A REPORT

TO THE DEPARTMENT OF NATURAL RESOURCES

ON THE HISTORICAL ASPECTS OF THE

VERMILION, CUYUNA, AND MESABI IRON RANGES

OF NORTHEAST MINNESOTA

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BY: MARVIN LAMPPA
CONSULTING HISTORIAN
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I. GENERAL HISTORY

During the 1700's, Minnesota's great mining districts were practically untouched by civilization. Virgin white pine covered the hillsides and caribou trails wound through thick woods and miles of muskeg to watering places on streams kept constantly high by colonies of beaver. The area abounded in fur bearing animals and its natural waterways made it accessible to the rapidly advancing fur trade. Just when the first representatives of white man's world of "trade and finance" first reached the "Iron Range" is not known, but French maps of the 1740's indicate that the region came early to an empire in furs created by their companies. At the time George Washington was marching his troops in the cold snows of Valley Forge, the Ojibway, Indian people skilled in the trapping and trading of furs, were establishing themselves at Lake Vermilion, Shagawa Lake, and Esquagama. They replaced the Dakota, early inhabitants of the area, and tradition tells of hostilities and pitched battles between the two groups.

After 1763, British traders replaced the French, and organizations such as Hudson's Company and the Northwest Fur Company set up trading posts at Vermilion Lake, Little Vermilion Lake and Basswood Lake just a few miles north of the present site of Ely. Competition between British

syndicates and the newly formed American Fur Company led to a border dispute involving the region. Anthony Barclay, Commissioner General of Canada, insisted that the framers of the Treaty of 1783, in Paris, had placed the true border between American and Canadian territories along the St. Louis, Embarrass, Pike and Vermilion River system crossing the east end of the Mesabi Range. A resulting survey in 1825 involved such famous individuals as Samuel and David Thompson and produced a series of beautiful maps. The surveyors were equipped with every instrument known to science "and their high quality productions are the first of the kind ever made in what today is Minnesota". Counterclaims begun by Peter Porter, American Commissioner, led to continued controversy which was not settled until 1842 when the Webster-Ashburton Treaty placed the border along the Pidgeon River--but this was done only as the result of compromise.

Indian treaties in Michigan, Wisconsin and Ontario caused vast Indian population movements to the region and surprisingly large Indian villages, numbering sometimes in the thousands, were seen at Lake Vermilion and Lake Esquagama during the 1850's. The Treaty of LaPointe in 1854 and the Treaty of 1855 placed all these people on government created reservations and opened the region to anxious timber cruisers, prospectors and land speculators.

The area's mineral wealth began to be suspected after James Norwood's famous iron discovery in 1849 on Gunflint Lake at the eastern

end of the Mesabi. But it would be gold bearing quartz on the Vermilion Range that would bring the first large numbers of prospectors and land speculators to the region. In 1865 Henry Eames, state geologist, started a wild rush for gold to Lake Vermilion with statements made in reference to gold deposits being located in that area. Thousands swarmed to Lake Vermilion and a gold town - Winston City - flourished briefly on its shore. Hundreds casually noted "cliffs of iron" nearby, but it was only 1866, and the "age of steel" had not quite arrived. Cheap methods of steel production were just emerging, and most felt iron deposits closer to Lake Superior on the Michigan shore would be sufficient to meet any demand. With the collapse of the gold rush in 1866, the area fell back into its original remoteness, except, of course, for remains of crushers, steam boilers, picks and debris left by the rush--and a well-marked overland trail from Duluth to the Range - the Vermilion Trail. This trail would never "grow over with brush" because it would be used constantly for hauling supplies after 1870.

In that same year, an "Ontonagan Syndicate" from northern Michigan sent Peter Mitchell to the Mesabi near the present site of Babbitt to prospect for iron. Steel mills were now crying for endless amounts of iron and the possibilities for profit were rapidly increasing. Mitchell's attempt led to the first land survey on the Mesabi Range in 1872, but met with failure due to the fact that funds could not be raised to bring in a railroad from Duluth.

However, George Stuntz and George C. Stone of Duluth, and veterans of the gold rush, saw strong possibilities for iron mining the Vermilion and sent samples of these and Mesabi ores to two Eastern mining men, Samuel Munson and Charlemagne Tower. Their money was placed behind a well-equipped mining expedition to the region in 1875 led by Professor Albert Chester, famous minerologist from Hamilton College, New York. The Vermilion Trail was used to tote in supplies to Wynne Lake where a trail was cut through thick woods to a large log camp set up just south of the Embarrass River in Township 59-14, not far from the Ontonagan Syndicate's Duluth and Iron Range Railroad. At the same time, Chester's reports glowed over the richness of Vermilion hematite.

Five years would pass before anything more was done in the area--at least it seemed so at the surface, for during those five years from 1875-1880, George Stone managed to get himself elected to the State Senate and personally saw to the passage of legislation allowing large give-aways of land to any company willing to build a railroad and one cent a ton taxation policy on mined ore. Only after this happened was Albert Chester asked, in 1880, to lead a second expedition, this time to concentrate only on the Vermilion Range, and to evaluate thoroughly the extent of the ore bodies there. Tower kept in weekly touch with the mining exploration crew by using "Indian runners" to carry reports down the Vermilion Trail and was apparently satisfied with these reports because

in August of that year, he began buying up the land George Stuntz had been assigned to survey. He used "entrymen" to pick up these properties at the going homestead rate and also bought properties from fur trader Francis Roussain for $4.00 an acre.

By 1882 he had control of the land and sent the first mining crews to the region in the employ of what was then called the "George C. Stone & Company Mining Enterprise." In December of that year the "Stone Company" was fused into the Minnesota Iron Mining Company controlled by Charlemagne Tower but including Edward Breitung of Michigan mining fame, Richard H. Lee, George Stone, George Stuntz, John Armstrong and Sandy McMaster. Hardrock miners from northern Michigan, Swedes and Cornishmen for the most part, were recruited by Elisha Morcom to do the first iron mining on the Vermilion. They were offered top contract pay and signed papers with Captain Morcom in the same way that sailors sign on to a ship.

Small company-built locations huddling close to small open pits marked the beginning of iron mining on the Range. In time, seven distinct mines were being operated by the Minnesota Mining Company. They were: the Stone, Lee, Breitung, Tower, Armstrong, Stuntz and Montana Mines, and when the pits could be dug no deeper, underground stope mining was launched, and the City of Tower, with its "company location" of Soudan, boomed into existence. In 1884 the D&IR Railroad, taken over from the Ontonagan group, was extended from Two Harbors on Lake Superior to the Vermilion mining districts.

The first shipment occured on July 31, 1884, and Elisha Morcom was by this time in charge of a crew of 350 miners. Tower quickly became a commercial and lumbering center approaching a population of 5,000 while Soudan remained a company town. In 1886 the D&IR extended a spur to the Chandler Mine and Ely boomed into existence, soon surpassing Tower in population.

The Vermilion Range was settled by company-picked men schooled in "hard rock mining" and those people, hailing mostly from northern Michigan and Cornwall, England, rose to high leadership positions in the mines and related industry. Some actually became millionaires. Cornish ways dominated; all mining terms were theirs: captain, stope, drift, crew, skip; and captains commanded their mines and locations as if they were commanding a ship. Immigrants from Finland and Austria formed the work crews and were settled into "tight little mining locations" patterned after those in Cornwall. Early Tower and Ely were boom towns; and vice, prostitution, drinking and gambling were the order of the day. But, as the mines developed and transportation improved, the Vermilion Range adopted a settled way of life: a strong temperance movement, strict law enforcement, and the establishment of many churches were probably also helpful in bringing stability to Tower, Ely, and Winton.

The Mesabi Range was bypassed for about ten years and then

iron strikes by John McCaskill, the Merritt brothers, David Adams, Frank Hibbing, and others caused a rush on land and the eventual establishment of a long string of mining hamlets from Birch Lake to the Grand Rapids on the Mississippi River. The early years of mining saw the Merritt family of Duluth fall victim to such eastern entrepreneurs as John Rockefeller and Henry Oliver. The resulting United States Steel Corporation and its subsidiary, Oliver Mining Company, by controlling railroad rates, soon dominated the Mesabi mining scene. There was one mine on the Mesabi in 1892, 20 in 1900, and in 1910, lll mines were shipping hematite to eastern steel mills.

Every single Mesabi mining effort resulted in some sort of settlement of "location". Some were crude shack towns while others were sophisticated developments complete with electricity and running water. Few people on the Range would remember such places as: Adriatic, Stephens, Miller, Syracuse, Bangor, Canton, Elba, Franklin, Kellog, Malta, Grant, Jordon, Exmore, Pillsbury, Clark, Sellers, Penobscott, Utica, or Carson Lake. They are all gone now, having fallen victim to changing technology and the steadily increasing size of open pits.

Much early Mesabi mining was "underground shaft mining", but with a greater knowledge of the ore body, these were quickly replaced by the huge open pits we see today. The only towns to survive were those standing away from the ore body. At the same time, they grew quickly. It took only ten years for Virginia to reach a population

of 10,000 people, and town populations in these days tended to be under-estimated due to rapid turn-over. Composed mostly of young adventurous men, Mesabi towns became centers for vice. This was probably one reason for the great number of violent deaths occuring during the Mesabi's first 30 years. Life was cheap; immigrant miners were expendable and accidents abounded.

The Iron Range was from the beginning - Cosmopolitan. In 1910, 50% of people living in Hibbing were native born, and 40% of those who were, were sons and daughters of immigrants. Figures for Eveleth and Virginia were similar, but out in mining locations the percentage of foreigh born could rise as high as 95%. There is where most recent arrivals found their American beginnings--at the location and in the mines.

And they came from almost anywhere. It was common to hear Finnish, Swedish, Slovenian, Italian, French, Danish, Norwegian, Croatian, Dutch, Bulgarian, Czech, Russian, Serbian, Chinese--and even Arabic spoken on Iron Range streets before 1920. By that year the total Mesabi population approached 80,000, and class structure prevailed. The recent arrivals lived in the mining locations, and unless they were part of "mining aristocracy", they were considered the lowest of people. Newspapers attacked them. The Virginia Enterprise stated in 1908:

> The Montenegrin was an importation on the Range a year ago, but his worthlessness as a laborer is fast becoming apparent to the mining companies, and his existence on the Range is a matter of but a short time.

> Not only as a laborer has his worthlessness been proven, but to the businessman, this has been the size-up since the day he first arrived. There are none who will object to his passing.

The businessmen, saloon keepers, store owners, restaurant operators, lumber dealers, and hotel keepers formed a certain "middle class", usually first to attack newcomers. Many of these same people were foreign born who had arrived earlier and were now making their living supplying mines and miners with their needs.

The aristocracy of the time were the English speaking Americans, Canadians, and Cornishmen who looked upon immigrant groups as "children". They comprised the "high society" of the time.

There has never been a place like the Mesabi in the area of extravagant spending for public buildings. Shack towns with beautiful city halls, schools with swimming pools, and "white ways" predominated, and the Iron Range prior to 1940 saw no equal in luxurious building. Of course, all this was paid for by mining companies, and Mesabi villages actually seemed to compete with each other to see who could get the most out of these "companies".

Seasonal employment, high rents, high prices and dangerous working conditions in mines plagued immigrant workers. The aborted strikes of 1907 and 1916 were induced by these problems and by strong syndicalist influences from the Western Federation of Miners and the IWW. Seemingly an exercise in futility, these two labor upheavals

clearly demonstrated the existing unrest and led to a period of company repression which saw no real union movement on the Range until the 1930's. The story of this time, from 1907 - 1935, is largely untold and certainly missing from conventional histories. It is an account of strikes, spies, frame-ups, organizing and building unions, and of men and women fighting--and sometimes even dying--in pitched battles with hired gunmen. Today, scattered across the Range, old workers cooperatives, socialist halls, socialist operas, and syndicalist headquarters still stand. Some are crumbling away, others have been converted into union halls, country churches, and places of business. Few today know their origins.

Advancing mining technology opened the Canisteo District, and by 1909 the mines around Coleraine, Bovey, Taconite, Marble, and Calumet were shipping "wash ores" much suited to steel production. Coleraine very quickly became a model "company town", and John Greenway and various company officials from the Oliver Mining Company soon made this place their home. The first wash plant for separating sand from the soft ores of the western Mesaba was set up at the Canisteo Mine, from which the district gets its name.

By 1911 the Kennedy Mine had been opened up on the Cuyuna Range near the Villages of Crosby and Ironton; and this area, extending from a spot in Morrison County to Aitkin, was soon earning a national reputation

for its manganese laden ores. During World War I, due to limitations on manganese imports, the Cuyuna reached its height of activity with 32 mines in operation.

In 1916 the Dunka-Mesaba Security Company, under the leadership of D.C. Jackling, established an experimental plant in Duluth to test methods of developing concentrates from lean ore. These methods had been successfully developed by Dr. E.W. Davis of the University of Minnesota, who, on an experimental basis, had produced a concentrate from taconite that tested 68.9% iron. The operation developed into a full scale commercial sinter plant at Babbitt in the 1920's. But sintering processing fluctuated and the demand for Babbitt concentrate declined, and the project failed in 1937 and Babbitt became a "ghost town".

However, Erie Mining Company established a pilot plant near Aurora in 1948 to continue developing taconite processing, and this evolved into a full scale pellet production plant at Hoyt Lakes in 1954. Many other methods of producing concentrate were also tested during the late 1940's but most collapsed, such as the Powder Plant experiment north of Aurora which attempted to produce powder iron from iron bearing slate. Erie's pellets would quickly be established as the most marketable method of taconite processing and would lead to a period of great transition for Iron Range towns. A few hematite mines are still in operation, but most of these have given way to the more sophisticated

methods of producing the new material needed for steel. The transition has seen the birth of a few new towns such as Babbitt and Hoyt Lakes, but it has also witnessed the death of some old ones such as Frazer, Elcor, and Cooley.

II. A. PRIORITY: THE ESTABLISHMENT OF A MANUSCRIPT-RESEARCH CENTER AS AN INTEGRAL PART OF THE INTERPRETATIVE PROGRAM

INTRODUCTION

From the quiet revegetated cliffsides of the Old Section Thirty Mine in Lake County to the Jones and Laughlin operation at the Lind-Greenway near Grand Rapids, change has been at work on the Range. Excavations, mine dumps, old foundations, decaying buildings, and rusting head frames bespeak of an earlier day,--of a time when mining was an art, and countless tongues were heard along pine boardwalks of frontier towns. Change has laid measure to the land; and the pump-stations, engine houses and steamplants of the past are now silent,--or more likely completely gone.--But there are those who still remember...

The Iron Range exists today on the edge of memory; the pictures and memories in the minds of long retired hard rock miners and trammers are probably warped and faded, but <u>they are still there.</u> Maybe we can still capture for posterity some of the area's colorful past,--before change destroys it forever.

--And change is relentless,--it comes in mining advancement, in road building, in town removal, in expansion and developing technology and in hundreds of other ways. The Iron Range has as much history as any other part of the state! You say, how can this be so? --The Iron Range is scarcely ninety years old. But history is not always

measured in time, it can be measured by events and change. And this is what makes the Iron Range so historic,--more change has gone on on these hillsides in the past fifty years than in any other place in the state,--and I include the suburban regions of Minneapolis and St. Paul.

More earth has changed position on the Mesabi Range alone than any other mining district within the borders of the United States. But it is not just physical change that should be considered. The Iron Range received a population movement from Europe so vast that in spite of vast assimilation efforts, European ways are still seen on its streets. The tremendous change in industrial technology is written in its slopes and dumps. When mining began on the Range it was an art and the underground miner talked to the earth with the booming taps of a long steel rod, and if he listened carefully,--the earth talked back.--It told of pockets of ore, of safe excavations, or of danger...And at the end of a day the miner talked of his work with pride.

Today sophisticated taconite plants, spouting vapor and black dust, sitting at the top of MESABI like feudal castles testify to what has happened in less than fifty years. Certainly, vast changes must have taken place in the minds of the men who work there.

And even yet, on back roads near shorelines of nearby lakes and

streams, ancient earthen mounds, piles of heaped stones, and quiet pathways tell of an even earlier time..There were other people... other ways...

Certainly, all this is deserving of study, interpretation, collection and display.

A. FUNCTION OF THE CENTER

A collecting center must be established on the Range to give much needed depth, validity, reliability and authenticity to the Interpretative Program. At this place would be gathered letters, publications, manuscripts, documents, town records, business records, mining records, photographs, charts, maps, personal papers, drawings, transcribed oral histories, and all other data contributing to an in-depth understanding of the region. The center should provide complete research facilities for Iron Range scholars and writers and provide for the storage of large amounts of written documentation.

It is important that the center be managed and maintained by a strictly historically oriented group. The Iron Range Historical Society is willing to take on the complete responsibility for this.--They would store and classify all materials under the guidance of the Minnesota Historical Society so that materials can be used by the serious student of Iron Range History.

