.

² See page 92 of Ron Morton and Carl Gawboy's Talking Rocks: Geology and 10,000 Years of Native American Tradition in the Lake Superior Region (Minneapolis: University of Minnesota Press, 2000) for information about the number of prehistoric mining pits in the Keweenaw, and Charles Whittlesey, "Ancient Mining on the Shores of Lake Superior," (Washington City: Smithsonian Institution, 1863), for a description of same in the Quincy area.

Figure 2-1: Locations of prehistoric mines, as mapped by Charles Whittlesey (source: Whittlesey, 1863)

Descriptions of the copper-rich peninsula led 17th and 18th century Europeans to the area. Among them was British explorer Alexander Henry, who attempted to start a mine near Ontonagon in the 1770s. Although early efforts such as his were "doomed to failure," they drew attention to the Keweenaw's native copper resources.³ The Ontonagon Boulder, a 3,700 pound mass of pure copper found near the banks of the Ontonagon River, further intensified interest in the Keweenaw, particularly after it was taken east in 1843. In addition to mining and trading copper, the Peninsula's early residents played a role in the fur trade. Priests and preachers came to minister to the Ojibway and early European-American settlers. As the fur

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³ Larry Lankton, Cradle to Grave: Life, Work, and Death and the Lake Superior Copper Mines (New York: Oxford University Press, 1992), 7.

trade waned, the federal government secured title to the land, American mining efforts

2 intensified and settlements became permanent.

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following year the Treaty of LaPointe ceded Ojibway title to the Upper Peninsula (U.P.) and the

Douglass Houghton, Michigan's state geologist, wrote about the area in 1841; the

copper rush began.⁴ Despite Houghton's recommendation that people exercise caution with

regard to the extent and accessibility of the metal, "explorers and speculators flocked to [the

7 Keweenaw] from all quarters, and in 1845 the shores of Keweenaw Point were whitened with

their tents."⁵ At least 300 mining operations were launched between the 1840s and the 1860s.⁶

9 Individual miners and mining companies staked claims and broke ground, frequently right

over prehistoric workings, obliterating them in the process. The Quincy Mining Company

11 (Q.M.C.) was one such business.

Nearly 160 years of intense activity has predictably created some roadblocks in efforts to understand the Quincy Unit's prehistory and archeological record. The heavy undergrowth and maturing trees that obscure parts of the present landscape may give the impression of an undeveloped area, but in fact the opposite is true: crisscrossed by abandoned rail lines and roadways, the site is full of crumbling foundations, broken bottles and crockery, and remnants of gardens. Indeed, while they may hide the ground, rhubarb, lilacs, lilies, and other domestic plants point to the location and suggest the layout of abandoned neighborhoods. This is a rich

⁴ Some claim that the Keweenaw was in fact the site of the nation's first mining rush. See David J. Krause, The Making of a Mining District: Keweenaw Native Copper 1500-1870 (Detroit: Wayne State University Press, 1992), 135, and Lankton, Cradle to Grave, 8.

⁵ Whittelsey, 4.

⁶ Lankton, Cradle to Grave, 9.

landscape, but a difficult one for those wanting to understand the landscape's cultural
 significance in prehistory.

Though difficult, and challenging to piece together, the Quincy Unit's pre- and early history demonstrates that it was a cultural landscape long before 1846. The 19th century records that document ancient mine sites indicate that prehistoric inhabitants knew the area well. The Portage Lake waterway that provides today's travelers with a shortcut across Lake Superior provided the same benefit thousands of years ago, albeit with a portage; it follows that people got to know the area they traveled through. As the Ojibway settled in the area in the 16th century, they too traversed and explored the area, becoming familiar with its resources.⁷ The Quincy Mining Company may have been one of the earliest mining companies to set up shop in the Keweenaw, but its paths, mining pits, and processing plants modified ones that were there before.

Prehistory

Few archeologists have examined the Keweenaw Peninsula, and when it is mentioned in literature, descriptions are usually relegated to "peripheral commentary in general accounts of eastern North American archaeology." That being said, Great Lakes archeologists themselves have been accused of dismissing other sources of native copper in the United States. Academic wrangling aside, that 7,000 year old copper spear point found in Minnesota is significant for the

⁷ While ethnographic research has been conducted with Great Lakes Ojibway, work with the Keweenaw Bay Indian Community needs to be completed to understand its history more fully. 8 Martin, 16.

⁹ John R. Halsey, ed., Retrieving Michigan's Buried Past: Archaeology of the Great Lakes State (Cranbrook Institute of Science: Bloomfield Hills, Michigan, 1999), 115.

1 mining industry it represents. An archeological site in northern Keweenaw County containing

2 copper beads, a crescent-shaped knife, awls, and a point has been dated to roughly 7,800 years

before present, and demonstrates that people were here relatively soon after the last glacier

retreated from the region.¹⁰ Archeologists believe that the people occupying the Keweenaw

during this time lived in small, mobile groups. 12

6 A major pre-contact trade center existed at present-day Sault Ste. Marie; it peaked

7 between 1000 and 1450 AD.¹³ Given its location at a crossroads where three Great Lakes come

together, researchers have suggested that thousands of people congregated there several times a

year. Copper was likely one of the many items being traded and we can assume that the

Keweenaw's residents participated in these gatherings. Raw copper changed hands, as did

bracelets, beads, knives, and other finished items. Extensive trade networks facilitated the

dispersal of Keweenaw copper: it has been argued that "[n]early all of the copper used by

13 prehistoric Indians in eastern North America probably originated in the Lake Superior basin."¹⁴

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(Eagle Harbor, MI: Keweenaw County Historical Society, 1992), 2.

¹⁰ Martin, 142. See also Halsey, 183-184.

¹² Martin, 153.

¹³Helen Hornbeck Tanner, Ed. The Settling of North America: the Atlas of the Great Migrations into North America from the Ice Age to the Present (New York: Macmillan, 1995), 28.

¹⁴ John R. Halsey, Miskwabik - Red Metal: the Roles Played by Michigan's Copper in Prehistoric North America



Figure 2- 2: Copper spear point (source: Courtesy National Park Service, Midwest Archeological Center, EFMO 6255). Although the source of the copper is unknown, it is likely that it is from the Keweenaw area.

In the course of prospecting in 1847, the Minesota [sic] Mining Company found a six-ton mass of copper at the bottom of a twenty-six foot deep ancient shaft.¹⁵ The mass was supported by timber bracing, and had been worked extensively. The labor, tools, and technology required to extract copper from such a depth is indicative of a specialized mining system. Extraction was straightforward. Fire was used to heat copper-rich rock, and when it got hot enough, water was poured over it. This cracked the encasing rock to the point where stone tools could be used to break it away and remove the copper.¹⁶ The hammers used by prehistoric miners ranged in size from small hand-held tools to others weighing forty pounds.¹⁷ People cleared debris from work sites using wooden shovels, baskets, and leather bags. Some pits were modest in size, reaching only a few feet deep, but others were much larger, including one fifteen feet deep with a

¹⁵ Naturally, Minesota [sic] personnel removed the boulder. See Lankton, Cradle to Grave, 10. 16 Many sources describe these techniques. See Halsey, Martin, and Arthur Thurner's Strangers and Sojourners: A History of Michigan's Keweenaw Peninsula (Detroit: Wayne State Press, 1994) for a broader discussion. Whittlesey also provides location-specific details. 17 Halsey, 115.

- diameter of 120 feet. 18 Stores of raw copper were kept in caches; one such cache was said to
- 2 have led to the discovery of the Calumet conglomerate lode.¹⁹ There is evidence to suggest that
- 3 caches were also located on top of Quincy Hill.²⁰
- 4 Given the purity of native copper, it was not necessary to smelt it. Rather, it was
- 5 worked by one of two processes: cold hammering or annealing. Hammering made copper
- 6 brittle, but annealing, a process in which metal is heated and slowly cooled, made copper
- 7 stronger and much more malleable. This allowed metalworkers to fabricate a wider variety of
- 8 tools and decorative items.²¹ Yet the industry began to decline. One historian suggests that
- 9 copper's malleability was also its downfall, "for a copper knife would not last long."22
- Regardless, by the time the Ojibway arrived in the Keweenaw, North America's first metal
- 11 mining industry had ended.

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¹⁸ Whittlesey, 6. Unfortunately, he did not provide its location.

¹⁹ Thurner, 90. Edwin Hulbert, who staked claim to the Calumet conglomerate in 1864, denied later reports that it was in fact an ancient mine, not a cache.

²⁰ An undated map in the Quincy Mining Company Collection at Michigan Technological University Archives and Copper Country Historical Collections seems to indicate a line of three caches roughly paralleling US-41. See "Map of Mesnard and Pontiac," in the folder labeled "Surface Maps – Site Layout." 21 Halsey, 115.

²² Thurner, 20.

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Figure 2- 3: Copper serpent (source: Courtesy National Park Service, Effigy Mounds National Monument, EFMO 7027) Again, the exact source of the copper used to make this piece is unknown, but it is most likely from the Keweenaw.

Between 1848 and 1850, descriptions of the Keweenaw's prehistoric copper workings were widely publicized and as Charles Whittlesey later observed, "[s]ince then our knowledge of the subject has been much enlarged by the prosecution of mining operations on the very sites of the ancient works." His report – "Ancient Mining on the Shores of Lake Superior" – was published by the Smithsonian Institution in 1863. In it, he stated that one found evidence of prehistoric mining right by Quincy Landing on the north shore of Portage Lake. Whittlesey mapped ancient pits in the Quincy and Pewabic properties, and while stockholders profited from their discovery, today's scholars never will: as he admitted, 19th century investigations of the pits ultimately destroyed them.²⁴

23 Ibid.

24 It is unknown at this point if any evidence of these ancient pits actually remains, but it is doubtful. Obviously, 19th and 20th century developments have reshaped the waterfront and hillside. Determining their location by comparing Whittlesey's map with a modern one would likely yield more information.



Figure 2- 4: Prehistoric mines in the Quincy Unit (source: Whittlesey, 1863)

4 Early History: the Arrival of the Ojibway

- 5 The Ojibway have been identified with the Keweenaw and the Great Lakes for centuries.
- 6 Before the Ojibway arrived, the Menomini controlled the Upper Peninsula of Michigan.²⁵ The
- 7 Menomini's neighbors were the Ojibway to the east, Winnebago to the south, and Dakota, Fox,
- 8 Kickapoo, and Mascouter to the west. The Cree dominated lands north of Lake Superior.

25 Tanner, 31.

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- 1 Although each was a distinct cultural group, they had in common a semi-nomadic way of life,
- 2 occupying seasonal villages as hunters, fishers, and harvesters of wild rice. By 1608, maps
- 3 indicate that territories had shifted, largely in response to displacement caused by Europeans
- 4 acquiring or appropriating land, and the impact of European diseases on Native
- 5 populations. That displacement saw the Ojibway move into the U.P. in the 16th century, forcing
- 6 the Menomini south.
- 7 The Ojibway are an Algonquian-speaking people who once occupied more territory
- 8 than any other Native group in North America. Also known as Chippewa, the Ojibway
- 9 emerged from an earlier, ancestral group called the Anishinabe ("original person"), whose
- 10 homeland was present-day New Brunswick, Canada. 26 Anishinabe and Ojibway are at times
- 11 used interchangeably, but Anishinabe may also be used to refer specifically to the ancient
- 12 ancestral Ojibway.²⁷ Individual bands were identified by distinct names, such as the Amikwa,
- 13 Saulteur, Marameg, and others; then and now, they were united through networks of clans.
- 14 The Ojibway likely arrived at the eastern end of Lake Superior some time during the late 1400s,
- and settled Spirit Island, Wisconsin during the 1500s. Conservative estimates date permanent
- 16 Ojibway occupation of the western Great Lakes by the mid-to-late 1500s.²⁸

²⁶ M. Nieves Zedeño et al., "Final Report: Traditional Ojibway Resources in the Western Great Lakes: An Ethnographic Inventory in the States of Michigan, Minnesota, and Wisconsin," (University of Arizona in Tucson, Bureau of Applied Research in Anthropology, 2001), 27.

²⁷ Ibid., 26-27. According to Morton and Gawboy, the form one uses depends on the subject: 'Ojibwe' when discussing cultural things, 'Chippewa' in political and formal contexts, and Anishinabe 'is what the Ojibwe call themselves, one Ojibwe to another.' See Morton and Gawboy, 67. 28 Zedeño et al., 28-29.

1 Historic Ojibway culture revolved around acquiring and preserving enough food during 2 the summer to support themselves through harsh winters.²⁹ In late fall, they built up stores of 3 wild rice, maple sugar, and dried fish and game. Bands split into family units and traveled to winter hunting camps, which passed down from father to son.³⁰ After setting up camps, men 4 5 trapped and hunted large game. Women sewed, repaired fishing nets, and worked on other 6 indoor tasks. In spring, the bands moved to maple sugar camps and made birch bark canoes 7 before reuniting for the summer. in large villages close to lakeshores and rivers. There, they 8 fished, gathered plants, and gardened; potatoes and pumpkins were popular vegetables.³¹ 9 Medicinal plants and berries were harvested in August, as was wild rice. In early fall, men 10 would go duck hunting and trapping, make preparations to winter camps, and the cycle would 11 repeat. 12 In the 1650s, Ojibway informants told French explorers, priests, and traders that their 13 ancestors were not the Keweenaw's ancient copper miners.³² This is to be expected, as their arrival in the U.P. has been dated to the 16th century and mining had been occurring for 14 15 thousands of years before. Yet copper had undeniable significance in Ojibway culture: 17th 16 century Jesuit missionaries documented the Ojibway's spiritual beliefs about the metal as well

as the places it was found.³³ Records also confirm the spiritual importance of copper in the 19th

²⁹ Ibid., 42-43. Unless otherwise indicated, all ethnographic information comes from the Ojibway ethnography prepared by Zedeño et al.

³⁰ Morton and Gawboy, 73. That winter territory was inherited indicates that while land was occupied seasonally, its ownership and use was determined through longstanding sociopolitical frameworks. Therefore, it is logical to assume that the Keweenaw, as with other Ojibway-controlled territories, was associated with certain families and bands during the winter.

³¹ Ibid., 71.

³² Thurner, 20.

³³ Zedeño et al., 66.

- 1 century. It was carried in medicine bundles, and was particularly valued and revered.
- 2 Considered a sacred gift, offerings would be left when copper was removed from the ground.³⁴
- 3 Johann G. Kohl, a German traveler who lived with the Ojibway during the mid-1800s, noted
- 4 that explorers and traders would ask the Ojibway for the locations of metal deposits.³⁵ Given
- 5 the number of artifacts that have been found in Historic Period archeological sites, other Native
- 6 groups continued to value copper for its practical and ornamental applications.³⁶ Regardless,
- 7 new enterprises in the 17th century drew attention to a much different resource.

The Fur Trade

- 9 In 1621 the French explorer Samuel Champlain sent Etienne Brule on a mission to learn
- 10 the Ojibway language and build trading relationships with the many independent Ojibway
- bands.³⁷ By the mid 1600s the Ojibway had allied themselves with the French and were well-
- 12 engaged in the fur trade. The Keweenaw was certainly rich territory: in 1659, the explorers and
- 13 traders Radisson and Groseilliers paddled along the south shore of Lake Superior to Keweenaw

³⁴ Ibid., 67.

³⁵ Ibid. Given the spiritual importance copper had in Ojibway culture, it is not surprising that they did not always reveal locations to Europeans and Americans. In fact, the Jesuits admit to having used "artifice" in order to learn from the Ojibway "secret[s] which they did not wish to reveal." See Volume LIV, Chapter XI, "Of the Copper Mines Which are Found in Lake Superior," accessed online at http://puffin.creighton.edu/jesuit/relations/.

³⁶ Much like historians, who organize the past into time periods of similar cultures and events in order to aid our understanding of the past (for example, the Middle Ages, the Renaissance, and the Gilded Age), archeologists divide prehistory into a chronology of traditions based on similarities and differences in materials found at archeological sites. Traditions are further divided into phases. Broadly speaking, the Paleo-Indian tradition begins approximately 9500 years before present (BP), and leads into various stages of the Archaic tradition (roughly 8000 BP) and the Woodland tradition (some 2000 BP). During the Historic tradition (500-1000 BP), many of the First Nations we know today were established. See Martin, 142.

³⁷ Carl O. Sauer, Seventeenth Century North America (Turtle Island: Berkeley, 1980), 121. See also Russell M. Magnaghi, A Guide to the Indians of Michigan's Upper Peninsula (Marquette, MI: Belle Fontaine Press, 1984), 1.

- Bay, where they encountered an industrious population of beavers, pieces of native copper, and
- 2 a convenient, well-established portage route that made traveling across the lake much easier.³⁸
- 3 Ten years later, Jean Talon, the man in charge of the colony of New France (French Canada,
- 4 founded by Champlain), sent Louis Joliet to "find the copper mine from which pieces of pure
- 5 copper had been brought." Although he failed to locate it, his journey was one among many
- 6 which opened the door for French priests to establish thriving missions around Lake Superior.³⁹
- 7 The resources of the Superior basin factored greatly in the Ojibway's success in the fur
- 8 trade. They established permanent communities, with key locations at La Pointe and
- 9 Keweenaw Bay;⁴⁰ another settlement is believed to have existed on the shores of Portage Lake
- although its location remains unclear.⁴¹ The creation of these settlements transformed Ojibway
- society from "mobile bands into village-centered sociopolitical entities." 42 Their success
- 12 initiated other changes, including challenges: the Iroquois, allies of the British, began
- 13 encroaching on Ojibway territory in the mid 1600s, sparking a war which the Ojibway
- eventually won in 1662.⁴³ Events of the 17th and 18th century are characterized by war, threats of
- war, and the growing complexities of expanding trade networks.⁴⁴

³⁸ Sauer, 123. According to Radisson, the beavers had felled so many trees that there was not enough fuel to build a fire. The portage route is followed to this day, but by watercraft through the Portage Lake Shipping Canal instead of on foot via an overland trail.

³⁹ Ibid., 132-133. One of the early missions included Saint-Esprit, which was established by Father Claude Allouez in 1655 for the Ottawa and Huron living at Chequamegon Bay in 1665. Father Rene Menard, another Jesuit missionary, unsuccessfully tried to establish a mission at Keweenaw Bay in 1661. See Magnaghi, 2-3.

⁴⁰ Zedeño et al., 30.

⁴¹ Burt's survey drawing identifies "Indian clearings" on the north shore of Portage Lake, near the current day site of the Quincy Smelting Works.

⁴² Zedeño et al., 30.

⁴³ Ibid., 32.

⁴⁴ Magnaghi's work offers a comprehensive chronology that will not be duplicated here.

Along with accommodating a growing population and westward expansion, copper was

Treaties and American Mining

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one of the main reasons why the U.S. government wanted to acquire Ojibway land in the Upper Peninsula. In 1822, Schoolcraft wrote of the copper-rich territory that "[w]ith respect to the practicability of extinguishing the Indian title, no difficulty is to be apprehended."⁴⁵ The government tried to negotiate for subsurface mining rights on the Keweenaw in 1826, and ultimately succeeded in doing so with the Treaty of 1842. The Treaty of 1842 also permitted

- 8 individual miners to open mines.⁴⁶ In all, the Ojibway ceded much of their land in the Lake
- 9 Superior area to the U.S. government in a series of four treaties (1836, 1837, 1842, and 1854).⁴⁷
- 10 Land use in the Keweenaw changed dramatically in the 19^{th} century, as copper became the
- 11 target of prospectors, investors, and entrepreneurs.
- In May 1844, the US government established Fort Wilkins near Copper Harbor, where
- 13 companies A and B of the United States Fifth Infantry were posted in order to protect copper

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⁴⁵ Henry Schoolcraft, as cited in Magnaghi, 36.

⁴⁶ Krause, 135.

⁴⁷ It is important to recognize that treaties are legally binding agreements made between sovereign nations; understanding treaty history is complicated by their number, their purposes, and the territories to which they pertain. The Treaty of 1836 concerned land in the Upper and Lower peninsulas of Michigan; 1837's ceded territory in parts of Wisconsin and Minnesota; 1842's ceded land in northern Wisconsin and the western UP, including the Keweenaw Peninsula; and the Treaty of 1854 ceded land northeast Minnesota. Many reservations were also created by this treaty. Tribal rights to fish, hunt, and gather on ceded lands were important guarantees of many treaties, including the Treaty of 1842. See the Great Lakes Indian Fish & Wildlife Commission publication "Treaty Rights," 2004 edition. The Keweenaw Bay Indian Community (KBIC) was established in 1936; the Keweenaw Bay Reservation was developed in 1854 following the Treaty of 1854. See "Treaty Rights" and www.coppercountry.com/KBIC.php for information about the establishment of the community and reservation.

- 1 miners from "resentful natives." ⁴⁸ The Keweenaw was beginning to develop. As Whittlesey
- 2 described it some years later, Keweenaw Point was white with tents marked contrast to
- 3 Keweenaw Bay, where in 1826, "[n]othing [was] heard but the roar of the waves on the shore,
- 4 nor seen, but the forests that line it, the lake, and the sky."49 By 1845, the federal government
- 5 had received over 700 requests for permits to explore.⁵⁰ Due to the lack of an accurate land
- 6 survey and the absence of any kind of oversight in the lease-permitting system that had been
- 7 established, speculation, corruption, and pessimism grew.⁵¹
- 8 Bela Hubbard and William A. Burt assisted Michigan's state geologist, Douglass
- 9 Houghton when he began to survey the Keweenaw in 1837; their report was printed in 1846
- 10 following Houghton's untimely death in Lake Superior in 1845.⁵² They noted "scattering pines
- of an excellent quality" northeast of Portage Lake, and observed the occasional swamp and
- marsh.⁵³ Hubbard mentioned that "[t]he whole, is, in general...clothed with an abundant
- growth of sugar maple, birch, fir, oak, and white pine."54 However, the bulk of their text was
- devoted to describing the region's geological resources and identifying the mining operations
- already in progress. One could argue that, as mining in the Keweenaw was even then a

⁴⁸ Thurner, 42. The army was also ordered to remove any Ojibway who remained living in the area following the treaty.

