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Final Report

AN ARCHAEOLOGICAL SURVEY OF THE PICTURED ROCKS LAKESHORE

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INTRODUCTION

Late in 1966, with the creation of a National Park in the Pictured Rocks region of the Upper Peninsula of Michigan a strong possibility, Dr. John L. Cotter, Chief Archeologist for the National Park Service, arranged with Dr. James E. Fitting of The University of Michigan for an archeological survey of the area included in the proposed park. The idea of the survey was to locate and gather information about any sites of archeological and historical interest within the confines of the park. In June, 1967, Fitting and Charles Taylor made a preliminary three-day survey; the results were largely negative but personal contacts with people knowledgeable in local history were made, and areas of sufficient promise to warrant further inquiry were noted.

It was decided to conduct a more intensive two-man survey for several weeks in August of the same year, which Charles Taylor and the author subsequently carried out. The results of this work will be reported on later in this paper.

In a letter dated June 27, 1967, Fitting reported to Cotter on the results of the preliminary survey. Sand Point on the northeast side of Munising Bay was visited to check out an "Indian cemetery" rumored to be located there. No traces of this could be found however; and a wooden cross previously mentioned by Cotter as worthy of investigation proved to be of very recent origin, and hence of no historical interest. Fitting and Taylor also walked over the Grand Sable Dunes near Grand Marais where artifacts had been reported, but found nothing. At Miner's Creek Beach in the Pictured Rocks they did, however, discover flint chippage and fire-cracked rock in a blow-out. No artifacts were found among this debris, apparently from a campsite. This humble find, together with a few artifacts from the Grand Marais area, represents the sum total of all reliably documented prehistoric cultural material from the park area.

Fitting noted that old beach lines from former stages of Lake Superior were visible, but went on to emphasize that the nearly impenetrable growth of mixed forest and brush that covers them everywhere made it virtually impossible to detect any sites. He also mentioned visiting Devil's Slide, site of a historic log slide not far west of Grand Marais, and suggested there might be remains of a logging camp nearby. He ended his letter with some proposals for the later, more comprehensive survey: he suggested checking land records, doing a survey of Beaver Beach from a boat in hopes of detecting blow-outs, revisiting the Grand Sable Dunes to look for blow-outs with fire-cracked rock, and following up any leads pertaining to Grand Island or Grand Marais, both of which lie just outside of the park area. The fruitfulness of these avenues of inquiry will be discussed later in this paper.

NATURAL ENVIRONMENT

The proposed Pictured Rocks National Lakeshore is located on a 35 mile stretch of the south shore of Lake Superior between Munising and Grand Marais, Michigan. The park extends an average of about three miles inland from the lake; it covers an area of approximately 67,000 acres (National Park Service 1966:10).

The present-day topography of the Pictured Rocks region is extremely varied. A few miles east of Munising the spectacular multicolored sandstone cliffs which give the park its name begin and extend for 15 miles along the shore. Just past Chapel Rock, a well-known outcrop near the end of the Pictured Rocks proper, the sandstone escarpment moves back inland and the cliffs give way to a flat unbroken sandy beach. This whole stretch of land is characterized by a beach that is "...essentially straight and backed by a sandy bluff averaging about 30 ft in height" (National Park Service 1966:6). A few hundred feet inland another fairly distinct rise can be detected; this marks the ancient shore line of a previous level of Lake Superior known as the Nipissing stage. At the eastern end of this stretch of beach is Au Sable Point on which stands a U. S. Coast Guard Lighthouse. From here the shore line turns sharply to the south where the Grand Sable Dunes begin. These dunes lie on top of sand cliffs which rise as high as 200 ft from the lake; Grand Marais, with its sheltered harbor is at the eastern edge of the dunes.

Taking into account the factor of topography alone, it is apparent that this stretch of lakeshore is not ideal for human habitation, whatever the level of technology. This can be extrapolated into the past as well, for Farrand (1960b:15) says that the shore line has remained essentially the same for the last 4,000 years in spite of minor changes in water level. At Grand Marais and Munising there are protected bays, and there is evidence that both were the sites of aboriginal settlements (see Hinsdale 1931:14 and Carter 1967:1). Between them is 30 miles of rocky or windswept coast, open to the full force of the storms. Kinietz (1947:44) mentions that Chippewa summer camps were "...usually on the shores of the Great Lakes, on a watercourse or inland lake." He goes on to emphasize that the availability of fish and water transport were primary considerations in the choice of a site; a bay would be far more attractive in this regard than an exposed stretch of beach. It is also interesting to note that in Hinsdale's Archaeological Atlas of Michigan all the sites he records on the south shore of Lake Superior for 50 miles in either direction from the Pictured Rocks area are in bays or sheltered areas with the exception of a "village site" located at the mouth of the Little Two-Hearted River in Luce County (1931:map 19). In Primitive Man in Michigan he lists as requirements for living sites "...a constant supply of water, a sheltered spot..." Besides shelter from storms, bays had a strategic value to the aboriginal inhabitants. Densmore reports that Eugene J. Warren, government aid at the

Chippewa community of L'Anse on the south shore of Lake Superior "...called attention to the fact that bays were almost always chosen as sites for permanent settlements as they are much easier to defend against enemies than are the more exposed parts of the shore" (1949:6).

It is axiomatic that the ecological character of an area has a profound effect on the distribution and exploitation patterns of not just animal populations but human groups as well, particularly those groups which do not produce most of their food by agriculture but are dependent on hunting and gathering. There is little information on the flora and fauna that existed in the Pictured Rocks region in the past, as no pollen analysis has been done and there is no excavated archeological site nearby to give a sample of the animal remains left by the aborigines. Cleland (1966:23), however, in dealing with the problem of how far back in time modern environmental conditions can be extrapolated, has this to say:

"It has been suggested previously that the essential features of the Carolinian and Canadian, biotic communities (the Upper Peninsula of Michigan is in the Canadian biotic province) were established within their modern limits across the Upper Great Lakes area as early as 5,000 B.C."

Although he emphasizes that the environment has not been static and unchanging during this stretch of time, it is evident from the following statement that in general he agrees with the above passage:

"The climatic and ecological changes which have taken place in the biotic provinces of the Upper Great Lakes area since the beginning of the Oak and Pine period (3,500 B.C.) have been relatively slight compared to previous changes of the region" (1966:25).

Thus one can assume that the conditions prevailing in the park area today were in general similar in the past, taking into account, of course, the effect of such ecologically disruptive activities as logging in the last hundred years.

The cultural conditions of the Indians at the time of European contact may also be extrapolated into the more distant past, according to Cleland (1966:76):

"The historically documented adaptations of the Upper Great Lakes area may be clearly traced into the prehistoric period."

How did the Indians in this area live? Although it will be discussed more fully later, Cleland gives a convenient and concise description (1966:11):

"At the time of first European contact, the Canadian province was inhabited by Algonquin speaking peoples....Most of Northern Michigan and Canada north of Lake Superior was occupied by the Chippewa....These people were hunter-gatherers and fishermen who hunted in small family groups during the winter and lived in the lakeshore villages during the summer fishing season."

