

The View from Dayton's Bluff

Historical Analysis and Observations

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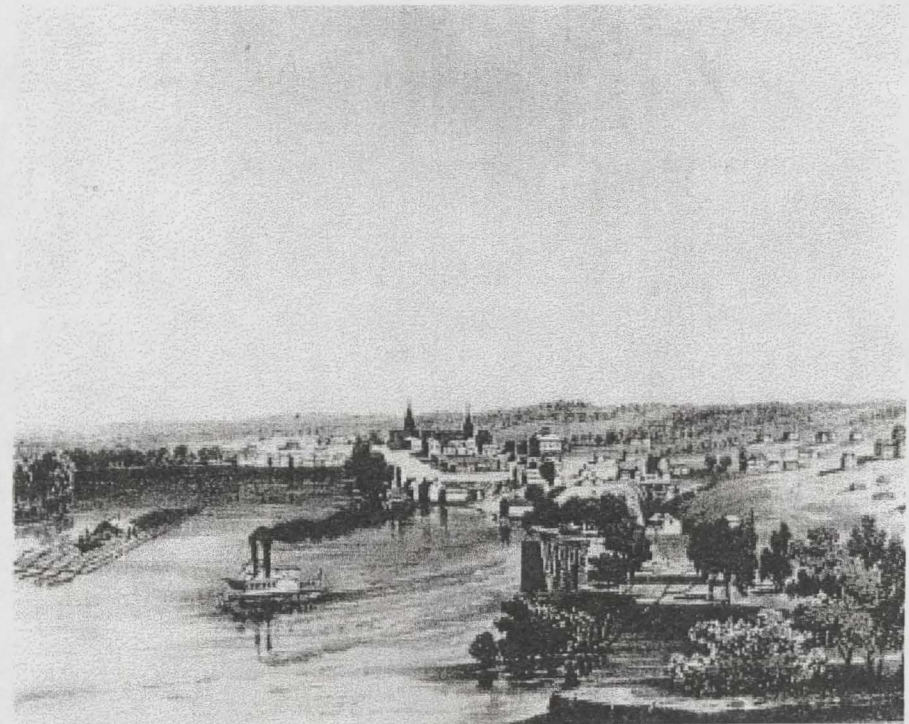
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The landscape beneath Dayton's Bluff has been the scene of a succession of activities over many centuries which epitomize the character of Minnesota and the Upper Midwest. In a way, its story is a microcosm of that of the entire region. Each period of its history may be viewed as a scene in an unfolding dialectic between human beings and a natural landscape. Each scene is like a text written on that landscape, only to be erased, altered, rewritten, and written over again, sometimes by large acts of conscious design, other times by incremental adjustments or unconscious processes over a long period.

The long train of events (pun intended, of course) which have defined this landscape could not have been accurately foreseen, though perhaps premonitions of the less than candid Jonathan Carver were as close to the mark as those of any voyageur to the area before or since. Carver envisioned the location of what is today St. Paul as capital of an empire at the crossroads of international trade. Though given to exaggeration, he was not completely off in his estimation of its merits. He saw the objective of European imperial ambitions and some of the natural advantages inherent in the landscape of the upper Mississippi, but he could not recognize the myriad painful as well as ingenious human choices that would weave themselves into the building of this place.



A view of St. Paul from Dayton's Bluff in 1853 depicted in an engraving by J. M. Stanley. The outfall of Phalen Creek into the Mississippi River is shown in the foreground. (Ramsey County Historical Society)

Throughout the history of this area runs a desire to connect with the Other, yet also the ambivalent awareness that the Other is not one's own. Glaciers change the course of rivers and open up different routes. Prehistoric hunting tribes follow mammoths into this continent, then learn to rely on other game as the mammoths die off with the passing of the ice age. Hunters, arrived in an abundant continent, perpetuate symbols and practices of a homeland that goes on to develop intensive agriculture and large cities. New immigrants come in search of that other continent; then refashion this one partly as a means to complete their journey. Money turns Nature into Commodity. Engineering defines existence as problem. Industry converts space into time. Now, time has made formerly crucial space almost obsolete. Everything is reduced to money as perceptual entropy lays waste an evident reality.