⁴⁹ Ibid., 35.

⁵⁰ Krause, 138.

⁵¹ Ibid., 140.

⁵² Jacob Houghton, Jr., Reports of William A. Burt and Bela Hubbard, esqs., on the Geography, Topography, and Geology of the U.S. Surveys of the Mineral Region of the South Shore of Lake Superior, for 1845; accompanied by a List of Working and Organized Mining Companies; a List of Mineral Location; and a Correct Map of the Mineral Region, also a Chart of Lake Superior, reduced from the British Admiralty Survey. Detroit: C. Wilcox, 1846. Unfortunately, the maps have been removed from the copy held at Michigan Technological University; they may contain more detailed descriptions of vegetation.

⁵³ Ibid., 7.

⁵⁴ Ibid., 29.

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

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- 2 to assume that the top of Quincy Hill was covered with a forest that stretched all the way to
- 3 Copper Harbor.

Figure 2- 5: Excerpt from survey drawing by William A. Burt and Bela Hubbard, 1845 (source: Courtesy Archives of Michigan)

1 By 1847 the land had been surveyed, and the ownership issue was settled.⁵⁵ The Cliff 2 Mining Company's employees were extracting mass copper from the Cliff lode, and in 1849 3 became the first company on the Keweenaw to pay dividends to its stockholders. When two 4 other mass copper mines, the Minesota and the Central, began paying, the three "became the 5 talk of the mining world."56 These mass mines would soon be eclipsed by operations on the 6 vast conglomerate and amygdaloid lodes of the central Keweenaw Peninsula, including 7 Quincy's.57 8 For the most part, the prehistory of the Quincy Unit will remain unclear, as will its 9 history prior to 1846. There is no doubt that the area was worked by prehistoric miners over a 10 long period of time, and that copper was significant in Ojibway culture. Other questions - such 11 as whether the Quincy Hill area contained travel corridors and culturally significant sites - still 12 need to be answered. Despite these unknowns, it is important to recognize that the Quincy Unit 13 holds more stories than those suggested by what is visible on the landscape today.

Company Origins on the Quincy Lode: 1846-1855

Despite having a long history of human occupation, the Keweenaw Peninsula was viewed as a remote wilderness by most white settlers in 1846. As various explorers

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⁵⁵ Krause, 182.

⁵⁶ Ibid., 217.

⁵⁷ Conglomerate and amygdaloid refer to two different types of copper-containing rock found in the Keweenaw. Conglomerate rock is composed of fragments of varying sizes – like sand, pebbles, and boulders – that have been cemented together. Copper is found in the spaces between the fragments. Amygdaloid rock is igneous and contains cavities (amygdules) frequently filled with pure copper. 61 As cited in Lankton and Hyde, Old Reliable, 6.

- 1 encountered this land they marveled not only at its mineral wealth, but also at the beauty and
- 2 spirit of this landscape. Vast expanses of forest were interrupted by rock outcroppings and
- 3 great bodies of water offering opportunity for travel along their wild, natural and scenic shores.
- 4 The following excerpt offers an early explorer's view of the region as he encountered Portage
- 5 Lake and its surroundings for the first time in the fall of 1846:

Next morning we breakfast at daylight, and continue our voyage along the winding shores. Our gay Canadian voyageurs sing as they row. At the helm I can observe small pines where the lake (Portage Lake) makes a bold turn to the northwest, affording a view in several directions. This is the widest part of the lake - two or three miles. Soon after, as we advance, the lake takes the form of a majestic river one half mile wide, and the wooded banks on either hand swell up to a great height. We are charmed with the beautiful scenery; often we rest on our oars to enjoy the charming effects. The native forests, almost unbroken starting from the water's edge, slope up toward the sky precipitately, presenting many pleasant shades and colors, from the soft neutral-tinted maple, the lemon colored birch and poplar, to the dark green of the hemlock and fir...The surface of the lake is perfectly smooth, and reflects like a mirror, each overhanging promontory. As we row silently along we hear no sounds except those made by dipping oars: we see no life save an occasional loon darting his anxious head above the water, uttering a shrill quavering scream and diving again: the air is balmy; the repose of nature is profound, Man with his restless spirit has as yet scarcely disturbed the scene. A little clearing (where now stands the great smelting works) has been made at one place, and a trail winds up the hill to a point where exploring for copper has been attempted.⁶¹

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The reference to the trail, and its connection to copper exploration, reinforces our understanding that the early exploration of the Keweenaw was undertaken by people with varied backgrounds, interests and missions. The Ojibway were well acquainted with the land, its abundant natural resources – including copper – and how those resources could provide subsistence and meet their societal needs. Although voyageurs explored the region over a two hundred year period prior to the U.S. Government's negotiated settlement with Ojibway leaders, they and new settlers navigated the forested environs of the Keweenaw Peninsula

1 using pre-existing paths, and with the assistance of Ojibway guides. Copper diggings and pits

2 established by early inhabitants of the peninsula served as landmarks and revealed the mineral

3 riches of the land.

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In 1846, the newly organized Quincy Mining Company (Q.M.C., or Quincy) began

efforts to make its property profitable, as well as attractive to potential workers. During these

early years Quincy focused on exploring and developing their property for industrial

7 operations, above and below ground: men cleared land and dug exploratory trenches,

8 established shafts and constructed a basic surface plant. The company cleared land for farming

9 and leveled early roads. Workers built log homes. Quincy Hill was beginning to change

rapidly as a single company defined its purpose. Their efforts intensified in 1856 when they

began to work the Pewabic lode.

Quincy's origin was initially unplanned. It resulted from the merger of two existing mining ventures – the Portage Mining Company and the Northwestern Mining Company of Flint – that had claims to mineral rights to the same property. A meeting among stakeholders, held in Marshall, Michigan on November 17th 1846, resolved the dispute between the two companies and formed a third.⁶² Once formed as an association, Quincy purchased Section 26 of Township 55 North, Range 34 West on September 7th 1846 from Eurotas P. Hastings for the sum of \$1,600.⁶³ Hastings was the second recorded private owner of the land. He had acquired it from James A. Hick, a Portage Mining Company stockholder, who had purchased the property

⁶² Charles K. Hyde, "An Economic and Business History of the Quincy Mining Company," in HAER No. MI-2, an unpublished report for the National Park Service, Historic American Engineering Record (Washington, DC: 1978), 7.

⁶³ Larry D. Lankton and Charles K. Hyde, Old Reliable: An Illustrated History of the Quincy Mining Company (Hancock, MI: Quincy Mine Hoist Association, 1982), 5.

- 1 less than one month earlier on August 11, 1846, following issuance of a permit by the War
- 2 Department.⁶⁴ The Q.M.C. was established far from the one square mile of land that would
- 3 soon begin to change as a result of this speculative venture.
- 4 The Q.M.C. was not officially incorporated until 1848. However, they began exploring
- 5 their property in the summer of 1847 when they hired Columbus Christopher Douglass "to visit
- 6 the mines and to report the present condition of the same."65 Douglass had studied geology at
- 7 the Massachusetts Institute of Technology, and had previously assisted his cousin, Douglass
- 8 Houghton, on a land survey of Houghton County in 1844.66
- 9 Ransom Shelden was also closely tied to early Quincy operations. He first settled near
- 10 L'Anse in 1846, where he began trading with Native Americans. He moved his family to a log
- dwelling at the entrance of Portage Lake one year later where he established a store with
- 12 Douglass, his wife's father. Records show he worked for Quincy in 1849 "securing and putting
- in crops," but he also spent time exploring and trading copper before accepting a position with
- 14 Quincy and moving to a log home on the side of Quincy Hill as one of the earliest residents in
- 15 1851.67 The following year he moved his store to the Quincy Mine location.68
- 16 Despite the abundance of copper within the Keweenaw Peninsula, it proved challenging
- for companies to find a good place to begin profitable large scale mine operations. Large
- 18 masses of copper were scattered across the landscape, left by retreating glaciers. Ancient
- 19 diggings revealed veins that looked promising on the surface. Yet both of these indicators that

⁶⁴ Hyde, "Business History," 10.

⁶⁵ Hyde, "Business History," 11.

⁶⁶ Ibid., 15.

⁶⁷ Ibid., 16. He is listed as "R. Sheldon."

⁶⁸ Lankton and Hyde, Old Reliable, 6.

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

- 1 attracted attention, and were often used to determine property value, proved unreliable.⁶⁹ Since
- 2 mass copper occurred randomly in the landscape, digging beneath it often yielded barren
- 3 ground. Likewise, mass copper found in fissure veins and early diggings often proved limited
- in size and extent. 4
- 5 From October 1846 until March 1851, the company focused on locating copper bearing
- 6 fissure lodes that could be profitably mined. 70 Quincy's early efforts concentrated on exploring
- 7 the hillside up from Portage Lake rather than the hilltop itself, and workers moved rather
- 8 slowly. While they found some mass copper, they failed to find it in lodes or veins rich enough
- 9 to be profitably mined and warrant full production efforts.⁷¹

10 During this time, Quincy employed French-Canadian lumberjacks equipped with saws

- 11 and axes to clear openings in the forest.⁷² They were followed by small crews of less than a
- 12 dozen contracted workers. The crews would labor grubbing out vegetation and stumps. Next
- 13 they dug exploratory trenches with shovels, picks, sledgehammer driven drill steels, and
- 14 occasionally black powder and fuse, to help locate copper bearing rock.⁷³ The company later
- 15 sank shafts where those preliminary excavations revealed promising ground. Exact locations of
- 16 these early workings are unknown, as Douglass's drawings were lost, and no accurate
- 17 documentation or physical evidence has been located.⁷⁴

⁶⁹ Hyde, "Business History," 5.

⁷⁰ Ibid., 11.

⁷¹ Larry D. Lankton, "Technological Change at the Quincy Mine, c. 1846-1931," in HAER No. MI-2, an unpublished report for the National Park Service, Historic American Engineering Record (Washington, DC: 1978), 273-274.

⁷² Lankton and Hyde, Old Reliable, 8.

⁷³ Ibid., 6.

⁷⁴ Hyde, "Business History," 23

1	Images of this newly developing mining landscape in the Lake Superior region do not					
2	exist and sketches and drawings are rare. However, excerpts from company records, journals,					
3	letters or diaries offer written accounts of the landscape at the beginning of the historic mining					
4	period. One report from 1848, when Quincy was the only active mine on Portage Lake,					
5	described a single log house occupying the side of Quincy Hill. The mine consisted of one sha					
6	measuring four feet square by sixty-seven feet deep, and penetrated a lode running forty-three					
7	degrees northeast while dipping fifty-eight degrees to the northwest. ⁷⁵					
8	In 1850, J.W. Foster and J.D. Whitney provided a "Report on Geology of the Lake					
9	Superior District." They observed:					
10 11 12 13 14 15 16 17	When it is considered that nearly the entire copper region is an unreclaimed wilderness, the miner's settlements appearing like mere dots on its surface, covered with a dense growth of trees, through which the copper with difficulty forces a path; and that, except where the streams have worn their beds in the rock, or the hills terminate in bold and craggy ledges, the ground is covered with a thick carpet of mosses and lichens, effectively concealing every trace of veins, it is surprising that such an amount of mineral wealth has been revealed in so short a time. ⁷⁶					
19	During this early exploration period, Quincy began laying the foundation for the					
20	landscape we recognize today. Paths widened and became trails under the traffic of men,					
21	horses and wagons seeking solid footing, direct travel routes, and gentle gradients that could					
22	accommodate heavy loads. Gradually, forested areas were cleared to facilitate mine operation					
23	and to build housing for workers. Log homes were built on the hillside, and favored functional					
24	relationships to the mine workings, topography and natural features over any regard for					
	75 Lankton and Hyde, Old Reliable, 6. 76 Foster & Whitney, as cited in Lankton, Cradle to Grave, 3.					

1 achieving a designed community aesthetic. Efforts to establish this mining community appear 2 rough and unplanned by today's planning practices and standards. Its vernacular forms and 3 spatial organization were heavily influenced by the environmental conditions that settlers found in this location and the industrial exploration and settlement practices they brought with 4 5 them. Features commonly found at new mine locations included "a small farm, a blacksmith shop, a carpenter's shop or a small saw mill, a log bunkhouse or two, a store house, a rock 6 7 house, and sometimes a stamp mill."77 This description likely fits the Quincy location prior to 8 1856, although the exact details and arrangements of these structures cannot be documented.⁷⁸ 9 Douglass had expanded the mining operation by 1853 and, with a workforce of thirty-10 three men, successfully exposed three veins and sank one shaft to a depth of 100 feet.⁷⁹ By 1854, 11 Douglass was credited with discovering "the first extensive vein of amygdaloid copper" on top 12 of the Hill, approximately 600 feet above Portage Lake.⁸⁰ This vein was called the Quincy lode. 13 It ran southwest to northeast, just west of a road crossing the mine site.⁸¹ They sank another shaft by early 1855, but were eventually disappointed by the small yield of copper.82 14 15 As restless investors call a halt to mining operations and contemplated the money they 16 had invested in Quincy to date, Douglass found the lode they were seeking. His 1855

exploration of ancient pits that crossed the border of Quincy and into the neighboring Pewabic

⁷⁷ Sarah McNear, "Quincy Mining Company: Housing and Community Services, c. 1860-1931," in HAER No. MI-2, an unpublished report for the National Park Service, Historic American Engineering Record (Washington, DC: 1978), 516.
78 Ibid.

⁷⁹ Hyde, "Business History," 16. See also Lankton and Hyde, Old Reliable, 8.

⁸⁰ Lankton and Hyde, Old Reliable, 8. See also Hyde, "Business History," 24.

⁸¹ Lankton, "Technological Change," 274. The road is now US-41, the primary travel corridor on the peninsula.

⁸² Lankton, Historic Resource Study, 57. See also Lankton and Hyde, Old Reliable, 10.

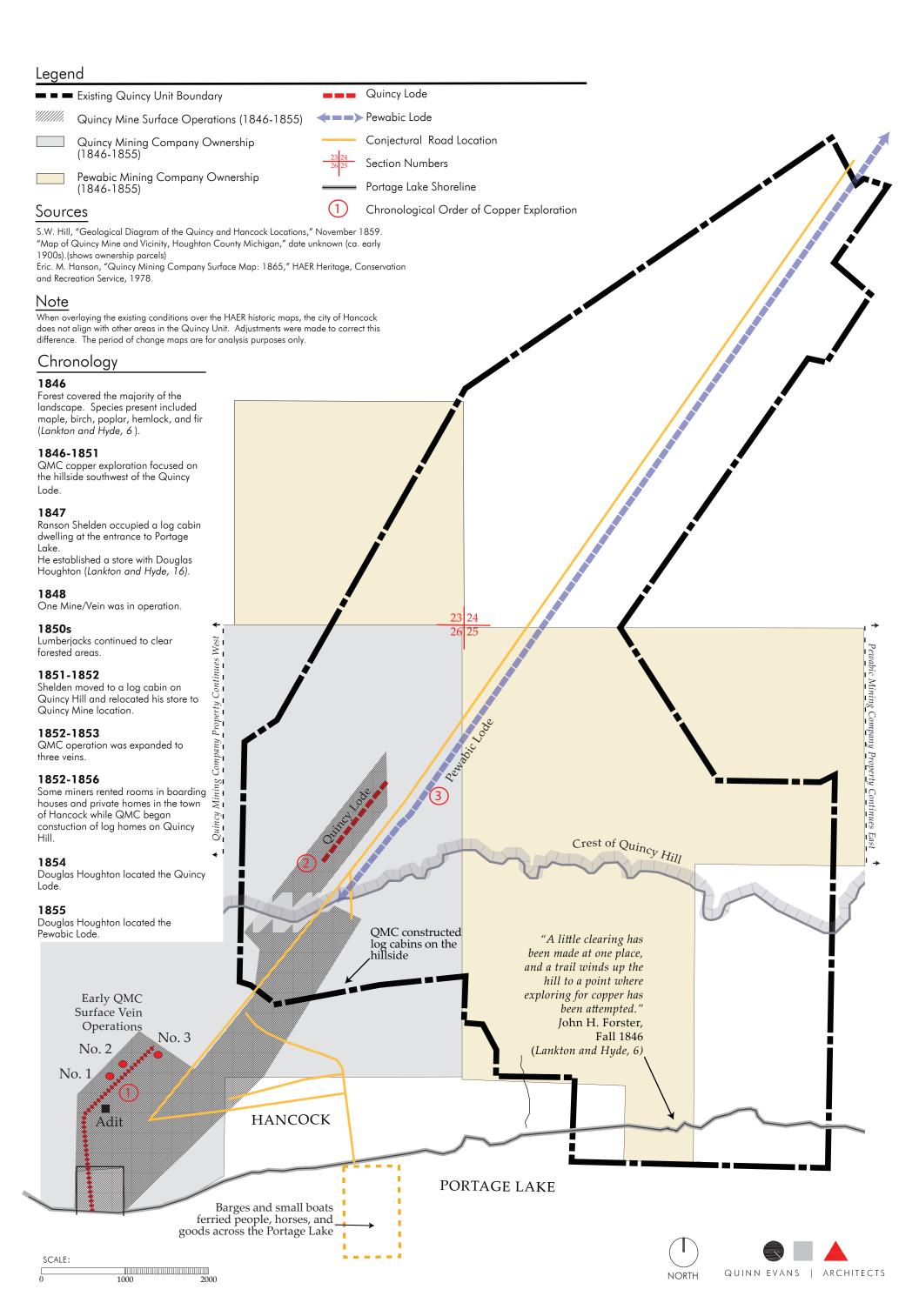
1 mine helped locate the now famous Pewabic lode.83 Within one year of its discovery, Quincy's 2 neighbor, the Pewabic Mine, uncovered a promising amygdaloid deposit; Quincy traced it back 3 to its property. The company's fortune was about to change. 4

83 Lankton and Hyde, Old Reliable, 10.

1 Next Page:

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2 Figure 2- 6: Quincy Unit, 1846-1855 Period of Change Plan



QUINCY UNIT, 1846-1855 PERIOD OF CHANGE PLAN

Mine Growth on the Pewabic Lode: 1856 - 1887

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2 Although exploratory operations on the Quincy lode continued, the discovery of the

3 Pewabic lode pulled Quincy in a different direction. The first Pewabic shaft was sunk in

November of 1856 and two more shafts were subsequently added in 1857.84 The company

worked both lodes at the same time for several years.

Like the Quincy lode, the Pewabic lode ran northeast to southwest along the top of Quincy Hill. This geologic spine provided an axis upon which subsequent shafthouses would emerge and align themselves, along with a corresponding network of roads and paths. These developments were similar to the operational patterns along the Quincy lode, but were located slightly east. Shafts at this time were simply large holes in the ground that men entered on wooden ladders fastened to the rock. They were protected by "simple board and batten shafthouses erected over the shaft collar," and they probably housed hand-powered windlasses used to raise poor rock and copper in iron kibbles or buckets.⁸⁵

Men sorted and separated copper from rock at the top of each shafthouse. Poor rock was discarded on nearby waste or burrow piles, while mass and barrel copper were transported directly to the dock.⁸⁶ From there it was shipped to the Waterbury and Detroit plant in Detroit for smelting.⁸⁷ Large pieces of amygdaloid, or "copper rock," needed to be refined somewhat before being shipped: this process, called calcining, involved heating the rock in large, woodfired kilns, and cooling it rapidly to crack the rock free from the copper it contained. It was then

⁸⁴ Lankton, Historic Resource Study, 58. See also Lankton and Hyde, Old Reliable, 20.

⁸⁵ Lankton, "Technological Change," 288. See also Lankton, Cradle to Grave, 48.

⁸⁶ Mass copper was pure copper occurring in large (mass) pieces. Barrel copper was copper brought to the surface in pieces small enough, and pure enough, to be packed directly in shipping barrels. 87 Hyde, "Business History," 70.

1 shipped to Detroit along with the mass and barrel copper. The process of separating copper 2 and disposing of waste rock would continue to be refined through the lifetime of Quincy's 3 operation. 4 During the exploratory years of the middle 1850s, the company built some log homes for 5 workers and their families to attract and retain stable, qualified workers to this remote region. 6 Housing was regarded as part of the infrastructure necessary to operate a mine.,88 and Quincy 7 began building homes out of necessity. Due to the limited number of company-owned houses, 8 some miners rented quarters in privately owned homes and boardinghouses in the growing 9 town of Hancock. At the same time, a national mining publication advocated for improved 10 conditions at mine locations: 11 How pleasant it is to see taste and comfort consulted in the arrangement of our 12 mining locations...We would like to see the agents, in laying out the village or 13 location lots, leave a reasonable garden plot to each house. Every family might have from 25-125 feet for garden and vard to make their house attractive to 14 15 themselves and others. We believe that stockholders, by consulting the comfort 16 of their workmen, are consulting their own interest in the long run. Men who 17 have spent long hours several hundred feet below the reach of sunshine must 18 have recreation. And many who now become disorderly would not frequent the 19 bar-room if they had a garden to cultivate or a comfortable house to bring 20 themselves about.89 21 22 It took a full decade for the Q.M.C. to negotiate business and property deals, explore 23 land holdings, recruit workers, establish a small remote community, and locate the most 24 productive copper deposits on the hill. Stockholders grew anxious, skeptical and weary as 25 years ticked by without a single dividend returned on their investments. Finally, through

⁸⁸ McNear, 517.

⁸⁹ The Mining Magazine (1856) as cited in Lankton, Cradle to Grave, 142.