B. THE IRON RANGE HISTORICAL SOCIETY

The Iron Range Historical Society consists of just under three

hundred members, mostly Iron Range residents, but also including many former Iron Rangers living in all parts of the nation from Florida to Alaska. It came into being in March, 1973, and has since devoted its efforts to the preservation, interpretation and dissemination of the rich culture of Northeastern Minnesota. It is an active non-profit organization funded by county and private monies, with project support from such agencies as Minnesota Humanities Commission and the Iron Range Resources and Rehabilitation Board. It runs on a modest budget of around $25,000 per year, and is affiliated with the St. Louis County and Minnesota Historical Society,--and has access to their resources. However, its interests are entirely "Iron Range" in nature and it has worked actively and enthusiastically to develop Iron Range historic sites and to promote people's "historical awareness" in Iron Range communities. It is not the "usual" gathering-museum oriented society but rather it would see the development of museum-oriented groups in given Iron Range communities.

Although it is a relatively new organization, the Iron Range Historical Society has proved its worth. Its accomplishments include the development of the Longyear Drill Site of 1890, first diamond drill site on the Range; the establishment of a collection of historical data, involving every community and organization on the Range in the "100 Year Time Vault" Project; the production RANGE HISTORY, which has become quite popular among Northern Minnesota residents; a collection of oral history of pioneers, recalling experiences of earlier times; the collection of

pertinent pictures, manuscripts and other documents which help tell the story of the area.

C. THE ROLE OF THE IRON RANGE HISTORICAL SOCIETY

Its role in relation to the Iron Range Interpretation Program would be as follows:

1. It would be The Keeper of the Record. Manuscripts, documents and other data which give historical documentation and add reliability to the more public oriented efforts of the various state organizations.
2. It would be the historical watchdog to see that change, clean-up and advancement of mining do not destroy forever all vestiges of the rich heritage we have in this part of the state. The Minnesota Historical Society and the St. Louis County Historical Society are too far away from the action to be effective in this area.
3. It would be the natural liaison between the Iron Range Trail Program, the Interpretative Program, the Mineland Reclamation Program, the Iron Range Resources and Rehabilitation Board on the one hand and the St. Louis County and Minnesota Historical Societies on the other hand. This liaison would lead to a much smoother operation of all institutions here on the Range.

4. Its work would involve the technical aspects of historical collection of data and would free such institutions as the Interpretative Center from the burden of providing the documentation for various public activities and displays.

5. It would provide a historical research center for the officers in the Iron Range Resources and Rehabilitation Board, the Interpretative Center, the Iron Range Trail Program, foresters, Iron Range city groups and organizations, so that they can easily procure necessary information for receiving grants, working on public projects, and their respective communications with the public.

6. It would be a place where scholars and students from all parts of the state and nation could come for their research and it would be located among the mines and towns of the Iron Range from which the research materials originated.

7. It would provide that depth of historical material now lacking in our Iron Range Interpretative Program and its very nature is such that the two groups would never conflict in interests.

8. It would support and research the on-going operation and establishment of displays at the Interpretative Center and the extension of the Iron Range Trail Program.

9. It would be an educational resource station--serving the needs of Iron Range schools and colleges, thus relieving this type of pressure from the other operations.

10. It would operate completely independently with no administrative, economic or political ties with the Iron Range Resources and Rehabilitation Board, the Iron Range Trail Program of the Iron Range Interpretative Center. Its very independence would integrate beautifully with the other groups and give it the authenticity it needs.

11. It would continue to advance and develop interest in the Range through its seminars, lectures and publications.

12. It would work as a resource partner in the development of historic sites under the Iron Range Trail Program.

D. SUGGESTIONS FOR PLANNING THE CENTER

1. In order to assure the on-going operation of the Iron Range Historical Society, proper housing is needed:

   a. Essentials Of Proper Housing

      1. A minimum of 3,500 square feet of operating space, not counting a vault. (A comparison figure, the Iron Range Interpretative Center is 33,000 square feet.)

      2. A good vault for preservation of historical primary sources.

3. Provision for a major Research Library with all materials needed for proper research. Carpeted floor-library-like atmosphere.

4. A small display area for a continually changing display production. (Major display work would be done by the Interpretative Center.)

5. Storage for displays for staff.

6. Administrative quarters:

   a. Office space for three.

   b. Editorial room for productions--books, quarterlies, other writings.

7. Meeting room and audio-visual center--meetings, lectures of society to be conducted here.

b. Considerations In Locating The Center

1. The geographic center of the Range.

2. The location of area historic sites in relation to the geographic center.

3. The location of those major historic events in relation to the geographic center. (Having direct impact on the state and nation.) (Example: Immigrant Assimilation, The Public Street Car, The Greyhound Beginnings, development of taconite processing, Indian Culture, The

great sawmills, etc...)

4. Present population distribution.

5. Location in regard to the scholarly community (high schools, colleges, universities).

6. Police protection for archives...

7. Its location in relation to other cultural and historical projects, such as the Forest History Center, the Interpretative Center, the State Museum of Mining, etc...

E. CONCLUSION

A feasibility study should be made as soon as possible to locate the best site for the center.

III. CONSIDERATIONS FOR ESTABLISHING PRIORITIES, THEMATIC CATEGORIES, AND SUB-THEMES RELATING TO QUALIFYING SITES FOR DEVELOPMENT

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Among the bustling iron range towns and the ruins of dead mining attempts and old townsites now dotting the Mesabi, Vermilion and Cuyuna Ranges lies an epic story. It covers a multitude of happenings from the quiet "deep forest days" of early Indian peoples to the present successes in pelletizing the region's vast taconite resources. It portrays the passing of an ancient culture, the struggle of kings, companies and national states to control furs, the founding of embryonic communities in a wilderness and the lusty, brawling life in old range towns. The story of the "Range" establishes unique insights into the industrial development of America as it traces the rise and fall of empires in steel and rail--and fortunes made and lost--sometimes overnight. Interwoven into all this is the saga of the immigrant with all his hopes, sorrows, joys, misgivings--and raw courage.

This story has never been fully told. Few people in our nation and state are aware of the significance of the area, and of the many historical and cultural themes underlying old buildings, structures, trails, mines, abandoned townsites and decaying farmsteads that are so familiar to area residents. A sound plan of marking, designation and development could change much of this, if worked into a dynamic interpretation program. This plan should include priorities, thematic and sub-thematic categories established with the following objectives in mind:

1. Demonstrating that this region possesses a history and culture that is unique, interesting, colorful, and exciting.

2. Establishing the fact that the history of the region goes back much farther than the present day iron range cities. --There was an earlier time.-- There were once other ways. Remnants of these can still be seen.

3. Presenting the dramatic role played by the three ranges in America's change from an agricultural to an industrial nation.

4. Telling the story of mining "like it was", from the lusty era of mule and manpower to the present days of blast furnaces and pelletizers.

5. Presenting the wild mining camps of the "old range" as they really were at the turn of the century--untamed, remote-- beyond all law and order.

6. Showing what the immigrant did, how he built things--how self-sufficient he could be as he played his role in turning a wilderness into riches, -- for a privileged few...

7. Letting the people of America appreciate more intimately--more deeply each individual cultural group that found its way to the area: the Finns, the Swedes, the Cornishmen,--the Italians, Austrians, Croatians, Serbians, Slovenes, Irishmen, Montenegrans, Bulgarians, Russians, Germans, Danes, Arabs, Dalmations and Chinese who established on the Mesabi and Cuyuna one of the most cosmopolitan populations the nation has ever seen--the Iron Ranger of today is the result of their experiences.

8. Establishing a more clear picture of various social ills that plagued our nation early in the twentieth century--working conditions, organization of labor unions, class feelings in local communities, problems of language, attitudes of "Native Americans" toward "recent arrivals". Many buildings still stand that express these ills: old socialist halls, workers headquarters and various kinds of cooperatives and workers benefit association offices can be found in most communities. Few know their original purpose.

9. Telling the story of more prominent United States figures who found their fortunes in the mines: Charlemagne Tower, Henry Oliver, Samuel Mather, John D. Rockefeller, Henry Frick, Fredrick T. Gates, Andrew Carnegie, and many others--their destinies were directly tied to the area.

10. Telling the story of self-made men, who rose from the red dust of the pits to become rich, famous, and powerful. The list of names is surprisingly long.

11. Allowing people to once again visit the actual sites where history occured--Adriatic, Stephens, Merritt, Spina--ghost towns now almost forgotten.

12. Providing the opportunity to experience the "thrill of discovery" through signing, physical, and written development.

IV. ESTABLISHING PRIORITIES IN SITE DEVELOPMENT

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Two prime considerations which must be made when selecting areas for development are as follows:

1. Priority relevance
2. Thematic category

Priority relevance refers to the importance of the historic site being considered in relation to the history of the nation or state. Three classifications of priority relevance are used in describing the sites covered in this study. They are as follows:

PRIORITY CLASS I.

These sites are those which either have the potential of attracting large numbers of people, or command a position of national or state attention.

(Example: It is of great importance in the interpretation of the political history of the United States to know the variances in opinions which occured as to where the border between the United States and Canada was located between the years 1789 - 1849. The St. Louis, Wynne Lake Embarrass River canoe route should figure into this controversy. The fur trade is of international interest, and so is interpretation of the history of Indian people. Therefore the Portage of 12 Poses would be classified I in this production.)

PRIORITY CLASS II.

These sites would have appeal to a more select group of people, or to specialists such as: historians, geographers, geologists, sociologists, mining engineers, architects, photographers, geneologists, etc. These sites would be

tied to a given cultural theme such as education, labor, economics, immigrant assimilation, social history, invention, etc. In no way should these sites be considered of secondary importance. The classification would simply mean that written development would take on a more specialized nature. Included here would also be those sites associated with significant people who are in some way associated with the region.

PRIORITY CLASS III.

All sites of local interest, or of lesser historical interpretive potential would fall into this group. Public buildings, places of business, local residents that help tell the story of the building of the given community would probably be included in this category and a full identification program would eventually be developed for these.

All items of a Priority I classification and select items of Priority II classification should receive first consideration for marking, establishment and development. All Priority I items should be eventually established on the National Register of Historic Sites if they meet the "Criteria for Evaluation" set forth by the National Register of Historic Places.

V. THEMATIC CATEGORIES AND SUB-THEMES RELATING TO SITES ON THE MINING DISTRICTS OF NORTHEAST MINNESOTA AND SURROUNDING REGIONS

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THEMES:

ARCHEOLOGY: Three types of archeological sites exist in Northeast Minnesota, and each is specifically defined below:

PREHISTORIC ARCHEOLOGY: These sites would advance the study of the life and culture of peoples indigenous to the area before the advent of writing. Specific examples of this type of site would include mounds at Esquagama, Lake Vermilion and other places; habitation sites, petroglyphs, pictographs, trails and structures that can be described by such archeological terms as woodland, Laurel, Blackduck, etc. In the study the sub-theme heading for this is PAR.

HISTORIC ARCHEOLOGY: These sites would advance the study of life and culture of indigenous peoples after the establishment of the written record. Such items as portage trails, fur posts, early settler's cabins, Indian agencies, historic burials, road houses, etc. The study sub-theme heading for this is HAR.

INDUSTRIAL ARCHEOLOGY: The Iron Range abounds in remnants of the quickly changing industrial age. Those sites which help interpret this change in terms of technology, method and approach are included in this study. Examples of this would include engine houses, headframes, steam stacks, bridges, trestles, railroads, shingle mills, logging devices, sluiceways, drill rigs, and other products of the Industrial age. These are headed IAR.

ARTS: This category includes the creative work of Iron Rangers, excluding architecture, but including such items as sculpture, painting, craft art, literature, music, photography and theatre. Sites of famous Iron Rangers who have exceeded in these areas are included in this study. The heading for this is A.

ARCHITECTURE: This category refers only to the style and construction of buildings and other structures. The following sub-themes would be used to describe the item and it is identified with the letters ARCH.

Log	French	Neo-Classic
Stone	Victorian	Rennaisance
Federal	Romanesque	Late Gothic
Classic	Richardsonian	Jacobean/Elizabethan
Gothic	Chateausque	Neo-Baroque
Towered Gothic	Eastlake	Sullivanesque
Italian Villa	Queen Anne	Praire/Wright
Italianete	Georgian	Praire/Purcell
		Moderne

BEAUTY: This category refers to sites that are particularly beautiful from an aesthetic point of view. Both natural and man-made phenomena will be included. Items such as hills, forests, rivers, lakes, waterfalls and open pit mines will be included. The letter B will be used to designate these.

COMMUNICATION: This category refers to sites associated with the transmission of information. Some examples would be the building that once housed the Virginia Enterprise, the WMFG radio station, etc. These sites are marked COM.

ENGINEERING: These sites would be closely related to industrial archeology sites, but would differ in that these would reflect some major existing achievement in engineering still in use. Some examples would include existing taconite agglomerators, the Babbitt water tower, various bridges and machines. The letters ENG denote these items.

EXPLORATION: This category refers to sites associated with the investigation of areas of Northeast Minnesota when little was known about it. Included here are the Chester camps (1875-1880), Norwood survey sites, Barchlay survey sites, George Stuntz's camps, Merritt camps, etc., where only the site is known and nothing remains of the activity. The letters EX are used to identify these places.

INDUSTRIAL: This category refers to sites associated with production of goods and services. Examples are: taconite plants, wash plants, mines still operating, wood products plants, etc. The letters IND identify them.

MILITARY: This category refers to sites deriving primary significance through association with military activities. Such places as the Duluth Air Base, radar stations and military communication networks would be included here. The letter M denotes such places.

PHYSICAL SCIENCE: This category refers to sites relating to natural phenomena such as geology and biology. Examples are: a Hull-Rust Mine view showing geological formations, the South Agnew viewpoint, Planetarium in Hibbing, Pillow Rock in Ely, etc. The letters P.SC. will be used to designate this theme.

POLITICAL AFFAIRS: This category refers to sites whose significance is derived through association with the office, authority, or the function of government on local, state and national levels. Examples are: courthouses, city halls, the I.R.R.R.B. Building, etc. They will be designated with the letters POL.

RECREATION: These sites will be noted for their recreational capabilities and include ski areas, cross-country ski trails, hiking trails, camp sites, etc. The letters REC will be used to designate these places.

SETTLEMENT: This category refers to early townsites, mining locations, pioneer homesites, farms, etc. An example of this would be the Pioneer Farm of the St. Louis County Historical Society in Markham. The letters SET will be used to designate these places.

SOCIAL INSTITUTIONS: This category refers to sites related to institutions created by man to aid the socialization and promotion of his welfare. Examples of this are: Socialist Opera in Virginia, Finn Halls, cooperative stores, early Range clinics and hospitals, Mesabi Park, various churches and other religious institutions. The letters S.I. will designate these items.

TRADE: This category refers to the exchange of goods and services. Sites relating to this category would include banks, hotels, pioneer stores, and resorts such as the famous Vermilion Trail Lodge near Ely, MN. The letters TRD will be used to designate this category.

TRANSPORTATION: This category refers to sites related to systems of conveying passengers and materials. Examples are: the Vermilion Trail, the Diamond Trail, the St. Louis-Embarrass canoe route, the Inter-urban streetcar line, the Greyhound Bus Line, etc. The letters TRAN will be used for these.

VI. THEMES DIRECTLY RELATED TO INTERPRETING THE HISTORY OF MINNESOTA'S MINING DISTRICTS

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An arabic numeral will mark the significant interpretive theme for each site listed. The following themes relating to regional interpretation are considered in this study:

1. GEOLOGY: The complex geology of Iron Range mining districts is certainly a spectacular and significant aspect of the region. It is of interest to all people.

2. UNDERGROUND MINING: The Minnesota mining districts present an interesting and certainly significant chapter in the story of underground mining method and development.

3. OPEN PIT MINING: The development of the great open pits of Minnesota is an epic story.--And the great spectacle they present today leaves a lasting impression on all who behold them.

4. MINING DANGER AND SAFETY: The greatest mining disaster in America occured in one of Minnesota's mines. Certainly no story of mining could possibly be complete without telling of the dangers in those dark places,--and of the efforts made by man in coping with these dangers.

5. MINING EXPLORATION AND MINING CAMP LIFE: Today it is difficult to believe the ruggedness of life in early mining camps and the tremendous hardships endured by early gold, iron, and copper prospectors.

6. FAMOUS INDIVIDUALS OF THE RANGE: A great many were responsible for the development of mining on the Range.--And many great American figures arose from Minnesota's pits of iron.

7. NATURAL HISTORY: Change in animal life occured with the coming of mining and logging. Once caribou herds grazed in the winter snows of Vermilion Lake and the Whiteface...changes in forest make-up and in water levels of lakes and streams can be readily observed in the area. Beautiful displays of glacial action on rocks and hills can be seen in places along the Laurentian Highland.

8. ORE BENEFICIATION PROCESS: The great variety and abundance of the region's mineral wealth has constantly spurred man to invention in order to gain the most from it all. Four sub-themes apply:

1. The crushing devices of the Vermilion.
2. The wash plants of the Canisteo.
3. The sintering processes of the Cuyuna.
4. The great taconite plants of the Mesabi.

9. ETHNIC HERITAGE: A rich source of knowledge and wisdom pertaining to the ethnic experience in America can be found in the region. Signs of immigrant attempts to cope with the rapid advance of industrialism still can be seen in Iron Range towns.

10. LUMBERING: Sites pertaining to this era are innumerable, and they span all activities from those of independent loggers to the creation of the largest white pine mill in the world in Virginia during the 1920's.