What are the main characteristics of the environment of the park area? The National Park Service's booklet on the proposed park region has this to say about the climate (1966:9):

"The climate of the Pictured Rocks region is common to the northern Great Lakes—severe winters and warm summers. Marine influence of Lake Superior, however, has a moderating effect on temperatures: winters are milder and summers cooler than locations farther inland from the lake....

"The area averages about 31 inches of precipitation annually, including nearly 100 inches of snowfall. In Michigan this amount of snowfall is only exceeded by the 160 inches in the mountain range along the northwestern edge of the Upper Peninsula."

The Michigan Historical Records Survey publication on Alger County (1941) includes a brief section on the soil and vegetation of the county:

"Its soil is a slightly calcareous sandy loam of lake deposit origin. Weathered by a cool climate and heavy rainfall, the soil itself is too shallow, and the rivers of the Upper Peninsula too swift, to maintain a well irrigated agricultural region. The greater part of the forests are hardwood trees, notable beech, birch, maple, and hemlock, with coniferous swamplands of spruce and fir in the central northeastern and southeastern sections" (1941:3).

The National Park Service's booklet entitled "Pictured Rocks National Lakeshore: A Proposal" describes the forests of the Upper Peninsula of Michigan as "...a transition between northern hardwoods and northern conifers" (1966:8). Deciduous trees like maple, beech, ash, basswood, and paper or yellow birch predominate, although they are frequently mixed with conifers such as white pine and hemlock. This is the case in the Pictured Rocks region, although white cedar, black spruce, fir, and tamarack occur in swampy areas, and jackpines make up most of the vegetation in areas of dry sandy soil such as the Grand Sable Dunes (1966:8). Many varieties of edible berries also occur throughout the park area.

According to W. B. Hinsdale, the plants most important to the Indians of Michigan were trees like the sugar maple, birch and cedar, and wild rice

(1932:28). Although maple sugar production may not have been practiced in North America before the arrival of Europeans (see Kinietz 1940:37), the early travellers remarked on its presence in the Great Lakes area and there is no question it was an important staple in the diet of the Indians there, particularly in the winter months (Hinsdale 1932:19). White birch and cedar were very important in the construction of shelters and canoes; the bark of the former was also used to make containers (Hinsdale 1932:26). Wild rice was an extremely important source of food to the Chippewa and the other tribes that inhabited the Upper Peninsula, and in regions where it occurred it was a key factor in determining the location of settlements (Hinsdale 1932:21). The gathering of wild rice is documented on the Keweenaw Peninsula and other places on the south shore of Lake Superior (Kinietz 1940:242), but the mud-bottomed lakes and sluggish streams where it flourished are nowhere present in the park area, and there is no report of it ever having been collected there.

A great variety of animal species are to be found on the Upper Peninsula today, and with a few significant exceptions, they must have been present in even greater numbers in the past. White-tailed deer are common in the area today, as are, to varying degrees, bear, otter, coyote, fox, bobcat, porcupine, beaver, and snowshoe hare. Moose, important to the former inhabitants of the region, are notably absent. Predatory birds like hawks, eagles, and ravens, game birds like grouse and pheasants, and water fowl such as loons, ducks, and geese all abound. Although whitefish, a key food resource to the aborigines, have become rare in Lake Superior in recent years, many other kinds of fish can still be caught in the lake, including sturgeon, pickerel, pike, dogfish, lake trout, muskellunge, bass, bullhead, gar, and sucker (National Park Service, 1966:9).

David Thompson, who surveyed the boundary between British North America and the United States in 1798, made some observations about the game hunted by the Chippewa after having travelled along the south shore of Lake Superior. Hinsdale (1932:11) quotes him:

"...yet with this wide area [he estimated 206 square miles of hunting ground per family], the annual average hunt of each family of all kinds of furs, from the Bear down to the Musk Rat, will not exceed 60 to 70 skins in trade....Dear are so scarce that all they kill does not furnish leather for their wants, and when the mild seasons come they all descend to Lake Superior to live by fishing."

This impression of a general sparseness of game is partially offset by other accounts which stress the presence of a great many edible animals on the Upper Peninsula. J. G. Kohl, for example, who travelled in the Pictured Rocks region 60 years after Thompson, remarked on the great abundance of bear "...not far from Grand Isle, on the south shore of Lake Superior," which refers to a place right next to, or within the park area (Kohl, 1860:410).

Kinietz (1940:322) refers to a general abundance of all kinds of game on the Upper Peninsula. In general, however, Thompson's opinion may be closer to the truth. Cleland (1966), who has studied the prehistoric natural environments of the Upper Great Lakes very intensively makes the following remarks about the productivity of the area:

"We know, for example, that the Lake Forest of the Canadian province does not support large game populations. Moose, woodland caribou, beaver, and black bear are its only substantial meat resources, and these are seldom, if ever, concentrated in local situations. Fish are fairly plentiful but not throughout the entire year. At the latitude of the Lake Forest plant foods such as nuts and berries are fairly scarce" (1966:54).

Thompson's statement above does point up the fact that hunting was overshadowed by fishing as a source of food. Hinsdale, talking about Michigan as a whole, says that:

"Fish had perhaps more influence in determining the distribution of the Indians than game or other forest or open land resources, which is the same as saying the lands contiguous to the waters were usually preferred situations for abodes" (1932:16).

Because ice prevented the key occupation of fishing from being effectively practiced in the winter, Hinsdale is of the opinion that hunting was the main activity of the cold months (1932:16). Thus the availability of fish can be seen as a strong factor influencing the timing of the seasonal round of activities.

The picture that emerges from a consideration of the climate, flora, and fauna of the park area complements that produced by an analysis of the topography: namely that the park area has little to recommend itself from the point of view of the Indians who lived on the Upper Peninsula, at least so far as permanent settlement or population concentration is concerned. As far as the author can see there is nothing at all to distinguish this area and make it a more desirable place to live than any of the surrounding land save perhaps the attraction of the Pictured Rocks themselves or the Grand Sable Dunes, which are supposed to have had religious significance to the Indians (see Carter 1966:2). The fabulous whitefish runs in the Sault Ste. Marie area, the wild rice country on the shore many miles west of the Pictured Rocks and in the southern portion of the Upper Peninsula, particularly in Menominee Country (see Hinsdale 1932:15), and the copper bearing regions on the Keweenaw Peninsula were extremely attractive to the Indians, and had a far higher aboriginal population density, to judge from the great number of sites listed for these areas as compared to the two given for Alger County in Hinsdale's Archaeological Atlas of Michigan (1931).

Hinsdale (1932:12), basing his figures on Thompson's account of his survey along the south shore of Lake Superior in 1798, estimated that in 1800 the entire population of the Upper Peninsula of Michigan was only 700, half of which were concentrated to the east of Whitefish Point. Assuming that most of the remaining 350 were living in the wild rice and copper producing areas, very few were left over for the Pictured Rocks region.

ARCHEOLOGY

The survey of the Pictured Rocks National Lakeshore area was carried out by Charles Taylor of Newberry, Michigan, and the author from August 14 to August 27, 1967, under the direction of Dr. James E. Fitting of the Department of Anthropology at The University of Michigan. As was noted at the beginning of this paper, the purpose of the survey was to locate both archeological and historic sites and to gather as much information on them as possible. The material gathered that has archeological implications will be discussed here; data on historic sites will be dealt with in the following section.