1 perseverance and good fortune, Quincy discovered an abundant source of copper in the

2 Pewabic lode and moved closer to the establishment of a full scale mining operation. The

3 company recruited workers, built homes and supported the growing community of Hancock.

Collectively, these efforts transformed a steep wooded hillside into a full scale mining operation

and community.

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In 1858, Quincy sank a fourth shaft on the Pewabic lode and improved its surface plant.

An inventory taken that year illustrates the modest size of its operation. It included three

houses for mine officials, four boardinghouses, and twenty-seven log houses.⁹⁰ Construction of

at least sixteen more log houses on the hill also began in 1858, and they would be completed

over the next four years. 91 In addition to their hewn log construction, the homes were chinked

and their exteriors were covered with clapboards. 92 In the next few years Quincy's surface

operations would grow considerably, and became readily visible upon the landscape. In all

their efforts, Quincy was influenced by and relied heavily upon the Keweenaw's abundant

14 natural resources, including vegetation, topography and water.

Hoisting copper and rock from mine shafts was difficult and strenuous labor. Workers

at Quincy first performed this task by mustering enough strength to move large pieces with the

aid of ropes, iron bars and animals. As they used hand powered windlasses, their strain

became focused on pulling back levers repeatedly to inch heavy iron kibbles laden with rock or

copper to the surface. Although Quincy used a horsewhim at shaft No. 6 for a short while, two

90 Hyde, "Business History," 42.

91 McNear, 518.

92 Ibid.

- portable steam engines arrived in 1858 and they were immediately utilized for hoisting. 93
- 2 Steam hoists made work easier, but they placed a new demand on the company and the land:
- 3 fuel and water were both needed to power the engines.
- 4 Coal was not one of the Keweenaw's natural resources. As a consequence, Quincy
- 5 satisfied their need for cordwood fuel, mine timbers and lumber with the vast forestlands of the
- 6 Keweenaw. Men cut, split and stack wood to fire Quincy's boilers. Steam engines had a huge
- 7 appetite for wood, and no tree was spared as clear-cutting was company practice.94
- 8 Lumberjacks left large fields of stumps as they moved to other forested lands. At the same
- 9 time, Portage Lake quenched the thirst of company machinery.



Figure 2-7: A clear cut area, location unknown, n.d. (source: courtesy of Michigan Technological University Archives and Copper Country Historical Collections)

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⁹³ Lankton, "Technological Change," 288.

⁹⁴ Lankton, Cradle to Grave, 42.

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Figure 2- 8: Unidentified lumberjack crew, location unknown, n.d. (source: courtesy of Michigan Technological University Archives and Copper Country Historical Collections)

About the time they moved toward steam power, Quincy began construction of a 100 by

- 180-foot timber framed stamp mill on the shoreline of Portage Lake directly below Quincy Hill.
- 6 This was a large investment for Quincy, and represented a significant advancement in their
- 7 ability to process larger volumes of copper rock. Foundation work for the mill began in 1858,
- 8 and the building was completed and covered in clapboards in 1860.95 The mill's location
- 9 enabled the company to use water from Portage Lake for three main purposes: in an adjacent
- 10 boiler house that supplied power; in a nearby tailings wash house east of the mill; and to

⁹⁵ Lankton, Historic Resource Study, 61. See also Charles F. O'Connell, Jr., "Quincy Mining Company: Stamp Mills and Milling Technology, c. 1860-1931," in HAER No. MI-2, an unpublished report for the National Park Service, Historic American Engineering Record (Washington, DC: 1978), 579.

- 1 facilitate the disposal of crushed rock tailings directly into Portage Lake via a launder. Waste
- 2 disposal was an extremely important part of the milling operation, because 97 to 98 percent of
- 3 the copper rock milled by Quincy proved to be waste rock.⁹⁷ The site also provided for the
- 4 construction of a dock and warehouse for shipping mineral, mass copper and other goods.98
- 5 Transportation was important to all facets of Quincy's operation. The company needed
- 6 to move materials and supplies to the mine, around the mine site itself, and throughout the
- 7 community. It also needed to move rock and copper to process it, dispose of it, or ship it.
- 8 Timber, lumber and cordwood were transported for building and heating, while water was
- 9 moved for boilers and steam engines.

⁹⁶ O'Connell, "Stamp Mills," 579.

⁹⁷ Lankton and Hyde, Old Reliable, 27.

⁹⁸ Hyde, "Business History," 43.





Figure 2- 9: Early Great Lakes shipping efforts by the Quincy Mining Company were handled by large sailing ships, later replaced by steam powered vessels (top) while early overland transport relied on draft animals hitched to wagons or sleighs (bottom) (source: Images are courtesy of Michigan Technological University Archives & Copper Country Historical Collections).

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- 1 The earliest known map of the Quincy mine site indicates the transportation routes that
- 2 served the mine location. This tracing, labeled "Geological Diagram of the Quincy and Hancock
- 3 Locations," is dated November 1859 and was produced by Samuel W. Hill, Quincy's agent.99
- 4 Sparse by today's cartographic standards, the tracing documents early landscape conditions by
- 5 depicting the primary features Quincy built. The extent of Quincy's land ownership is shown
- 6 along with Hancock, newly platted by Quincy in 1859. Additionally, mine workings are
- 7 displayed along with the road and tramroad routes connecting them.

99 It is included as an image in the HAER No. MI-2 report. See HAER No. MI-2-1.

Figure 2-10: Hill's 1859 tracing of the mine site (source: Courtesy National Park Service, Historic American Engineering Record, HAER No. MI-2)

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Hill depicted the most prominent road between the Quincy and Pewabic lodes. It ran parallel to them, and extended down the hillside into Hancock where it connected to Quincy Street. The northernmost connection to this road traversed the hillside slope where it met Reservation Street. Hill also showed the newly constructed elevated tramroad designed to move copper and rock from the Pewabic lode to the new stamp mill. The location of the tramroad capitalized on existing hillside topography and gravity to lower one car on a cable

1 while hoisting another on a parallel track. 100 While the tramroad serviced the movement of 2 copper and rock, dirt roads and informal walking paths met the needs of transporting other 3 materials and the movements of workers and residents. 4 Hill's tracing is indicative of the company's mindset at this early stage of its 5 development. It affords us an opportunity to view adjacent Hancock, an emerging community 6 whose growth was influenced by early Quincy mining efforts and company philosophy 7 regarding the services they wanted to provide for workers. The tracing shows the community 8 developing as a grid of regularly spaced streets oriented north-south and east-west. This is 9 consistent with community settlement patterns of the time, and a sharp contrast to the irregular 10 spatial arrangement of structures that had occurred previously. While Hill's map does not offer 11 great detail regarding buildings or small scale features in the landscape, it indicates that Quincy 12 was establishing itself as a distinct entity, set apart from the community. It also reveals that the 13 early road network and street names correspond to those still present and traveled in the 14 landscape today. In fact, they are located at the core of the downtown Hancock community and 15 extend up the hill to connect with present day US-41. 16 It is curious that while Hill depicted the Pewabic shafts and abandoned workings in the 17 area labeled Hancock, he did not illustrate the shafts established in the 1840s and 1850s on the 18 Quincy lode. This suggests that Quincy had finished working that disappointing lode by the 19 end of 1858, and was looking ahead to a more profitable future. 20 Shafts 5 and 6 on the Pewabic lode were sunk in the summer of 1859, and followed the January re-numbering of their existing shafts to Nos. 2, 3 and 4.101 Multiple shafts, spaced 21 100 Lankton and Hyde, Old Reliable, 27.

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- 1 regularly along the lode, provided miners with more places to descend into the underground
- 2 workings and improved mine ventilation once shafts were connected through horizontal drifts.
- 3 By this time, Quincy employed 257 men who worked to open the underground and
- 4 subsequently remake the landscape. 102
- As the labor force grew, so did Quincy's concern with housing. Between 1859 and 1861
- 6 the company constructed more than 100 wood frame houses. 103 Workers unable to rent a
- 7 company-owned home could rent from boardinghouses, privately owned homes, or build a
- 8 home on land leased from the company. Most boardinghouses were privately run in Hancock,
- 9 but the company also managed a few.¹⁰⁴ In addition to providing this additional housing,
- 10 Quincy hired a doctor.
- 11 Although Quincy was concerned about improving the mine location and addressing the
- 12 needs of their employees, acceptable conditions in 1859 were remarkably different than they are
- 13 today. The thickly forested hillside was transformed into a coarse landscape; evidence of
- 14 Quincy's past activity appeared as fields of stumps, abandoned exploration trenches and
- 15 growing piles of waste rock.¹⁰⁵ Company buildings were tailored specifically to the function
- they served, with adornments and decoration often limited to the contrasting materials, colors
- 17 and textures afforded by the stones and lumber used to construct them. The Keweenaw's
- 18 remoteness and isolation continued to affect company operations and community life.

¹⁰¹ Quincy's numbering system for their shafts is confusing, as it changes based on the acquisition of other properties and their own numbering sequence of operations. See HAER maps for the various periods described, as well as Lankton, Historic Resource Study, 58; O'Connell, "Stamp Mills," 579; and Hyde, "Business History," 40.

¹⁰² Lankton, Historic Resource Study, 58.

¹⁰³ Ibid., 61. See also Hyde, "Business History," 44.

¹⁰⁴ McNear, 515.

¹⁰⁵ Lankton, "Technological Change," 296.

- 1 Throughout the 1860s, mail was delivered to the region by dogsled in the winter and by boat in
- 2 the shipping season.¹⁰⁶



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Figure 2-11: Mr. Antoine LeDuc, a mail carrier between L'Anse and Houghton, pictured with his sleigh and three dogs about 1870 (source: courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

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The Pewabic lode's discovery and the growing underground and surface operations coincided with another fortunate and significant event at the east end of the U.P. In June of 1855, the canal and locks around the St. Mary's Falls at Sault Ste. Marie opened. Shipping

106 Lankton and Hyde, Old Reliable, 42.

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- destinations across Lake Superior were now more easily connected to industry in the lower
- 2 Great Lakes region and beyond to industries and markets on the east coast. Only a single
- 3 shipping obstacle, the Portage River, remained between Houghton, Hancock and the rest of the
- 4 world. Although wide, the Portage River was shallow and twisted like a serpent, and at the
- 5 time, only two options existed to overcome this barrier: portage goods to another vessel in
- 6 Portage Lake, or haul them by wagon to their final destination.¹⁰⁷ To overcome this difficulty,
- 7 Quincy and other mining companies in the district worked together to widen and dredge the
- 8 river in 1859.¹⁰⁸ The work advanced quickly, and by the following June the first large ship was
- 9 able to dock at Hancock.¹⁰⁹

By 1860, Quincy was devoting its full attention to the Pewabic lode on the northern end

- of their property and addressing the demands of a growing workforce. To help accommodate
- its 469 employees, the company began working toward the establishment of a company-
- 13 operated farm, although its exact location and extent is unclear. 111 Later drawings prepared by
- 14 Quincy suggest that the farm had a presence north of Frenchtown. 112 What is known about the
- 15 company's farm is that, then as now, local conditions provided a challenge to farming
- 16 agricultural crops: soils are often poor, the growing season is short, and the climate is cool. The

¹⁰⁷ Hyde, "Business History," 44.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid. See also Lankton and Hyde, Old Reliable, 16-17.

¹¹⁰ Lankton, Historic Resource Study, 57-58.

¹¹¹ The Quincy farm was established around 1859-1861. In "Business History," Hyde reports 1859 (see page 43). Lankton supports this in the Historic Resource Study (see page 65). However, based on references to actual expenditures on labor and supplies to support its development, McNear determines that the farm was not established until 1861.

¹¹² See Quincy Farm drawing; Figure 2-43

- 1 company harvested hay, oats, timothy, onions, cabbages, squash, potatoes, and turnips. 113
- 2 Other vegetables and fruit were grown in individual gardens. 114
- 3 The growth of Quincy's surface plant continued rapidly and by 1862, the work of the
- 4 previous years was evident. Historian Larry Lankton offers a physical description of these
- 5 conditions:

By 1862, a shaft house, 35 to 40 feet tall, stood over each of the six shafts and their timber-cribbed collars. Along the row of shaft houses Quincy had erected four sorting houses and three hoist houses, timber-framed buildings that stood on poor-rock foundations. On one side of each hoist-house a tall wrought iron chimney stood atop a masonry base, and on another stretched long rows of cordwood, taken in 1862 and thereafter, from Quincy's own woodlots.... A little east of these structures stood four kiln houses. The hoist and shaft-houses were connected by pulley stands that supported the hoisting chains; narrow gauge tramways interconnected all the shaft, sorting, and kiln houses; and a tramway running past all the sorting and kiln houses terminated at the drum house on the southwestern end of the mine which served the stamp-mill incline.

In addition to these major structures and facilities, by 1862 Quincy had its copper house for storing barrel and mass, a stone magazine for black powder, and a general-purpose warehouse. It had one change or dry house, two small blacksmith shops, plus a carpenter shop with a small steam engine for driving bench saws and a lathe. The road leading from the village of Hancock up to Quincy Hill neatly divided the mine location into halves. Excepting the blacksmith and carpenter shops, all the technological mine structures stood on the east side of the road. On the west side stood the company office, a store, a barn and root-house, a forty-bed hospital, and numerous company-built houses.¹¹⁵

¹¹³ Lankton, Cradle to Grave, 163.

¹¹⁴ McNear, 560.

¹¹⁵ Lankton, "Technological Change," 296-297. Quincy acquired surface rights to sections 15 and 22 in 1862. See also Hyde, "Business History," 49, and Lankton, "Technological Change," 346. Quincy built a hospital between 1862 and 1865, and some reports indicate that it had a 35 bed capacity. See also Lankton, Cradle to Grave, 182; Lankton and Hyde, Old Reliable, 36, and McNear, 542.



Figure 2- 12: The earliest known photo of Quincy's shafthouses Nos. 2 – 4 on the Pewabic lode, circa 1875. (source: courtesy of Historic American Engineering Record, HAER MI-2-8)



Figure 2-13: An undated photo of blacksmiths standing outside their 1860 shop. (source: courtesy of Historic American Engineering Record, HAER MI-2-74)

1 Narrow gauge rails transported mine products across the surface plant. Small cars were 2 loaded and pushed to their destinations. Mass copper went directly to the new copper house. 3 Small rock went directly to the stamp mill by way of the tramroad, while larger pieces were 4 transported to nearby kiln-houses. There, crews of ten to twenty-five men were contracted to 5 "burn and dress copper" in preparation for the mill. 116 6 The Quincy mine was finally paying off. 1862 marked the first year that the company 7 returned dividends to investors.¹¹⁷ As the company experienced financial success, it examined 8 its operations and sought to improve living conditions for their workforce. The housing that 9 had been constructed in the 1850s provided basic shelter, but it was relegated to land distant 10 from valuable, workable ground; workers often preferred to live near the mine. Initially this 11 resulted in homes scattered in an irregular manner across the steep hillside south of the mine, 12 and situated among the stumps, rock piles and earlier attempts at prospecting for copper. 118 A 13 report from 1862 indicates that the company also owned one large boardinghouse and ninetyfive wood-framed two story tenement houses at this time. 119 Although their exact locations are 14 15 unknown, irregular development patterns shown on later maps suggest that these homes may 16 have been located near the top of the hill along the county road, and in a field to the west.¹²⁰

¹¹⁶ Lankton, "Technological Change," 294-295.

¹¹⁷ Lankton, Historic Resource Study, 56.

¹¹⁸ Lankton, Historic Resource Study, 61. See also Lankton and Hyde, Old Reliable, 35.

¹¹⁹ McNear, 518.

¹²⁰ Ibid.

Figure 2-14: View of Hancock and Quincy Hill ca. 1870 (source: Koepel Collection, Keweenaw National Historical Park Archives)

Workers also continued to lease lots from the company and build their own homes. It is likely that forty-one such structures were constructed in "Shantytown," a small enclave of located on the Hill about halfway between the mine and Hancock. ¹²¹ In addition to leasing land to workers, Quincy donated land to the Congregational Church in 1862 for construction of a church in Hancock. ¹²² This practice continued in later years, as the company generally "encouraged the erection of churches." ¹²³

As Quincy's need for worker housing increased, the location of company-built homes gained heightened consideration. Housing locations constructed before the early 1860s lacked order in their spatial arrangement, but this began to change as Quincy gained a more complete

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¹²¹ Ibid., 515. See also Lankton and Hyde, Old Reliable, 35.

¹²² McNear, 568. See also Lankton and Hyde, Old Reliable, 37.

¹²³ Lankton and Hyde, Old Reliable, 37.

1 understanding of its resources and entrenched itself in the development of a surface plant on

2 the Pewabic lode. After this, company housing locations were developed in a more organized

3 manner that more closely resembles the neighborhoods seen today.

4 Quincy also thought about how to provide food to its workforce. Beginning in 1862, the

company leased its farm to O.K. Patterson & Co., the teamsters at the mine. The teamsters

cleared 250 acres of land, and used most of the harvested feed for their animals.¹²⁴ The

following year, the company built a store along the county road near the mine office to sell

goods at or near wholesale. This was to provide workers with fair-priced goods and prevent

local merchants from profiteering. 125 The store did not last long in company hands, and was

sold in 1866 to Seth North. 126

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In the early 1860s, local mine companies again worked together in order to ensure an open shipping route. They established the Portage Lake and River Improvement Company in 1863. This company was responsible for making improvements to the channel and collecting tolls to pay for its maintenance. Within two years, Quincy held nearly 20 percent of the total stock value. Quincy also purchased two wooden scows in 1863 to haul waste material to unspecified dumping sites in Portage Lake; Quincy paid the Portage Lake Towing Company

The 1860s presented another challenge: Quincy felt the impact of the Civil War as demand for copper increased and prices rose. Yet these conditions, which normally produce

through the 1863 navigation season for a "towing, dredging and dumping scow." 128

125 Ibid., 522. See also Lankton, Cradle to Grave, 165.

¹²⁴ McNear, 560.

¹²⁶ McNear, 553. See also Lankton and Hyde, Old Reliable, 36.

¹²⁷ Lankton and Hyde, Old Reliable, 16-17.

¹²⁸ O'Connell, "Stamp Mills," 599.

1 greater profits, had an unexpected effect on Keweenaw copper mines. High copper prices

2 encouraged new mine ventures needing skilled workers. This, coupled with voluntary

enlistments and the draft, resulted in a serious labor shortage of experienced miners in the

4 district.¹²⁹

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5 Another consequence of the Civil War was the government-funded construction of a

6 military road connecting Fort Howard (near Green Bay) to Fort Wilkins (at Copper Harbor) in

1863. The road was originally intended to support the defense of the Keweenaw's copper

mines, but by the time it was completed in 1869, its greatest value proved to be the

improvement of overland transportation between rural communities. The meandering route of

the road was directly influenced by Samuel Hill, Quincy's agent, and a team of his business

partners who were seeking mineral rich lands.¹³⁰

Despite the challenges the war presented, Quincy continued to build houses and develop neighborhoods west of their surface plant. These locations included garden plots that workers could rent for a few dollars per year, which were meant to increase their appeal to families seeking a good situation in a competitive labor market.¹³¹ In 1864, Hardscrabble and Limerick locations were constructed along the northern boundary of Section 26, just west of the county road. They featured wood frame T-plan homes on poor rock foundations with more than thirty dwellings per neighborhood. The Swedetown neighborhood consisted of at least

thirty-seven log homes, and was located considerably further west. Built for Scandinavian

¹²⁹ Hyde, "Business History," 46. See also Lankton and Hyde, Old Reliable, 17.

^{130 &}quot;Military Road in Keweenaw Can Still Be Found in Places," Daily Mining Gazette, 16 January 1960.

¹³¹ Lankton, Historic Resource Study, 65.

- 1 immigrants recruited to work at Quincy, the location quickly proved to be a failure and was
- 2 abandoned in the 1870s. 132

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Figure 2-15: An undated early photograph of Hardscrabble company housing and landscape. Note the fences separating agricultural use areas from other company owned land. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

Quincy initiated several other projects in 1864 that went beyond the construction of worker housing that shaped the landscape. It built a twenty-six foot diameter sand wheel at the stamp mill to assist with removing waste products.¹³³ It began building a small two-story wooden office building, west of the county road, to replace their first mine office structure,

¹³² McNear, 519. See also Lankton and Hyde, Old Reliable, 17; and Lankton, Historic Resource Study, 69. Among possible reasons for Swedetown's failure are its distance from the mine, isolation from other communities, and old fashioned or substandard log housing.
133 O'Connell, "Stamp Mills," 586.

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

- whose location is unknown.¹³⁴ The company also established a volunteer militia of about 150
- 2 men to enforce order and then erected a drill hall on Quincy Hill.¹³⁵ It closed shaft No. 6, which
- 3 had proved to be a disappointment, and began to use its hoisting engine to saw wood and grind
- 4 grain.¹³⁶ Company records also indicate expenditures on the hospital and two
- 5 boardinghouses.¹³⁷
- 6 Perhaps Quincy's most ambitious undertaking in 1864 related to its persistent
- 7 exploration of the south end of their property. Initially, workers drove some exploratory shafts
- 8 before opening an adit on the hillside near the tramroad, approximately halfway between the
- 9 mill and the mine.¹³⁸ By driving the adit into the hillside in a northwest direction, Quincy could
- 10 explore several copper veins as they drifted through them.¹³⁹ Any lodes worth mining would
- 11 be revealed by this exploration, and copper could be more easily recovered. However, more
- than 1,100 feet and four years later the company still had not reached the Pewabic lode or any
- other deposit that proved workable from the south end. 140

¹³⁴ McNear, 557.

¹³⁵ Lankton, Historic Resource Study, 69. See also Lankton, Beyond the Boundaries: Life and Landscape at the Lake Superior Copper Mines, 1840-1875 (Oxford University Press, 1999), 187; and Lankton and Hyde, Old Reliable, 41-42.