11. INDIAN CULTURE AND PREHISTORY: Northeast Minnesota abounds in signs of this. Much remains to be done in this area.

12. FUR TRADE: Northeast Minnesota came to the fur trade before any other part of the state. An interesting story of border controversy can be told with the Mesabi and Vermilion ranges involved.

13. HOMESTEADS IN A WILDERNESS: For some strange reason, thousands of homestead farms were carved out of the rocks and sticks of some of the most inhospitable country in Minnesota. Their story is unique to America.

14. STORY OF ORGANIZED LABOR AND SOCIAL REFORM MOVEMENTS: Here was the very front of employer-employee conflict. The development of the great mines spurred such movements as industrial socialism, anarchism, syndicalism, utopian socialism, cooperatives, communism, etc. Ideas came from all over the world to collide with the advancement of industry,trade and banking. It is an epic story that cannot be ignored.

15. EDUCATION AND PUBLIC BUILDINGS: There has never been a place like the Range in the development of "Whiteways" schools and public buildings.--Many of these buildings stand today as a tribute to its leaders and its industry.

16. GHOST TOWNS AND LOCATIONS, ENTITIES OF THE PAST: In early days, workers had to be housed in small company-run communities close to the mines. This way of life has completely vanished.

17. TRANSPORTATION CHANGES changed the way of life on the Range as it did elsewhere.--The change has been dramatic in the region.

18. EARLY COMMUNICATIONS IN MINING TOWNS: A great deal of influence was held by local newspapers. Many of these were, in turn, controlled by mining companies. Also, the foreign language press had a large following among immigrant workers.

19. RECREATIONAL FACILITIES AND ADVANCEMENT OF TOURISM: The natural beauty of the area has led to the eventual replacement of earlier finite industries by tourist-oriented enterprise.

20. POLITICAL TRANSITION IN RANGE TOWNS: The Iron Range has to this day been known for it's politics. But, once many towns were run absolutely by powerful mining Captains.--An actual aristocracy of English-speaking people once prevailed,--and class attitudes have died hard. Much change has taken place, but beautiful homes of mining officials still stand.--Also, homes of powerful political figures, not directly associated with mining, still stand as testimony to their power.

21. COMMUNITY ACTIVITY AND EVERYDAY LIFE: Many remnants of earlier life styles can still be seen across the area. They tell much about the experiences of pioneer Rangers.

22. INDUSTRIES, STRUCTURES, BUSINESSES, AND OTHER ACTIVITIES THAT ARE UNIQUE: It is of some surprise to many to discover the variety of attempts at survival and enterprise in the area. This category stresses the unique, the different, the odd events occuring on the Range.

VII. ESTABLISHING SITE DEVELOPMENT FOR AN OVERALL IRON RANGE HERITAGE INTERPRETATIVE PROGRAM

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PERSPECTIVE

Historical Resources: The mining districts of northeast Minnesota, and their surrounding regions, possess vast potential for historical interpretation--and for the kind of interpretation that can capture the interest of large segments of America's population. Mysterious mounds, prehistoric habitation sites, ancient trails and other markings tell of a time so long past that it is difficult to imagine.--But when Rome was only establishing itself on the banks of the Tiber, settlements had already been established on the shore of Nett Lake--and probably Lake Vermilion. It is well documented that the Northwest Company of Fur Trade fame had posts on Lake Vermilion, at Grand Rapids, and other places in the area at about the same time the United States was being formed. History abounds everywhere. Remains from the great sawmills, old clearings marking lumber camps, forgotten railroad beds, mining camps, ghost towns, gold mines, and remnants of iron mining testify to the rapid advance of industrialism across the regions. The whole area is an "industrial archeologists delight" with its railroad trestles, bridges, engine house remains, steam stacks, drill sites, headframes, processing plants and multitudes of industrial devices of all kinds. The schools and public buildings of the Ranges can interest even those with the most rudimentary knowledge

of architectural history.--But it is in the area of "immigrant experience" that the area shines. Hundreds of sites, buildings, homes and structures still stand testifying to the thousands that came to the "Range" to find their home in America.

Historic Preservation: Until 1963, historic preservation efforts in the State of Minnesota had centered around St. Paul and Minneapolis and had concentrated particularly on prehistory and had been conducted almost entirely by the Minnesota Historical Society.

After 1958, the Society dramatically altered its traditional role of refusing to acquire historically significant real estate and began a long program of surveying, marking and, if possible, picking up historic properties for the purpose of interpretation. However, with the passage of the Omnibus Natural Resources and Recreation Act in 1963, the organization combined its efforts with the Outdoor Recreation Resources Commission to conduct a survey of the entire state's historic resources. From that time on, the State Legislature set aside funds for a systematic historic preservation program for the State. This, of course, is a long process, and, of course, thus far stands a long way from completion. The Antiquities Act of 1963, the Historic Sites Act of 1965, and the National Historic Preservation Act of 1966 have given much strength to this program.

The Minnesota Historical Society is, therefore, a valuable ally

in establishing site development in an overall Iron Range Heritage Interpretative Program, and the guide lines it has already established give substance and depth to any kind of historic development in northeast Minnesota.

VIII. AN IRON RANGE HERITAGE INTERPRETATIVE PROGRAM ENCOMPASSING THE IRON RANGE INTERPRETATIVE CENTER, MINELAND RECLAMATION, THE IRON RANGE TRAIL AND OTHER HISTORICAL, CULTURAL AND INTERPRETIVE ATTEMPTS IN THE AREAS OF THE VERMILION, MESABI, AND CUYUNA RANGES

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This program should identify all cultural, geological, historical, recreational and scenic characteristics of northeast Minnesota and unify and coordinate all attempts to survey, interpret and express these characteristics by private, local, regional, county, and state agencies. The programs of various groups should be coordinated in such a way as to present to all people of the state and nation an understanding and appreciation of the industries and peoples of northeast Minnesota. The programs of all groups should not collide, but rather support and compliment each other. The following agencies and organizations have a vital interest in regional development and interpretation:

1. The Iron Range Interpretative Center, Chisholm
2. The Iron Range Historical Society, Gilbert
3. The Minnesota Historical Society, St. Paul
4. The St. Louis County Historical Society, Duluth
5. Iron Range Resources and Rehabilitation, Eveleth
6. The Department of Natural Resources, St. Paul
7. United States Forest Service, Duluth

Their efforts need to be coordinated. There is plenty of work to do for all...

Therefore, there is need for the establishment of a state position of Regional Interpretative Director for the purpose of working with, advising, and coordinating the activities of all groups in the areas of site development and interpretation of history, and to implement a viable overall program of interpretation. The following qualifications should be considered:

1. He should be an established historian.
2. He should know intimately the history of the Iron Ranges and surrounding regions.
3. He should command the respect of all historical groups.
4. He should be expected to write and publish materials in his field.
5. He should be able to travel and speak to groups on the history and culture of northeast Minnesota.

This person would eventually be expected to supervise the activities of all Interpretative Centers and see to the establishment of overall programs of historic, recreational, scenic, and cultural activity.

IX.

INVENTORY OF PLACES, STRUCTURES, AREAS AND SITES POSSESSING POSSIBILITIES FOR INTERPRETATION AND VARIOUS KINDS OF DEVELOPMENT

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Information here includes the general location, date, priority rating, and thematic characteristic of each item.

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
ADAMS MINE CAMP	Eveleth, 1893	I-EX-SET	Mesabi 5
ADRIATIC, GHOST TOWN	Aurora, 1906-1918	III-SET	Mesabi 16
AJAX MINE SITE	Biwabik, 1905	II-IAR	Mesabi 2
ALICE SCHOOL	Hibbing, 1913	III-SI	Mesabi 14
ALLEN JUNCTION	Hoyt Lakes, 1900-1930	II-TRAN-SET	Mesabi 16
*AMERICAN FUR COMPANY POST	Tower, 1824-1866	I-HAR	Vermilion 12
ANDERSON HOUSE	Hibbing, 1933	I-TRAN-ARCH	Mesabi 16
ARCHIBALD HOMESTEAD	Deerwood, 1872	II-SET	Cuyuna 13
ASA CAMP'S HOUSE	Ely, 1888	III-SET	Vermilion 6
AURORA WORKERS SOCIETY HALL	Aurora, 1912	II-SI	Mesabi 14-21
BABBITT, GHOST TOWN	Babbitt, 1928	II-SET	Mesabi 8
BAILY HOUSE	Virginia, 1920's	II-ARCH	Mesabi 6,22
BAILY LUMBER MILL SITE	Virginia, 1896-1951	II-IAR	Mesabi 10
BANGOR MINE	Biwabik, 1918	II-IAR-SET	Mesabi 2
BELGRADE LOCATION	Biwabik, 1914	III-SET-IAR	Mesabi 16
BIRCH LAKE PLANTATION	Babbitt, 1915	II-PSC	Mesabi 7
*BIWABIK HOSPITAL	Biwabik, 1905	II-SI	Mesabi 7,21
BIWABIK PARK AND COMMUNITY BLDG.	Biwabik, 1895	II-SI	Mesabi 21
BIWABIK PRINTING OFFICE	Biwabik, 1892	III-COM	Mesabi 18
BIWABIK SPRING	Biwabik, Pre-historic	II-PAR	Mesabi 11
BLANDIN PAPER MILL	Grand Rapids, Present	II-IND	Mesabi 10
BNAI ABRAHAM SYNAGOGUE	Virginia, 1909	II-SI	Mesabi 21

* Proposed for Register of Historic Sites

** Already on National Register of Historic Sites

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
BOVEY CITY HALL	Bovey, 1910	II-A	Mesabi 15
BRANVOLD CLAIM SITE	Tower, 1880's	III-SET	Vermilion 13
BRAY MINE	Keewatin, 1902	III-IAR	Mesabi 2
*BREITUNG LOCATION MINERS COTTAGES	Soudan, 1882	I-IND-SET	Vermilion 16
BREITUNG MINE	Soudan, 1884	I-IAR-B	Vermilion 3
*BRUCE MINE HEADFRAME	Chisholm, 1927-1950	I-IAR	Mesabi 2
BUHL FIRE HALL	Buhl, 1929	II-SI	Mesabi 15
BUHL PUBLIC LIBRARY	Buhl, 1916	II-ARCH-SI	Mesabi 15
BUHL VILLAGE HALL	Buhl, 1913	II-ARCH-POL	Mesabi 15
*BURNTSIDE LODGE	Ely, 1920	I-ARCH	Vermilion 19
BUTLER TACONITE PLANT	Nashwauk, 1967	I-IND	Mesabi 8
BWCA MAN DISCOVERY	Ely, Prehistoric	PAR	Vermilion 11
CALUMET	1908	I-SET-IAR	Mesabi 16
CANISTEO WASH PLANT SITE	Coleraine, 1903	I-IAR	Mesabi 8
CAREY LAKE	1911	II-IND-SET	Mesabi 4
CAPTAIN LUTES HOUSE	Biwabik, 1900	II-ARCH-SI	Mesabi 20
*CARNEGIE LIBRARY	Coleraine, 1920	I-SI	Mesabi 15
*CARNEGIE LIBRARY	Eveleth, 1914	I-SI	Mesabi 15,6
*CARNEGIE LIBRARY	Mt. Iron, 1914-1915	II-SI	Mesabi 7,15,21
CARSON LAKE	Hibbing	II-SET	Mesabi 16
CCC CAMP	Hoyt Lakes, 1937	II-SI	Mesabi 21
*CENTRAL SCHOOL	Grand Rapids, 1895	I-ALL	Mesabi 15
CHANDLER LOCATION	Ely, 1890	III-SET	Vermilion 16
CHESTER CAMPS	Aurora, 1875	I-IAR-IND	Mesabi 5
CHISHOLM PUBLIC LIBRARY	Chisholm, 1914	II-SI-ARCH	Mesabi 21
CHURCH OF THE IMMACULATE CONCEPTION	Hibbing	III-SI	Mesabi 21
COLONIA	Hibbing, 1910	II-SET-HAR-TRD	Mesabi 21
COLVIN LUMBER	Aurora, 1892	III-TRD	Mesabi 10
**CONGDON HOUSE	Duluth, 1900's	II-ARCH	Mesabi 6
COMMEMORATION PLAQUE NASHWAUK	Nashwauk, 1903-1953	III-SET-IND	Mesabi 3
*CONGREGATIONAL CHURCH	Biwabik, 1892	II-SI	Mesabi 21

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
COOLEY, GHOST TOWN	Nashwauk, 1914	III-IND-SET	Mesabi 16
COSTIN, GHOST TOWN	1907-1915	III-SET	Mesabi 16
*COUNTY COURT HOUSE	Virginia, 1910	I-POL-ARCH	Mesabi 15
CRATERS POINT	Tower, Geologic-1866	II-PSC-SET	Vermilion 1
*CROFT MINE ENGINE HOUSE AND STACK	Crosby, 1916	I-IAR	Cuyuna 2
CROSBY ARMORY	Crosby, 1916	III-SI-POL	Cuyuna 15
CROSBY HISTORICAL MUSEUM	Crosby, 1973	I-ALL	Cuyuna 17
**CROSBY HOUSE	Duluth, 1920	II-ARCH-IND	Cuyuna 6
CUSSON VILLAGE	Orr, 1910	II-SET	Mesabi 10
CUYUNA, GHOST TOWN	Cuyuna, 1908	I-SET	Cuyuna 16
DIAMOND TRAIL	Bovey, 1900	II-TRAN	Mesabi 17
D&IR RR. BRIDGE REMAINS	Biwabik, 1898	II-IAR	Mesabi 17
DILLON HOME	Hibbing, Present	II-COM	Mesabi 6
*DRUM ISLAND PETROGLYPHS	Nett Lake, Prehistoric	I-PAR	Mesabi 11
DRUMBEATER ISLAND	Grand Rapids, 1867	II-HAR	Mesabi 11
EKLUND HOMESTEAD SITE	Eveleth, 1904	III-SET	Mesabi 13
ELCOR, GHOST TOWN	Gilbert, 1898-1954	II-IND-SET	Mesabi 16
ELY-FINNISH STOCK CO. BLDG.	Ely, 1914	II-SI	Vermilion 21
EMBARRASS RIVER BRIDGE	Aurora, 1875	II-TRAN	Mesabi 17
ENGINE HOUSE RUINS	Riverton, 1920	III-IAR	Cuyuna 2
ENTERPRISE PRINTING OFFICE	Virginia, 1893	II-COM	Mesabi 18
ERIE MINE VIEWPOINT	Aurora, Present	II-IND	Mesabi 3
ERIE PRELIMINARY PLANT SITE	Aurora, 1949-1957	II-IND	Mesabi 8
ERIE TACONITE PLANT	Hoty Lakes, Present	I-IND	Mesabi 8
ESQUAGAMA CLUB	Biwabik, 1918	III-SI	Mesabi 21
ESQUAGAMA HABITATION	Esquagama, Pre-historic	I-PAR	Mesabi 11
EVELETH AUDITORIUM	Eveleth, 1912	II-SI	Mesabi 15,19,22
EVELETH CITY HALL OF 1906	Eveleth, 1906	II-POL	Mesabi 15
EVELETH MANUEL TRAINING SCHOOL	Eveleth, 1914	I-SI	Mesabi 15

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
FAIRLANE TACONITE PLANT	Forbes, 1966	I-IND	Mesabi 8
FINNISH AMERICAN MEMORIAL	Hibbing, 1970	II-SET	Mesabi 9
*FINNISH TEMPERANCE HALL	Virginia, 1905	I-SI-ARCH	Mesabi 9
FIRST PRESBYTERIAN CHURCH	Virginia, 1922	I-SI	Mesabi 21
FISHDANCE PICTOGRAPHS KAWISHAWI	Ely, Pre-Historic	I-PAR	Vermilion 11
FISHERMAN'S POINT	Hoyt Lakes, Present	II-REC	Mesabi 19
FLETCHER HOMESTEAD	Emily, 1898	II-SET-ARCH	Cuyuna 13
FOREST HISTORY INTERPRETATIVE CENTER	Grand Rapids, 1976	I-ALL	Mesabi 10
FOURTH AVENUE BRIDGE	Hibbing, 1914	III-IAR	Mesabi 17
FRANKLIN VILLAGE	Virginia, 1917	II-SET	Mesabi 16
FRAZER, GHOST TOWN	1923-1973	II-IAR	Mesabi 16
GARLAND RESIDENCE	Grand Rapids, 1930	II-COM	Mesabi 6
GEGGIE TEST PITS	Aurora, 1887	I-IAR-IND	Mesabi 5
GENOA LOCATION	Gilbert, 1896	II-IND-SET	Mesabi 16
*GILBERT CITY HALL	Gilbert, 1915	I-POL-SI-ARCH	Mesabi 14
*GLEN-PILLSBURY COMPLEX	Chisholm 1898	I-IAR-PSC-B	Mesabi 2
GODFREY MINE	Hibbing, 1920-1936	II-IAR	Mesabi 2,3
GOLD DIGGINGS	Tower, 1866	HAR	Vermilion 5
GOLD ISLAND ON LAKE VERMILION	Tower, 1866	II-IAR	Vermilion 5
GOLD MINE ON TROUT LAKE PORTAGE	Tower, 1866	II-IAR	Vermilion 5
GOLD MINE	Tower, 1866	II-IAR	Vermilion 5
GOLD STAMPMILL AND MINE	Tower, 1866	II-IAR	Vermilion 5
**GOOD SHEPHERD CHURCH	Coleraine	I-ARCH	Mesabi 21
*GRANT MINE	Buhl, 1907	I-IAR-REC-PSC	Mesabi 3
*GREAT MESABI VIEWPOINT	Coleraine, Present	I-IND	Mesabi 2,3,8,15,16
GREAT NORTHERN OVERPASS WOOD TRESTLE	Chisholm	II-IAR	Mesabi 17
GREY HOUND BUS STOP	Hibbing, 1920	I-TRAN	Mesabi 17
HAWKINS LOCATION	Nashwauk, 1903	II-SET-IND	Mesabi 16
HAWKINS MINE VIEW	Nashwauk, 1962	II-IND-PSI	Mesabi 3
HEARDING BUILDING	Aurora	II-SI-ARCH	Mesabi 15,7