It should be stated at the outset that from an archeological point of view the results of the survey were completely negative. No prehistoric sites were discovered and no isolated artifacts or even flint chippage or fire-cracked rock were found. This section will therefore be devoted to investigating the time span during which aboriginal occupation of the Pictured Rocks region was possible and discussing the few finds of archeological interest discovered in the area prior to the survey; information of this sort will then be brought to bear on the areas covered by the survey team, in hopes of arriving at some hypotheses as to why the survey was so unproductive.

In attempting to assess the time span during which aboriginal occupation of the park could have taken place, it is necessary to delve into the glacial and post-glacial geologic history of the Upper Great Lakes. These lakes show the most complex succession of freshwater lakes known to geologists, according to Kelley and Farrand (1967:23), who have written the most recent assessment of their evolution.

The eastern part of the Upper Peninsula, including the park area, was covered with the ice of the last stages of the Wisconsin glaciation until about 7,000 B.C. when it retreated to what is now the north shore of Lake Superior (Farrand 1960b:12); this is therefore the earliest possible date for any human occupation in the park area. With the retreat of the ice to the north came the formation of Glacial Lake Minong, which was the first lake stage to fill the whole Superior basin unencumbered by ice (Farrand 1960a:119). The altitude of the surface of Glacial Lake Minong was somewhere between the 1,085 ft level given for a previous glacial lake stage in the western part of the Superior basin, known as Lake Duluth, and the modern level of Lake Superior, which is 601 ft above sea level (Kelley and Farrand 1967: chart on inside of back cover). The various post-Duluth beach levels (which include the Minong stages) were referred to as levels of the Lake Algonquin stage until Farrand (1960a) showed that except for a slight embayment just north of Sault Ste. Marie, Lake Algonquin did not occupy the Lake Superior basin but was restricted to the basins of Lakes Huron and Michigan. The Minong beach levels have been shown to be present in the Pictured Rocks region by Bergquist (1936) although

he referred to them as lower Lake Algonquin beaches. Bergquist shows the Minong beach line to be one to two miles inland from the shore of Lake Superior throughout the park area (1936: map opposite pg. 65), at an altitude from about 875 ft to 895 ft above sea level (1936:92).

There is only one excavated site in the whole Lake Superior basin that has been shown to be contemporary with Glacial Lake Minong, and that is the Brohm site on the north shore of the lake in the Thunder Bay district, Ontario, Canada. The site, excavated by MacNeish prior to 1952, produced artifacts which included

"6 or 7 Plainview projectile points ('lanceolate points') of a type which belong in the Plano complex of the Northern Great Plains which Griffin places in the period 8000 to 4000 B.C."

(Farrand 1960:109).

Farrand, noting that Quimby suggested a date between 7,000 B.C. and 5,000 B.C., thinks "the older date is more likely" (1960:110).

The Brohm site fits into the time span given by Cleland (1906:48) of 8,000 B.C. to 6,000 B.C. for the Early Archaic. What kind of life was led by the people who lived at the Brohm site? Cleland (1966:48) has this to say on the matter:

"Even less is known of the adaptations of the Early Archaic Cultures of the Upper Great Lakes area than of the Paleo-Indians."

Presumably these people lived somewhat as the earlier Paleo-Indians are purported to have done: as nomadic hunters and gatherers, constantly following the movements of large game, and the ripening of various fruits, nuts, and berries in different places. At any rate, one thing is sure; their population density was extremely low and the chances of finding one of their camps in an area like the Pictured Rocks region are very poor.

With the exception of the Grand Sable Dunes area, it was impossible to inspect the Minong beach level in the park in any detail due to the dense growth of forest and the impenetrable underbrush that blankets most of the terrain starting at about 100 yards inland from the shore. Farrand, in describing the difficulties involved in his survey of the old beach levels around Lake Superior, summed up the situation as follows:

"The greatest difficulty encountered in the search for former shorelines was the heavy forest cover and undergrowth which greatly hampers one's ability visually or physically to trace a feature" (1960a:6).

Bergquist (1936:118) thought that the old shore line 280 ft above the present level of Lake Superior on which the Grand Sable Dunes lie was "undoubtedly related to one of the higher Algonquin [substitute "Minong" or "Post-Duluth"] levels." Here, of course, the original beach level is covered with sand, except for occasional blow-outs, and the chances of finding a site of Minong date are very slim. Nearly two days of our survey were spent combing these dunes but no archeological sites were found; this will be discussed in more detail later.

Following the Minong level the water in the Lake Superior basin dropped for about 500 years until it reached its lowest known level with the Lake Houghton stage, at an altitude of approximately 360 ft above sea level (Kelley and Farrand 1967: chart on inside cover). Then, in the four-thousand year span between about 6,500 B.C. and 2,500 B.C., post-glacial rebound raised the lake level to about 605 ft and the Nipissing Great Lakes were formed (Kelley and Farrand 1967: chart inside back cover). Farrand (1960b:4) mentions that the Nipissing beach is the strongest ancient shore line feature in the Upper Great Lakes and goes on to say:

"The Nipissing ridges and bluffs are always found quite close to the present shore: the original altitude of the Nipissing Great Lakes was 605 ft above sea level (compared to 602 ft for present-day Lake Superior) and in most parts of the Upper Great Lakes the Nipissing beach has been elevated no more than a few tens of feet by post-glacial rebound."

Bergquist has shown that the Nipissing shore line is present in the Pictured Rocks region and says its range of elevation is from 625 ft above sea level near Grand Marais (1936:99) to the 640 ft terrace on which the modern city of Munising is built (1936:106).

The time between 6,500 B.C. and 2,500 B.C. correlates fairly closely with the range of the Middle Archaic as described by Cleland (1966:48). The people in this cultural stage probably lived in a way that was indistinguishable from the Early Archaic Culture, described briefly above. It is entirely possible they roamed through the park region in search of game and plant food but it is not at all likely that archeological evidence of this could be found. If they camped on the shore, all evidence would be obliterated. The reason in this is that the span of beach available to them would have been from the Houghton low-water stage to the ancient shore line of Lake Nipissing, which is today about 20 to 40 ft above the present lake level; the Houghton beach level now lies under about 75 ft of water, and the rest of the beach area available to them, from the present shore line level to the Nipissing beach, would have been completely eroded away as the water rose to the Nipissing stage, destroying all evidences of human occupation. And if there are any sites inland, they are completely covered by forest and undergrowth and are virtually undetectable from the surface.

The cultural stage that is correlated with the Nipissing beaches in the Upper Great Lakes is the Northern manifestation of the Late Archaic, known as the Old Copper Culture. This archeological culture extends in time from approximately 3,000 B.C. to some time after 1,000 B.C. (Griffin 1961:12). Evidences of the Old Copper Culture occur at several places in the Lake Superior Basin: sites have been discovered at Isle Royale (Griffin 1961:18), near Fort William (Farrand 1960a:103) in Ontario, Canada, and on the Keweenaw Peninsula of Michigan (Griffin 1961:112); isolated artifacts attributed to the Late Archaic have been found all along the south shore of Lake Superior (Griffin 1961:112). A spear point or knife of chipped stone thought to belong in the Late Archaic or Early Woodland (1,000 B.C. - 300 B.C.) has been found on a Nipissing Beach ridge several miles west of Munising at the mouth of the Pine River in Marquette County, Michigan (Griffin 1961:115). Much more interesting from the point of view of our present concern, however, is the discovery of several artifacts in the Grand Sable Dunes just west of Grand Marais. It is described in Lake Superior Copper and the Indians and is worth quoting in full:

"In the summer of 1955, Dr. Albert C. Spaulding visited the locus of an interesting find of copper near Grand Marais, Alger County, Michigan. The find is significant because it included a leaf-shaped copper point with a tang and a somewhat similar bone point with a longer tang.