¹³⁶ Hyde, "Business History," 80.

¹³⁷ Ibid., 53-54. See also Lankton, "Technological Change," 306.

¹³⁸ Lankton, "Technological Change," 308. An adit is a horizontal opening driven from the surface into a mine, as through a hillside.

¹³⁹ Ibid., 307.

¹⁴⁰ Hyde, "Business History," 54. See also Lankton and Hyde, Old Reliable, 22.

1	Next page
2	Figure 2- 16: Quincy Unit, 1856-1865 Period of Change Plan

Legend Platted QMC Housing Location Quincy Lode Existing Quincy Unit Boundary Pewabic Lode Existing QMC Housing Location Quincy Surface Mine Operations (1856-1865) QMC Mine Shaft Pewabic Mining Company Housing Quincy Mining Company Ownership Location Pewabic Mining Co. Mine Shaft (1856-1865)Mine housing not affiliated Pewabic Mining Company Ownership Road/Path with planned company housing location (1856-1865) Section Numbers QMC Management Area Approximate Location of Pewabic Tram Road Portage Lake Shoreline Approximate Location of Quincy Tram Road Sources S.W. Hill, "Geological Diagram of the Quincy and Hancock Locations," November 1859. "Map of Quincy Mine and Vicinity, Houghton County Michigan," date unknown (ca. early 1900s). (shows ownership parcels) Eric. M. Hanson, "Quincy Mining Company Surface Map: 1865," HAER Heritage, Conservation and Recreation Service, 1978. "Plan of the Underdground Workings of Quincy Mine and a Portion of Surface Detail," date unknown ca. 1900-1907. Note When overlaying the existing conditions over the HAER historic maps, the city of Hancock does not align with other areas in the Quincy Unit. Adjustments were made to correct this difference. The period of change maps are for analysis purposes only. Chronology 1856 By 1856 forested areas were cleared to facilitate mine operations and to build housing for workers. Direct travel routes with gentle gradients to accommodate heavy loads were developed. Paths were widened **HARDSCRAB**BLE and became roads. 1856-1859 QMC sunk shafts No. 1 - No. 6 on the Pewabic Lode. SWEDETOWN 1858 Pewabic Mining Company Property Continues Work ceased on the Quincy Lode. **COBURNTOWN** Quincy Tramroad constructed. LIMERICK 1858-1860 QMC constructed log homes on No.1 Quincy Hill. Meadow Village of Hancock platted by Hill. LOWER 1859-1861 PEWABIC Houses constructed in Hardscabble Pewabic and Limerick. Quincy Stamp Mill constructed. Crest of Quincy Hill QMC Mine 250 acres were cleared for Quincy Farm (location unknown). Approximately 41 homes likely constructed in Shantytown. 1863 Military Road construction began. Approximate Side-Hill Location of the 1864 Pewabic Tram Road Swedetown housing location to Portage Lake established approx. one mile west of Ouincy mine operations. QMC constructed second mine office SHANTYTOWN Stanklin St Tram Road within this Probable route ot area Military Road QMC constructed Side-Hill Adit Quincy St Pewabic **HANCOCK** Mill Lake Linden Road Quincy Hancock St

QUINCY UNIT, 1856-1865 PERIOD OF CHANGE PLAN

Stamp Mill

PORTAGE LAKE

Water St

Barges and small boats ferried people, horses, and goods across the Portage Lake

1000 2000

SCALE:

QUINN EVANS | ARCHITECTS

1 The company's mine had increased greatly in depth by 1866. To transport miners 2 quickly up and down a mine shaft, and to conserve their energy for mining, Quincy installed a 3 man engine. This device, essentially two reciprocating ladders side by side, allowed men to step back and forth between platforms to go up or down. It required its own shaft between No. 4 5 3 and No. 4 and was expensive to implement, but over time it resulted in labor savings for the 6 company.141 7 Quincy had learned a lot about the deposits they were working, and began to realize 8 some disappointment with the mine. By then it was clear that the adit was unlikely to discover 9 any workable copper deposits of consequence, and so this effort was slowed.¹⁴² Like No. 6, 10 shafts 5 and 7 appeared to be of limited value, and they were closed by 1867.143 Production at 11 shaft No. 1 also ceased around the same time. By the late 1860s, only shafts 2, 3 and 4 were 12 working. 13 The slowdown allowed Quincy to turn its attention to social concerns. Public education 14 was becoming an issue, and was first addressed in 1867 when the Quincy Township school 15 district was created. Although schools were legally a community's responsibility, Quincy was 16 the principal taxpayer in the township and its workers comprised the majority of the 17 population; the company assumed the responsibility to provide an education to its workers' 18 children by default.¹⁴⁴ It chose a site west of the county road and constructed a wood frame 19 school large enough to accommodate 150 students, and then rented it to the school district.¹⁴⁵

¹⁴¹ Ibid., 53-54. See also Lankton and Hyde, Old Reliable, 22; and Lankton, "Technological Change," 293. 142 Ibid., 55.

¹⁴³ Lankton, "Technological Change," 306.

¹⁴⁴ Lankton, Cradle to Grave, 169. See also McNear, 547.

¹⁴⁵ Lankton and Hyde, Old Reliable, 37. See also Lankton, Cradle to Grave, 169; and McNear, 547.

- 1 Physical improvements to the surface plant also continued in 1867, which was the same
- 2 year Quincy resumed paying dividends to shareholders following the Civil War. 146 The
- 3 company initiated construction of a new hoist house, engine and boilers for shaft No. 2.147
- 4 Down at the mill, the problem of sand disposal in Portage Lake continued; the company built a
- 5 bulkhead "to prevent our waste sand from the stamp mill from encroaching on our
- 6 neighbors." 148 Despite its construction, and multiple extensions afterwards, the problem
- 7 remained.¹⁴⁹ In 1868, the company focused on reconstructing the tram road and installing
- 8 improved washing machinery at the mill.¹⁵⁰

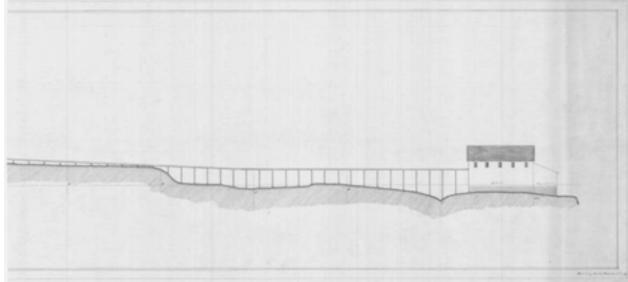


Figure 2-17: Partial drawing (QD-2596, 1 of 3) produced by Phillip Scheuermann, Quincy Mining Company engineer, in 1872 to illustrate the new tramroad and proposed rockhouse with engine house shed addition. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections).

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¹⁴⁶ Lankton, Historic Resource Study, 56

¹⁴⁷ Lankton, "Technological Change," 293.

¹⁴⁸ O'Connell, "Stamp Mills," 599.

¹⁴⁹ Ibid.

¹⁵⁰ Hyde, "Business History," 53-54;138.

Construction efforts in 1869 consisted of ten frame houses in Hancock built for stamp mill employees.¹⁵¹ This development followed an April fire disaster in Hancock that devastated the community, whose population had grown to 2,000. The fire originated in the northwest corner of town, near Quincy and Ravine streets, and moved quickly. Within six hours, it had consumed 150 buildings and left more than 200 families without homes.¹⁵² The impacts were felt by all who relied upon the goods, services and diversions that the commercial and cultural center offered.¹⁵³ Rebuilding efforts included a new telegraph system in the copper district, with the Quincy mine featured as one of the twelve office locations.¹⁵⁴



Figure 2- 18: Informal housing clusters, view north from Portage Lake toward Quincy Hill, ca. 1869-1870 (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-140).

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¹⁵¹ Lankton and Hyde, Old Reliable, 35.

¹⁵² Ibid., 45.

¹⁵³ Ibid.

¹⁵⁴ Ibid., 44.

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A major shift in rock breaking methods was initiated when Quincy began moving

(source: Photo courtesy of Historic American Engineering Record, HAER MI-2-140).

- 6 toward the use of air powered drills. Using air drills meant the company needed to erect a
- 7 steam powered air compressor, pump water from abandoned shafts to cisterns, and install air
- 8 pipes down shafts and throughout the mine. The Burleigh Rock Drill Company introduced
- 9 their drills to several mines in the Keweenaw in 1868, and made several available for testing. 156
- 10 Quincy purchased seven, and put them to use in October of 1872. The investment was large
- 11 and so was the disappointment: despite high interest in the machines, and the promise of
- 12 increased production, the new technology did not meet the expectations of miners or managers.
- 13 They were rejected by late 1873; hand drilling would remain the norm until the drills could be

¹⁵⁵ Lankton, "Technological Change," 319, 346. Hyde discusses the need for additional cordwood to fire boilers and run steam engines as a result of air drilling. The increased need for fuel likely resulted in increased clear-cutting. See "Business History," 136.

¹⁵⁶ Lankton, Cradle to Grave, 81. See also Lankton and Hyde, Old Reliable, 59.

- 1 improved.¹⁵⁷ Quincy's willingness to experiment with the drills shows the company's early, and
- 2 continued, interest in new technology.
- 3 The company also decided to change the way it reduced rocks before sending them to
- 4 the stamp mill. Despite closing shaft No. 3 in 1872, they decided to build a large rockhouse to
- 5 break rocks mechanically. This eliminated a bottleneck in production and, ultimately,
- 6 kilnhouses.¹⁵⁸ Construction began on the three story heavy-timbered structure in 1872, which
- 7 included an engine to power an endless rope tramroad extending to the shafthouses. The
- 8 rockhouse was completed by 1873, and represented the company's largest investment in
- 9 combined structure and machinery improvements.¹⁵⁹ Mine products from Quincy's two
- remaining operational shafts, 2 and 4, could now be loaded into cars at the shafts and moved
- across rails to a trestle, where they entered the top of the rockhouse. 160 The arrival of the
- 12 rockhouse spelled the end of the kilnhouse at Quincy.

¹⁵⁷ Lankton, Cradle to Grave, 81-82.

¹⁵⁸ Lankton, "Technological Change," 309, 330. See also Hyde, "Business History," 112.

¹⁵⁹ Ibid., 330.

¹⁶⁰ Lankton, Cradle to Grave, 50. See also Lankton, "Technological Change," 309.

Figure 2- 20: Detail of an 1873 "Birds Eye View of Ripley, Quincy, Pewabic and Franklin" as drawn and published by A.J. Cleveland. Image shows Quincy's tramroad, rockhouse, shaft and engine houses, roads and worker housing (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-3)

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Quincy slowly but steadily implemented additional changes and improvements after the drill and rockhouse trials were completed. Fully engaged in working the Pewabic lode, these developments focused mainly on social infrastructure. The company built a two-story wood frame dispensary west of the physician's house. ¹⁶¹ Hancock had rebuilt and expanded after the

161 McNear, 542. McNear dates operation of the dispensary from 1874. Lankton and Hyde suggest that it was constructed "sometime around 1870." See Old Reliable, 36.

fire, providing greater housing opportunities; Quincy needed to build only nineteen additional houses between 1875 and 1876.¹⁶² These included six double houses in the log home settlement

3 of Frenchtown, located a quarter mile west of the county road. 163 At nearly the same time,

4 Quincy expanded the schoolhouse to ninety-six by twenty-six feet; by 1877 it could house 300

students.164

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The 1874 Michigan census provides a snapshot of Houghton County's character; the

7 number of occupations and total population are indicative of a landscape growing in

complexity. The miners, engineers and mill workers that one expects in a mining community

were joined by farmers, hunters, and woodchoppers, along with a few loggers and trappers.

Civil order was maintained by officers of the law, lawyers, justices of the peace and a judge.

11 Doctors and dentists looked after the physical well being of residents, while teachers and

clergymen fostered intellectual and spiritual development. There were also hotel and saloon

13 keepers, boardinghouse operators and "80 men who worked in water or land transportation." 165

As a county center, Houghton was establishing itself as a viable community, albeit one based

primarily on a single extractive industry. Quincy Hill, at the center of that industry, was also at

the heart of change. The heavily wooded hillside of just barely 25 years before had been

irrevocably altered.

Other improvements adopted by Quincy during the 1870s were principally technology-

related. Nonetheless, they resulted in alterations to the landscape. The No. 4 shaft was

¹⁶² McNear, 522.

¹⁶³ Ibid., 523. See also Lankton and Hyde, Old Reliable, 80. The term "double house" is a local variant of "duplex."

¹⁶⁴ McNear, 548.

¹⁶⁵ Lankton and Hyde, Old Reliable, 38.

- 1 completely re-worked and received a new shafthouse eleven feet further south with a new
- 2 engine, boiler, smokestack, and cistern. This project was followed by expanding the stamp
- 3 mill to the east for equipment upgrades in 1877.¹⁶⁷ Telephone lines were in use by 1879 at many
- 4 of Quincy's key facilities: the dock, mill, mine office, store and supply office were all connected,
- 5 and one line ran down the No. 4 shaft. While each of these projects may be considered minor
- 6 on an individual level, they had a cumulative effect on the physical environment.
- Experiments with air drills and dynamite began again between 1878 and the early
- 8 1880s.¹⁶⁹ Quincy first tested the "Little Giant" air drill manufactured by the Rand Drill
- 9 Company in 1879 and, unlike the Burleigh, it proved to be successful in the years that
- 10 followed.¹⁷⁰ The drills gave miners the ability to drill holes faster and deeper, while the
- dynamite blasted more rock per charge than black powder.¹⁷¹ Together, these changes
- 12 increased production dramatically. The increased quantity of rock coming out of the mine
- 13 meant more copper was being processed and, ultimately, more profits for Quincy. However, as
- the tonnage of ore increased, so did the amount of waste product that the company needed to
- 15 handle, stockpile and remove.¹⁷² These promising developments were temporarily obscured in

¹⁶⁶ In "Business History," Hyde notes the new shafthouse appearing in 1875 (see page 113). In

[&]quot;Technological Change," Lankton indicates that it was 1877 (see page 341).

¹⁶⁷ Hyde, "Business History," 117. See also O'Connell, "Stamp Mills," 588.

¹⁶⁸ Lankton, "Technological Change," 339.

¹⁶⁹ Lankton, Cradle to Grave, 96, 31. Refer also to Lankton, "Technological Change," 323.

¹⁷⁰ Lankton, Cradle to Grave, 86. See also Lankton and Hyde, Old Reliable, 59.

¹⁷¹ Lankton, Cradle to Grave, 96.

¹⁷² Hyde, "Business History," 132, 114.

- smoke when the rockhouse burned to the ground on December 31, 1879.¹⁷³ It was rebuilt the
- 2 following year at the same location, and was back in operation by March 10.¹⁷⁴



Figure 2- 21: A photo of the southeast elevation of the Quincy Rockhouse - likely the 1880 version rebuilt after fire. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-68).

By the 1880s, Quincy had a well established, profitable mine and the company had reasons to be optimistic about its future. It were producing twenty percent of the world's copper supply and annual production was increasing.¹⁷⁵ New air drills and an improved facility for crushing and processing copper rock promised even greater output. The surface

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¹⁷³ Lankton, "Technological Change," 335.

¹⁷⁴ Ibid.

¹⁷⁵ Lankton, Cradle to Grave, 71.

- plant was modified to streamline production and included the installation of 16 additional
 stamps to the mill in 1880 to handle additional mine output.¹⁷⁶
- 3 The implementation of Rand rock drills was followed by the installation of a Rand
- 4 compressor in a new stone building north of No. 4 shaft.¹⁷⁷ Its construction demonstrated the
- 5 increasing shift toward stone buildings for important industrial functions. Once operational,
- 6 the facility allowed Quincy to operate fifteen drills instead of seven.¹⁷⁸ A corresponding
- 7 improvement was addition of a pumphouse near Portage Lake in 1881. The pumphouse moved
- 8 water from the lake nearly a mile uphill for the boilers and machinery at the surface plant. 179
- 9 That same year, Quincy rebuilt the No. 2 shafthouse. 180

The company's success in the early 1880s, and arguably its corporate philosophy, is reflected in the construction of a grand Italianate residence for the mine superintendent. Work

on the residence began in 1880 and was completed two years later. The prominent home was

built west of the county road at the south end of the mine, where it was a focal point on the Hill

and offered occupants dramatic views extending to the Huron Mountains. It also offered a

dramatic example of the company's priorities: Quincy spent a few hundred dollars to construct

a typical worker's house, but they invested approximately \$25,000 in the superintendent's

17 home.¹⁸¹

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¹⁷⁶ Hyde, "Business History," 138.

¹⁷⁷ Lankton, "Technological Change," 322.

¹⁷⁸ Lankton and Hyde, Old Reliable, 59.

¹⁷⁹ Ibid., 76. See also Lankton, "Technological Change," 346.

¹⁸⁰ Lankton, "Technological Change," 341.

¹⁸¹ McNear, 522, states it was completed in 1882. Lankton (Cradle to Grave, 152) argues 1881.

Figure 2- 22: Superintendent's house and landscape in winter, ca.1885 (source: Koepel Collection, Keweenaw National Historical Park Archives)

The need for additional hoisting power on the surface increased as shaft No. 2 extended deeper into the earth. To address this, in 1882, Quincy built a new stone engine house east of the No. 2 shaft and converted the former hoist house into a machine shop. 182 It added a stone central boiler building east of the No. 4 shaft to service the surface plant. This facility housed

182 Lankton, "Technological Change," 342.

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tubular boilers and related infrastructure. Steam pipes in stone trenches connected the facility
 to No. 2 and No. 4 hoists and other mine operations.¹⁸³

The company also made transportation improvements in 1882 when it "reduced grades on a wagon road running from Reservation Street in Hancock up to the mine in order to reduce their freight charges." This reference to a wagon road reminds us how a common term can take on new meaning over time, as roads of this era were far less improved than even the most marginal gravel roads in use today, and often contained stumps, boulders and other irregularities topped with poor surfacing. The wagon road also presents an opportunity to take a closer look at how development on top of Quincy Hill fit into a broader contemporary picture of the Upper Peninsula's mining landscape.

An article published in an 1882 edition of *Harper's New Monthly Magazine* described both the iron and copper ranges. It simultaneously applauded the industrial achievements being made and enthused over the rugged north woods, cold lakes, and other natural features: "Were it not for the mineral wealth it would remain permanently a wilderness," the author opined, adding that the land was "generally valueless from the farmer's point of view." Hinting at what Quincy Hill must have looked like years earlier, he observed the vast maple forests south of Portage Lake: "Until some discoveries of copper are made in it, it will probably remain one of the finest bodies of woodland in the country." The author observed the civilized character of

184 Hyde, "Business History," 134.

¹⁸³ Ibid., 346.

¹⁸⁵ F. Johnson, Jr., "The Upper Peninsula of Michigan," in Harper's New Monthly Magazine, 64 no. 384 (May 1882): 892-893.

both miners and managers north in Calumet; true or not, his comments indicate that this area
 was seen as a place where civilization – industry - and wilderness co-existed.

A railroad connection between Houghton and Marquette, with connections to Chicago, was finally established in 1883. To Quincy and the Keweenaw's other mining companies, this meant that freight transport could be extended into winter months, beyond the shipping schedule dictated by the Great Lakes. The first railroad bridge across the Portage Lake was built in the mid 1880s, and railroad service to the Keweenaw began to expand. 187

The railroad allowed Quincy to consider switching to coal as its primary fuel source. As they evaluated this option, concerns about their existing transportation network grew. Despite the recent improvements to the wagon road between the dock and the mine, the costs and transportation methods associated with hauling coal and freight were a concern. Quincy measured three main alternatives through 1884 and 1885: extending the existing tram road to the dock; constructing a new tram road from the mine to the dock; or connecting the dock to the mine via a railroad. The company chose the last alternative, and the Mineral Range Railroad constructed a branch line to the mine's boiler house in the summer of 1886. 188

Even so, the shift to coal did not occur overnight. Quincy had relied on woodlots for more than twenty years, and it held significant timber resources. Fuel was needed to power large industrial machinery including hoists, pumps, the man-engine, rockhouse crushers, the stamp mill, air compressors and assorted tools and equipment, and consequently it was a major

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¹⁸⁶ Lankton and Hyde, Old Reliable, 44.

¹⁸⁷ Lankton, Cradle to Grave, 53.

¹⁸⁸ Hyde, "Business History," 134.

¹⁸⁹ Lankton, "Technological Change," 347.

- 1 expense for Quincy.¹⁹⁰ Only after the railroad line to the central boiler house was constructed,
- 2 allowing ready delivery to the mine site, could it begin the shift in resource use to avoid serious
- 3 fuel shortages.¹⁹¹ This new line went into operation just before Quincy constructed a new stone
- 4 hoist house east of No. 4 in 1885-86, and about the same time it recognized the challenges
- 5 presented by their mill site. 192

In the mid 1880s, the Portage Lake stamp mill was working near its capacity at a point

7 when the company was capable of doubling or even tripling its output. 193 Its gravity stamps

were outdated, the site offered no room to expand, and the rapidly growing accumulation of

waste sands in Portage Lake presented a significant problem for the company due to the

passage of the Federal River and Harbor Act of 1886.¹⁹⁴ This act established harbor lines that

restricted the disposal of waste sands at its Portage Lake stamp mill location, and forced Quincy

to seek a new mill site. 195 The company selected a site encompassing more than 300 acres on

Torch Lake that offered the desired room for growth, access to shipping, and a deep lake for

waste disposal. It purchased the site in 1887, and began building the new mill one year later. 196

This triggered a tremendous effort to rebuild the surface plant to meet changing operational

16 needs.