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
HEGMAN LAKE PICTOGRAPHS	Ely	I-PAR	Vermilion 11
*HIBBING HIGH SCHOOL	Hibbing, 1920's	I-SI-ARCH	Mesabi 15
HIBBING PUBLIC UTILITIES	Hibbing, 1920-Present	I-SI	Mesabi 21
HIBBING TACONITE PLANT	Hibbing, 1976	I-IND	Mesabi 8
HIBBING VILLAGE HALL	Hibbing, 1920's	II-POL-ARCH	Mesabi 15,21
*HILL OF THREE WATERS	Hibbing, Pre-historic	I-PAR-PSI	Mesabi 7
HINSDALE GRANITE QUARRY	Hoyt Lakes, 1880's	II-IAR	Mesabi 22
HOCKEY HALL OF FAME	Eveleth, 1972	II-REC	Mesabi 19
HOLMES HOUSE	Ely, 1895	II-ARCH	Vermilion 22
HOODOO POINT	Tower	II-PAR	Vermilion 11
**HULL-RUST-MAHONING	Hibbing	I-IND-PSC	Mesabi 3
INDIAN SCHOOL SITE	Tower, 1860-1954	I-SI-HAR	Vermilion 11
INDIAN TRAIL	Pre-historic	II-PAR-TRAN	Vermilion 11
INDIAN VILLAGE SITE	Cook, 1870	II-HAR-SET	Vermilion 11
INDIAN VILLAGE SITE	Esquagama, 1850	I-HAR-SET	Mesabi 11
INDIAN VILLAGE SITE	Grand Rapids, 1867	I-SET-PAR	Mesabi 11
INDIAN VILLAGE SITE	Swan Lake, 1880	II-HAR-SET	Mesabi 11
INDIAN VILLAGE SITE	Tower, 1850's	I-HAR-SET	Vermilion 11
INGALLS FERRY LANDING	Crosby, 1915	II-TRAN	Cuyuna 17
INTERPRETATIVE CENTER	Chisholm, 1976	I-(ALL)	Mesabi 19
INTER-URBAN STREET CAR LINE	Gilbert to Eveleth, 1911-26	II-TRAN	Mesabi 17
*INTER-URBAN STREET CAR LINE, ORIGINAL BRICK BUILDING	Virginia, 1920's	I -TRAN	Mesabi 17
IRON HUB, GHOST TOWN	Iron Hub, 1910	II-SET	Cuyuna 16
IRON JUNCTION	Eveleth, 1892	II-TRAN-SET	Mesabi 17
*IRON RANGE BREWERY	Tower, 1890's	I-HAR-IND-SI	Vermilion 22
IRON RANGE RESOURCES & REHABILITATION BLDG.	Eveleth, 1975	I-ARCH-POL	Mesabi 15,19
IRONTON CITY HALL	Ironton, 1917	II-ARCH-POL	Cuyuna 15
JASPER PEAK	Soudan, Geologic	I-B-REC-PSC	Vermilion 8

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
KEEWATIN CITY HALL	Keewatin, 1909	II-ARCH-SI-POL	Mesabi 5
*KENNEDY MINE SITE	Crosby, 1911	I-IAR	Cuyuna 2
*KERR LOCATION	Hibbing, 1916	I-SET-IND	Mesabi 16
KLONDIKE, GHOST TOWN	Crosby, 1912	II-SET	Cuyuna 16
**LA PRAIRIE VILLAGE HALL	Grand Rapids	I-POL	Mesabi 22
LA RUE MINE	Ely, 1890	II-IAR	Vermilion 2
LEE HILL MINE	Tower, 1886	I-IAR-B	Vermilion 2,3
LEETONIA	Hibbing, 1902	I-SET-IND	Mesabi 16
LEETONIA MINE	Hibbing, 1908	II-IAR	Mesabi 2,3
LENONT HOUSE	Virginia, 1900	II-ARCH-SI	Mesabi 21
LEONIDAS	Eveleth, 1900	III-SET	Mesabi 16
LIND-GREENWAY MINE VIEW	Grand Rapids, Present	I-IND	Mesabi 3
LOGGING CAMP	Virginia, 1914	II-IAR-IND-TRAN	Mesabi 10
LOGGING CAMP OF POWERS AND DWYER	Snowball Lake, 1895	III-IAR	Mesabi 10
LOGGING RAILROAD GRADE	Grand Rapids, 1892	III-TRAN	Mesabi 10
LONGYEAR CAMP 2	Biwabik, 1891	III-IAR	Mesabi 5
LONGYEAR CAMP 4 SITE	Chisholm, 1892	III-IAR-HAR	Mesabi 5
**LONGYEAR DRILL SITE	Hoyt Lakes, 1890	I-IAR	Mesabi 5
LUCKNOW, GHOST TOWN	Buhl, 1903	III-SET	Mesabi 16
LUCKY BOY MINE	Ely, 1910	III-IAR	Vermilion 2
MALLMANN TEST PITS	Aurora, 1891	III-IAR	Mesabi 5
*MANGANESE, GHOST TOWN	Manganese, 1912	I-SET	Cuyuna 16
MARBLE	Marble, 1909	III-SET-IND	Mesabi 16
McCOMBER MINE	Ely, 1880-1919	II-IAR-SET	Vermilion 2
McKINLEY MONUMENT	Tower, 1901	III-SI	Vermilion 27
MEMORIAL BUILDING	Nashwauk, 1926	III-POL	Mesabi 22
MERRITT, GHOST TOWN	Biwabik, 1892	II-SET	Mesabi 16
MESABA, GHOST TOWN	Hoyt Lakes, 1891	II-SET	Mesabi 16
*MESABA PARK	Cherry	I-SI-ARCH	Mesabi 14
MESABA RIDGE TRAIL	Aurora, 1893	II-TRAN	Mesabi 17

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
*MESABA STATION	Hoyt Lakes, 1885	I-IAR-TRAN-SET	Mesabi 16
MESABI CHIEF MINE	Keewatin, 1893-1927	III-IAR	Mesabi 8
MESABI RIDGE TRAIL	Hibbing, 1893	II-TRAN	Mesabi 17
METHODIST CHURCH	Nashwauk, 1928	II-SI	Mesabi 21
*MILFORD MINE	Crosby, 1918-1932	I-SI-IAR	Cuyuna 4
MILLER-MOHAWK	Aurora, 1906-1923	III-SET-IAR	Mesabi 16
*MINERS COTTAGES	Crosby, 1910	I-SET	Cuyuna 17
MINERS COTTAGES	Riverton, 1914	II-SET-ARCH	Cuyuna 16
MINING OFFICIALS RESIDENCES	Coleraine-1920's	II-SET-ARCH	Mesabi 20
MINNESOTA IRON COMPANY SAWMILL	Tower, 1882-1883	II-IAR	Vermilion 10
MINNTAC	Mt. Iron, Present	I-IND	Mesabi 8
MISSION	Orr, 1890	II-SI	Mesabi 21
MOON AND KERR SAWMILL SITE	Virginia, 1892	III-IAR	Mesabi 10
*MORE HOSPITAL	Eveleth, 1910	I-SI	Mesabi 21
MORMON CHURCH	Bovey, 1920	III-SI	Mesabi 21
MORRIS MINE	Hibbing, 1903-1957	I-B-IAR-PSC-IND	Mesabi 1,2,3
MOUNTAIN IRON HIGH SCHOOL	Mt. Iron, 1911	II-SI-ARCH	Mesabi 15
**MOUNTAIN IRON MINE	Mt. Iron, 1892	I-IAR	Mesabi 1,3
MOUNTAIN IRON MINE VIEWPOINT	Mt. Iron, 1969	I-IAR	Mesabi 1,3
MUD CREEK CANOE ROUTE	Soudan to Ely, Pre-historic	II-PAR	Vermilion 17
MUD CREEK GOLD CAMP	Soudan, 1866	II-IAR	Vermilion 5
MUD CREEK IRON MINE	Soudan, 1917	I-IAR	Vermilion 4
MUSEUM OF MINING	Chisholm	I-IAR	Mesabi 2
NATIONAL TACONITE PLANT	Keewatin, 1967	I-IND	Mesabi 8
*NETT LAKE VILLAGE	Nett Lake, Pre-Historic	I-PAR	Mesabi 11
*NORTH AMERICA GOLD AND IRON MINE	Soudan, 1910	I-EX-IAR	Vermilion 2,5,22
NORTH HIBBING MODEL	Hibbing	III-SET	Mesabi 16
NORTH HIBBING SITE	Hibbing, 1920	III-SET	Mesabi 16
*NORTHWEST FUR COMPANY POST	Lake Vermilion, 1790	I-HAR-TRD	Vermilion 12

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
OHIO MINE	Virginia, 1895	III-IAR	Mesabi 6
*OLCOTT HOUSE	Duluth, 1905	II-ARCH	Duluth 6
OLD SETTLERS MONUMENT	Soudan, 1934	III-SET-IND-TRAN	Vermilion 2
OLIVER CLUB	Calumet, 1920	II-SI	Mesabi 20,21
OLIVER CLUB APARTMENTS	Hibbing, 1920	III-SE	Mesabi 21
OLLILA HOTEL	Nashwauk, 1909	II-TRD	Mesabi 9-21
ORE CART - KEEWATIN PARK	Keewatin, 1920's	II-IAR	Mesabi 2
ORELAND, GHOST TOWN	Oreland, 1912	II-SET	Cuyuna 16
OUTING	Emily, 1912	III-SET	Cuyuna 16
PAJARI TEST PITS	Irondale Twp. 1882	II-EX	Cuyuna 5
PAKALA BUILDING	Virginia, 1900	II-TRD-ARCH	Mesabi 21
PALO FIRE SITE	Aurora, 1936	III-PSC	Mesabi 7
PARK ADDITION	Hibbing, 1914	III-SET	Mesabi 21
PARK HOTEL	Eveleth, 1908	I-TRD-SI-TRAN	Mesabi 21,17
PAULUCCI STORE AND HOMESTEAD	Hibbing, 1930	I-TRD	Mesabi 6
PERPICH HOME	Hibbing, Present	II-POL	Mesabi 6
PERSHING, GHOST TOWN	Ironton, 1918	III-SET	Cuyuna 16
PETER MITCHELL MINE	Babbitt, 1875	I-IAR	Mesabi 5
PETRELL HALL	Brimson, 1913	II-SI-ARCH	Mesabi 21
PICKEREL BROOK	Keewatin, 1867	II-EX	Mesabi 5
PIKE BAY LUMBER CO. MILL	Tower, 1918	III-IAR	Vermilion 10
PILLOW ROCK	Ely, Geologic Formation	I-SCI	Vermilion 1
*PIONEER HEADFRAME AND STACK	Ely, 1902	I-IAR	Vermilion 2
**PIONEER HOMESTEAD	Markham, 1908	I-SET	Mesabi 13
*POKEGAMA FALLS NATURE TRAIL	Grand Rapids, 1806	I-TRAN-PSC	Mesabi 7
POKEGAMA PORTAGE	Grand Rapids, Pre-historic	II-TRAN	Mesabi 7,17
*PORTAGE OF 12 POSES, HISTORIC REGION	Wynn Lake, Pre-historic	I-HAR-TRAN	Mesabi 5,11,12
PORTAGE ROUTE	Mille Lacs Lake to Mississippi - Pre-historic	II-PAR	Cuyuna 11,17
PORTSMOUTH SINTER PLANT SITE	Ironton, 1924-1958	II-IAR	Cuyuna 8

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
POWDER IRON PLANT	Aurora, 1943-1951	II-IAR-IND	Mesabi 8
PREHISTORIC MINES	Soudan, Pre-historic	I-PAR	Vermilion 11
PREHISTORIC MINES	Tower, Pre-historic	I-PAR	Vermilion 11
QUARTZ CRUSHER	Tower, 1866	II-IAR	Vermilion 5
RAILROAD MUSEUM	Duluth, 1975	I-TRAN	All Iron Ranges 17
RAILROAD TRESTLE	Calumet, 1900-1976	II-IAR	Mesabi 17
RAILWAY ORE DOCK (DM&IR)	Duluth, 1915	I-IAR	Duluth 17
*RECREATION BUILDING	Eveleth, 1918	I-SI	Mesabi 15,19
RICHARDS HOME	Ely, 1930	II-ARCH-IND	Vermilion 20
ROOD HOSPITAL	Hibbing, 1912	II-SI	Mesabi 4
ROUCHLEAU MINE VIEW	Virginia, 1899	I-B-IAR	Mesabi 1,3
RUSSIAN ORTHODOX CHURCH OF ST. NICHOLAS	Chisholm, Present	II-ARCH-SI	Mesabi 21
ST. CROIX SAWMILL	Winton, 1910	II-IAR	Vermilion 10
ST. JAMES EPISCOPAL CHURCH	Hibbing	II-SI-ARCH	Mesabi 21
ST. LOUIS RIVER TRAVEL ROUTE	St. Louis County	I-PAR-HAR-TRAN B	Vermilion & Mesabi 11,12,17
*SECONDARY BURIAL MOUNDS	Esquagama, Pre-historic	I-PAR	Mesabi 11
*SECONDARY BURIAL MOUNDS	Lake Vermilion, Pre-historic	I-PAR	Vermilion 11
*SECTION 30	Ely, 1900-1920	I-IAR-SET-PSC-B	Vermilion 1,2,3,7
SELLERS-OWENS MILLSITE	Tower, 1886	III-IAR	Vermilion 10
SELLWOOD HOUSE	Duluth, 1902	II-ARCH	Duluth 6
SERBIAN ORTHODOX CHURCH	Chisholm, Modern	II-ARCH-SI	Mesabi 21
SHAGAWA HOTEL	Ely, 1890	II-ARCH-SI	Vermilion 21
SHANK LOGGING CAMPS	Biwabik, 1910	II-TRAN-IAR	Mesabi 10
SHARON HOTEL	Buhl, 1900	II-SET	Mesabi 21
SHAW HOSPITAL	Buhl, 1918	III-SI	Mesabi 4
SHIPMANS DRUG DISPENSARY	Ely, 1890's	III-TRD	Vermilion 21

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
SILLIMAN HOME	Hibbing	II-ARCH-SET	Mesabi 6
*SKIBO MILL	Hoyt Lakes, 1900	I-IAR-HAR	Mesabi 10
SNOWBALL	Pengilly, 1908	III-SET	Mesabi 16
SOCIALIST HALL	Keewatin, 1911	II-SI	Mesabi 21
SOCIALIST OPERA	Virginia, 1913	II-SI	Mesabi 14
**SOUDAN MINE STATE PARK	Soudan, 1890	I-IAR-IND	Vermilion 1,2
SOUTH AGNEW VIEWPOINT	Hibbing, 1974	I-B-IND	Mesabi 1,3
SPARTA, GHOST TOWN	Gilbert, 1896	I-SET-ARCH	Mesabi 16
SPAULDING	Ely, 1885	II-SET	Vermilion 16
SPINA	Kinney, 1913	III-SET	Mesabi 16
SPINA HOTEL	Ironton, 1913	II-TRD	Cuyuna 21
**STEAMBOAT LANDING	Grand Rapids, 1878	I-TRAN	Mesabi 17
STEELTON, GHOST TOWN	Steelton, 1913	III-SET	Cuyuna 16
STEPHENS LOCATION	Aurora, 1906	III-SET	Mesabi 16
*STONE HOUSE	Duluth, 1890	II-IND-ARCH	Vermilion 6
STONE TOWER	Ely, Pre-historic	I-PAR	Vermilion 11
*STUNTZ BAY STEAM STACK	Soudan, 1890's	I-IAR	Vermilion 2
SUGAR BUSH CAMP	Grand Rapids, 1867	II-HAR	Mesabi 11
SUGAR BUSH CAMP	Hoyt Lakes, Pre-historic,1930's	I-PAR	Mesabi 11
SUGAR BUSH CAMP	Orr, Pre-historic to Present	I-PAR	Mesabi 11
SULPHUR CAMP MINE	Babbitt, 1920	I-IAR	Mesabi 5
SVEA BUILDING	Virginia, 1900	II-TRD	Mesabi 21
SWALLOW AND HOPKINS SAWMILL SITE	Winton, 1898	III-IAR	Vermilion 10
TACONITE VILLAGE	Taconite, 1910-1914	III-SET	Mesabi 21
TIME VAULT DEDICATED TO IRON RANGE PEOPLE	Eveleth, 1976-2076	I-ALL	Mesabi 1-21
TOWER HISTORICAL MUSEUM	Tower	II-ALL	Vermilion 21
TOWER LUMBER MILL	Tower, 1899	III-IAR	Vermilion 10
TROMMALD, GHOST TOWN	Trommald, 1913	I-SET	Cuyuna 16