"The locus of this find is 95 to 100 ft above Lake Superior at the level of a cobble beach and old cedar swamp. Most of this level is now covered by active sand dunes but some small areas near the brink of the wave cut, 100-ft high cliff have been wind-swept of sand.

"In the summer of 1959, G. I. Quimby assisted by Edward Quimby dug some small test pits into the cedar swamp level where it was exposed by shifting sands. The upper two feet of this level is a dense, peaty mixture of silt and sand interspersed with roots and twigs. It would probably be easy to obtain pollen samples from the brownish soil. The beach cobbles seem to lie on top of this deposit.

"J. B. Griffin and M. L. Papworth also visited the site of the find (sections 2 or 3, township 49N, Range 14W) in the summer of 1959. From Charles Mattson of Grand Marais they obtained the artifacts found here and deposited them in the Museum of Anthropology of The University of Michigan.

"The copper knife is 10.4 cm long and 2.3 cm wide. One edge is less concave than the other, and the short tang comes to a point. The greatest thickness is in the mid-line and is .5 cm. The bone point is now 13.3 cm long, 2.4 cm wide, and .5 cm thick. The point has suffered severely from exposure on the sand dune. This bone point is one of the few such forms preserved. It is the type of bone artifact that has been regarded as the prototype of the copper rat-tailed points. It was made from the rib section of a large herbivore. Mattson also kindly turned over two fragmentary flint points to the Museum of Anthropology--both are highly polished from sand blasting, including the surfaces where sections were broken away from the points. The side-notched point with the broken tip has a markedly thin and convex basal edge with some retouching."

(Griffin 1961:118-117)

We talked with Charles Mattson in an effort to find out as precisely as possible the place where he found these artifacts. He told us they were lying exposed in the dunes just west of Au Sable Creek in an area that is presently covered by tons of sand; we would have better luck, he suggested, if we looked in a flat area covered with jack pines in the southwestern part of the Grand Sable Dunes, as here artifacts were "plentiful" on the surface among the rocks. We searched diligently along the whole western side of Sable Creek from Grand Sable Lake to its mouth on Lake Superior; we also inspected nearly every low spot and blow-out in the eastern and southwestern portions of the dunes (this took a full two days) but in all cases we turned up nothing of archeological interest. The sands are constantly shifting and new areas are exposed every day; with an increased number of people expected to visit the area in the future, it is likely that more artifacts will be found there.

Nearly the whole extent of the Nipissing beach ridge from Au Sable Point to the place where the ridge turns inland at Beaver Basin, a distance of perhaps seven miles, was carefully surveyed. The front of the bluff, which faces the water, consists mainly of sand and pebbles and is constantly caving in. Periodically we stopped and dug through the loose sand in order to get to the bank itself; occasionally we found brownish soil horizons in the lighter colored sand, but no artifacts.

Since the Lake Nipissing stage (about 4,100 years ago) the lake shore has remained almost the same, except for relatively slight changes in water level (Farrand 1960b:15). These beach ridges below and later than the Nipissing shore line, known as the Algoma, Sault, and sub-Sault stages are not very strongly delineated and cannot be distinguished from the post-Nipissing along

the south shore of Lake Superior (Farrand 1960b:71). Thus evidences for cultural sequences that follow the Late Archaic (Early, Middle, and Late Woodland) would be expected to occur on the stretch of beach between the Nipissing ridge and the present shore line if in fact these long stretches of open beach were ever camped on. The possibility of sites further inland is by no means ruled out, but as is the case for any earlier occupations away from the beach, the chances of finding them without the services of a bulldozer to clear away the dense forest, underbrush, and grass and leaf cover are about as great as France becoming the 51st state. It should be mentioned that although we concentrated mainly on walking along the shore, we also followed the banks of the Anna, Mosquito, and Hurricane Rivers and the Au Sable and Seven-Mile Creeks back several hundred feet from the lake in search of sites; furthermore, we checked any open areas and road cuts along the primitive logging roads we used to reach the shore.

There are several obvious hindrances to finding prehistoric cultural material along the beach in the park area. For one thing, a storm will completely alter the appearance of the beach and bury any artifacts quickly; here, of course, the hope is that a blowout will expose them again. Furthermore some parts of the beach consist of millions of pebbles, cobbles, and boulders stretching away as far as the eye can see; the reader will appreciate the difficulty in identifying fire-cracked rock under such circumstances.

According to Cleland (1966:66), "Evidence for the Early Woodland economies of this region [the Upper Peninsula] is generally lacking."

Cleland (1966:94) characterizes the kind of adaptation represented by the Middle Woodland (300 B.C. - 400 A.D.) sites in this way:

"In the Canadian biotic province we see the development of lakeside villages, which are believed to be the result of great reliance on spring and summer fishing. Probably, the use of fish nets was one of the most important factors in the new adaptation. Winter hunting for moose, woodland caribou, bear, beaver, and hare was still very important."

The University of Michigan excavations at Naomikong Point on Whitefish Bay in the summer of 1967, in which the author took part, produced several hundred notched stones thought to be net sinkers, some of which came from the Middle Woodland occupation. This would tend to back up the above statement.

According to Griffin (1961:12) the Point Peninsula and Laurel traditions are characteristic of the Middle Woodland period. The Point Peninsula tradition however, is generally restricted to an area east of the Upper Great Lakes (Wright 1967:109). The "common archeological material culture" known as the Laurel tradition has been found at a number of places in Northern

Ontario "particularly along the north shore of Lake Superior" (Wright 1967:1). This fact, together with the very heavy Middle Woodland occupation found at Naomikong Point, about 50 miles west of Grand Marais, which Dr. James E. Fitting of The University of Michigan believes to be mainly Laurel material (personal communication), makes it extremely likely that this is the kind of tradition that would be present at any Middle Woodland site found in or near the park area. Another interesting fact about Laurel components in Northern Ontario that would tend to support the view that at least we are looking in the right places in our survey, is that out of 16 sites, six of them "are located along a lake shore, five along river systems, and five at the mouth of rivers or streams at their embouchure into a lake" (Wright 1967:96). Furthermore, the sites on the north shore of Lake Superior whose elevations are known range from five to twelve feet above the present lake level (Wright 1967:96), all of which would be within the range of a beach survey.

Perhaps the earliest pottery in the Lake Superior basin belongs in the Laurel tradition; the main decorative techniques besides "plain," are "dentate, punctate, and incised" (Fitting, n.d.). The fact that most of the decorative motifs found at Naomikong Point were also found among Middle Woodland sherds on Isle Royale (Fitting, n.d.) suggests that they are probably shared by any Middle Woodland material found near the Pictured Rocks region.