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The mill was located six miles from the mine. Dissatisfied with the freight rates that had

been offered in negotiations with area railroads, Quincy decided to construct their own railroad

¹⁹⁰ Hyde, "Business History," 136.

¹⁹¹ Ibid., 137

¹⁹² Lankton, "Technological Change," 344.

¹⁹³ Hyde, "Business History," 138.

¹⁹⁴ Ibid., 139.

¹⁹⁵ Hyde, "Business History," 139. See also O'Connell, "Stamp Mills," 603.

¹⁹⁶ Ibid.

- 1 between the mine and the mill.¹⁹⁷ This decision also required the construction of a large modern
- 2 coal handling facility at the Torch Lake mill site, and resolved earlier concerns about
- 3 transportation problems from the existing Portage Lake dock.¹⁹⁸ This shift toward milling at a
- 4 distant site speaks not only to requirements imposed on Quincy, but also to the consumptive
- 5 nature of the industry and the company's sense of entitlement to the land and its resources. The
- 6 balance of economic costs and benefits became the single deciding factor of landscape change.
- 7 Without requirements for public input or discussion of social or environmental impacts, the
- 8 company presumed that any changes it could afford were satisfactory.
- 9 As Quincy began making plans to develop the Torch Lake mill site, it was sidetracked
- 10 by another natural disaster: their second rockhouse was lost to fire when lightning struck on
- June 7, 1887.¹⁹⁹ Quincy's response was to construct "a third rockhouse, different in appearance
- than the first two, several hundred feet closer to shafts No. 2 and 4."200 Additionally, Quincy
- decided to rebuild its tramroad in 1887; the new stamp mill and railroad were not yet complete,
- and repairs were necessary to sustain operations.²⁰¹

197 Ibid. See also Lankton and Hyde, Old Reliable, 77.

201 Hyde, "Business History," 134.

¹⁹⁸ Ibid.

¹⁹⁹ Lankton, "Technological Change," 335

²⁰⁰ Ibid.

Figure 2- 23: A photo, ca. 1887-1890, of Quincy's No. 4 Rockhouse and tramroad with the No. 4 shafthouse in the background. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-71).

7 Next Page:

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8 Figure 2- 24: Quincy Unit, 1866-1888 Period of Change Plan

Legend Platted QMC Housing Location Existing Quincy Unit Boundary ← ■ ■ ➤ Pewabic Lode QMC Mine Shaft Existing QMC Housing Location Quincy Mine Surface Operations (1866 - 1887)QMC Mine Shaft Pewabic Mining Company Housing (inactive this period) Location Quincy Mining Company Ownership (1866-1887)Housing not affiliated with a planned Pewabic Mine Shaft company housing location Pewabic Mining Company Ownership (activity level unknown (1866-1887)this period) Stamp Mill Sand Deposits Road Approximate Location of Pewabic Tram Road Section Numbers Railroad Approximate Former Location of Quincy Tram Road Adit Approximate Location of Franklin Tram Road Portage Lake Shoreline Sources "Map of Quincy Mine and Vicinity, Houghton County Michigan," date unknown (ca. early 1900s). (shows ownership parcels) Eric. M. Hanson, "Quincy Mining Company Surface Map: 1892," HAER Heritage, Conservation and Recreation Service, 1978. "Plan of the Underground Workings of Quincy Mine and a Portion of Surface Detail," date unknown ca. 1900-1907. Birds-eye Aerials: "Hancock Mich., 1881" and "Hancock Mich, 1890 (provided conjectural information in relation to period roads and housing locations. Dr. Patrick Martin and Gianfranco Archimede, "The Quincy Mining Company Smelting Works, 1898 Historical Land Use Survey Project," MTU, 2002. Note When overlaying the existing conditions over the HAER historic maps, the city of Hancock does not align with other areas in the Quincy Unit. Adjustments were made to reflect this difference. The period of change maps are for analysis purposes Chronology 1866 QMC constructed man engine. 1867 QMC constructed Quincy Township School (with addition HARDSCRABBLE in 1875-76), new No. 2 hoist PEWABI house, engine house, and boiler house. 1868 Franklin Street Quincy Tramroad reconstructed. Quincy Mining Company Property Continues West No.5 1870 Pewabic Mining Company Property Continues **COBURNTOWN** Swedetown abandoned 1872-1873 No.4 LIMERICK QMC constructed rockhouse No.2 1874 No.1 Approximate QMC constructed dispensary 1875-1876 Location of the QMC constructed six double Franklin Tram Road FRENCHTOWN house dwellings in Frenchtown. to Portage Lake No,2Wooden, two lane toll bridge wth a swing center section was Quincy constructed over Portage Lake, Township Pewabic linking the cities of Hancock and School School Houghton. 1877 LOWER Crest of Quincy Hill QMC expanded schoolhouse PEWABIC QMC Mine and Stamp Mill; No. 4 Office shafthouse was rebuilt. 1879 QMC Agent's Residence Telephone lines appeared. 1880 QMC rebuilt rockhouse No. 2. 1880s Railroad bridge constructed. 1880-188Ĭ QMC Agent's residence was constructed. 1881 Pumphouse was constructed at Quincy Stamp Mill site and No. Side-Hill Adit 2 shafthouse was rebuilt. 1882 SHANTYTOWN _{Franklin} St 1883 RR connection from Houghton Franklin to Marquette completed. ನ Quincy St Stamp Pewabic 1886 Mill Hancock St Quincy Stamp Mineral Range RR built branch Lake Linden Road Mill Stamp line to the Quincy Mine site. ********** Mill 1887 HANCOCK Water S New Quincy Stamp Mill site purchased on Torch Lake (see Lake Supeior regional context drawing for Smelter location) and rockhouse No. 3 was rebuilt. 1882 Shoreline Franklin Stamp QMC Stamp Mill PORTAGE LAKE Mill Sand Pewabic Stamp Sand Deposits Deposits Mill Sand Deposits Toll Bridge SCALE:

QUINCY UNIT, 1866-1887 PERIOD OF CHANGE PLAN

1000 2000

QUINN EVANS | ARCHITECTS

Rebuilding the Mine Surface Plant: 1889-1907

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Quincy's first step in constructing the Torch Lake mill was to build a boardinghouse for construction workers, whose final job would be converting it to a blacksmith, carpenter, and cooper shop.²⁰² The massive, sprawling mill that housed modern steam stamps stood partway up the hillside west of and across the road from the stone pumphouse, boilerhouse, oilhouse and warehouse. A large dock and coal handling facility improved the shipping and distribution of coal, while water was moved from the lake to the pumphouse via an adit with a stone cistern at the end. ²⁰³ A hoist and tram connected the dock and boilerhouse and fed fresh coal to the furnaces, while launders connected to two small creeks some 1,800 feet behind the mill and brought water to the boilers. ²⁰⁴ An elevated waste launder and an adjacent water and steam pipe conduit functioned as a covered bridge by supporting the infrastructure above the road while accommodating pedestrian traffic below. ²⁰⁵ The Torch Lake mill featured many of the facilities offered at the Portage Lake site, but its design incorporated the latest materials and technology, and resulted in a grander, more organized site.

²⁰² O'Connell, "Stamp Mills," 607.

²⁰³ Ibid., 609.

²⁰⁴ Ibid., 607.

²⁰⁵ Ibid., 609.



Figure 2- 26: An opposing view, ca. 1890, from the ravine offers a detailed look at landscape conditions near the trestle entering the mill with Torch Lake and support facilities in the distance. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-150)

The new mill operation relied on a single critical link to the mine – the Quincy and Torch Lake Railroad. As with the mill site, construction began in 1888. The track was completed in 1890, with six miles of new narrow gauge rail waiting for locomotives burdened by the weight of copper rock to polish its surface.²⁰⁶ The new railroad opened in time to service the newly completed mill, and featured fifty-foot diameter iron turntables on each end, coupled with water tanks, and a stone engine house at the mine site.²⁰⁷ Later in the year, the railroad would

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206 Ibid., 650, 654, 659. 207 Ibid., 660.

208 Ibid., 664.

extend a telephone line between the mine and the mill.²⁰⁸

Figure 2- 28: An undated photo showing the Engine House and turntable (1889) with the No. 4 Rockhouse (1887) in the background. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-72)

Recognizing the distance of its newly created operation from its neighborhood locations and other residential communities, Quincy quickly established quarters for the mill's workforce. The village of Mason emerged near the mill site, first as six "substantial frame dwelling houses" on Bunker Hill, north of the mill, followed by forty-eight single family dwellings and one boardinghouse located even closer to and south of the worksite. Pollowing this, the company built a twenty-six by thirty foot schoolhouse that seated the nearly thirty children of the workers who occupied the homes. Closer to the mine, the company began speculating on property development by platting some of its lands bordering Hancock and selling residential

209 Ibid., 607. See also Lankton and Hyde, Old Reliable, 85. 210 McNear, 547-548.

- lots. In 1890 it platted the Quincy Addition to Hancock just outside the eastern edge of the
- 2 village, where today it is known as East Hancock.²¹¹ This location proved desirable to early
- 3 residents, as many stately and elaborate homes were constructed there.



Figure 2- 29: A photo, ca. 1890, showing the landscape associated with the Carpenter Shop, Blacksmith Shop, Boarding house and Bunker Hill residences resulting from the Torch Lake mill development. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-171)

211 Ibid., 522. See also Lankton and Hyde, Old Reliable, 92.

1 Quincy introduced balanced hoisting at shaft Nos. 2 and 4 shortly after the mill and 2 railroad began operation in March of 1890.²¹² This method of hoisting allowed counterbalanced 3 skips to retrieve nearly double the output of copper rock at the surface and the increased waste required a second dump at both shaft houses.²¹³ Balanced hoisting also introduced man cars, 4 5 which were able to take workers much deeper than man engines.²¹⁴ 6 Quincy was poised for rapid growth and expansion after building the new mill, the 7 Quincy and Torch Lake Railroad, and the move toward balanced hoisting on double skip tracks. 8 The company turned its attention to the mine's surface plant, which, although functional, was 9 showing its age even after operating only two shaft houses for the last twenty years.²¹⁵ The 10 successful growth of a large electrical industry would soon create demands for new products 11 and the copper necessary to produce them.²¹⁶ This copper boom would lead to more changes 12 on the landscape, as Quincy worked to modernize its surface plant and increase copper 13 production. 14 Quincy had begun assessing the lands of the Pewabic Mine, its northern neighbor, in 1884 for the purposes of expanding the mine and improving its surface operations.²¹⁷ The 15 16 purchase transaction resulted in a legal dispute that was not settled until 1891, when they 17 legally gained control of the Pewabic Mine property.²¹⁸ The acquisition of Pewabic's surface

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²¹² Lankton, "Technological Change," 341. See also O'Connell, "A History of the Quincy and Torch Lake Rail Road Company," in HAER No. MI-2, an unpublished report for the National Park Service, Historic American Engineering Record (Washington, DC: 1978), 663.

²¹³ Lankton, "Technological Change," 341.

²¹⁴ Lankton and Hyde, Old Reliable, 64. See also Lankton, Cradle to Grave, 35.

²¹⁵ Lankton, "Technological Change," 362.

²¹⁶ Lankton, Cradle to Grave, 23.

²¹⁷ Hyde, "Business History," 143.

²¹⁸ Ibid., 145.

- 1 plant included a combination shaft-rockhouse, several shops, mine buildings and additional
- worker's homes, many in poor condition.²¹⁹ Buildings were rehabilitated, given new uses, or
- 3 torn down to make way for other improvements.²²⁰ One of the improvements was the
- 4 extension of railroad tracks to service this newly acquired property.²²¹



Figure 2- 30: Undated view of South Pewabic rockhouse and tramroad. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

221 O'Connell, "Rail Road," 664.

²¹⁹ Lankton, "Technological Change," 361. See also Lankton and Hyde, Old Reliable, 85. 220 Hyde, "Business History," 145. Refer also to Lankton and Hyde, Old Reliable, 52; and Lankton, "Technological Change," 351 and 361.

1 Quincy began construction of a new No. 6 shaft-rockhouse and associated rail lines by 2 removing approximately 40,000 cubic yards of waste rock that Pewabic had generated. 222 This 3 illustrates the tremendous amount of waste material the mines produced, as well as the 4 company's matter-of-fact attitude toward overcoming huge industrial obstacles by expending 5 great amounts of physical labor. The shaft-rockhouse was an architectural adaptation unique to 6 the Keweenaw. It combined the workings of a shafthouse with those of a rockhouse.²²³ By 7 hoisting copper rock high enough, it could be dropped into a series of crushing equipment and 8 sorting bins above railroad sidings.²²⁴ Once crushed and sorted, the rock was directed into 9 waiting rail cars below via a number of chutes. This process averted the bottlenecks that 10 occurred if one rockhouse tried to process copper rock from multiple shafts.²²⁵ It also eliminated 11 labor and handling, because crushed and sorted material no longer needed to be transported to 12 a stand-alone rockhouse for processing.²²⁶

²²² Lankton, "Technological Change," 363.

²²³ Research by Scott See indicates that shaft-rockhouses are unique to the Keweenaw, designed in response to the demands of the Keweenaw's particular climate, geology, and mining methods. Ongoing personal communication; formal presentation at MTU Archival Speaker Series, January 23, 2006.

²²⁴ Lankton, "Technological Change," 365.

²²⁵ Lankton and Hyde, Old Reliable, 68.

²²⁶ Lankton, Cradle to Grave, 51.

Figure 2- 31: An undated photo of the Quincy No. 6 shaft-rockhouse front elevation taken by Earl Gagnon. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

The resulting No. 6 shaft-rockhouse was consequently much larger than the shafthouses before it. Monumental in scale and standing more than 100 feet high, it became a multi-gabled wooden landmark on Quincy Hill when it began operating in 1892. No. 6 was linked by pulley stands that guided cables to a new masonry hoist house constructed of red Portage entry sandstone.²²⁷ To support its operation, Quincy also erected a stone boiler house and stone compressor building to the southeast. ²²⁸

227 Ibid. See also "Technological Change," 360, 363, and 365. 228 Lankton, "Technological Change," 368.

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Quincy was already increasing the capacity of its new mill in 1891, and implemented several improvements. The mill was expanded to house additional steam stamps; pump and boiler houses also increased in size and capability.²²⁹ The mill site also gained 400 feet of dock.²³⁰ Quincy extended its side hill adit 200 feet, and reached the seventh level of the mine in 1892. It added a launder to intercept groundwater seeping into the mine and redirect it out through the adit.²³¹

²²⁹ O'Connell, "Stamp Mills," 612. 230 Ibid., 611.

²³¹ Lankton, "Technological Change," 369.

1 In 1893 Quincy further improved the Torch Lake mill site by relocating steam and water 2 lines from a trestle to a tunnel. This tunnel was constructed between the mill and the boiler 3 house "thus lessening the fire risk and saving many other annoyances." 232 By August of 1893, 4 Quincy was disassembling their mill on Portage Lake. 233 In its place it constructed a sandstone 5 pump and boilerhouse to provide water to the mine site. At the mine site itself, Quincy erected 6 a new carpenter shop, supply office and oil house for lubricants, all in the vicinity of the No. 2 7 shaft.234 8 With the Pewabic acquisition complete, Quincy recognized a need to purchase 9 additional acreage. Their two northernmost shafts, 2 and 6, were already near company 10 boundaries, and unless it obtained title to the adjacent property, Quincy would be unable to 11 extend the shafts deeper.²³⁵ The purchase gave Quincy ownership of the western half and 12 northeast quarter of Section 23; the mineral rights to the northwest quarter of section 24 13 (Franklin owned the surface rights); and the surface rights on the southeast quarter of Section 23 (Quincy owned the mineral rights).²³⁶ With land secured, the company was able to make a large 14 15 investment in No. 2 in 1894-95 by building a new shaft-rockhouse that mirrored the design of 16 No. 6.²³⁷ Late in 1894, it also installed a new switch at the No. 2 shaft and added a stall to the 17 roundhouse to accommodate a new engine.²³⁸

²³² O'Connell, "Stamp Mills," 612.

²³³ Ibid., 601.

²³⁴ Lankton, Historic Resource Study, 151.

²³⁵ Lankton and Hyde, Old Reliable, 54.

²³⁶ Hyde, "Business History," 169.

²³⁷ Ibid., 158. See also Lankton, "Technological Change," 371.

²³⁸ O'Connell, "Rail Road," 666.

1 Anticipating even greater production, the company began seeking a site for a second 2 mill in 1894, ultimately choosing to locate it approximately 630 feet north of the Torch Lake mill. 3 It was planned to be of similar design and construction to the neighboring mill, but with three heads of stamps with room for expansion.²³⁹ To service the mill and aid in its construction, the 4 5 railroad was extended 1,300 feet and included a 122-foot steel bridge spanning North Creek 6 between the buildings. This work, along with replacement of wooden trestles and construction 7 of a new 281 by 385-foot coal storage shed, was completed in 1895.²⁴⁰ 8 Once the new mill was operational, Quincy turned its attention back to the mine site. 9 Like No. 6, shaft No. 2 was remodeled into a shaft-rockhouse and began operating in 1895, with 10 the addition of a new sandstone hoist house to the southeast.²⁴¹ The new structure 11 accommodated double skip tracks and man cars, which allowed miners to quickly descend even 12 deeper into the mine - an important consideration as Quincy's shafts were by that time among 13 the deepest in the world. 14 Upgrades at the mine site continued through 1895. More support buildings were 15 constructed, including a paint shop and a pipe house located northeast of the No. 2 shaft.²⁴² 16 Across the county road, Quincy built an addition on the school to provide two more rooms and 17 a connection to an outhouse wing.²⁴³ The company's surface improvements also included 18 expanding its real estate holdings, particularly as the difficulties of extracting rich copper ore 19 from the depths of the Pewabic lode increased. Neighboring properties offered additional

²³⁹ O'Connell, "Stamp Mills," 613.

²⁴⁰ O'Connell, "Rail Road," 667-668.

²⁴¹ Lankton, "Technological Change," 372.

²⁴² Lankton, Historic Resource Study, 151.

²⁴³ McNear, 548.

- workable deposits; Quincy bought the Mesnard and Pontiac mining companies at a sheriff's
- 2 sale in July 1896 for \$34,050. Included in the purchase were two quarter sections on the Pewabic
- 3 lode adjacent to existing holdings, and 901 acres in Osceola Township that included Torch Lake
- 4 frontage.²⁴⁴ This purchase gave Quincy exclusive ownership of the Pewabic lode at the surface,
- 5 minus one parcel still owned by the Franklin Mining Company.²⁴⁵



Figure 2- 33: An undated photo of the Quincy schoolhouse near Frenchtown shows a landscape that included lawn and trees, unlike barren areas associated with the mine location. (source: Image 275 courtesy of HAER)

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244 Lankton and Hyde, Old Reliable, 54. See also Hyde, "Business History," 171. 245 Ibid. See also Lankton, "Technological Change," 360.

1 At the same time it was acquiring those properties, Quincy decided to invest in a new 2 mine office.²⁴⁶ It chose to build it next door to their old mine office, in the spot where North's 3 store was located. The store was relocated further up the hill into a larger stone building, and 4 the site was cleared.²⁴⁷ This approach allowed the office to keep its prominent location on 5 Quincy Hill, and for the existing wood frame office building to remain in use as the new 6 building was being built.²⁴⁸ When the project was completed in 1897, the front lawn was 7 separated from the public road by a wood fence and sandstone curb. ²⁴⁹ 8 Crafted of Portage Entry sandstone and topped by a slate roof, the new office 9 symbolized Quincy's corporate success and confidence. While improvements to mining and 10 surface operations were justifiable expenses aimed directly at increasing productivity, a new 11 and expensive office building did not afford the same return. Instead of addressing their need 12 for improved office conditions pragmatically, as they did with other issues directly affecting 13 their surface plant, Quincy's leaders used the new, elegant mine office to proclaim their 14 corporate self esteem. In doing so, they were imitating their neighbor, the Calumet and Hecla 15 Mining Company (C&H), located only twelve miles north; C&H had long expressed its 16 corporate success and strength through impressive construction efforts.

²⁴⁶ McNear, 557.

²⁴⁷ Ibid., 553.

²⁴⁸ Ibid., 557.

²⁴⁹ Lankton, "Technological Change," 369. See also McNear, 557.

²⁵¹ Ibid.



Figure 2- 34: View of Quincy Mine Office and landscape ca.1920. Note how Quincy retained wooded areas and trees near the management buildings and houses. (source: Koepel Collection, Keweenaw National Historical Park Archives)



Figure 2- 35: The old mine office (left) waiting to be removed as construction of the new mine office (right) is completed. (source: Photo MI-2-77 courtesy of Historic American Engineering Record)

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Quincy's economic success was further demonstrated by additional building projects in 1897. They built an assay office on Quincy Hill, and began work on shaft-rockhouse No. 7 and its associated facilities.²⁵¹ This steel shaft-rockhouse was serviced by a nearby stone boiler house and sandstone hoist house.²⁵² When the company that was smelting their material closed in 1887, Quincy was forced to rely on the smelting capabilities of the Lake Superior Smelting Company and C&H until 1898, when they finally completed the construction of their own smelting facility on Portage Lake.²⁵³ The smelter was also a response to the increased volume of rock mined by Quincy: even just ten years earlier they did not produce enough to justify the

²⁵² Ibid., 374, 376.