NAME	LOCATION, DATE	PRIORITY RATING	THEMATIC CHARACTERISTIC
*TROUT LAKE MILL	Coleraine, 1906	I-IAR	Mesabi 8
TWEED HALL	Duluth, 1906	I-ARCH	Duluth 6
TWIN CITIES MINE VIEW	Chisholm	II-IND	Mesabi 1,3
UKRANIAN CHURCH OF ST. PETER AND PAUL	Chisholm, Present	II-ARCH-SI	Mesabi 10,21
UNA GRAVESTONE	Deerwood, 1900-1905	II-EX	Cuyuna 6
VEGA MINE	Eveleth, 1894	III-IAR	Mesabi 2
VERMILION INN	Buyck, 1895	II-TRAN-ARCH	Vermilion 17
VERMILION LAKE RESERVATION	Sucker Point, 1854	I-SET	Vermilion 11
VERMILION TRAIL	Vermilion T. 1868	II-IAR-TRAN	Vermilion 17
VIRGINIA CITY HALL	Virginia, 1923	II-ARCH	Mesabi 15
VIRGINIA HOSPITAL OF PIONEER DAYS	Virginia, 1902	III-SI-SET	Mesabi 21
VIRGINIA PUBLIC LIBRARY	Virginia, 1912	II-SI	Mesabi 15-21
*VIRGINIA-RAINY LAKE MILL	Virginia, 1920	II-IAR-IND	Mesabi 10
VIRGINIA-RAINY LAKE RAILFOAD BED	Orr, 1915	III-TRAN	Mesabi 10
VIRGINIA WATER, LIGHT & HEATING PLANT	Virginia, 1920-Present	I-SI	Mesabi 21
VOYAGEURS CENTER	Ely	I-ALL	Vermilion 12
*WIELAND GRAVE	Beaver Bay, 1880	II-EX	North Shore 5,6
WHEELERS POST	Tower, 1875	II-HAR-SET	Vermilion 11,13
WILLISTON AND CHARNLEY MILL	Hoyt Lakes, 1888	II-IAR	Mesabi 10
*WINSTON CITY	Tower, 1865-1866	I-SET	Vermilion 5,16
WINTON COMMUNITY CHURCH	Winton, 1902	III-SI	Vermilion 21
WOLFORD, GHOST TOWN	Crosby, 1917	III-SET	Cuyuna 16
ZION LUTHERAN CHURCH	Virginia, 1906	II-SI	Mesabi 9-21

X. DESIGNATION OF THREE HISTORIC AREAS

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The following are areas that are still completely residential but possess great potential for telling the story of everyday life in early mining communities. The buildings still are unchanged, and the flavor of the past is still there.

OLD BREITUNG LOCATION, 1884 — Soudan

KERR LOCATION, 1916 — Hibbing

MINERS COTTAGES OF NORTH CROSBY, 1914 — Crosby

Suggested Development

1. Each area should be placed on the National Register Of Historic Sites. Each has the potential for placement.
2. A planning session should be held between historians and the local units of government for the purpose of preserving the flavor or the past in these areas.
3. Tax relief should be given to those residents complying with the over-all planning program developed by the Coordinated Planning Council.

XI. ITEMS FOR IMMEDIATE CONSIDERATION
1977 - 1978
****

ITEM ONE: THE NAME OF THE PROGRAM SHOULD BE CHANGED

The Iron Range Trail Program, as established in Minnesota Statutes, 93:45, 1969, needs to be renamed. The reason for this is to avoid confusion with continued development of mine walks, back-packing trails, snowmobile trails, road tours and cross-country skiing trails. Obviously the program is now far more than a trail. It is, instead, a rich treasury of historic, cultural, recreational and scenic resources to be enjoyed by all people. It presents the story of the people and industry of northeast Minnesota in its most attractive way,--at the place where it all happened.

Some suggestions are:

1. Heritage In Iron
2. Iron Range Heritage
3. Minnesota's Mining Districts
4. The Iron Range Experience
5. Forests, People And Mines
6. Minnesota's Iron Giants
7. Iron Range, U.S.A.
8. Treasury In Iron
9. Treasury Of The North
10. Iron Range Treasury
11. Legacy In Iron
12. Legacy Of The Range
13. Iron Range Legacy
14. Discovering The Range
15. Discover The Range
16. Exploring The Range
17. Exploring The Arrowhead
18. Northeast Minnesota, Explored
19. Potsherds To Pellets
20. Pines, People And Mines
21. Range Heritage

The above are listed merely as suggestions for future discussion.

ITEM TWO: THE DEVELOPMENT OF A DETAILED TOUR GUIDE

This should be an attractive hard-cover production containing interesting photographs, sectional maps, sketches, diagrams, and

anecdotes designed to capture the reader's interest.

A. Purposes:

1. To motivate people to visit the sites included in this study.
2. To provide the visitor with written materials that will help him enjoy his visit.
3. To suggest activities that will make his visit more meaningful.
4. To provide a greater appreciation of the true worth of "The Range".

B. Specifics

1. Length: approximately 300 pages
2. Organization: The area would be broken up into six geographical regions. The special characteristic of each region would be stressed. An accompanying map would give the location of all sites, walks and trails.

REGION ONE: THE SOUDAN DISTRICT

MAP I East Vermilion to Mud Lake	Prehistory Indian culture, beauty, geology, gold rush, logging-sawmills, hardrock mining, Soudan historic area, Soudan Mine, Iron Range Brewery, Indian Reservations, Cornish traditions, mystery of Lee Mine, Winston City and the Vermilion Trail, railroads.

REGION TWO: THE EAST VERMILION AND BABBITT

MAP II Mud Lake to Section 30 including Babbitt	Natural history, Indian culture, fur trade, underground mining, immigrants, Ely story, Winton and lumbering, ghost towns, Section 30, beauty, Babbitt sintering, Wieland story, Peter Mitchell Mine.

REGION THREE: LAND OF THE GIANT

MAP III Gilbert to Hoyt Lakes including Palo and Markham	Prehistory Indian culture, fur trade, the Border controversy, Chester Expeditions, Mesaba and Merritt ghost towns, state coach lines, ghost towns, Gilbert, Biwabik, Aurora, pioneer farms, trails, portage routes, beauty spots, hiking and cross-country skiing, natural history, underground shaft mines, taconite processing, powder iron, etc.

REGION FOUR: THE MESABI'S URBAN CENTRAL DISTRICT

MAP IV Hibbing to Gilbert and regions south	Early exploring camps, Adams, Hibbing, Merritt Brothers, early Mesabi towns, Mesabi Ridge Trail, old saloons and hotels, mining captains, immigrants, open pit mines, underground mines, inter-urban street car, Greyhound Bus Line, railroads, mining locations, cooperatives, the great Mesabi strikes, the moving of towns, famous Iron Rangers, mining accidents, ghost towns, union movement.

REGION FIVE: THE CANISTEO DISTRICT

MAP V Grand Rapids to east of Hibbing	Diamond Trail, Indian culture, transportation on the Mississippi, the Mesabi wash plants, company towns, John Greenway, Thomas Cole, mining locations, the death of mining towns, churches, fine company houses, open pit mines, lumbering, the log drives of the past, the story of the forests, natural history and geology, beauty spots, Indian lore, pioneer homesteads, railroad magnates and their story, Coleraine, Bovey, Nashwauk, Taconite, Marble, Calumet...

REGION SIX: THE CUYUNA DISTRICT

MAP VI The entire Cuyuna District	Cuyler Adams, George Crosby, Crosby, Ironton, Riverton, Trommald, sinter plants, manganese ores, natural history, ownership of mining districts, immigrants, Manganese City, other ghost towns, underground mining, Croft Mine, Milford Mine accident, mining companies, local life, stories of people, mining captains.

C. Distribution

The production would bear the same name as that decided on for the project and could be made available for sale in various places of business in all Range towns and at:

1. The Interpretative Centers (Chisholm, Crosby, Ely)
2. The Minnesota Historical Society, St. Paul
3. The St. Louis County Historical Society, Duluth
4. The Iron Range Historical Society, Gilbert
5. The Hibbing Historical Society, Hibbing
6. The Tower-Soudan Historical Society, Tower
7. The Ely-Winton Historical Society, Ely
8. The Cuyuna Range Historical Society, Crosby
9. The Itasca County Historical Society, Grand Rapids
10. The Lake County Historical Society, Two Harbors

D. Estimated Length Of Time For Preparing Such A Manuscript: 1 Year

E. Suggested Consulting Agencies: The Minnesota Historical Society, The Cuyuna Range Historical Society, The Iron Range Historical Society, Iron Range Resources and Rehabilitation

ITEM THREE: DEVELOPING A NEW COLOR MAP WITH SURVEY SITES MARKED AND AN ABBREVIATED TOUR GUIDE

1. Title: Same as that decided on for the project
2. Materials To Be Developed: A. Large composite map with sites and all trails marked
   B. A pamphlet of about 30 pages including short sketches of major sites, with a stress on participation (walking, back packing, photography, sketching, exploring, cross-country skiing, snow-mobiling). The pamphlet would be coordinated with the map.
3. Distribution Centers:
   1. Iron Range Interpretative Center
   2. Iron Range Resources And Rehabilitation
   3. Department of Natural Resources
   4. Forest History Center
   5. Iron Range Museum Of Mining
4. Estimated Time Of Development: 6 Months

ITEM FOUR: THE DEVELOPMENT OF A LONG RANGE PROGRAM OF MARKING EACH SITE

A numbering system could be developed to coordinate with the Tour Book and pamphlet with map.

1. The sign: I suggest the use of a symbol on a small marking sign is all that is necessary (no lettering).
2. Estimated Time of Development: 2 Years, Estimated Cost: $1,800

ITEM FIVE: THE ESTABLISHMENT OF SITE DEVELOPMENT AND TRAILS

1. SECTION THIRTY MINE WALK

A. THE STORY

In 1910, Section 30 was a thriving community, complete with miner's cottages, hotels, boarding houses, a hospital, dance hall, grocery store, theatre, and pool hall. Oppel's Store, fore-runner of modern shopping centers, was famous throughout the area and did so well that eight clerks, a bookkeeper and two butchers were kept full time. Indians traded here, and silent movies drew rounds of applause from delighted spectators. It was a self-contained community, and during winter months, the only means of communication with the outside world was by dog team.

The Section 30 Mine, only existing iron mine in Lake County, had its beginnings as far back as the 1860's when large amounts of "half-breed scrip" fell into the hands of speculators and promoters. The iron strikes at Soudan in the 1880's led to a long struggle for land control on the Vermilion Range and Section 30 of township 63, range 11, became part of this struggle. While most of the Vermilion developed, Section 30 was locked in a long series of court battles to decide ownership of

its ore bodies which had been known since 1885. Frank W. Eaton and Leonidas Merritt were accused by a certain Thomas Hyde of filing illegal claims to one forty in the section and litigation raged. On December 23, 1892, the Ely Times described this controversy:

> A new element in the controversy over the celebrated "Section 30" has made its appearance in the shape of an application for a future timber claim filed by Thomas J. Walsh on what is known as the Hyde forty...For some time past, Mr. Walsh has had an eminent attorney looking into the status of the case in regard to the Hyde Forty. Wednesday afternoon he was advised to file for application, and within a very brief period, the necessary papers had been deposited in the local land office. Mr. Walsh refuses to disclose the point or grounds upon which he expects to gain title to the property. He is confident, however, that his prospect is assured. The forty is regarded as the most valuable part of the famous section and is considered to be worth a million dollars.

Walsh failed in his efforts to gain title to the "Hyde Forty" as did others, and the matter was not settled until 1909 when George A. St. Clair and Alfred Merritt managed to obtain a mining lease on the property now owned by a strange conglomeration of people: Leonidas Merritt, R.H. Fogan, L.C. Harris, and the "Eaton and Longstarf Estates". These two men organized the Section 30 Mining Company in that same year, and mining began immediately.

Methods were in the traditions of the time. An underground shaft was sunk, and skilled miners were hired to bring up the ore. They worked hand pushed two ton cars, pushing them along a track to a chute where the ore would be dropped from the drift being worked to the main level below. As they tipped their ore, miners would call out their

special numbers and a "talley boy" would mark it on a pegboard to compute their totals for the day. Section 30 hardrock miners were paid 65¢ for each carload of ore they were able to drop into the chute. The ore was then hauled down a track to the shaft where it was "raised to grass" by a "skip". The skip would drop its ore into a "loading pocket" on the surface under which would be placed waiting ore cars. Candles were used for lighting in those dark Section 30 drifts and stopes.

Open pits were blasted open a few years later, and Vulcan steam shovels were used to scoop up broken chunks of iron ore. But the ore in the pit was still hauled through a drift to the main shaft where it would be "skip hoisted" to the surface.

Section 30 flourished until 1923 when high shipping rates forced the closing of the mine. Miners left the area so fast that the town was literally abandoned and for many years was a ghost town comparable in appearance to Cripple Creek, Rockerville or any other in the West.

Today the skeletons of these mining attempts standing amid tall pines and revegitated mine dumps and railroad grades can still capture the imaginations of the curious.

B. Themes:
1. Industrial Archeology
2. Early 20th Century Hardrock Mining
3. How Nature Reclaims The Land
4. Geology Of The Vermilion
5. The Story Of A "Ghost Town"

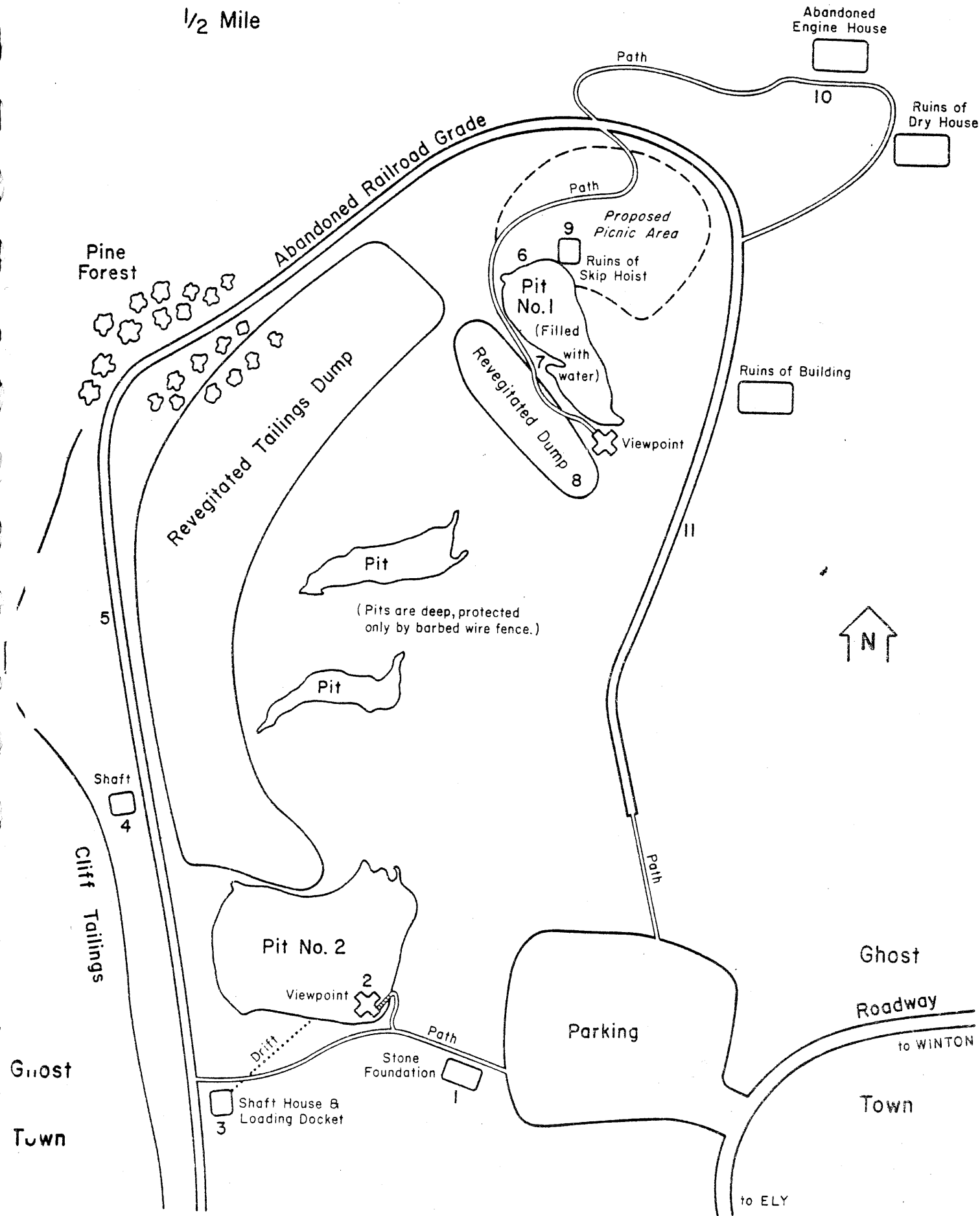
C. Essentials of Development:

1. The establishment of a half-mile long hiking trail around the mining activity
2. Four or five benches for sitting
3. Appropriate signing to help tell the story of Section 30
4. A picnic area near the No. 1 pit, which has completely filled with water and just north of the ruins of the "skip hoist"
5. A mine view - with proper fencing at the No. 2 pit
    1. You have a beautiful view of the iron formation.
    2. A geological story can also be told here.
    3. You can see the main drift to the shaft house.
    4. The scenery is magnificent.
6. Stairway down to the mine view
7. Proper fencing and signing for dangerous areas
8. A path to the ruins of the engine house and dry house

D. Coordinating Agencies:

The Iron Range Historical Society
The Department Of Natural Resources
The Congdon Trust

SECTION THIRTY
Mine Walk
1/2 Mile



2. BEYOND THE RANGES, A TRAIL INTO THE PAST 50 km.

Combine hiking in the summer or cross-country touring in the winter with a real experience with natural history and the early history of the Iron Range.