Evidence for the Late Woodland cultures (400 A.D. - 1,650 A.D.) on the Upper Peninsula is described by Cleland (1966:68):

"We know very little about ~~the~~ Late Woodland sites to the east in the Upper Peninsula of Michigan and along the south shore of Lake Superior. Our sketchy knowledge suggests that the people who occupied sites in this area made pottery which is quite similar to the Black Duck pottery farther west. Black Duck traits have been found at least as far east as the Juntunen site in the Straits of Mackinac (McPherron 1963), and may reach even further eastward and southward. In view of the distribution and late temporal position of this ware, Griffin (1961c:11) has suggested that at least some of the pottery was made by Chippewa-speaking peoples."

The way of life represented by the Late Woodland peoples in this area is no doubt very similar to that shown by the historic Chippewa, with the exception, of course, of elements borrowed from the Europeans.

Mention should be made here of an Indian cemetery purported to have been dug up at Sand Point on the east side of Munising Bay in the 1930's during the course of constructing a road. Hinsdale (1931:map 19) has an "Indian Burial Ground" listed for Sand Point in his Archeological Atlas of Michigan, and Cotter mentions it in his June 22, 1967, letter to Fitting as an area worth investigating. Fitting replied that he and Taylor checked out the swampy ground on Sand Point with no success, and that a wooden cross found there is of no historical interest being probably of "1955 pet dog vintage" (letter, June 27, 1967).

We talked to Thomas Burke of Minising who was operating the bulldozer when the burials were found. Evidently the road went right through an historic cemetery complete with gravestones and in the course of removing the coffins several Indian burials were discovered with aboriginal grave goods associated with them. These were immediately sealed up in pine boxes and re-buried somewhere else. Burke mentioned that it was actually his brother Walter of Munising who removed the burials and that he knows more of the details of the incident; unfortunately we were unable to contact him. We did inspect the site of the find—opposite the Passanault residence on the road to the end of Sand Point—but with no results.

Incidentally we visited the Munising Courthouse in hopes of finding land records that might have had information on the cemetery, for example, but it turned out that they did not have any summarized records or any plat sheets that would have helped us.

The idea of doing a boat survey of Beaver Beach was soon discarded because the only boat we could find to rent was in Grand Marais, and it was a twelve-footer equipped with a two horsepower engine. After observing a brief squall on the lake one afternoon, our enthusiasm for venturing out in such a craft was considerably dampened.

Reasons for the lack of archeological sites found in the park area can be briefly summarized:

(1) According to all accounts, the aboriginal population density was never high in the area.

(2) The sheltered bays of Minising and Grand Marais were far more attractive as living sites than the exposed beach between them.

(3) The dense vegetation prevents an adequate survey being made of the area inland from the lake shore.

(4) The aboriginal inhabitants spent only the spring and summer months fishing by the lake shore.

(5) The present beach is constantly being cut back and eroded, as well as being slowly submerged due to a proportionately slower rate of post-glacial uplift than on the north shore of the lake.

(6) There is some evidence that the Grand Sable Dunes and the Pictured Rocks were regarded as sacred areas by the Indians, and hence one would not expect mundane activities being carried out in their vicinity.

The archeological potential of the Pictured Rocks National Lakeshore area itself has to be termed very poor. The park area was definitely inhabited

in prehistoric times, but probably only sporadically. Any future investigators should apply their energies to locating the historically well-documented aboriginal settlements at Munising, Grand Island, and Grand Marais, all of which are just outside the confines of the park. It seems quite likely that they would be fruitful archeologically. A brief summary of the history of Munising turned out by Alger County Chamber of Commerce, mentions that in 1826 Henry Schoolcraft, who wrote extensively of the Lake Superior region, observed that a Chippewa village formerly at the mouth of the Anna River had been moved to Sand Point. However, we surveyed both locations with no results, and concluded that any future work should be concentrated on the above-mentioned areas.

HISTORICAL SITES

Probably the most interesting historical site visited during our survey was the ruins of the Schoolcraft Ironworks located on the edge of the park area next to Munising Falls. We are especially indebted to Mrs. Phyllis Kolbus, wife of the present owner of Minising Falls, who gave us much valuable information on the history of the blast furnace, and the Rev. Emil Beyer of Munising, who kindly lent us several photographs of the Schoolcraft Ironworks, taken when the blast furnace was still being operated.

The account of the history of this blast furnace which follows is based on the transcription of a radio talk given on January 24, 1960, over station WDMJ, Marquette, Michigan, by Mr. Kenyon Boyer, Managing Director of the Munising Historical Society.

The blast furnace of Munising Falls was one of many constructed in the 1860's in Marquette and Alger Counties. They owed their existence to the presence of highly productive iron ore mines in Ishpeming, Negaunee, and other places in the Marquette region. Although the Schoolcraft Blast Furnace (so named because of its location in what was then Schoolcraft County) was farther away from the mines than the other furnaces, it had the advantage of a nearly land-locked harbor and "over 50,000 acres of fine timber close at hand, with limestone for flux easily obtainable" (Boyer 1960:2). The ore was moved by railroad to Marquette and from there by boat to Munising. "The furnace was built along side a hill to make loading the kilns and stacking more convenient" (Boyer 1960:3). The furnace started operating in the summer of 1868 under the auspices of the Schoolcraft Iron Company, owned by Peter White of Marquette.

"The company built a store, boarding house, some dwellings, a brick schoolhouse...and a church. At one time the company employed 500 people in the woods, getting out timber and at the plant itself. Many of them were Indians who moved down from Zeba and L'Anse" (Boyer 1960:3).

By December, 1869, the furnace was producing from 16 to 20 tons of pig iron a day, although it was shut down periodically due to a lack of charcoal. In the same year the Bay Furnace, whose ruins are still visible on the west side of Grand Island, was being constructed, and by 1870 there were two blast furnaces operating on Munising Bay. They were both using limestone shipped all the way up from Lake Erie.

This was the most prosperous time for the Schoolcraft Furnace: new logging roads were being put in,

"Six new kilns were being built, which would make 29 in all, in several locations, so there would be no shortage of charcoal, and would increase production of pig iron from 15 to 20 tons a day. The dock was widened six feet and lengthened 20, so it could accommodate the largest vessels calling there, and a commodious warehouse was built on the dock" (Boyer 1960:6).

Late in 1870 the company changed hands and the main offices were moved to Philadelphia. This move was disastrous to the furnace. The new managers did not provide sufficient backing to keep it operating, and soon the stock of ore was used up, the company owed the furnace employees a large sum of back pay, and the furnace closed down. A boat came in to take away those who wanted employment elsewhere, leaving only a few families behind. The Bay Furnace continued to operate.

By 1872 a new organization known as the Munising Iron Company took over operation of the furnace. The furnace continued to function with periodic stoppages due to a lack of charcoal until 1877, when it was abandoned for good after only ten years of operation. In 1901 the equipment was purchased by an iron company in Hancock, Michigan, and was shipped away.