²⁵³ Hyde, "Business History," 172, Yarbough, Comments provided by Quincy Mine Hoist Association Manager

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

- 1 expense of building their own.²⁵⁴ They located their smelter on the stamp sand-covered
- 2 grounds of Pewabic's former stamp mill.²⁵⁵
- 3 The site's construction began with dredging the shoreline and inserting pilings for the
- 4 loading dock. Then, foundations were laid for the two main buildings of the works, the
- 5 reverberatory furnace building and the cupola furnace building, along with the blacksmith shop
- 6 and engine room. These buildings were soon joined by three reverberatory furnaces and their
- 7 75-foot smokestacks. The smelting operation's complexity is reflected in the number of
- 8 buildings that were then built to support its operation: a dockside warehouse; cooper shop;
- 9 cooperstock building; coal shed; charcoal house; sand house; assay office; coal dock; oil house;
- scale house; and a barn were all completed by the end of 1898. The main office building, ice
- 11 house and iron house were completed the following year.²⁵⁶

Historical Land Use Survey Project, (Industrial Archeology Program, Michigan Technological University, June 2002) 5.

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²⁵⁴ Lankton and Hyde, Old Reliable, 79.

²⁵⁵ Lankton, Historic Resource Study, 155. See also Hyde, "Business History," 174.

²⁵⁶ Dr. Patrick Martin and Gianfranco Archimede, The Quincy Mining Company Smelting Works, 1898 -

Figure 2- 37: The Quincy Smelting Works, with Quincy Hill in the background, as viewed from Houghton in the early 20th century. (source: Photo MI-2-174 courtesy of Historic American Engineering Record)

By 1898, company housing at Quincy had changed greatly. The acquisition of other mining companies and their assets contributed to the increase in the number of worker's houses that Quincy owned. The Pewabic purchase alone added three entire neighborhoods to Quincy's collection, including Newtown, Lower Pewabic, and one quarter mile of frontage along the west side of the county road.²⁵⁷ Private home construction on leased company land, like the fifteen

257 McNear, 525. Coburntown also figured in this transaction. In 1859, Augustus Coburn purchased a quarter section of land which he later sold to the Pewabic Mining Company, except for 5 acres that he

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- 1 homes in the small enclave of Sing-Sing, also altered the Quincy landscape.²⁵⁸ By 1898, Quincy
- 2 managed several neighborhoods of worker housing, and owned more than 300 homes.²⁵⁹ This
- 3 was also the year that Quincy stopped leasing their farm, the location of which remains
- 4 unclear.²⁶⁰
- 5 Other investments in 1898 included railroad improvements, the construction of several
- 6 utility trenches, and a new sandstone blacksmith shop between No. 6 and No. 2.261 Efforts to
- 7 improve their infrastructure continued into the following year with the completion of a machine
- 8 shop right next to the blacksmith's, powered by electricity. Quincy also built a boiler house for
- 9 No. 2 adjacent to the No. 6 facility, and a compressor building.²⁶²
- 10 Quincy's preoccupation with real estate continued through 1899, when they platted the
- 11 Quincy Hillside Addition north of Hancock.²⁶³ The company directed this effort across
- 12 Shantytown, a part of their property established in the 1860s and already settled through land
- 13 leases. They exercised control of the built environment by platting lots in a manner they viewed
- 14 as appropriate, regardless of the location of previously established dwellings. Residents that

platted in order to sell lots. This community was called the Village of Pewabic, but was informally known as Coburntown. When Quincy purchased the Pewabic properties, they platted East Quincy immediately adjacent to Coburntown, which remained an independent community. As Coburntown residents were beyond the reach of company control with regard to housing, the neighborhood became, in one researcher's words, a "safe haven" for employees who wished to discuss work conditions outside of company property. Coburntown became known as "Helltown," a nickname earned perhaps due to its two saloons – businesses notably missing from company-owned locations – and possibly because of its acceptance of dissenting opinions and activities. See Rachael Herzberg, National Register of Historic Places Registration Form: East Quincy (2004).

258 Ibid., 522.

259 Ibid., 526.

260 Ibid., 560. An uncataloged collection of maps at MTU indicated several possible locations of Quincy's farm, which appears to have been divided into several small workable areas or plots.

261 Hyde, "Business History," 175.

262 Lankton, "Technological Change," 380.

263 Lankton and Hyde, Old Reliable, 92.

- 1 held land leases were offered discounts to purchase their lot, or were displaced by the
- 2 development of roads. Those who inhabited homes that Quincy determined were of
- 3 unacceptable appearance, size, or that were positioned at a poor angle to the street were
- 4 subsequently reimbursed for the cost of their home and relocated to other company housing.²⁶⁴
- 5 Residents had little agency in determining their surroundings, as the company made these
- 6 decisions for them. Naturally, these actions were consistently in the company's best interest
- 7 and driven by the pursuit of profit.



Figure 2- 38: "Scheme for Shantytown," October 1899 (source: MS012-QD2176, image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)..

264 McNear, 522.

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1 Eighteen homes were added at Mason and thirty six at Lower Pewabic in 1899.²⁶⁵ 2 Further up the Hill, Quincy began operations at an abandoned Mesnard mine they called No. 3 8.266 Here, they built twelve more homes, presumably to meet the needs of workers at this 4 location.²⁶⁷ The company also constructed generous accommodations for the superintendent of 5 the smelting works near Ripley, and for a mining captain on Quincy Hill.²⁶⁸ 6 Quincy clearly paid a lot of attention to housing in 1899, but their single largest 7 development effort remained industrial: they built a second mill at their Torch Lake site. This 8 new mill was made of steel and featured a corrugated metal exterior that was built to last and 9 be easier to maintain than their 1891 mill.²⁶⁹ A new steel building served as the boiler house, 10 while the pumphouse was made of brick and steel. Both buildings were connected to the mill 11 by a masonry tunnel.²⁷⁰ Rock was delivered to receiving bins at the rear of the mill by railroad, 12 while coal was delivered to the site at a 216 by 40-foot wooden dock.²⁷¹ The new mill was 13 operational by 1900. It had three stamps crushing rock, which met the needs of Quincy's larger 14 mine operation which by October of that year again included shaft No. 7.272 15 Quincy observed the turn of a new century amidst favorable reports of improvements 16 and progress, which were noted in the Copper Mining Handbook of 1900. Specifically, the handbook mentioned that "streets have the appearance of having been swept every morning." 17 18 It described the "tidiness" of the landscape at the mine and mill site, with "everything in its 265 Ibid., 525. See also Lankton and Hyde, Old Reliable, 85. 266 Lankton, "Technological Change," 360. 267 McNear, 525. 268 Ibid., 523. 269 O'Connell, "Stamp Mills," 614. 270 Ibid., 615. 271 Ibid., 616 and 618.

272 Lankton and Hyde, Old Reliable, 78. See also Lankton, "Technological Change," 374.

- 1 place."273 The improvements were acknowledged as "giant strides" regarding "machinery and
- 2 surface works improvements," on what they referred to as a "truly colossal scale." ²⁷⁴ In 1900,
- 3 Quincy's surface operation extended across 7,500 feet of the Pewabic lode. It included three
- 4 working shafts 2, 4, and 7 on their original property, while No. 6 operated on the former
- 5 Pewabic Mine site and No. 8 at Mesnard.²⁷⁵



Figure 2- 39: This view of Lower Pewabic from No.2, ca. 1905-1915, shows the regular arrangement of streets, homes, yards and gardens and other landscape features that present an image of organization and tidiness amidst a larger industrial landscape. (source: Image is courtesy of the Koepel Collection, Keweenaw National Historical Park Archives)

The growing prosperity and community development throughout the copper mining
district presented an opportunity for the community to address public transportation. By 1900,
the Houghton County Traction Company was organized, it began constructing a rail line

dedicated to streetcars and public transportation. Welcomed by some and resisted by others,

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 $^{273\} Lankton, "Technological\ Change,"\ 360.$

²⁷⁴ Ibid., 359.

²⁷⁵ Ibid., 360.

1 the company established a line between Houghton and Red Jacket within a few years. It 2 extended operations north to Mohawk and established a link to Lake Linden and Hubbell by 3 1910.²⁷⁶ The tracks ran directly through several of Quincy's residential neighborhoods on top of 4 Quincy Hill. 5 Quincy continued its real estate development efforts into the 20th century, and in 1901 6 the company platted the Lake Shore Addition in West Hancock. Located between Portage Lake 7 and the cemeteries, much of this area was donated to the Sisters of St. Joseph Hospital.²⁷⁷ 8 Furthermore, in 1901 Quincy began to resurvey the Quincy Addition to Hancock with an eye 9 toward improving lots for development. The process of resurveying would not be complete 10 until 1905, when the Dakota Heights Real Estate Company began filling an existing ravine to 11 accommodate the proposed development. It would take more than ten years to complete the 12 residential project that ultimately altered the appearance of Hancock, but provided no new 13 housing options for Quincy's workers.²⁷⁸ That occurred in 1903, when Quincy platted South 14 Quincy between East Hancock and neighboring Ripley, in order to provide a residential area 15 suited for the smelter workers. This was followed in the same year by the Second Hillside 16 Addition, just north of the original Hillside Addition of 1900.²⁷⁹ 17 Back at the mine location, Quincy was quick to migrate to electric locomotives to load 18 and move rock underground. This change had occurred a few years earlier on the Marquette 19 Iron Range; presumably, as the locomotives were manufactured by General Electric, the switch

²⁷⁶ Lankton, Cradle to Grave, 217.

²⁷⁷ McNear, 526.

²⁷⁸ Ibid.

²⁷⁹ Ibid.

- 1 resulted in an increased presence of electric utility poles and wires to service the mine. Power
- 2 to the site was provided by the Peninsula Electric Light and Power Company, a local utility. 280
- 3 Power was also an issue at the milling facilities on Torch Lake: expanding mill operations
- 4 required additional fuel. With operations depending heavily on coal, Quincy initiated
- 5 construction of an efficient coal unloading and storage facility in 1901. The facility included
- 6 three steel towers, a 385 by 301-foot steel coal storage shed, and all the necessary railroad
- 7 service connections.²⁸¹ It began operating in July of 1902.²⁸² Later, in 1904, a mineral house was
- 8 constructed at the west end of Quincy's No. 1 mill site on Torch Lake.²⁸³

²⁸⁰ Lankton and Hyde, Old Reliable, 61.

²⁸¹ O'Connell, "Stamp Mills," 623.

²⁸² O'Connell, "Rail Road," 670.

²⁸³ O'Connell, "Stamp Mills," 624.

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Figure 2- 40: coal handling equipment and the adjacent coal shed at the Torch Lake mills. (source: Photo courtesy of Historic American Engineering Record, HAER MI-2-169)

1904 brought about changes with the railroad, but they were administrative in nature and do not seem to have resulted in immediate changes to the landscape. In June of that year, the Quincy and Torch Lake Railroad stockholders had authorized the sale of the railroad to the Quincy Mining Company. For \$190,811.23 Quincy purchased the rolling stock, one turntable, the engine house and all of the switches and trestles owned by the railroad. The primary six mile rail line and right of way were retained by the railroad, and leased to Quincy for \$850 a month. The deal was completed on April 4, 1905.²⁸⁴

284 O'Connell, "Rail Road," 677.

By that time, Quincy had grown accustomed to success. The company had endured difficulties and overcome many challenges during its nearly sixty years of operation. It had modernized and increased its footprint on the surface in a monumental fashion. Its success and prosperity were demonstrated in several ways, including: physical plant and technological improvements that reconstructed the landscape in which they operated; land and mine acquisitions; increased production that yielded twelve times more rock, at twice the depth, than in 1887; higher profits and payment of reliable dividends to stockholders; and a substantially larger workforce.²⁸⁵ In fewer than twenty years, Quincy had grown demonstrably larger and more complex.²⁸⁶ Acknowledgement of their achievements came at the St. Louis World's Fair in 1904, where they received international recognition and a gold medal for their copper mining exhibit.287 If one compares Quincy's operational history with climbing a mountain, then in 1905 the company was approaching the summit. However, Quincy was unaware that it was reaching the pinnacle of their success. The money required to sustain a mining operation of its magnitude and satisfy its appetite for mineral resources and wealth were demanding, and tied to variables beyond the company's control. Changing copper markets and mining practices, competition from other mines, and labor demands would soon require Quincy's managers to alter their practices radically, but they did not. Seemingly blind to changing circumstances, the company continued forward in much the same the manner that had brought it so much success

285 Hyde, "Business History," 180. Quincy had reached a depth of 5,000 by 1905. 286 Ibid.

287 Ibid., 185.

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1 Following its major construction and rehabilitation efforts, Quincy's focus and 2 expenditures shifted toward maintaining mine support facilities, where typically only minor 3 modifications were needed to sustain operations.²⁸⁸ Exceptions to this did occur and large 4 projects still ensued but at a notably more modest pace and scale than the company's previous 5 endeavors. For instance, in 1905-1906 Quincy modified the No. 8 shaft-rockhouse by rebuilding 6 the wooden rockhouse portion, using steel-frame construction to increase its height. This action 7 was repeated two years later at No. 7 when new rock sorting equipment was installed.²⁸⁹ Also in 8 1905, Quincy enlarged the dispensary to provide additional office space.²⁹⁰ 9 Land ownership remained an important issue for the company during the early part of 10 the 20th century. Although new construction activities slowed, Quincy continued to acquire land 11 strategically in order to expand its underground operations. The shaft at No. 8 would be limited 12 to 2,500 feet if the company did not acquire property or mineral rights from the Arcadian Mine. 13 Therefore, in 1906 Quincy spent \$765,000 in 1906 to secure Section 13, and the north half of Section 18, Range 33 from the Arcadian Mine.²⁹² This is where the Pewabic vein saw the light of 14 15 day as a rock outcrop.²⁹³ 16 Events below the surface in 1906 also demanded the company's attention. That year, 17 Quincy began to experience a series of troubling collapses within the mine.²⁹⁴ These events, 18 known as "air blasts," occurred when unstable overhead rock would fall, compressing air and

²⁸⁸ Lankton and Hyde, Old Reliable, 113. See also Hyde, "Business History," 213.

²⁸⁹ Lankton, "Technological Change," 452.

²⁹⁰ McNear, 542.

²⁹² Ibid., 221 and 216.

²⁹³ Ibid.,

²⁹⁴ Lankton and Hyde, Old Reliable, 107.

- 1 forcing it rapidly through the existing drifts and shafts. The size and severity of these events
- 2 varied greatly, but the outcome was never positive. October 13 saw a surface collapse between
- 3 the No.6 dryhouse and a captain's office that claimed the life of John Shea, a forty-year
- 4 employee. His years of experience laboring at the mine did not prevent him from being
- 5 swallowed alive by a hole that extended 400 feet deep into the earth.²⁹⁵ Even when no personal
- 6 injuries resulted from collapse, flying rock and debris damaged equipment, interrupted work,
- 7 created access problems, increased production costs, and likely lowered morale.²⁹⁶ The blasts
- 8 continued to plague Quincy intermittently through the late 1920s.²⁹⁷

9 The more reserved investment strategy exercised by Quincy can be seen in the 1907

10 construction report. Projects remained focused on installing new equipment within older

structures, and rehabilitating older structures to accept new uses or improvements.²⁹⁸ Yet the

company continued to build where needed. A new compressor house at No. 8 and a new

machine shop at the smelter were added at this time.²⁹⁹ Quincy also built seven double and

seven single saltbox style houses in Mesnard, in addition to repairing many others in 1907-

1908.³⁰⁰ These homes were arranged in rows parallel to the County Road, similar to the pattern

16 in Limerick.³⁰¹

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²⁹⁵ Lankton, Cradle to Grave, 128.

²⁹⁶ Lankton and Hyde, Old Reliable, 99.

²⁹⁷ Ibid., 107.

²⁹⁸ Hyde, "Business History," 213.

²⁹⁹ Ibid.

³⁰⁰ McNear, 529.

³⁰¹ Ibid.

Figure 2- 41: An undated view from No. 6 north along County Road toward No. 8 with Mesnard beyond. (Source: Koepel Collection, Keweenaw National Historical Park Archives)



Figure 2- 42: View of Limerick from No. 2, ca.1920, (source: Koepel Collection, Keweenaw National Historical Park Archives)

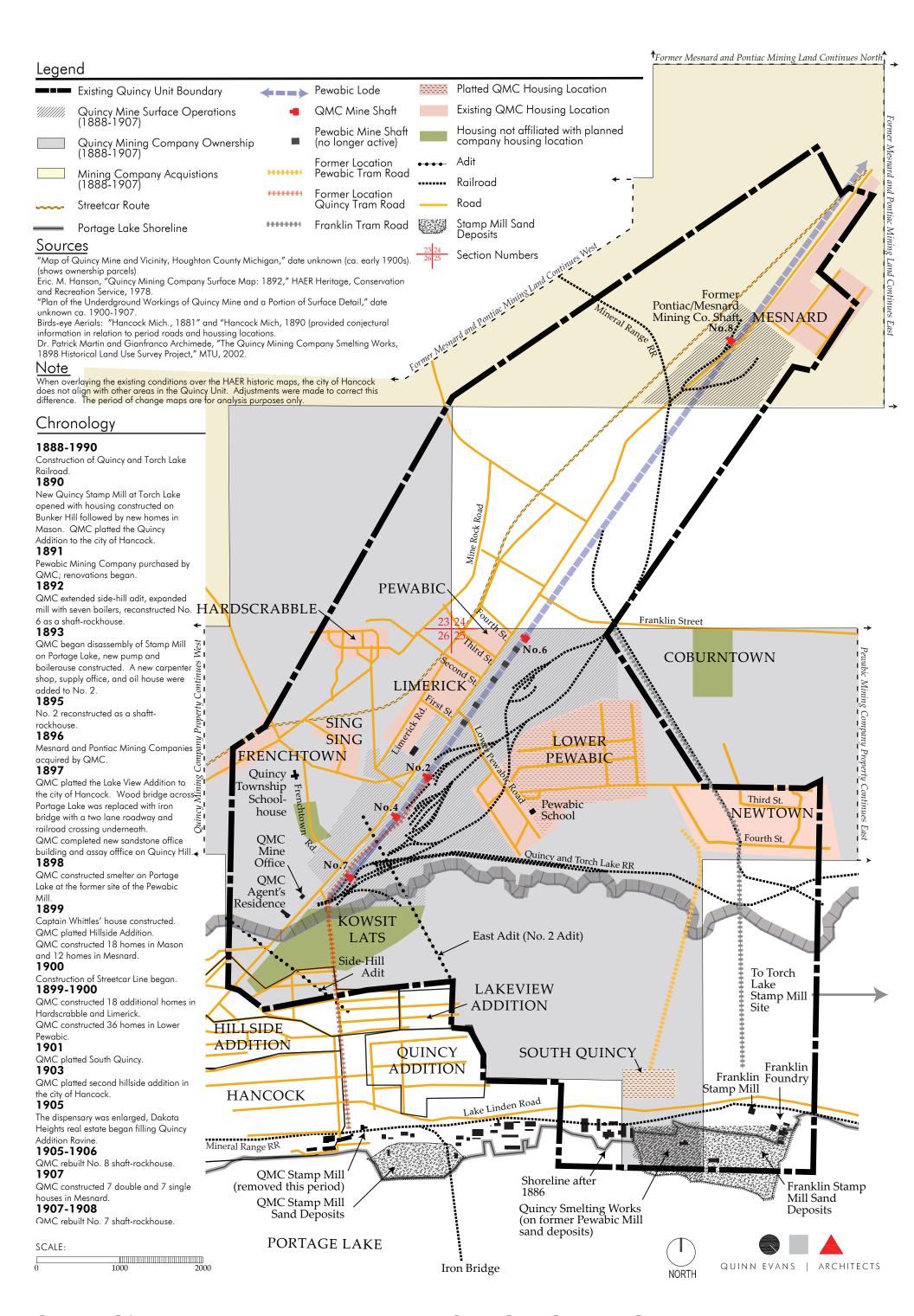
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Figure 2- 43: Quincy Unit, 1889-1907 Period of Change Plan

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20th Century Operations: 1908-1945

2	Quincy relied on strategic management and its financial resources to expand its
3	operation and overpower many local competitors. By purchasing mineral lands west of the
4	Franklin Mine in 1893, Quincy effectively boxed that company in and limited the extent of their
5	operation. The maneuver meant that "Franklin could no longer function as a mine," and
6	eventually forced a negotiated sale in 1908.302 When the deal was inked, the purchase price of
7	\$170,000 included a valuable strip of Section 25 connecting Quincy's hilltop operations to
8	Portage Lake, which provided the land needed to expand the smelter. ³⁰³ The acquisition of the
9	Franklin Mine also meant the addition of no less than fifty company houses for Quincy. Most of
10	these dated to 1890 or earlier, and were located in the Backstreet neighborhood, with the
11	balance found in Franklin. ³⁰⁴
12	Backstreet and Franklin were the latest additions to an eclectic collection of distinct
13	neighborhood settlements on top of the Hill. The neighborhoods varied in many ways,
14	including geographic location, spatial arrangement, circulation patterns, scale, orientation and
15	architectural plans and styles. The increasing number of homes under Quincy's ownership
16	reflected a growing population throughout the mining district. According to the 1904 state
17	census, 6,029 people lived in the combined area of Quincy and Franklin Townships. Hancock
18	was home to another $6,037.305$ By 1910, more than one hundred thousand people would
19	populate the copper district within Keweenaw, Houghton and Ontonagon counties, with the

³⁰² Hyde, "Business History," 216.

³⁰³ Ibid., 217-218.

³⁰⁴ Backstreet was the larger community. McNear attributes 50 houses to Backstreet; Lankton and Hyde identify 60 houses in Backstreet and Franklin. See McNear, 529, and Lankton and Hyde, Old Reliable, 132. 305 Lankton and Hyde, Old Reliable, 92.