Here is an opportunity for the young--for the adventuresome--a chance to see places seldom seen by the average traveler. Along this route one can study first hand the effects of the glacier on the area. Pass through boulder strewn country and tall white pine forests that still line the north slope of the Mesabi, cross the historic Vermilion Trail of 1868, see the Embarrass River plunging its waters into Sabin Lake--both bear names which date back to times before there ever was a United States of America. See the remains of 19th century test pitting, follow paths that are so ancient that they were old even when the Ojibway arrived in the region. See the outlines of buildings at long forgotten lumber camp sites and view the rubble of an early attempt to produce powdered iron from Mesabi slates. See a civil war period gold mine and follow early lumber railroad beds past quaint Finnish farmsteads with saunas and log barns and pass by crystal clear lakes and streams, once well-known to trappers of the past. Travel through birches much like those seen in Finland and Sweden and see the crumbling remains of an ancient underground mine and its nearby ghost town!

A. Basic Essentials
   1. 30 historic signs erected along route
   2. Eight distance signs marking positions on trail
   3. A 32 mile long trail - four feet wide
   4. Three shelters along route with fire places (16 x 20) camping grounds, garbage collection, water
   5. A pamphlet outlining 1. summer trip
      2. winter trip

B. THE ROUTE

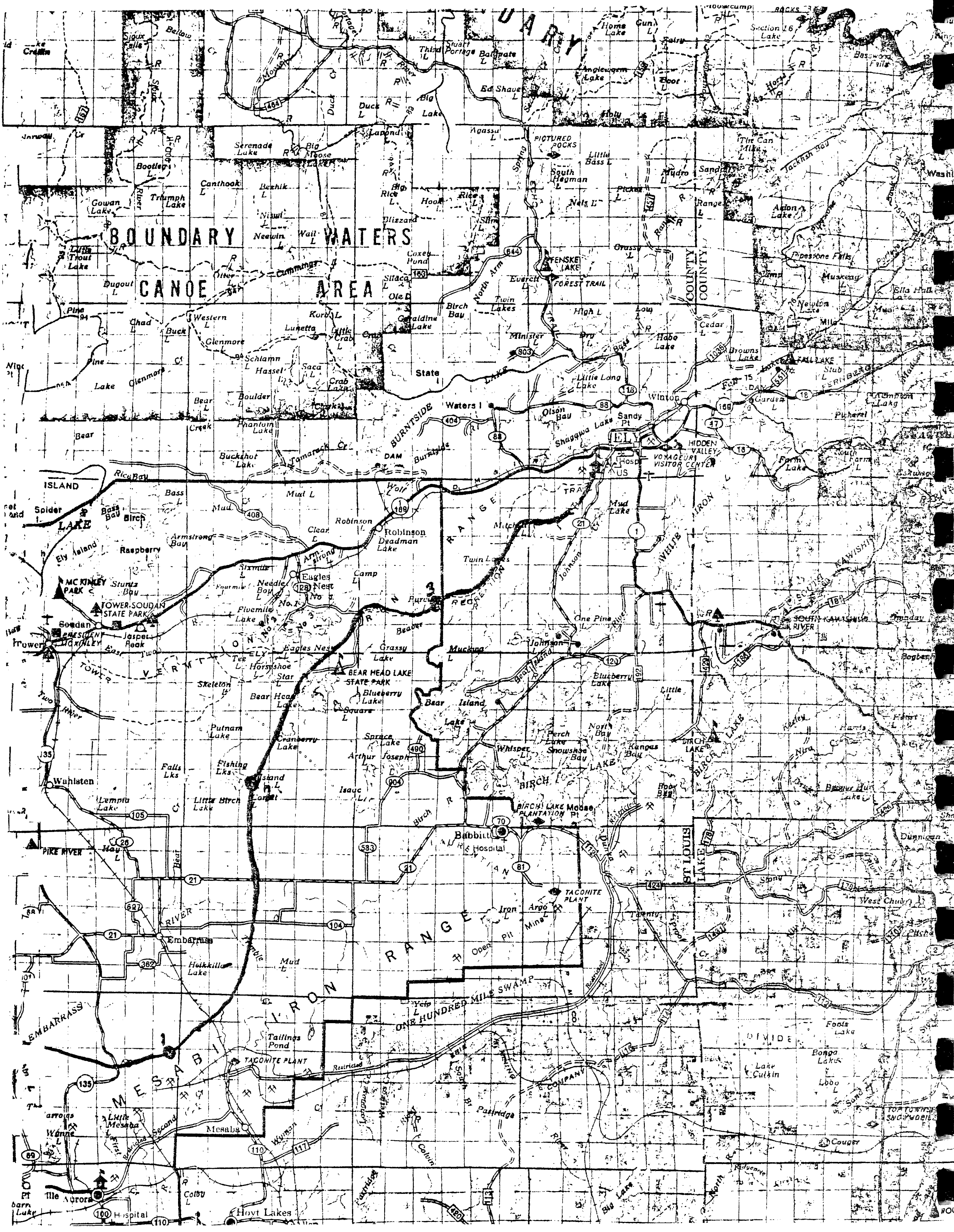
****

MILES	PLACE	INTERPRETATION	MISC.
0	Giants Ridge	Recreation, Ski Area	REC., Sleeping
1-2	Alpine-like Country, Hills	Effects of glacier abound	B
3	Cross Vermilion Trail	George Stuntz, Gold Rush	TRAN
4-7	North Slope of Mesabi	Beautiful views, glacier scratches on rocks, old lumber camp, test pits	B
8	Cross Highway 135	Old lumber camp	LUMBER
9	Powder Plant Ruins	Experiments in beneficiation	TAC
10	Shelter and Campsite	Beautiful maple groves (Sugar bush of Ojibway)	IND. CULT.
11	DM&IR Railroad	First railroad - 1884	TRAN
12	Test Pits - 1892	Probably those at Elish Morcom of Soudan	EX
13-14	Trimble Creek Crossing	Hibbing and Trimble Mine story	EX
15-16	Road 104 Crossing	First road connecting old Mesaba with Tower - 1900	TRAN
17	Abandoned Farmsteads	1909 structure - Finnish	SET

MILES	PLACE	INTERPRETATION	MISC.
18	Cross Highway 21	Old Birch Lake Road. There was no connection with Ely in early times.	TRAN
19	Finnish Farms Still In Use	Old barns, saunas, etc.	SET
20	Logging Railroad	1886 spur from Tower - Owens	LUMBER
21	*Shelter and Campsite Between Fishing Lakes and Comet Lake	"Timberwolf Lodge", lumber camps, beautiful birch forests, side trip to Island Lake	LUMBER, B, SET, NH
22	"Arlise" Mine	Test mine of 1880's	EX
23	Warm Springs	Ice never forms on these pools and steam rises all winter long	NH
24-25	Cranberry Lake	Abandoned logging railroads - 1880's	LUMBER
26-27	Bearhead Lake	Slacker's cabin of WW I, IWW hideout, beautiful cabin, side tour to Bearhead Lake State Park	SOC. HIST, B
28-29-30	*Shelter and Campsite Beautiful wild country, pines, lakes and streams	Wild animals and plants abound	NH
31	Remains of 1866 Gold Mine	Quartz piles, remains of stamp mill, and prospector's cabin remains	EX, IND, ARCH
32-33	Mitchell Lake		B, NH
34-35	Remains of Lucky Boy Mine	1910 Iron Mine	IND, ARCH
36-37	District Ranger Station In Ely	U.S. Forest Story	NH

This trail should be strictly limited to hikers, back packers, and in the winter, cross-country skiers. Every effort should be made to keep away motor vehicles and snowmobiles.

C. Coordinating Agencies:
1. Iron Range Resources and Rehabilitation
2. Department Of Natural Resources



BOUNDARY WATERS
CANOE AREA
Sioux Falls
Bootleg L
Canthook L
Triumph Lake
Gowan Lake
Little Trout Lake
Dugout L
Pine
Chad L
Buck L
Western L
Glenmore
Schlamn
Hassel L
Lunetta L
Little Crab L
Crab Lake
Boulder L
Phantom Lake
Serenade Lake
Big Moose Lake
Lapond
Duck L
Big Lake
Third L
Ed Shave L
Agassa L
Pictured Rocks
South Hegman L
Little Bass L
Fenske Lake
Forest Trail
Everett L
Twin Lakes
Minister L
High L
Hobo Lake
Cedar L
Browns Lake
Fall Lake
Winton
Sandy Pt
Shagawa Lake
ELY
Hidden Valley
Voyageur Visitor Center
Farm Lake
Burntside Lake
State
Waters
Olson Bay
Little Long Lake
Buckshot Lake
Tamarack Cr
Dam
Bear
ISLAND LAKE
Soldier
Bass
Birch
Armstrong Bay
Raspberry
Ely Island
McKinley Park
Tower-Soudan State Park
Soudan
Tower
Jasper Peak
Robinson
Deadman Lake
Eagles Nest
Clear L
Camp L
Needle Boy
Fivemile Lake
Mud Lake
Twin Lakes
One Pine
Johnson L
Mucking L
Grassy Lake
Bear Head Lake State Park
Blueberry Lake
Bear Island Lake
Skeleton
Putnam Lake
Cranberry Lake
Spruce Lake
Falls Lks
Fishing Lks
Island L
Little Birch Lake
Wahlsten
Lempia Lake
Pike River
Birch Lake Plantation
Moose Pt
Babbitt
Hospital
Tacohite Plant
Iron L
Argo L
Open Pit Mine
IRON RANGE
MESABI
ONE HUNDRED MILE SWAMP
Embarrass
Heikkila Lake
Tailings Pond
Taconite Plant
Little Mesaba
Mesaba
Aurora
Hospital
Hoyt Lakes
Colby L
Partridge
Birch Lake
North Bay
Perch Lake
Snowshoe Bay
Whisper L
Kangas Bay
St Louis
Lake
County
Divide
Foots Lake
Bonga Lake
Lake Culkin
Lobo L
Cougar L
Fernberg Road
South Kawishiwi River
Kawishiwi

3. PORTAGE THROUGH THE PAST

A marking and restoration project involving three ancient portages crossing the height of land and connecting the waters flowing north to Lake Vermilion with the headwaters of the Chain of Lakes flowing into the St. Louis River.

A. THE STORY TO BE PRESENTED

Unobtrusively, at the foot of mining dumps and excavations between towns of Aurora and Biwabik lie the dark waters of Embarrass Lake. Cabinless, its shorelines controlled by great corporations, its waters re-routed to make way for even more mines--it would probably not attract the more historical minded of those who pass by. Yet, the very name "Embarrass" gives the first hint of the area's antiquity.

"Embarrass" was seen on maps of the royal families of Europe long before there ever was a Minneapolis--or St. Paul--and even before George Washington marched his troops in the cold snows of Valley Forge. And Embarrass Lake was only part of an ancient travel way used by man even before Europeans discovered the American continent. The route began on Lake Superior, followed the St. Louis River to a point where it was met by the Lower Embarrass River flowing out of Esquagama Lake. From Esquagama it passed through Cedar Island Lake, Embarrass Lake, Wynne Lake to the place where the Upper Embarrass River empties into Sabin Lake. Two short portages took the traveler beyond a series of rapids and waterfalls

to the quiet waters of the once broad Embarrass River. A paddle of about a half mile brought one to the famous "Portage of 12 Poses", a carry of 6,270 yards over the height of land to the Lesser Vermilion River and on to the water communications to the "Lake Of The Mists" (Rainy Lake). There stood the embattlements of Ft. St. Pierre, established by LaVerendrye in 1731.

Up to now, this branch of transportation has been much overlooked by historians in favor of the border-Pigeon River Route to Grand Portage. This is indeed strange if one considers the fact that as a major route of the fur trade, the Embarrass-St. Louis-Vermilion River system was once considered to be the true border between the United States and Canada by wording of the Treaty of Paris, 1783.

In the eyes of the officials of the British-owned Northwest Company, the treaty certainly meant Isle Royal as a turning point in the border, St. Louis Bay as the so-called "Long Lake" and the St. Louis River as the main water communication between it and Rainy Lake and the Lake of the Woods. Certainly the St. Louis River was the longest and largest river flowing into Lake Superior. And the Northwest Company did business as usual north and west of Duluth until well into the 19th Century. One must keep in mind that the framers of the treaty ending our war for Independence had never been in this part of the world, and it was, in fact, a common belief that the Lake of the Woods emptied its waters into Lake Superior through a "long river and lake". And it was also common belief that the Mississippi

River marking the western boundary of the U.S. originated north of the Lake of the Woods, and that an intersection could indeed be made on the 47th parallel. Naturally, the scene was set for controversy.

In 1790, British officials attempted to solidify their holdings on such places as Leech Lake and Lake Vermilion by seeking an agreement with the United States to re-run the border in a line from St. Louis Bay to Red Lake River, and John Jay came near accepting this plan in 1794. Grace Lee Nute remarked, "How narrowly the United States missed all rights to the eastern border lakes may be understood if it is recalled that Jay yielded practically every other point to the British negotiators". Fortunately for Iron Rangers and our country, Jay came to his senses in the eleventh hour and refused to yield this one point.

The United States became much more firm in its attitude toward border controversies after this point, and especially after the founding of the American Fur Company in 1808. By 1823, Astor's firm had become a serious competitor of the British and was establishing its own posts in the region notably on Moose, Basswood and Vermilion Lakes. Confrontation with the British was inevitable. Peter Porter, United States commissioner on border disputes, demanded that the British yield to the claim that the Kaministiquia River was the main water communication between Lake Superior and the Lake of the Woods, and there was some validity to it all, as the deepest and widest water channels can be found along this route.

In a meeting held in Montreal in October of 1824, British Commissioner Anthony Barclay ordered a survey "of the border to the Lake of the Woods" and that, of course, was to go by way of the St. Louis River. He then advanced to Peter Porter the following claims:

1. The true ancient and most traveled water route to the Lake of the Woods was the St. Louis-Embarrass-Vermilion River system.
2. The St. Louis River most accurately answers the description of the Treaty, since after expanding itself into a lake(St. Louis Bay), it discharged itself into the lake(Superior) not by a bay as did the Kaministiquia and Pigeon Rivers, but by a narrow mouth made by two points.
3. The St. Louis River was an ancient commercial route to the north, an argument that certainly could not be denied, and the St. Louis River route was more ancient than the Kaministiquia route.
4. The St. Louis River was the most navigable of all travel routes to the north and along it one could reach the Lake of the Woods with the fewest portages.
5. The old name of the St. Louis River was "Lake River" which certainly designated it as the largest tributary of Lake Superior. And the term "Long Lake" as seen in the original treaty was intended to mean "Big Lake River".

6. The words "northward of Isle Royal" implied that the border was to turn here southeast to the St. Louis River.

The claims were certainly as strong as any that had been presented, and the following summer the British proved that they were determined to carry their views to the bitter end by sending a well-equipped survey team up the river to camp in June on Embarrass Lake on Bradley Island and then in July on Lake Vermilion. This Barclay Survey of 1825 was the first scientific team to survey land within the boundaries of our state. The maps they made proved that the men making that trip in 1825 really knew their job. They numbered all prominent points and islands and marked all portages, rapids, and bends in the rivers.

Walter Van Brunt remarked:

"No survey since that time was made with greater care or more conscientious fidelity. The body of men, perhaps 50 in number, including the various laborers, and the agents of the respective governments, with the secretaries, the chainmen, the cooks and camp servants, must have startled the denizens of the wilderness, human and otherwise."

It is interesting to speculate on what might have happened to the Range if the diplomats had complied with the Barclay Survey. Biwabik would have been in the United States; Aurora and Hoyt Lakes would have been in Canada. The entire Vermilion Range where the first area ore strikes were made in the 1870's and 1880's would have been entirely Canadian.--Cook would have been a border town along with International Falls.

In 1827, according to Samuel Thompson, the St. Louis-Embarrass-Vermilion River route to Ft. St. Pierre had only twenty-one carrying places, while the Grand Portage Pigeon River had thirty-four.

David Thompson, famous explorer of the Northwest once stated: "The route to the interior by the River St. Louis is, in my belief, the most ancient, and next in order, the old commercial route by the Great Carrying Place and the Pigeon River".