Today all that remains of the furnace are concrete forms, mounds of brick and miscellaneous iron bars sticking up out of the tall grass, and brambles. Several mounds aligned in a row can be seen on the edge of the bluff to the north of Munising Falls, and this must be what remains of the kilns. A road bed, which Mrs. Kolbus says was used for hauling in timber, can still be traced from a point near the mounds of brick and piles of cinders and slag. Best of all, from the point of view of a historically oriented archeologist, is the area where the houses of the furnace workers stood, located right behind the Kolbus residence. The ground here is covered with historic ceramics, rusty metal, and old bottles. Much could be learned about the kind of everyday life that was led by these families from excavation here on even a modest scale.

Any excavation and/or reconstruction in the form of models or illustrations of the furnace complex would be aided immeasurably by referring to some historical photographs kindly lent to us for copying by Rev. Emil Beyer, president of the Historical Society of Marquette County, Michigan. These photographs, taken during the heyday of the furnace, show the complex from several different directions and include views of the furnace itself, the pier, and the workers' quarters.

A second site in the park area that has historical interest is the Devil's Log Slide, located on a 200-ft bluff above the lake about a mile or two along the shore towards Grand Marais from Au Sable Point. Carter (1967:26) says that the slide was being used during the height of the lumbering activity in 1905:

"West from the area now known as the Kingston Plains, timber was hauled to the log slide on Lake Superior and rafted to mills at the [Grand Marais] harbor."

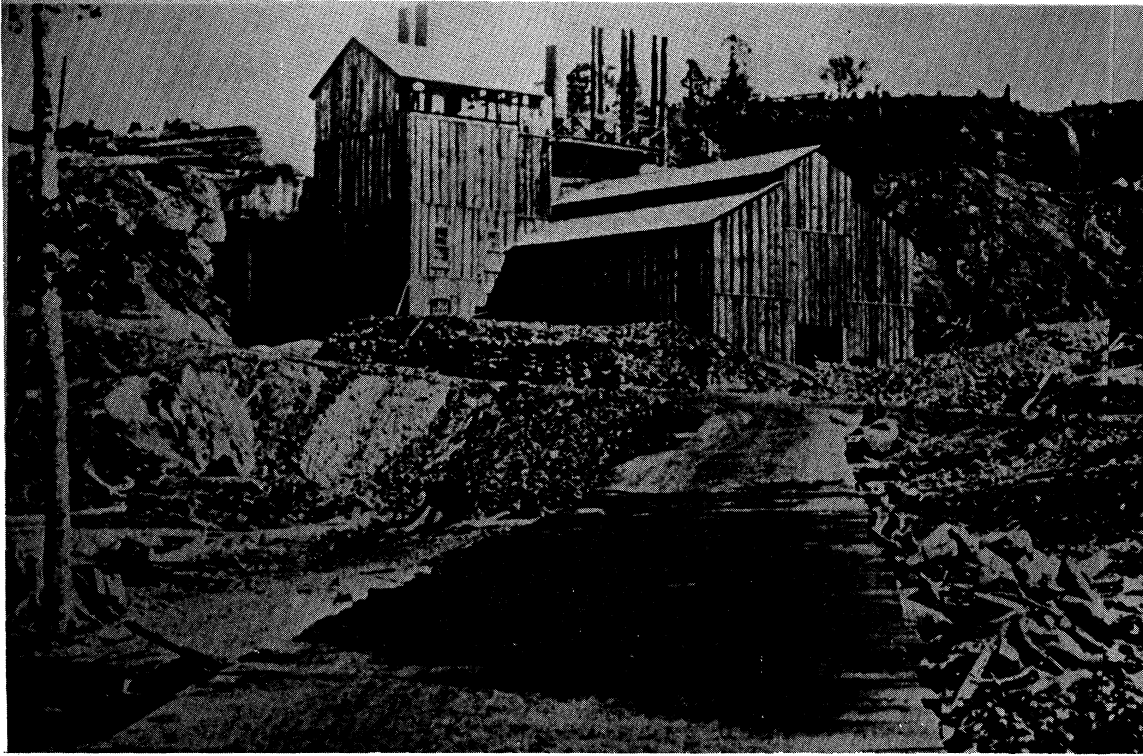
James Carter told us that the pine logs were not rolled down the steep bank, but slid down a wooden chute in which sand was thrown to keep it from burning due to the friction-heated logs. According to Charles Mattson, long-time resident of the area who found the artifacts described earlier, the logs were dragged from the interior to the slide by horse-drawn "Big Wheels," i.e., a pair of wheels and an axle attached to each log.

The large open field at the top of the slide may be the site of an old camp bottom, but there is no material evidence of this. According to Carter (personal communication) whenever a camp was moved, all the machinery and equipment were taken away, leaving behind perhaps only wooden shacks which quickly rotted, so one would not expect many signs of occupation to be left at a site anyway. Incidentally, nothing remains of the log chute itself.

We visited the Au Sable Point Coast Guard Lighthouse, which is presently boarded up and abandoned. No signs of any earlier lighthouse structure were visible. According to Carter (personal communication) the lighthouse began operating in 1874 and continued until 1958; the present lighthouse and living quarters couldn't be more than 20 years old, so there must be an old foundation somewhere on the point. This point, known on the early maps of the area as Point Aux Sables, is notorious for the shipwrecks that took place in the vicinity; Carter (1967:63-66) has documented many of them. In this regard it should be noted that masses of old timbers with thousands of spikes sticking up from them are to be found on the side of the point closest to Munising. These are undoubtedly the remains of a wreck.

We observed a small field in the woods by the road that leads to the mouth of the Hurricane River. This could be the site of "Daylight Johnny" Gillece's logging camp. Carter mentioned that this man logged in that vicinity around 1895 (1967:28).

Carter showed us two other homesteads of minor historic interest: that of "Dutch Frank" Boehm, near Sable Falls, and John Masse's, located on the original road to Devil's Slide, and built in 1889. The Boehm homestead consists of a one-room log cabin with a barn nearby—square hand-made nails attest to its age. The Masse cabin is very delapidated.



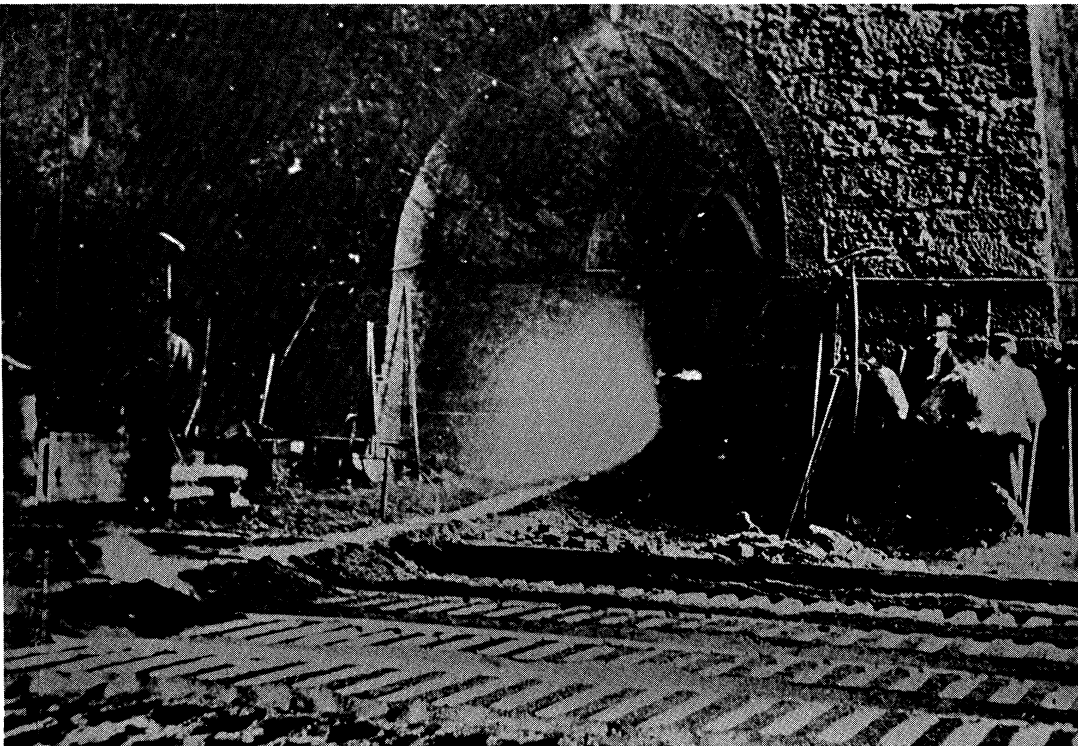
Schoolcraft Iron Company blast furnace, about 1868.