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

- 1 vast majority over 88,000 living in Houghton County.³⁰⁶ Whether in Quincy's oldest
- 2 neighborhoods or its newest, residents petitioned mine managers for home improvements like
- 3 electricity, indoor plumbing and painting.³⁰⁷
- 4 Quincy invested in several shaft-rockhouse projects in 1908. They raised the height of
- 5 the No. 8 shaft-rockhouse by eight feet to provide increased rock storage capacity.³⁰⁸ They
- 6 began to disassemble the No. 2 shaft-rockhouse, and at the same time built a 150-foot tall steel
- 7 replacement.³⁰⁹ Construction of a new No. 9 shaft (Pontiac) 2,700 feet north of No. 8 proved to
- 8 be a large financial undertaking, and it featured a much smaller timber shaft-rockhouse than
- 9 those Quincy had previously built.310

³⁰⁶ Lankton, Cradle to Grave, 22. See

http://fisher.lib.virginia.edu/collections/stats/histcensus/php/newlong3.php for county-level population statistics.

³⁰⁷ Ibid., 153.

³⁰⁸ Lankton, "Technological Change," 453.

³⁰⁹ Ibid., 454. See also Lankton and Hyde, Old Reliable, 68.

³¹⁰ Hyde, "Business History," 213. See also Lankton, "Technological Change," 445.

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Figure 2- 44: The steel frame of the No.2 shaft-rockhouse is seen next to the wood structure it replaced (source: Photo MI-2-15 courtesy of Historic American Engineering Record)

About the same time that No. 9 began operations in 1909, Quincy's No. 4 was taken out of service. The shaft was closed and its rockhouse taken down, while support facilities like the boiler and compressor houses remained.³¹¹ The closure of a single mine shaft meant others faced increased pressure to assume additional hoisting duties. It is also likely to have influenced the distribution of waste material on the surface. Poor rock removal was a necessary

311 Lankton, "Technological Change," 445.

1 part of mining but it did not yield profits. The movement of this material was limited to keep 2 costs low and to use labor for more important tasks. Limiting the number of shafts from which 3 it was hoisted and removed may have concentrated large volumes of the poor rock around 4 operational shafts and the railroad lines that serviced them. 5 In 1910, Quincy purchased 800 acres that included all of Section 14 as well as the 6 northeast quarter of Section 22 from the St. Mary's Canal Mineral Land Company. The 7 acquisition secured land with mineral rights which allowed for the extension of shafts Nos. 2, 6, 8 8, and 9.312 As Quincy looked to the future, they explored further north along the Pewabic vein. 9 These efforts "reflected the faith that Quincy's managers and stockholders placed in 10 the...vein."313 In fact, the company's success has been credited to its "unprecedented depths 11 and sufficient richness."314 Its extent could not be predicted, but the fortunes of the company, 12 and the future of those who built their lives around it, depended upon the continued, profitable 13 extraction of this finite resource - copper.³¹⁶ 14 By 1911, Quincy needed to address the condition of its railroad. Locomotive No. 2 had 15 worn out, was removed from service, and scrapped a few years later.³¹⁷ In the following year 16 they replaced their two turntables with "Y's" in the track section; the turntables were removed, 17 the pits filled, and tracks were installed to allow the locomotives to turn around.³¹⁸ Steel trestles

³¹² Hyde, "Business History," 217-18.

³¹³ Ibid.

³¹⁴ Ibid., 231.

³¹⁶ Ibid.

³¹⁷ O'Connell, "Rail Road,"662.

³¹⁸ Ibid., 679

- 1 received additional care as they were repainted at the same time.³¹⁹ Improvements continued
- 2 into 1912, and included installing new crushing equipment and raising the No. 6 shaft-
- 3 rockhouse to accommodate a greater volume of rock. 320

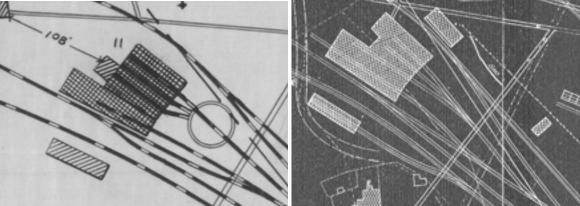


Figure 2- 45: Partial plan view dated October 1902 (left) and an undated partial plan (right) show the removal of a turntable and changes in railroad track layout. (Images courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

Quincy invested in a significant timbering operation at No. 9 and demolished the No. 4 shafthouse in 1913 before they were affected by a bitter and lengthy worker's strike that was called at every copper mine in the district.³²¹ An indication of changing circumstances locally, regionally, and nationally, the strike was spurred by long work days, low pay, and unsafe work conditions; no doubt the air blasts that rocked Quincy's shafts heightened the concerns of underground workers. The strike began in July and lasted until March of 1914. During this time, Quincy stopped operations at No. 9; the shaft would never be re-opened.³²² Likewise, No.

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³¹⁹ Ibid.

³²⁰ Lankton, "Technological Change," 453.

³²¹ Ibid., 445-446.

³²² Ibid., 447.

1 7 was closed and essentially mothballed as a consequence of the strike.³²³ The closures meant 2 that Quincy relied exclusively on shafts 2, 6, and 8.324 3 In spite of the disruption, Quincy still managed to earn large profits during the strike, 4 and continued to plan ahead. It acquired an additional 440 acres west of the stamp mills on 5 Torch Lake in Sections 27 and 28 of Township 55, Range 33.325 It continued to secure essential 6 goods and supplies. The company also continued to rent houses to workers. By 1914 Quincy 7 had weathered the strike, and normal operations resumed in the mine and at the surface plants. 8 The company did not realize that the turbulence of the strike was but a glimpse of difficulties 9 ahead, most unrelated to labor issues. Quincy was relieved to be operating successfully. With 10 an eye toward securing future profits - and buoyed by the First World War's effect on copper 11 prices - Quincy once again purchased additional land and mineral rights. The acquisition of 12 eighty acres in the southeast quarter of Section 22 provided Quincy with additional property to 13 be worked for the No. 2 and No. 7 shafts.³²⁶ 14 Quincy continued to extend their paternalistic role in the community between 1915 and 15 1918 by attending to various social needs and desires. They added to the dispensary, built a 16 new boardinghouse and remodeled three others, and initiated the construction of fifty houses.

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They also built a two-story brick community club house (also known as the bathhouse, because

of the bathing facilities it offered) across the road from No. 2 and installed a new water

³²³ Ibid., 446 and 448.

³²⁴ Ibid., 449.

³²⁵ Hyde, "Business History," 218.

³²⁶ Ibid., 254. Quincy acquired this land from the Hancock Consolidated Mining Company.

- 1 system.³²⁷ The construction of the bathhouse was an attempt to provide workers the same
- 2 amenities offered by C&H, their northern competitor; C&H had constructed a bathhouse a few
- 3 years earlier, and their facility served as a model for Quincy's. The company constructed a
- 4 water system to supply service to the club house and nearby residences with running water. 328



Figure 2- 46: The front elevation of the Quincy Club House ca. 1916-17. (source: Photo MI-2-264 courtesy of Historic American Engineering Record).

In 1916 an assay office was built at the smelter, while the mill site benefited from renovations to coal handling facilities and the erection of a 175-foot tall smokestack at the No. 1 boilerhouse.³²⁹ In the mine, Quincy changed its dewatering method from bailing skips to electric pumps. The amount of water to remove was greatly reduced when the company installed a

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³²⁷ McNear, 528 and 542. See also Lankton and Hyde, Old Reliable, 125 and 132; and Lankton, Cradle to Grave, 172.

³²⁸ McNear, 562.

³²⁹ O'Connell, "Stamp Mills," 630.

1 concrete gutter to intercept surface storm water and redirect it out of the mine via the sidehill

adit. Quincy's calculations claim that the gutter intercepted 45 million gallons annually that

3 previously required bailing. 330

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additions to existing locations. Of the homes built in 1917, "three...were built in Frenchtown,
 one in Sing-Sing, three behind the assay office, seven at a new location east of Hardscrabble,

Housing improvements focused not on the creation of new areas, but on infill and

7 two in Limerick, eleven at Mesnard, and twenty four at Lower Pewabic." In addition, Quincy

constructed six additional saltbox dwellings at its mill site in 1917-1918. This effort was

9 spearheaded by Mine Superintendent Charles Lawton, and was the last housing constructed by

the company.331 Lawton recommended the project "so that we can have a steadier crew about

the mine, fewer transient men, and more of the better families."332 His interest in housing and

neighborhood conditions suggest that the mine no longer conveyed its once tidy appearance.

His specific concerns suggest that the workforce had become temporary, less stable, and

beneath his standards – moral, educational, cultural, or otherwise.

Quincy must have been quite confident about their future to move ahead with its investments in company housing, not to mention a new schoolhouse in the Lake Annie District. Not surprisingly, industrial improvements were also initiated.³³³ At the mine they began to construct a grand hoist house for No. 2. It featured classic geometry, cast-in-place concrete, red brick walls and a green tile roof.³³⁴ It was located adjacent to the 1894 hoist house for the same

³³⁰ Lankton, "Technological Change," 438.

³³¹ McNear, 530.

³³² Ibid., 529.

³³³ Ibid., 548.

³³⁴ Lankton, "Technological Change," 464.

- shaft, and was designed to accommodate their 1917 order for the largest steam hoist in the
- 2 world.³³⁵ The hoist house was finished in 1918, but remained empty until late 1919, due to
- 3 restrictions on heavy machinery production during the First World War.³³⁶ In addition to the
- 4 hoist house project, Quincy increased its stretch in 1919 when it purchased 140 acres in Section
- 5 22, again from the Hancock Consolidated Mining Company. This gave them additional land to
- 6 be worked by shaft No. 2.337

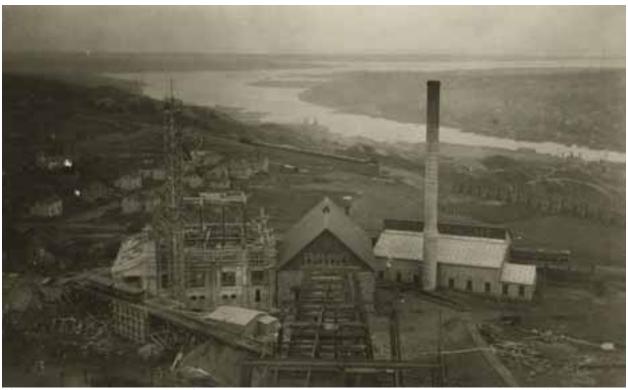


Figure 2-47: A southeast view from No. 2 taken August 13, 1918 shows the construction of the new hoist house and the surrounding landscape. Note the close proximity of worker homes and areas defined by vegetation. Other notable landscape features including snow fencing, a steam launder and a small bridge. (source: courtesy of the Koepel Collection, Keweenaw National Historical Park Archives)

³³⁵ Ibid., 461.

³³⁶ Ibid., 462. See also Lankton and Hyde, Old Reliable, 101.

³³⁷ Hyde, "An Economic and Business History," 254. See also Lankton, "Technological Change," 449.

With the No. 2 hoist house complete, Quincy again focused attention on the welfare of its workforce. Only two years after the clubhouse was completed, the company began to oblige workers with the toilets and bathing facilities they requested for their homes.³³⁸ To understand Quincy's efforts to meet the needs of their workforce, it is helpful to note that workers desired company housing, but the company never fully met the demand. As an example, the company employed between 1,646 and 1,801 men at the mine in 1919.339 At the same time, they owned approximately 419 houses.³⁴⁰ Even in the absence of precise numbers, one can still observe that the number of company homes fell far short of the number of workers. As during Quincy's early developmental stage, workers without company homes relied on boardinghouses or private housing to meet their needs. The company was also concerned with the physical setting, or landscape, of company homes. Mine superintendent Lawton even suggested in a July 1918 letter to Parsons Todd, Quincy's vice president, that it was "essential to the general morale of the labor force" that the company build fences around the employees' "little gardens." 341 Gardens played an important role in the lives of miners and their families, although the relationship of the company farm, garden plots and family gardens is not fully understood. Records indicate that 250 bushels of

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potatoes were harvested from the farm in 1919, and that employees were able to "lease potato

³³⁸ McNear, 531 and 562.

³³⁹ Reports on the number of actual workers vary. Sarah McNear counts 1,646 employees, while Lankton and Hyde identify 1,801 at the end of 1919. See McNear, 532, and Lankton and Hyde, Old Reliable, 132. 340 Electronic correspondence with A.K. Hoagland, MTU, November 6, 2006. 341 McNear, 513.

- plots and garden lots at three locations, Frenchtown, Backstreet and Klondike 'farms,' for a 1
- 2 ground rent of five dollars apiece."342

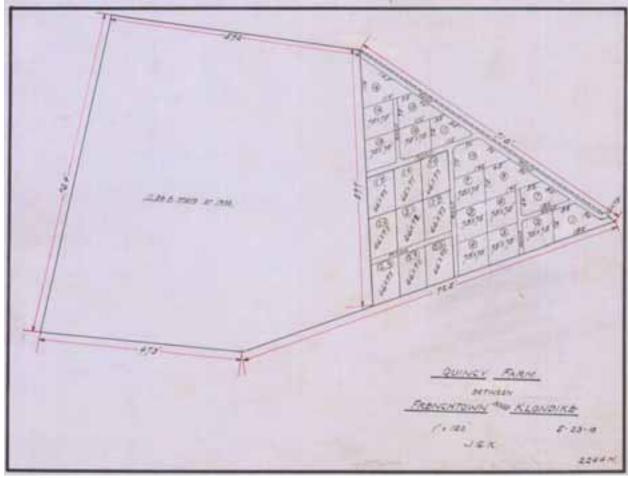


Figure 2- 48: A plan drawing showing garden plots on part of the Quincy Farm between Frenchtown and Klondike, 5-23-18. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

342 Ibid., 560. Another feature that remains unclear is Kowsit Lats. Not much is known about the area. However, we do know that the company provided this space for pasturing employees' cows. The name "Kowsit Lats" reflects a local Finnish pronunciation of the colorful English nickname that the pasture had earned. Wimppi Salmi, a local resident, successfully petitioned to have the nickname formally recognized when Houghton County assumed responsibility for the maintenancne of the road. Personal

communication with Kathryn Remlinger, Grand Valley State University, June 26, 2007; personal communication with Ed Yarbrough, Quincy Mine Hoist Association, June 28, 2007.

- The First World War had increased demand for copper, which pushed its price higher.
- 2 As a result, Quincy decided to expand their mills on Torch Lake to make room for more
- 3 equipment. By 1919, the reinforced concrete and red brick additions to both mills were finished.
- 4 They featured large windows to provide natural light in work areas.³⁴³ Quincy also began
- 5 filling a ravine between the mills to make room for a building to house a "low pressure steam
- 6 turbine to utilize the exhaust steam from the stamp heads to furnish electric power to operate
- 7 the ball mills, crushing rolls, etc."344



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Figure 2- 49: A view of the trestle spanning the ravine immediately north of Torch Lake Mill No.1 (left) and south of Torch Lake Mill No.2 (right). (source: Image is courtesy of the Koepel Collection, Keweenaw National Historical Park Archives)

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By 1920, the high wartime copper prices had dropped. Quincy, which had been nicknamed "Old Reliable" for its reputation of paying dividends regularly, could no longer provide dividends to stockholders.³⁴⁵ In the decade to come, Quincy would struggle to produce copper at lower costs and with greater efficiency. Changes to the landscape would begin to

³⁴³ O'Connell, "Stamp Mills," 631-632.

³⁴⁴ Ibid., 633.

³⁴⁵ Lankton and Hyde, Old Reliable, 99. See also Hyde, "Business History," 249.

1 reflect these efforts, and also see the land begin to reclaim itself as Quincy struggled to earn a 2 profit against market forces larger than itself.346 3 The population continued to dwindle in the Keweenaw as Quincy and other mining 4 companies struggled against unfavorable economic conditions. The discovery and 5 development of deposits in Montana and Arizona, coupled with advancements in technology, 6 allowed mines in the west to produce copper at lower costs than Quincy could. The rise of 7 automobile factories in Detroit, and the growth of other industries with good paying jobs, lured 8 many workers from the Copper Country, and made it increasingly difficult to retain skilled 9 labor and experience. In 1910, Houghton County had boasted 88,000 residents, but 16,000 had 10 left by 1920.347 Quincy did not face these harsh times alone. 11 Downsizing for Quincy occurred over a long period of time, but even small, initial reactions could be seen and felt across the landscape. By September of 1920, Quincy closed all 12 four of its boardinghouses.³⁴⁸ Within four months, they mothballed their newest mill on Torch 13 Lake in favor of the older mill that housed more stamps.³⁴⁹ On top of Quincy Hill, 113 houses -14 15 one quarter of their housing stock – stood vacant by the fall of 1921.³⁵⁰ The company took notice 16 of its need to retain workers during this difficult time, as Lawton explained to the company's 17 vice president: Range miners are offered clean houses, and clean yards, paint, paper and 18 19 muresco as an inducement whereas at Quincy there has been lower wages, a 20 natural pessimistic atmosphere, and operating only two-thirds time, and for the

346 Ibid.

³⁴⁷ Lankton, Cradle to Grave, 246.

³⁴⁸ Lankton and Hyde, Old Reliable, 132.

³⁴⁹ Dates of closure vary. Lankton and Hyde cite the event in January of 1920, while O'Connell notes it occurred in January of 1921. See Lankton and Hyde, Old Reliable, 125, and O'Connell, "Stamp Mills," 632. 350 Lankton and Hyde, Old Reliable, 135.

1 first time in many years we have not been cleaning up the yards and locations. 2 Only recently have we been hauling away refuse that has been accumulating in 3 the vards.351 4 5 These observations seem to echo Lawton's earlier observations and concerns about workforce 6 stability and its connection to the built environment. 7 Quincy resolved to meet the challenges of the economic downturn, but it faced 8 tremendous financial obstacles. In 1922, they were forced to add No. 8 to the growing list of 9 facilities that they hoped would someday reopen.³⁵² During this same period of economic 10 despair, the Quincy and Torch Lake Railroad virtually disappeared from the corporate priority 11 list. An absence of records and silent annual reports offer few clues to its operation after 1920.353 12 Notwithstanding the bleak outlook, Quincy completed the building to house its new 13 power generation unit located between the mills. The 36 by 38 by 45-foot building was 14 constructed of materials similar to the mill additions and housed a General Electric 2000 kW 15 steam turbine. This plant began operating in 1923 and reduced operating costs by generating 16 power from exhaust steam expended by the stamps.³⁵⁴ The availability of less costly electricity 17 resulted in a greater use of electric motors and the installation of a power transmission line up 18 Quincy Hill.355

³⁵¹ Ibid.

³⁵² Lankton, "Technological Change," 475.

³⁵³ O'Connell, "Rail Road," 679.

³⁵⁴ Ibid., 633.

³⁵⁵ Lankton and Hyde, Old Reliable, 125.

Figure 2- 50: Quincy's steam turbine facility, ca. 1925, constructed to generate electricity from exhaust steam. (source: Photo MI-2-164 courtesy of Historic American Engineering Record)

Even with these cost-cutting measures, by 1926 the international price of copper was below Quincy's production cost. Financial losses for the company continued to mount at a staggering pace.³⁵⁶ Fire added to Quincy's problems. It destroyed the Quincy School in 1927, and classes were moved to the company clubhouse.³⁵⁷ Furthermore, a fire in the No. 2 shaft occurred in July, and it remained closed until August 10th.³⁵⁸ Just as repairs began, several air blasts further damaged the mine, and it remained closed to normal operations until early 1929.³⁵⁹ Damage to the No. 2 shaft transferred hoisting and production duties to No. 6.³⁶⁰

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³⁵⁶ Hyde, "Business History," 257.

³⁵⁷ Lankton and Hyde, Old Reliable, 125.

³⁵⁸ Hyde, "Business History," 259. See also Lankton, "Technological Change," 476.

³⁵⁹ Re-opening dates differ slightly. Hyde cites January 1929; Lankton, March 1929. See Hyde, "Business History," 259, and Lankton, "Technological Change," 492.

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Figure 2- 51: Bureau of Mines railroad car number 8 parked in front of No. 2. Car number 8 transported an emergency team to Quincy to help fight an underground fire. (source: Photo MI-2-130 courtesy of Historic American Engineering Record)

Quincy faced serious financial difficulties, but the company spent money to insure that their infrastructure remained viable.³⁶¹ Facilities and machinery were mothballed and cared for so that they could be placed back in service as economic conditions improved. The Quincy and Torch Lake Railroad dissolved on February 1st, 1927, following the sale of its track to the mine company. However, the rail line continued in service under mining company ownership.³⁶²

360 Lankton, "Technological Change," 489. 361 Lankton and Hyde, Old Reliable, 129. 362 O'Connell, "Rail Road," 681.

Part 1: Quincy Unit Cultural Landscape Report / Environmental Assessment

- 1 No. 8 was reopened in 1928 and a new Dorr thickener was installed at the mill to assist with
- 2 reclaiming more copper from waste materials in 1929.³⁶³
- 3 Houghton County lost more residents between 1920 and 1930 19,000 people and this
- 4 affected several mines, including local giant C&H. Out-migration occurred in such large
- 5 numbers that it left a county population of only 53,000.364 Undeterred, and with failure as their
- 6 only alternative, Quincy positioned itself to return to full production by repairing damages to
- 7 No. 2 and mitigating wear and tear at the mine site. The sale of additional stock between 1929
- 8 and 1931 suggests that perhaps the company was actually optimistic about its future.³⁶⁵
- 9 Unfortunately, their efforts coincided with two reversals: a drastic drop in copper prices, tied to
- a market that no longer valued the product they offered; and the onset of the Great
- 11 Depression.³⁶⁶

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³⁶³ Lankton, "Technological Change," 475. See also O'Connell, "Stamp Mills," 636.

³⁶⁴ Lankton, Cradle to Grave, 246.

³⁶⁵ Hyde, "Business History," 260.

³⁶⁶ Ibid., 261.