One of the most beautiful historic accounts of crossing the Iron Range was made by James Norwood in 1848 while exploring for the United States government:

> "We entered the Embarrass River on the 21st, and on the 23rd reached Ishquagoma, or 'End Lake' as it was termed by the Indians. Between these two points the country consists of coarse yellow sand, with a very thin soil supporting whortleberry, mountain tea, pipsissewa, and a few other plants which flourish in a sandy soil. The trees are all small, and consist of birch, ash, and aspen poplar, with some soft maple in the bottoms and cypress on the drift hills... The river is exceedingly crooked, and much obstructed by driftwood...
>
> "Ishquagoma Lake is about 350 yards wide in the lower part, shallow and full of rushes; the upper part is clear, deep and 500 yards wide. ...A second lake is reached by a portage of 200 yards... This lake is small and shallow and the bottom is covered with boulders... (The) third lake is a mile and a

quarter long and about four hundred yards wide and contains several small islands... The fourth lake is one-third of a mile long... The portage from this to the fifth lake is about 200 yards in length over a ridge of boulders... Fifth lake (Embarrass Lake) is a beautiful sheet of water, and on the west side of it, at a distance of apparently two miles, was seen the Mesaba Watchu, or 'Big Man Hills'... A small stream...leads to the sixth lake (Wynne Lake) which is a mile and a half long and 50 yards wide. On the west side the Mesaba Watchu approaches within 300 yards of the lake and is estimated to be 300 feet high..."

"The seventh lake (Sabin Lake)... called by the Indians, Ininiwishtigonan, is one mile and a quarter long and 400 yards wide and is embosomed in hills... About a mile above...we came to the path that leads across the dividing ridge to the waters of the Vermilion River (Pike River).

"At this place, which is called by the Indians Ashawiwisitagon (meaning 'the water that runs two ways') we left Embarrass River, which was here very wide, without perceptible current, and bordered by tamarack swamps. We found it necessary to stop on this portage (Portage of 12 Poses), for the purpose of drying our... flour which was in danger of spoiling. We remained three days partly on account of hurts received by two of the men, while carrying a large canoe over the portage."

"The portage is about five and a half miles long, and has several exposures of rock on it... The portage path is generally good, running over dry pine ridges, but a portion of it is as bad as cedar and cypress swamps can make it."

"We began to descend the (Vermilion River) and on the 28th of August...we entered Lake Vermilion".

It is on Lake Vermilion that Norwood camps on the vacated site of a British Northwest Company post, and back then, in 1848, he ponders over the area's past. He writes:

"The buildings erected here by the Northwest Fur Company about 35 years ago have long since disappeared; nothing remains of them now except piles of fallen chimneys to mark the spot where they stood. The rocky point is bare for a short distance in front of the old building spot, and the rock slopes gradually into the water. Back of where the houses stood are the remains of a garden, now overgrown with bushes and saplings. Where the ground is yet open, the Indians have planted potatoes within the last two years".

Not only fur traders and Indian people saw the importance of this ancient travel route. The first expeditions in search of minerals on the Range used these rivers and lakes extensively.

Albert Chester led two expeditions of this type to the Mesabi and Vermilion, and historians generally credit these operations to be the beginning of iron mining history in Minnesota.

The Chester expedition of 1875 resulted in a condemnation of Mesabi iron ores as being too lean and turned all eyes to the Vermilion Range.

In 1880, Chester led a second mining expedition, this time strictly to the Vermilion Range, and he and part of his crew once again used the same route to the north. This second Chester expedition resulted in the first mining land purchases on the Vermilion Range and marks the beginning of the story of the Soudan mine.

The old canoe route continued to be used until the early years of the 20th century. But even after Mesabi towns had come into existance, Indian people continued to use it. John Boshey, who had lived as a child in the Indian village on Esquagama Lake in pre-Treaty of LaPointe time, remembered seeing fur traders carrying furs down the Embarrass River, and stated that Indian people from Vermilion Lake and the surrounding regions used the old route to take blueberries to sell in the streets of old Miller, Aurora, Merritt and Biwabik.

Mrs. Sophie Nelimark who homesteaded a farm just off the Pike River in 1906 stated that the portage route ran right across her field, and she remembered seeing "Indians going toward Wynne Lake with packsacks and canoes".

But even before the arrival of European culture to the area, this same travel route cutting through "The Big Man Hills", the Mesabi, between Aurora and Biwabik, was important to man. James Norwood and George Stuntz, who saw the region in its unchanged state, were constantly impressed and amazed by what they believed to be the remains of an ancient and advanced culture that had developed in the area long before. They talked about seeing man-made stone dams on the Embarrass and Pike Rivers,--dams that were ingeniously designed to hold the level of waters high enough to allow boats of light draft to travel long distances without portaging. In the 1880's, Stuntz wrote a number of papers on the subject addressed to the Minnesota Academy of Sciences. Nothing in terms of archeological investigation was ever made of his claims. Stuntz might have become rich as a partner in the "Minnesota" mining venture on the Vermilion, but he chose to spend his time trying to "prove his theory that a long forgotten mound building culture once centered its activity near the 'Mesaba Watchu'".

Today, the area has changed so much that little evidence remains of what Stuntz and others once described in the 1880's.--But in a few places along the old route, old mounds can still be seen. Archeologists ascribe them as belonging to a certain "Laurel Culture" unique to this area, a culture that existed long before even the Ojibway people moved to the region.

B. Essentials Of Development

1. Brushing out original portages
   - A. Sabin Lake to Embarrass River (473 yards - Completed 1975)
   - B. Embarrass River to Embarrass River (631 yards - Completed 1975)
   - C. Erection of appropriate canoe rests (Completed 1975)
   - D. Embarrass River to Pike River (6,270 yards)
   - E. Erection of appropriate canoe rests

These original trails were used so heavily that they still can be followed in many places.

2. Nomination of site to the National Register
   Agencies Combining Efforts: Minnesota Historical Society
   Iron Range Historical Society
   Iron Range Resources and Rehabilitation

3. Signs marking historic events: Ten
   Topics:
   1. Prehistoric Man
   2. Fur Trade - French Days
   3. Strange Rock Formations
   4. American Fur Trade
   5. Border Disputes
   6. Gold Rush
   7. Chester Expeditions
   8. Chippewa Indian People
   9. Nelimark Farm
   10. George Stuntz

4. Development of brochure to be distributed by the Interpretative Center

C. Theme

Travel by canoe from Biwabik's historic Embarrass Lake to the upper reaches of the Embarrass or all the way to Tower on Lake Vermilion. Here is one of the most historic areas in the state

of Minnesota. Long before there was a United States--in fact, even before Columbus made his landfall on islands adjacent to the continent of North America--man was using this route for travel and trade. While portaging north from Sabin Lake, you may walk again these very same paths. Pass by the remains of 19th century mines and test pits--see strange unexplainable rock formations over which controversy rages as to their origins.

As you walk, know that you are following the line the British truly believed to be the border between the United States and Canada. You will see some of the most beautiful scenery in northeast Minnesota."--Alpine-like scenery", said James Norwood, 1849 explorer. And here is the Mesabi in its most unchanged state. See it all as did those first iron explorers in 1875 and 1880--tall pines, rocks, ridges, rapids--a virtual piece of the past nestled in the midst of our present day world.

Here along this very route passed the Greats of Iron Range history: David and Samuel Thompson, Alexander McKenzie and William McGillivary of Hudson Bay and Northwest Company fame.--And Major Thomas Newson of the Mutual Protection Gold Mining Company, Albert Chester, Richard H. Lee, George Stuntz, James Norwood, Leonidas Merritt, John Merritt, Duncan McKinley, Frank Hibbing, David Adams, Richard Sellwood, Elisha Morcom,

George Stone, Reverend Father Buh, and James Northup of early iron mining days.

This route was known to the kings of Europe before there ever was a Duluth, Minneapolis, or Chicago. The forests, rocks, and hills are even today just like all these people saw them.

Points of Interest on First Three Portages

1. Remains of logging drives of the 1890's on shore of Sabin Lake
2. Early foot bridge to the dam quarding the sluiceway of McDevitt and White-1890
3. Logs from the old drives still line the shores of the quiet pool above the first set of rapids on the Upper Embarrass
4. Strange piles of rocks seemingly piled by man. Claimed by some to be natural--by George Stuntz in 1882 to be a prehistoric dam
5. Early test pit of unknown origin--probably dating back to days of the Gold Rush
6. Cypress groves described by James Norwood in his diary of 1848
7. Portage of the 12 Poses of French times
8. The remains of the Nelimark Farm, first homestead in the area
9. Lesser Vermilion River Landing on the Pike River

D. Coordinating Agencies:

1. Minnesota Historical Society
2. Iron Range Historical Society
3. Iron Range Resources and Rehabilitation

4. INTERURBAN STREET CAR BUILDINGS - Virginia

A. THE STORY

In 1910, the entire Mesabi Range was swarming with activity. Mines were mushrooming so fast that it becomes, today, difficult to give a straightforward account of all the expansion.--Towns and locations exploded into existance over night, and thousands came from all over the world to find work in the mines and lumber mills. At the same time, inferior transportation facilities choked the movement of goods and people. Roads connecting towns were muddy in the summer and almost always blocked with snow in the winter.

Established railroads, the DM&N and the D&IR, although providing regular passenger service to major towns, were really concentrating their efforts in transporting ore from the mines to Lake Superior. The new expansion called for better transportation, and men with vision saw vast possibilities for profit in an electric trolley system that would connect major range population centers.--Plans began immediately, and such people as Billy Chinn, Sam Cusson, Dick Chinn, Dr. John Lenont, Dr. Dana Rood, Chester H. Rogers, and others formed the Mesaba Railway Company. In 1911, with the help of eastern money, the new company began a survey of a line to connect all towns and locations between Gilbert and Hibbing. Tracks were laid a year later, and on Christmas Eve day in 1912, the first streetcar rattled down the new tracks from Virginia to

Eveleth. Contracting agencies for the construction of the line had been the Webster Construction Company, the Cleveland Construction Company, and John Runquist Construction Company.

A new age had begun for the Mesabi. It was the beginning of the end for town livery stables, horses and buggies, and the long board walkways that were so common in early mining days. During the first two days of operation, the cars were absolutely jammed with people eager to ride those beautiful steel cars that moved so quickly between towns. The first streetcar left the "yellow brick carbarn" in Virginia at 4:45 in the morning and parked in front of the depot on Wyoming Avenue and was greeted by throngs of cheering Virginians. The conductor and motor man on that first streetcar trip were two Swedes brought over from Duluth by the names of Matson and Martinson.

On December 25, 1912, two-hour service was begun between Gilbert and Buhl, and by the end of 1913, hourly service had been extended to Hibbing. Headquarters for the company were in Virginia's "North Side" where a large carbarn, office and repair shop had been built. The entire line was electrically powered from a huge steam plant erected near the Virginia-Rainy Lake Lumber Company site. In its day, the line was the most modern in the world. High speed, steel cars, forty feet long with seating capacity for forty-eight, reached forty miles an hour speeds between towns. Each car was hot-water heated, had toilet facilities and

baggage compartments. They were especially made to cope with Minnesota's winters with double side walls sheathed on the outside with 1/8 inch steel plate. The interior finish was rich, dark oak with white ceilings and 40 watt lights hanging over each seat making it possible to read without eye strain. During all the years of its operation, the Company maintained an eighteen-hour passenger service and a payroll of just under two hundred people.

Fares in the beginning were ten cents from Virginia to Eveleth, twenty cents to Gilbert, and to go west all the way to Hibbing it cost fifty cents. Never since has the Iron Range been blessed with such cheap, efficient means of transportation.

From 1912 to 1920, the line, although described as the lonliest tram line in the world, was heavily used and gave the Mesabi a very urban appearance.--But the end of it all was at hand. By 1920, improved roadways paralleled the right-of-way, and cheap gasoline busses began to pick up the passenger service. Private automobiles became popular, and the Mesabi's splendid street railway began to die.

On April 16, 1927, the line abruptly stopped operation.--Some headlines were made in the papers, and a few people grumbled, but it was all over. The buildings and barn, built at a cost of over $100,000 in 1912, were sold to the Minnesota Highway Department for $15,000. And the towns spent a total of $117,000 to pave between the tracks. The carhouse and substation in Hibbing were also sold that same year to

Keed-Hunes-Quinlan and were used from then on as a gasoline and oil service station.

Few people on that wintery December day in 1912 would have believed that within fifteen years the interurban streetcar line would be gone.

B. Buildings To Be Preserved
   1. Main office building - brick construction
   2. Carbarn - brick construction
   3. Repair shop - brick construction

These buildings are in excellent condition and are presently up for long-term lease. They are really lovely reminders of this very unique period of Iron Range history.

C. Suggested Development
   1. Take over buildings, by State
   2. Restoration of buildings
   3. Signing - marking history of the interurban streetcar line
   4. Eventually establish here a Railroad and Tram Museum--possibly a streetcar line restored, about a mile track, so that people can experience once again this part of the past

D. Railroad and Tram Museum (Suggestions for consideration)
   1. Main office building would provide pictures, artifact displays, and presentations on early trolley and streetcar service in Minnesota towns
   2. Also would be provided pictures, artifact displays, and various presentations describing in as much detail the history of the Mesabi Railway Company
   3. Carbarn should be restored and about a mile of track re-established. Three streetcars should be placed in service so that people can take rides. Conductors and motor men would dress as they did in the past. Advertisements would be those from the World War I period.
   4. Repair shop would serve well for same purpose and for office buildings for the entire attraction.

5. Attempts should be made to attract donations from all parts of the nation--money, various kinds of streetcars, trolleys and trams from all periods of history

E. Coordinating Agencies

1. Iron Range Interpretative Center
2. Minnesota Historical Society
3. St. Louis County Historical Society

F. Property Ownership Contact

Fred Sakarias
601 South 5th Avenue
Virginia, MN

5. GRANT MINE PARK - Buhl

A. THE STORY

Probably no one undertaking was ever more commented on by mining men than the grab system of stripping and open pit mining established at the Grant Mine near Buhl in 1907. Installed by Hoover and Mason of Chicago, it consisted of a gigantic clamshell-like device suspended by steel cable from two latticed steel towers 175 feet high and placed about 1,150 feet apart. Its purpose was to pick up, in one grab, about 25 tons of ore, raise it "150 feet above the ground height" and speed it to waiting cars at the edge of the pits--all in two minute's time.

It was an ingenious invention and a tremendous undertaking. People came from miles around just to see it operate, and old timers claim you could hear the great "boom" of the clamshell dropping to the ground and the crunch of its biting into the ore body as far away as Hibbing.

The upright and supporting members of the tower were skeleton steel columns, diverging downward from the cable sheave frame above, to form a tripod support as long, parallel to the ground, as the tower was high. Built by Variety Iron Works of Cleveland, the towers were mounted on trucks so that they could be moved east or west along parallel tracks laid specifically for that purpose.

The north tower was anchored with counter-weights, and the power equipment for handling the grab was fixed on the south tower. The driving

equipment consisted of a 600-horsepower Westinghouse electric motor, capable of a 50 per cent overload and geared to the drums for winding the grab cable. The drums were controlled by an intricate system of Westinghouse friction brakes having pneumatic valves electrically controlled and handled by a single operator from a small station alongside the pit.

Electric power for the system was generated by steam from a fine brick and concrete powerhouse in which were housed two cross-compound buckeye steam engines directly connected to 400 kilowatt Crocker-Wheeler generators running at 150 revolutions per minute. Steam was supplied from five 72' x 18' return tubular boilers, also built by Variety Iron Works of Cleveland.

Investment costs came to almost a half a million dollars, which in those days was considered to be a staggering amount. An operating steam shovel in 1907 cost around $12,000. But with the great payroll of workers it was designed to replace eliminated, it was considered to be far worth the cost--especially in those years when growing militancy among miners was causing much worry to mine owners. A local mining journal of the time remarked:

> The experience of mining operators in the Lake Superior region in the past few years has shown an increasing stringency in the supply of labor, and any solution in the mining problem which makes easier the handling of this branch is a distinct advance.
>
> (Iron Trade Review, March 14, 1907, P. 425)

However, boulders in the overburden caused the system to fail

by 1909, at a tremendous loss to the mining company and all firms involved with it. The Hoover Construction Company went bankrupt, and the whole system collapsed.

The Grab System at the Grant is but one chapter in the story of open pit mining in America, and its ruins which still stand at the Grant today provide a succinct commentary on the extremes a mining company would go to to solve the problem of human work forces.

B. Materials At The Site With Significant Interpretive Potential
   1. Base for the stack for the "buckeye steam engines" of stone and concrete construction about twenty-five feet high
   2. Concrete foundation for engine house
   3. Concrete base for the Crocker-Wheeler electric generators
   4. Concrete pile for two huge fly-wheels
   5. Reservoir base for the two return boilers
   6. Strange dump made by the clamshell
   7. Track running at edge of open pits and concrete and steel bridge
   8. All are found in a setting of revegitating mine dumps at the edge of the "ghost location" of Corant...

C. Suggestions For Development
   1. Make a park with tables, parking, camping
   2. Develop a nature trail called "Man's Imprint On The Land"- deal with problems of ecology
   3. Fence off any dangerous areas
   4. Allow public access into the remains of the old engine house
   5. Develop a series of signs presenting the story of the "Great Grab At The Grant Mine"

6. BRUCE MINE HEADFRAME AND PARKING AREA - Chisholm

A. THE STORY

The Bruce Mine headframe stands today as the lone remaining reminder of the days of underground mining on the Mesabi Range. The Bruce Mine opened in 1927 as a typical Mesabi "shaft mine" operated by International Harvester Company. The Bruce Mine was not much different from hundreds of Mesabi underground mines. A shaft was sunk to a depth just below that of the deepest part of the ore body, and a drift driven below it. Sub-level caving was adopted and the ore dropped down raises to waiting carts below. All levels were heavily timbered to keep the soft, wet Mesabi hematite from crashing down on miners. When a level was mined out, special crews dynamited the timbers and collapsed the entire excavation. Then the same process was begun in the level below.