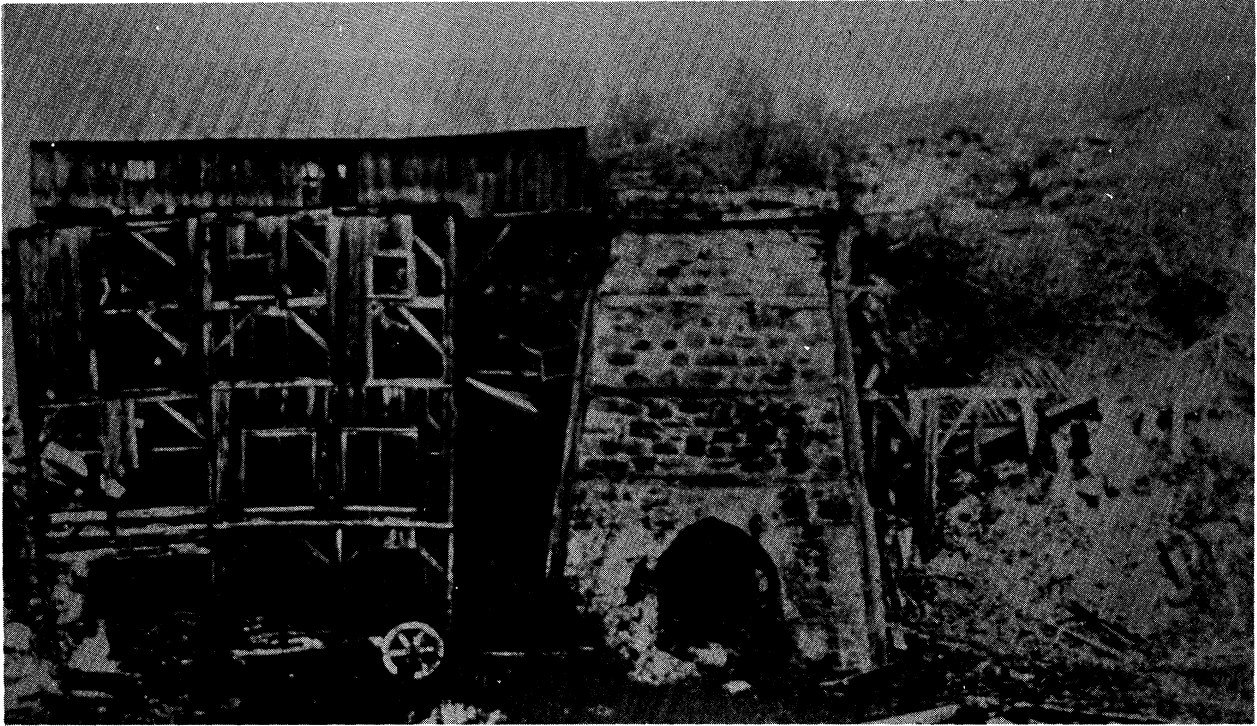
Schoolcraft Iron Company blast furnace, showing the employees' houses and the roadway leading down to the edge of the lake. The cross indicates the site of the Kolbus residence, home of the present owners of Munising Falls.



Buildings of the Schoolcraft Iron Company near the furnace, 1868.



Interior of the blast furnace, 1868.



Schoolcraft Iron Company blast furnace, about 1900.



Life in Munising in the late 19th century.

HISTORY OF THE PICTURED ROCKS REGION

James L. Carter (1967) has written the definitive history of the Pictured Rocks region; the interested reader is referred to this work, entitled Voyageurs' Harbor and published by the Pilot Press, Grand Marais, Michigan.

The following brief historical sketch is based on Carter's book, unless otherwise specified.

Grand Marais owes what historical importance it has to its sheltered harbor, which is the only one from Whitefish Point to Grand Island. The Chippewa Indians and their ancestors had camped on the edge of this protected bay for centuries before white men visited the area. They called the harbor "Gitchee Algomowin," which means Great Bay (Carter 1967:1).

The first Europeans to arrive in the Pictured Rocks region were the Frenchmen Pierre Esprit Raddison and Sieur de Groseilliers in 1658, whose objectives were to extend the French domain and to trade with the Indians. Kinietz (1940:327) mentions that Radisson observed the Indians making sacrifices on "Dorric Rock," a prominent feature in the Pictured Rocks. A dog was thrown in the lake with his legs and jaws tied and tobacco was then sprinkled on the waters in order to placate the spirits of the lake. These men were followed two years later by the Jesuit Father René Mesnard who was looking for a spot on which to set up a mission in order to convert the Indians. The Indians, however, did not take kindly to his efforts and after several years word filtered back to the French strongholds at Sault Ste. Marie and Mackinac that he had been killed on the Keweenaw Peninsula. Undaunted by the fate of Mesnard, Father Claude Allouez pushed into the western part of Lake Superior in 1665, and was followed four years later by Father Jaques Marquette; both these men stopped at Grand Marais on their way west. It is from these voyageurs and couriers de bois that places like "Grand Marais" (an idiomatic term meaning a sheltered bay), les Grandes Sables, and Point Aux Sables received their names.

By 1763, when the British gained control of the Lake Superior region, the fur trade had become an extremely lucrative activity, but still only occasional trappers or traders disturbed the Indians living in the Pictured Rocks area.

It was only in the first years of the 19th century when the area became a United States possession with the establishment of the Michigan Territory that the south shore of Lake Superior was really opened up to the white man. Surveyors, geologists, and Indian Agents began to invade the region. In 1820 Territorial Governor Lewis Cass visited Grand Marais, the Grand Sable Dunes, and the Pictured Rocks; Henry R. Schoolcraft, who later became an important figure in the exploration of the region, was a member of this expedition.

Incidentally the Hurricane River, located several miles west of Au Sable Point, received the designation by which it is now known at that time:

"Cass and his eager expedition, after they had explored the (Grand Marais) Bay, chose to camp for the night farther up the shore at a creek they called the Hurricane 'because of a violent storm that raged during the night.'"