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Figure 2- 52: View of No. 7 shaft-rockhouse with housing in the foreground. Note the deteriorated conditions depicted by missing sheet metal, missing windows and mismatched, unpainted siding. (source: Koepel Collection, Keweenaw National Historical Park Archives)

On September 22, 1931, after seventy-five years of mining the Pewabic lode, the Quincy Mining Company succumbed to economic forces and closed what was then the deepest mine in the United States.³⁶⁷ They had held on longer than most Michigan mines, a small consolation for those facing not just the economic realities of unemployment but also the larger social issues related to a complete loss of lifestyle, identity and purpose.³⁶⁸ The mine manager penned a letter to the company president the morning of the mine closure, and reflected upon it this way:

The day opens very bright and clear for the morning of the suspension of operations. It has been cold and rainy during the past few days.

367 Lankton and Hyde, Old Reliable, 99, 106, and 129. See also Lankton, "Technological Change," 507. 368 Lankton, "Technological Change," 507.

1	Everybody in the immediate vicinity naturally is very much depressed,
2	and we are doing everything we can to maintain the proper spirits and to
3	look forward with interest to the future. ³⁶⁹
4 5	The company retained only a minimum number of employees on staff to board up facilities at
6	their mine, mill and smelter, and barely managed to escape bankruptcy in the process. ³⁷⁰
7	The mine remained closed between 1931 and 1936, and the company published no
8	annual reports. Aside from minor repairs, and guarding facilities, little is known about the
9	activities of the small staff employed by the company during this time. ³⁷¹ However, it is clear
10	that Quincy continued to look after its former employees. It allowed those without incomes to
11	stay in their homes rent free. It did not charge Quincy Hill residents for firewood cut on
12	company lands. The company even plowed seven acres and allowed it to be used as garden
13	areas. ³⁷² While these efforts demonstrated compassion, it was not enough to retain residents
14	who desired better conditions. Quincy Hill was transformed into neighborhoods of vacant
15	homes when its residents left. By 1935, 183 of the 433 homes owned by Quincy on the hill were
16	vacant. ³⁷³ Without income, Quincy was unable to pay its property taxes. This resulted in the
17	loss of some of its less important lands to tax sales, as the company struggled to retain core
18	assets. ³⁷⁴

³⁶⁹ Lankton, Cradle to Grave, 253.

³⁷⁰ Ibid.

³⁷¹ Hyde, "An Economic and Business History," 262.

³⁷² Lankton, Cradle to Grave, 254. See also Lankton and Hyde, Old Reliable, 142.

³⁷³ Lankton and Hyde, Old Reliable, 142.

³⁷⁴ Hyde, "Business History," 263.



Figure 2-53: View of an abandoned Lower Pewabic following mine closure showing deteriorated housing and unkempt landscape conditions. (source: Image is courtesy of the FSA-OWI photographic collection, Library of Congress)

In 1937, a spike in copper prices encouraged the company to re-open the mine.³⁷⁵ It levied an assessment on shareholders to gather the capital required to de-water the mine and make extensive repairs. The mine reopened on a limited basis, using No. 6 and No. 8 for underground production.³⁷⁶ The spike was maintained by the onset of the Second World War, which increased the demand for copper and created stable, elevated prices guaranteed by the federal government. Quincy responded by securing a loan from the Metals Reserve Company in June of 1942 to construct a copper reclamation plant on Torch Lake, near the site of its stamp

375 Lankton, Cradle to Grave, 256. 376 Hyde, "Business History," 264.

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mills.³⁷⁷ The reclamation plant allowed Quincy to further process their vast quantity of waste

tailings from Torch Lake and recover copper from them. The plant opened in November 1943,
and began production immediately. At the same time that it was providing copper for the war,
Quincy and other mines in the Keweenaw began to sell excess steel for scrap to support the war
effort. Approximately 40,000 tons were collectively contributed by the middle of 1943.³⁷⁸
The reclamation operation was very successful; by the end of the war in 1945 it had
produced more copper than the mine.³⁷⁹ When the war ended, so did the purchase agreement
with the Metals Reserve Company.³⁸⁰ With copper prices again in serious decline, the

9 machinery and men of the mine stopped work for good. On September 1, 1945 the mine closed

permanently and the rhythm of copper mining on the Keweenaw was changed forever.381

11 Quincy's miners, trammers, oilers, skilled craftsmen, laborers and workers of all types went

home and did not return to work. Locomotive No. 1 made its last haul after serving the mine

through the entire history of the railroad.³⁸² Its bell was rung and its last breath spent on a

14 mournful release of steam.

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³⁷⁷ Lankton and Hyde, Old Reliable, 141. See also Hyde, "Business History," 265.

³⁷⁸ Lankton, Cradle to Grave, 257.

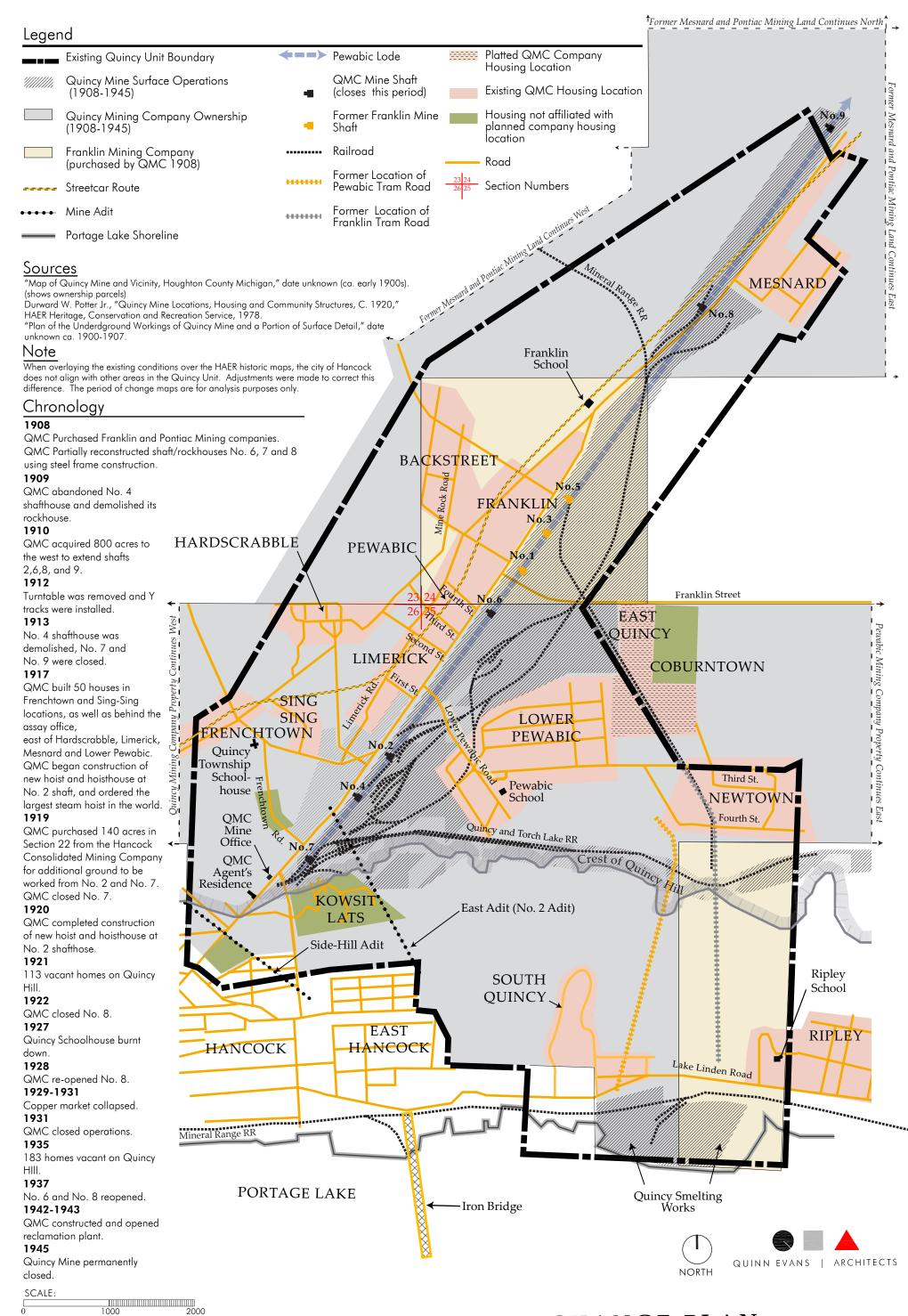
³⁷⁹ Hyde, "Business History," 265.

³⁸⁰ Lankton and Hyde, Old Reliable, 144.

³⁸¹ Ibid. See also Hyde, "Business History," 265.

³⁸² O'Connell, "Rail Road," 662.

1	Shut Down
2	By Ruth Malgren
3	
4	We miss the sounds of the Quincy Mine;
5	The sounds of the hoist wheels singing;
6	The bellow's blow and the blast below
7	And the locomotive ringing.
8	
9	We don't catch sight of the carbide light
10	Some busy miner carries;
11	There're no more trips in the shaft house skips
12	For Toms or Dicks or Harrys.
13	No more dashing for the "dry"
14	With joking miners tangling;
15	No whistle's roar;
16	No falling ore;
17	No 'lectric signals jangling.
18	
19	We miss the sounds of the Quincy Mine;
20	Old sounds, oft repeated.
21	Can such a long, tenacious life
22	Really be completed? ³⁸³
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25	Next Page:
26	Figure 2- 54: Quincy Unit, 1908-1931 Period of Change Plan
	383 Bill Finlan and Margaret Gilbert, as cited in Lankton and Hyde, Old Reliable, 146.
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Reclamation: 1946-1967

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2 Although Quincy was finished with underground mining, reclamation operations 3 continued. Reclamation was a less expensive operation than mining, and it yielded large 4 amounts of cast copper.³⁸⁴ Subsequently, Quincy was able to repay its Metals Reserve 5 Company loan in the form of copper and profits by 1947, far ahead of schedule.385 6 Quincy's previous mining and milling efforts had deposited an enormous volume of waste rock material in Torch Lake over a fifty year period. This had a great impact on Torch 7 8 Lake. In fact, some residents estimate that the lake's volume was reduced by as much as thirty 9 percent from the fill material.³⁸⁶ These actions changed the shoreline and its associated upland 10 and aquatic habitats. The reclamation process continued to sculpt the shoreline. The operation 11 relied upon a floating dredge that vacuumed tailings from the lake, which passed them through 12 a long floating pipe to the reclamation plant on shore. At the plant, the tailings were processed 13 and copper was retrieved. Finally, the mineral was transported to the smelter by truck where 14 the copper was cast into ingots.

³⁸⁴ Lankton, Cradle to Grave, 259.

³⁸⁵ Lankton and Hyde, Old Reliable, 144.

³⁸⁶ Local observations are in the ballpark of the Environmental Protection Agency's estimate. According to the EPA, 200 million tons of copper ore tailings were deposited in Torch Lake, displacing about 20 percent of the lake's original volume. See www.epa.gov/glnpo/aoc/trchlke.htrml, accessed April 16, 2007.

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Figure 2- 55: Drawing (QD-0084) produced by Quincy Mining Company to depict areas and volumes of stamp mill sands affected by their reclamation efforts. (source: Image courtesy of Michigan Technological University Archives & Copper Country Historical Collections)

In June 1948, Quincy re-opened the Quincy Smelting Works, which had been dormant since 1931. C&H had been providing Quincy with smelting services during the lean operating years, but the success of the reclamation project meant that C&H was no longer able to meet Quincy's needs. Quincy operated the reclamation plant and smelter until May of 1967. Work stopped briefly when their dredge was lost to a January storm in 1956, and again for a tenmonth shutdown in 1958. Another dredge, purchased previously from C&H, was able to assume its duties until the end of the operation.³⁸⁷

387 Lankton and Hyde, Old Reliable, 144.

1 As the company focused its attention on reclamation, a diverse group interested in

- 2 preserving the legacy of Quincy's mining operations on the Hill formed. The Quincy Mine
- 3 Hoist Association, with leadership from Quincy's Board of Directors, Cleveland Cliffs,
- 4 Michigan Technological University and local business leaders, was founded as a non-profit
- 5 organization in 1958, and received 501c3 status in May of 1961. This group was narrowly
- 6 focused on preserving the No. 2 Nordberg steam hoist. Over time, the idea to preserve a much
- 7 larger industrial site would grow.

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Post-Operation: 1968 – Present

Quincy remained closed until 1976, when it financed a joint venture with Homestake International as a partner. Quincy provided working capital for three main efforts: to erect a new hoist and headframe at No. 8; clear the shaft twenty levels deep; and provide exploratory diamond drilling in pursuit of copper deposits. Concurrently Michigan Technological University conducted diesel fuel emissions testing underground and trained students in rock dynamics, drilling, explosives and rock removal with heavy equipment in the east adit, at the south end of the Pewabic lode. MTU's Mining Engineering program led to the expansion of the adit from a 3 by 5 foot passage to a 15 by 15 foot tunnel. Since 1992, MTU has maintained a limited access agreement with the Quincy Mine Hoist Association for infrequent use as a learning environment. Although the partnership with Homestake did not create a new mining venture, it demonstrated the difficulty that people had in accepting the extensive changes imposed upon their lifeways and heritage.

388 Ibid.,147.

The resolve to rekindle a bygone industry was strong, but it was not enough to withstand economic forces. Many industrial structures and machines that were once integral parts of the Quincy landscape were sold for scrap. Partial buildings, ruins and fragments of a bygone industry dot a landscape that nature has tried to reclaim through weather and the establishment of volunteer vegetation. Corporate actions to dismantle what Quincy had worked so diligently to achieve were resented by some; their efforts refocused on new goals aimed at correcting environmental damage and developing a strong heritage tourism industry for the area. In 1978 the Historic American Engineering Record (HAER) undertook a study to document what remained from the Quincy Mining Company. HAER staff conducted research, took photographs, and carefully measured structures and ruins to record and document the remaining Quincy mine properties. Their work remains as an important reference. In 1984 the Quincy No. 2 mine hoist, owned and preserved by Quincy Mine Hoist Association, was recognized as a National Historical Mechanical Engineering Landmark.

Figure 2- 56: A 1978 photo by Jet Lowe shows the No. 7 hoist house ruin constructed of locally quarried Jacobsville sandstone. Prized for its appearance and value as a local construction material, this structure is among many that have disappeared from the Quincy landscape. (source: Image 63 courtesy of HAER)

In 1986, parts of the former Quincy Mining Company property were placed on the National Priorities List by the U.S. Environmental Protection Agency (EPA), creating the Torch Lake Area Superfund Site. Areas near the former mills, reclamation plant and smelter site, in addition to several other sites on the Keweenaw Peninsula, were determined to pose an environmental threat. This was largely due to the presence of high metal concentrations found within the stamp sands and byproducts present at both the mill and smelter complex. Exposure to wind and water provided erosive forces capable of moving the materials into the adjacent water bodies and damaging their benthic layer. By 1988, the EPA began investigation and

- 1 remediation activities at Torch Lake, including the in the tailings area known as the Mason
- 2 Sands. In 1992, the EPA issued a Record of Decision to address the remediation of the Torch
- 3 Lake Area Superfund Site. The remedy required covering several sites with soil and vegetation
- 4 and long-term monitoring of mitigated areas. Remediation of the mill site sands involved
- 5 grading and covering the 225-acre Mason sands site.

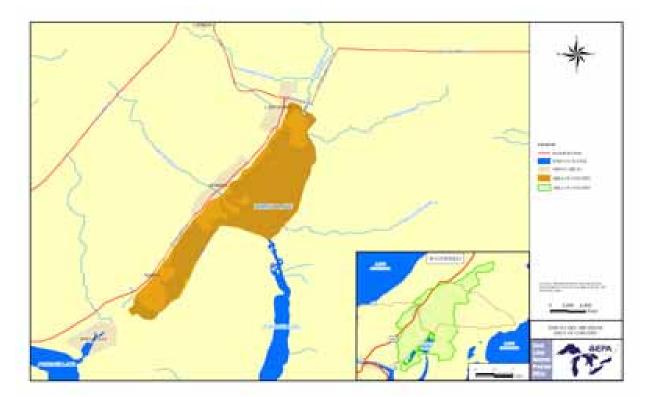


Figure 2- 57: USEPA map showing the location of Torch Lake Area of Concern and the Quincy Mill operation. (source: courtesy of EPA website:

http://www.epa.gov/glnpo/aoc/trchlke.html)

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Figure 2-58: Images showing conditions of the Mason Sands area, before and after EPA remediation (source: courtesy of EPA http://www.epa.gov/glnpo/aoc/trchlke.html)

The Quincy Smelting Works remained undisturbed until 2004. That year, the EPA removed abandoned laboratory chemicals from inside smelter buildings and performed asbestos testing, followed by limited asbestos abatement. An eight-foot high chain link fence was built around the core smelter buildings. The EPA also installed a geotextile fabric and riprap to stabilize the shoreline at the smelter. Additionally, they installed culverts beneath the former railroad grade to re-direct storm water away from the site and to improve site drainage. Michigan's Department of Natural Resources subsequently capped the former railroad grade, presently used as a snowmobile recreation trail, with a gravel surface to contain any metals or



asbestos and prevent public exposure to these substances.

Figure 2- 59: Images showing conditions of the Quincy smelter following EPA and MDNR remediation work. From left: Fence around the historic structures and gravel placed over the former railroad grade; Rock armoring/rip-rap along shoreline (source: Images courtesy of NPS)

As environmental issues related to mining were identified and remediation options evaluated, the cultural values associated with this industry were also being identified and examined. In 1989, the National Park Service established two National Historic Landmark (NHL) districts in the Keweenaw. One of them, the Quincy Mining Company National Historic Landmark District, encompasses the rich mining landscape and workers' housing areas found on Quincy Hill, and extends down the hillside to include the Quincy Smelting Works. The second NHL district was centered on Calumet and Hecla's industrial core and the Village of Calumet's civic presence that grew as a direct result of the copper mining industry. In 1992 a new and unique national park was established. Keweenaw National Historical Park encompasses landscapes that offer distinct geology and abundant natural resources interconnected with the people who lived there, past and present. The area's copper mining heritage was seen and understood not through any one place, but through an array of historic landscapes, buildings and ruins - all of them associated with the culture found there today. The heritage tourism industry in the Keweenaw evolved as a grassroots community effort, and was literally built on the grounds and foundations that remain from the copper mining industry it honors. The park's enabling legislation reflects this community involvement by promoting partnerships, limiting federal ownership, and establishing a permanent park advisory commission. Since the park was founded QMHA has expanded their mission beyond the No. 2 Nordberg steam hoist to include the mine, the landscape and artifacts; other actions have occurred to facilitate the interpretation of historic mining activities. In 1996 the QMHA installed a cog rail tram to transport visitors between the No.2 hoist house and the side hill adit.

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1 At the adit entrance visitors can enter the mine for an interpreted tour to experience the historic 2 mine environment.

Passing time and a lack of maintenance have reshaped the Quincy Mining Company landscape since the mine was operational. All but one of the many shaft-rockhouses, once visible for miles on the horizon, have been scrapped - torn down for the value of their steel. The capping of mine shafts to address public safety has consequently left many indistinguishable from the surrounding terrain. Weathered industrial buildings, crumbling masonry ruins, and rotting timber continue to erode beneath the immense weight of heavy annual snowfalls. Unsecured structures sometimes meet alternative fates, including fire and vandalism. Broken windows and decayed building shells are a common sight. Historic company housing locations, where they remain, are often a fragment of their former selves. Monumental poor rock piles that once dotted the land have been consumed, the rock crushed for use in construction activities elsewhere in the region.





Figure 2- 60: The remains of an historic rock pile (foreground left) are juxtaposed against a pile of crushed gravel while smokestacks and ruins near the No. 6 dry (right) are steadily engulfed in volunteer vegetation. (source: Images are courtesy of the NPS)

New ventures continue to alter Quincy Hill. Former company homes are freely modified to meet the changing needs of today's occupants. Modern ranch homes, signs, and

- 1 billboards located along US-41 now represent new commercial endeavors while new roads
- 2 bisect former housing locations. Quincy has been marked by modern industry as well, as
- 3 communication towers blink into the night from strategic points on the hilltop. Volunteer
- 4 vegetation now grows on once-barren mining lands, where it hides views, buildings, ruins, and
- 5 landscape features. Foundation walls sometimes find roots deeply seated within cracks in their
- 6 masonry.





Figure 2- 61: Billboards and signs along US-41 compete for the attention of visitors (left) while the historic view of the No. 2 hoist houses and beyond is steadily obscured by volunteer woody vegetation (right). (source: Images are courtesy of the NPS)

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At the same time that vegetation obscures the signs of industry, greenery also affords remnant clues to settlement patterns and building locations. In many places, apple trees, lilacs and lilies indicate the location of orchards and yards. They lead the eye toward ruins and small-scale features, like fences and paths. Like tributaries, these features can be traced back to their source, often company-built roads and houses still in use. These subtle features offer glimpses of an earlier time, despite the layers of vernacular additions that have been made to both the landscape and its structures. Although time and neglect have taken their toll, much of Quincy is still visible on the landscape today. What remains is the most complete mining company landscape on the Keweenaw Peninsula.

Figure 2- 62: A poor rock house foundation in Lower Pewabic is marked by an apple tree in the foreground. The stacks in the background once served Quincy's boilerhouses. (source: Image courtesy of the NPS)

Copper mining, milling, and smelting were once the driving forces behind landscape change in the Keweenaw. Several hundred companies left their mark on the Keweenaw Peninsula, and they represent an important part of our nation's past. The Quincy Mining Company contributed greatly to this history. Part of their industrial landscape is now a National Historic Landmark District, which recognizes its national significance. The Quincy Unit of Keweenaw National Historical Park includes this exceptional property, and the park is charged with preserving and interpreting it. This provides a new opportunity for people whose lives were shaped and influenced by the Quincy Mining Company to honor their rich heritage and share their stories with the world.