The Bruce Mine closed for all practical purposes in 1938, but the rusting headframe of the loading pocket and shaft remained as part of the debris left in the wake of mining advancement. There were many such headframes all across the Mesabi, but they are all gone now and only that of the Bruce stands to remind us of these earlier times.

B. Themes
1. Underground Mining On The Mesabi
2. How A Headframe Functioned

C. Development Ideas

1. A car park
2. A path to the structure
3. An artist's viewpoint for photography and sketching
4. A sign giving the general story of underground mining at the Bruce

D. Coordinating Agencies

The Iron Range Interpretative Center
Iron Range Resources and Rehabilitation

7. MINE OBSERVATIONS

The Mesabi Range has earned international acclaim for its vast deposits of iron ore. For almost ninety years it has played a vital role in America's industrial development, national defense, and in improving the standard of living for people of many nations. It can truly be said that parts of the region are scattered across the globe; in buildings, rails, and bridges, --and the wreckage of planes and war equipment lying rusting on half forgotten battlefields or ships lying at the bottom of the sea.

Today the pits remain, beautiful and vast, testimony to the tremendous energy expended in shaping America's industrial destiny. They are a delight to tourists. People see beauty in their man-carved walls, and are curious about their story. It is time a coordinated attempt is made to allow people access to their beauty and story.

A series of mine observation stands, interpreting the story of Mesabi mining, some permanent, some temporary, should be constructed at abandoned and active mines.

LOCATIONS

Agnew Mine	Hibbing
Canisteo Mine	Bovey
Hill Annex Mine	Calumet
Hill Trumbull Mine	Marble
Hull - Rust - Mahoning Mine	Hibbing
Lake Mine	Biwabik
McKinley Mine	McKinley
Mt. Iron Mine	Mt. Iron
Rouchleau Mine	Virginia
Tioga Mine	Grand Rapids
Twin Cities	Chisholm

TACONITE PITS VIEWS

Aurora
Eveleth
Hibbing

Interpretive Themes:

1. Sub-level caving systems
2. The Merritt story
3. The geology of the iron formation
4. The Glacier
5. Development of rock strata
6. Mining technology
7. The steamshovel
8. Modern mining equipment
9. Early open pit mining
10. The Mesabi mines and their impact
11. Hematite
12. Taconite
13. The Biwabik Iron Formation
14. Cretatious seas
15. The geologic makeup of the Mesabi

8. THE MARVELOUS MESABI, WEST ENTRANCE - Coleraine

A. THE STORY

You are looking at the "Marvelous Mesabi"--greatest mining camp in the world. One hundred miles of mines, beneficiation plants, mining towns, ore dumps, and ghost towns stretch before you. Here is the birth place of the great steel corporations.--United States Steel, Pickands-Mather, Republic Iron And Steel, International Harvester, Butler Brothers, Cleveland-Cliffs, M.A. Hanna, Snyder and Interstate--all operate here. Look for their signs as you travel east. Among the fee owners of this great mining district are the State of Minnesota and the Great Northern Railway.

Perhaps you would like to know just what kind of people live here--what kind of people do the actual mining that provides raw material for steel, the very fiber of our modern world. They are the sons and daughters--and the grandsons and granddaughters--of immigrants from all parts of the world: Cornish, Irish, Italians, Finns, Magyars, Croatians, Slovenes, Serbians, Bulgarians, Russians, Belgians, Montenegrins, Swedes, Norwegians, Danes and Germans. They came to America to find a new way of life--a way of life free from prejudice, class privilege, hatred and injustice--and they hoped to find in these mine-scarred hillsides a degree of human dignity that was missing in the lands from which they came.

Towns sprang up overnight and grew like mushrooms. The whole Range became a beehive of bustle and activity. Men became millionaires

overnight. Money was plentiful, and in a few short years, the whole Range was paved from Aurora to Grand Rapids. Hibbing had a four million dollar high school, beautiful school buildings were erected in Virginia, Coleraine, Chisholm and Eveleth. Luxurious hotels, beautiful city parks and playgrounds can still be seen among the company-built houses and private dwellings of Iron Range towns. You are entering a truly unique part of America.

B. Development

1. A parking lot and picnic grounds on the high hill between Grand Rapids and Coleraine. Here the Mesabi suddenly appears. The effect is almost startling.
2. Toilet facilities and picnic tables
3. A marvelous Mesabi view point with appropriate signing stressing the "Marvelous Mesabi Theme"

C. Coordinating Agencies

1. The Department Of Transportation
2. The Itasca County Historical Society

9. THE GREAT MILFORD MINE DISASTER - Cuyuna

A. THE STORY

On February 5, 1924, forty one men lost their lives in the Milford Mine disaster. In what was once described as the blackest moment in Cuyuna mining history, some fifteen minutes before the day shift was to go off duty, the waters of Foley Lake broke into the mine, drowning all but seven who were on duty.

Within a span of twenty five minutes, the mine filled with water to fifteen feet from the surface. The seven men nearest the shaft reached the ladder and climbed out. Forty one others did not make it. They were working at the one hundred sixty-five foot level.

There was no time to wait for the cage to come from the surface, and although it was lowered only moments after the flooding, it came back with only mud and water.

It is theorized that a subterranean channel from Foley Lake was gradually seeping into the mine weakening its timber supports.--They gave way suddenly and without warning. The mine had reached a depth of two hundred feet with the main level at one hundred sixty five feet and the sub-level at the two hundred foot mark.

Of those who died, one had begun work only the previous day and two had traded shifts with another team in order to get a ride to work. A man who lived to a ripe old age missed work that fateful day because he

had "partied" too much the previous night and had a hangover.

Here is the list of those killed:

Evan Crellin	Harvey Lehti	John Hlatcher	Minor Graves
Oliver Burns	George Butkovich	John Maurich	G.H. Revord
Valentine Cole	Peter Magdich	William Johnson	Herman Hohm
Clyde Revord	Arthur Myhers	Nels Ritali	Tony Slack
John Minevich	Alex Jylha	A.E. Wolford	C.A. Harris
Mike Bizal	Jerome Ryan	Fred Harte	Earl Bedard
Mike Tomac	Emil Carlson	Frank Hrvatin	L.J. Labrash
Nick Radich	Vic Ketola	Elmer Houg	Frank Zeitz
Martin Valencich	George Hochevar	Marko Toljan	Joseph Snyder
Henry Palomaki	John Yaklich	John Hendrickson	Roy Cunningham
Ronald McDonald			

Captain Evan Crellin, Mining Captain, who died with his men, was the son of a pioneer mining official at Eveleth, Captain John Crellin. Ronald McDonald, another victim, was on a visit from Scotland learning about American mining methods.

In the months to come there were children born who would never know their fathers.

B. Elements At Site

1. Foundations of engine house and stack
2. Foundations of dry house
3. The shaft, fenced off, but within site of Foley Lake
4. The tailings pile from the operation

C. Development

1. An improved road about 1/4 mile to the site
2. A parking facility
3. A huge sign commemorating the disaster (names of those who died)
4. A walk about the mining buildings including a view of the shaft and lake
5. A sign near the shaft describing the disaster
6. Signs describing the functions of the buildings where the old concrete foundations still stand

D. Coordinating Agencies

1. Minnesota Historical Society
2. The Cuyuna Historical Society
3. Department of Natural Resources

XII. EMERGENCY LIST

SITES DESERVING IMMEDIATE ATTENTION
AND PRESERVATION EFFORTS
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The following historic sites are badly in need of immediate preservation efforts. These structures are in danger of destruction or degeneration to a point where eventual development for interpretation will be impossible.

Each contributes something to interpreting the history of Minnesota's mining district and is either the last of a kind or holds tremendous possibilities for interpretative development.

The following steps should be taken in reference to each:

1. Examination by qualified people to determine if the item is structurally sound. A report would be presented outlining structural defects, areas where degeneration has occured, and suggestions for maintenance.

2. An estimate of preservation costs should be made.

3. All site repairs should follow as soon as possible.

Bruce Mine Headframe	Chisholm	I-IAR	Mesabi 2
Finnish Temperance Hall	Virginia	I-SI-ARCH	Mesabi 9
Croft Engine House And Stack	Crosby	I-IAR	Cuyuna 2
Pioneer Headframe And Stack	Ely	I-IAR	Vermilion 2

XIII. SITES POSSESSING INTERPRETIVE POTENTIAL FOR FUTURE DEVELOPMENT

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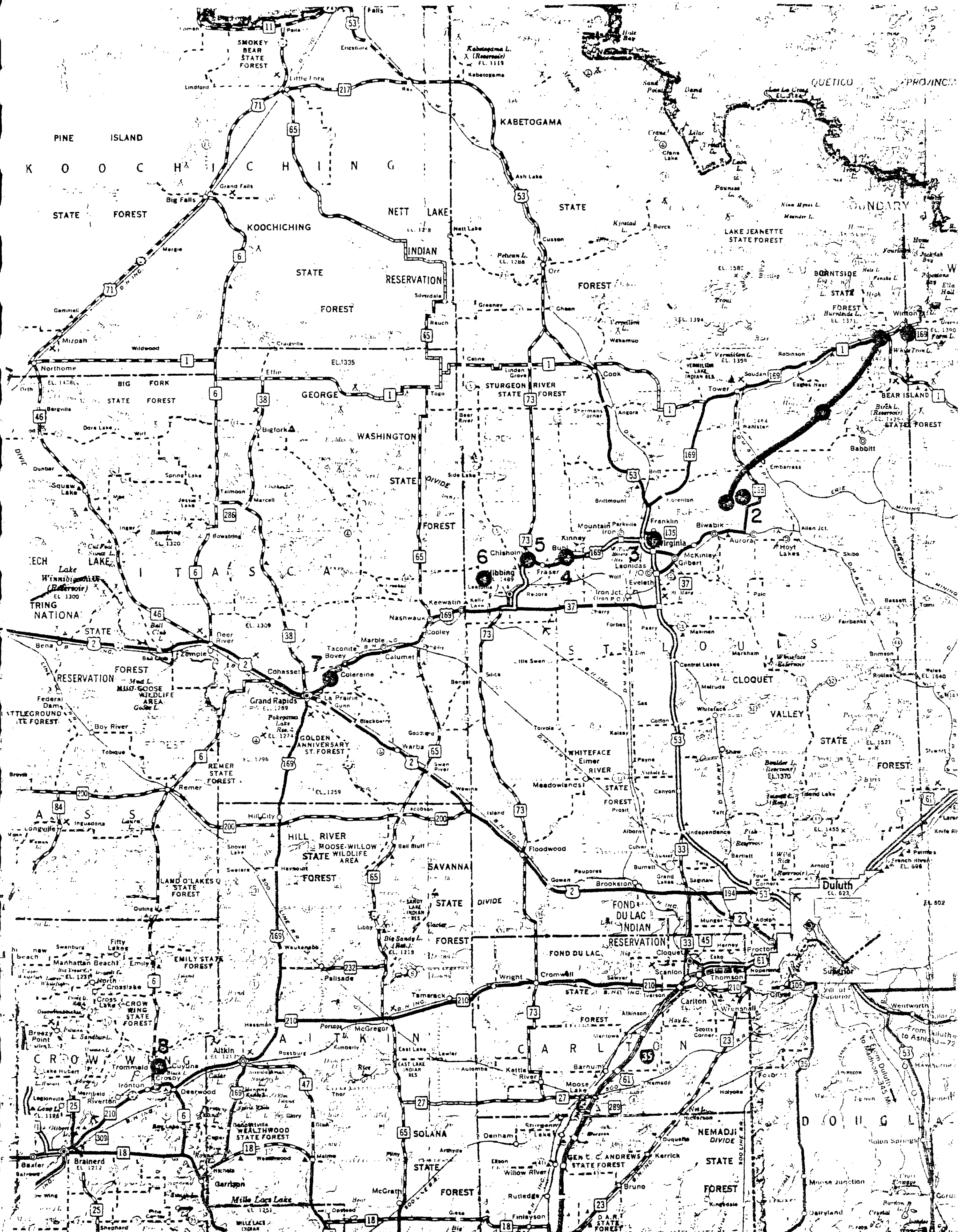
Site	Location	Date	Development
Adams Mine Camp	Eveleth	1893	Reconstruction of a mining camp
Hull-Rust Mahoning Viewpoint	Hibbing	Present	Viewpoint emphasizing Old Hibbing
Iron Range Brewery	Tower	1890's	Museum of Saloons, gambling, drinking, bottles, blind pigs, and other aspects
Klondike Ghost Town	Crosby	1912	Restoration of a mining town of WWI era
Mesabi Ridge Hiking and Skiing Trail	Interpretative Center to Giants Ridge	Present	A 32 mile back-packing and skiing trail visiting seldon seen historic sites
Paulucci Store	Hibbing	1930	Restoration of old fashioned store that actually sells goods to customers
Secondary Burial Mounds	Esquagama	Prehistoric	Interpretative Center for prehistory
Skiing and Hiking Trail	Grand Rapids to Chisholm	Present	A 38 mile back-packing and skiing trail visiting out of the way historical, geologic, and natural history sites
Soudan Mine, Descent Into Past	Soudan	1884	Stairway to bottom of open pit excavation - methods of hardrock mining display
Steamboat Landing	Grand Rapids	1878	A steamboat that gives a trip up the river with proper historical interpretation



SMOKEY BEAR STATE FOREST
KABETOGAMA
QUETICO
PROVINCE
PINE ISLAND
KOOCHICHING
STATE FOREST
Grand Falls
Big Falls
Little Fork
Lindford
Ericsburg
NETT LAKE
INDIAN RESERVATION
KOOCHICHING STATE FOREST
STATE FOREST
Ash Lake
Nett Lake
Cusson
Buyck
LAKE JEANETTE STATE FOREST
Orr
BOUNDARY
BURNTSIDE L. STATE FOREST
Winton
Ely
Northome
Mizpah
Gemmell
Craigville
Effie
BIG FORK STATE FOREST
GEORGE WASHINGTON STATE FOREST
Bigfork
STURGEON RIVER STATE FOREST
Cook
Tower
Soudan
Robinson
Eagles Nest
BEAR ISLAND STATE FOREST
Babbitt
Embarrass
Squaw Lake
Bowstring
Marcell
Talmoon
Spring Lake
Side Lake
Britt
Chisholm
Hibbing
Buhl
Kinney
Mountain Iron
Virginia
Franklin
Biwabik
Aurora
McKinley
Gilbert
Eveleth
Leonidas
Fraser
Iron Jct.
Hoyt Lakes
Allen Jct.
Skibo
2
3
4
5
6
7
8
ITASCA
LAKE
Lake Winnibigoshish (Reservoir)
Kelly Lake
Keewatin
Nashwauk
Cooley
Marble
Calumet
Taconite
Bovey
Coleraine
Cohasset
Grand Rapids
La Prairie
Gunn
Blackberry
Deer River
Zemple
Bena
STATE FOREST
RESERVATION
MUD GOOSE WILDLIFE AREA
Federal Dam
Boy River
Tobique
Remer
REMER STATE FOREST
GOLDEN ANNIVERSARY ST. FOREST
Pokegama Lake
Goodland
Warba
Swan River
Wawina
ST. LOUIS
CLOQUET VALLEY STATE FOREST
WHITEFACE RIVER STATE FOREST
Meadowlands
Floodwood
Brookston
Gowan
Cotton
Canyon
Independence
Culver
Alborn
Island
Shaw
Markham
Central Lakes
Melrude
Whiteface Reservoir
Twig
Saginaw
Grand Lake
Munger
Adolph
Hermantown
Proctor
Duluth
Superior
Four Corners
FOND DU LAC INDIAN RESERVATION
FOND DU LAC STATE FOREST
Cloquet
Scanlon
Thomson
Esko
Carlton
Wrenshall
Cromwell
Wright
CARLTON
Barnum
Moose Lake
Kettle River
Atkinson
CASS
Longville
Hill City
HILL RIVER STATE FOREST
MOOSE-WILLOW WILDLIFE AREA
SAVANNA STATE FOREST
DIVIDE
Palisade
Tamarack
McGregor
AITKIN
Aitkin
Hassman
LAND O'LAKES STATE FOREST
EMILY STATE FOREST
Emily
Manhattan Beach
Crosslake
CROW WING STATE FOREST
CROW WING
Trommald
Cuyuna
Crosby
Ironton
Deerwood
Riverton
Brainerd
Baxter
Garrison
Mille Lacs Lake
WEALTHWOOD STATE FOREST
SOLANA STATE FOREST
McGrath
Denham
Willow River
Rutledge
Finlayson
Sturgeon Lake
GEN. C. C. ANDREWS STATE FOREST
NEMADJI DIVIDE STATE FOREST
Kerrick
Duquette
Nickerson
Bruno
DOUGLAS
Moose Junction
Solon Springs
Wentworth
Hawthorne