(Carter 1967:4)

Governor Cass returned with another expedition in 1826; at this time recently abandoned Indian lodges were observed on the shores of Grand Marais Bay. During the next few years, Henry Schoolcraft, by then the U. S. Indian Agent at the Sault, was a frequent visitor in the park region. He noted that the Chippewa regarded the Grand Sable Dunes, which they called "Gitchee Nagow" (Great Sands), as a sacred area (Carter 1967:61).

Some interesting observations regarding the Indians still living in the area were made by Dr. Gilman in 1835, who had travelled all the way from New York City to see the Pictured Rocks. He wrote that the Chippewa referred to Grand Sable Lake as "Negawadju Sagaagan" meaning "Lake of the Sand Mountain." Carter (1967:61) describes what Gilman saw in the dunes:

"He told of discovering an Indian boy's grave made of logs with a crudely shingled roof. Inside the burial shelter was a wide flat stake with 'XIII' marked in red, apparently the age of the youth. There was also entombed a small cedar figure and several other of his possessions. A pole, 10 or 12 feet high, stood near the grave. Atop it were several strips of red and blue cloth.

Not far from the grave was an abandoned lodge, and a short distance from the lodge was a fasting platform. Two posts, formed of rough unbarked cedar logs, were planted in the sand eight feet apart. To the top of each post was fixed a cross-piece, about three feet long, fastened by bark thongs; from one of the cross-pieces to another were laid four small logs forming a sort of scaffolding. The fasting station played an important part in religious ceremonies, and fasting rites were observed previous to many great events or new periods in Indian life. The most solemn and important (event) is that observed by all young Indians, before they enter on the active duties of manhood,' Doctor Gilman recorded. The Indians attach the greatest importance to the dreams and reveries which beset them during these fasts, as omens of future good or ill.'"

The Roman numerals and strips of cloth attest to the degree to which these Indians had been influenced by white men, while the rest of the description, in contrast, shows that aboriginal customs still held sway.

All the early descriptions of the Pictured Rocks region stressed the unspoiled beauty of the area; this situation was soon to change, however. During the 1840's lumbermen began to buy up all the available pine land in the area. The discovery of iron and copper farther to the west also contributed to the influx of entrepreneurs and settlers. In 1853 the first permanent settlement was made at Grand Marais. Hiram Burt, who soon became prominent in the affairs of the town, and Peter B. Barbeau were two of the original landowners. Barbeau, who had worked for the American Fur Company until he went into business for himself, had a trading post built in Grand Marais in 1861, and Angus McDonald, a trader of long experience, was hired to operate it.

The first sawmill in the general area started work in June, 1857, and was located 40 miles to the east of Grand Marais by the Little Two Hearted River.

In 1871, commercial fishing came to Grand Marais. Two concerns started operations using boats equipped with sails, catching primarily trout and whitefish. Business was reported to be highly profitable.

In the 1870's, a great market for Michigan white pine was being created, which Carter (1967:17) attributes to "An upsurge in business after the Civil War, the settling of the treeless Great Plains, and the disastrous Chicago Fire..." In the summer of 1871, George Dawson of Sault Ste. Marie started logging at Perry's Landing with 200 French-Canadian lumberjacks; they cut only the very best white pine and sent it off to Montreal, England, and Scotland. In 1879, the first sawmill in the Grand Marais area was built. It stood where the township marina is now located and ran on steam power. By 1880 it was owned jointly by two capitalists from the Saginaw area—Wellington Burt and Henry Gamble—who kept it supplied with pines from their vast holdings near Grand Marais. They started one of the first logging railroads in the state, about seven miles of track east of the town. In 1882 the first logging in the park area proper was initiated by Thomas G. Sullivan. He established a logging camp at what is now known as Sullivan's Landing; it ran for three years during which over 50 million board feet of pine was sent up the lake to Sault Ste. Marie, Ontario, to be milled.

In 1883 town sites were plotted on West Bay; by this time Grand Marais had a population of about 330 people. Grand Marais had been made an official harbor of refuge and a new channel was dredged. Suddenly after this brief period of prosperity, however, lumbering began to taper off in the region, and the fortunes of the town declined. The sawmill was closed in 1885 and soon after Burt ended his logging activities altogether.

About ten years later a second logging boom began that far outshadowed the first one. It started when the Alger-Smith Company of Detroit moved to Grand Marais after a contract dispute with the concern that sawed their lumber in Manistique. The extension of their railroad to Grand Marais in 1893 brought a new influx of people eager to cash in on the boom. The abandoned sawmill on

the bay was bought from Burt by two men associated with Alger-Smith and soon it was producing lumber again. Several other mills were built during the next few years. Logs poured in from all directions as the axes and saws relentlessly destroyed the virgin forest. The area known as the Kingston Plains which lies to the south of the park area looks as desolate as it does today thanks to a Colonel Nick Baker and his brothers, who ran a series of camps throughout the region. Cedar camps were scattered everywhere and at least some of them operated within the confines of the park. By 1897 Alger-Smith had 500 men in the woods in order to keep a steady stream of logs into their Marais Lumber Company Mill, which ran 24 hours a day. During this time shipping in the harbor increased 50-fold.

Grand Marais was a rough town by this time: between 1895 and 1910 Carter (1967:33) reports that 29 saloons were in business, fights occurred frequently, and the town's only murder was committed. One man arriving in the region with the expansion of business whom residents of the area would rather forget was Leon Czolgosz, a section hand on the Manistique Railway, who later assassinated President McKinley.

During this time the basis was made for the Grand Marais of today: schools, churches, public utilities, and businesses related indirectly or not at all to the lumbering industry were built. The Great Lakes Veneer and Panel Company started work in 1904, but moved to Munising in 1907.

Grand Marais, like all small towns in areas with only undeveloped natural resources to offer, had always been subject to the vicissitudes of the lumber market and powerful outside interests. In 1909 the Alger-Smith Company found that its operations in Grand Marais were no longer profitable and in rapid succession permanently closed down its large mill, and then, to the horror of the local residents, began to arrange for the removal of its railroad line to the town. Frantic efforts were made to insure its operation, but all to no avail, and the last train left on November 5, 1910.

Grand Marais was practically finished. As Carter puts it (1967:50):

"In those days a town without a railroad had little hope for the future—and, faced by the bleak prospect of losing the Manistique Railway, Grand Marais knew its days in the sun had ended."

In 1915, only 200 people remained in the town (compared with several thousand at the peak of the boom), which by now was virtually isolated.

It was the fishing industry that prevented Grand Marais from becoming a ghost town. Following bad years in 1910-1912, catches increased until it became the prime occupation of the town. It was dangerous as well as profitable: many of the shipwrecks documented by Carter (1967:63-66) are connected with fishing.

In recent years the people of the Pictured Rocks region have been sustained more and more by tourism, which had a long history in the area but really became profitable only in the 1920's. Sportsmen also frequent the area for hunting and fishing. The Cleveland Cliffs Iron Company now engages in the logging of hardwoods and hemlock on a selective cutting basis on their holdings in the region, so the economic future of the area, taking into account the creation of the new park as well, is far from bleak.

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