The purpose of my analysis is to explore the pulse which animates each layer of activity that has occupied and ordered the area. On an abstract economic level, cities embody a technological transformation of the agricultural surplus produced in their trade areas. On a spatial level, cities locate and grow around the presence of relevant natural assets. They are relevant, in a cultural sense, if the civilization which takes its place *there* recognizes the potential surplus output which may be gained in that location versus what may be gained elsewhere.

The genius loci thus depends on both natural reality and cognitive choice. And, just as polls don't vote, people do, so the fashioning of place is a matter of conscious decisions made by individuals. To be sure, those decisions almost invariably are made in light of a social as well as a physical context. Nevertheless, change seldom takes place, apart from natural disasters, unless someone recognizes what's in it for them.

This is not altogether a bad thing. Virtually every day, the average human being makes use of things they did not invent, but which now enables them to choose a course of action or conceive an idea of what would be good for themselves, those they love, or even people who might pay them money or respect for thinking of it.

What does this have to do with the parade of events passing beneath Dayton's Bluff? It is a way of reading the dialectic between human beings and the landscape, part of the syntactical structure underlying the particular "utterances" or forms we build in the environment to shape or reshape it to our ends.

Louis Sullivan has been credited with coining the phrase: form follows function. An interpretation of landscape which is dialectical recognizes that this relationship is not unidirectional, that function also follows form. A natural reality shapes activity. The activity in turn reshapes natural realities and leads to artifices which become landmarks in the field of choices available to human actors. And so it goes.

Function follows form follows function follows yada yada yada. Fur traders (function) find a northern forest (form) where there are "furs". They contract with hunters whose function in the forest form is to find the furs. Once the furs are found, the traders form conveyances to transport the furs to market (function - form - function - form). The market calls for so many furs, a larger conveyance is needed. The new conveyance (form) built with borrowed technology (steam power) is too big to go past a certain point in the river, leading to the construction of a landing (form) to fit the function (shipping) of conveying by steamboat (form) the functional furs to market. Stop laughing and wake up!

The conveyance works so well that there is room on board it (the form) to carry passengers to a destination in search of a better life (function). The passengers-turned-settlers function fine enough in the new place (which they form to their way of thinking) until some of them remember where they were originally going and realize they are up a creek without a paddlewheeler that can get them there. Accurately gauging the application of the second law of thermodynamics to social movements, they switch horsepowers once out of the stream and build a new conveyance which does not require water to run uphill, at least not on its own. (We're now back to form following a function - for now.)

The new conveyance makes long trips into short ones. Everyone loves it because everyone wants to go as far from where they were as technologically possible. Following the lead of the locomotive form, the wanderlust function leads people to take the train as far as it will go (see Ellington). Then, the kids wake up and demand something to eat. Having learned how not to take up thy pallet and walk, people invent yet another new conveyance to take them everywhere, short or long.

The new conveyance seems like a godsend. Soon, everyone and everything can go everywhere in no time at all (form functioning like a cancer until there is nowhere to grow to). As are its destinations, so are the demands of its form ubiquitous upon the landscape.

The story of the port of St. Paul in broad outline has, indeed, followed a dialectic between Nature and Culture, between transportation and settlement, between space and time, between God and mammon. The location of the city responded to the natural advantages of easy water access and abundant natural resources. The fact that indigenous tribes met at the outlet of Phalen Creek to trade and to defend territory because of its view up and down the river, its supply of fresh water, and ready food supply no doubt lent impetus to French traders making contact and conducting trade at this point.

But, the location also responded to the limitations of the emerging means of transport in the period of its initial white settlement - namely steamboats. The next major layer of investment in the urban structure of St. Paul might not have focused on this place had steamboats and fur trade not made it an important way station to the upper midwest (then the Great Northwest). The railroads followed the shallowest grade possible. Therefore, the lines were laid along the more gradual inclines of Phalen Creek and Trout Brook. Major industries inevitably followed the lead of essential infrastructure and, today, many of St. Paul's leading firms are located along these natural corridors.

As new means of transportation were developed, the city's early orientation to the river lost some of its functional significance. Land based transport has dominated since the Civil War even though the river was what originally led people to this place. The decline of the railroads since 1920 with the rise of automobiles and trucking has diminished the relative value of properties having rail access. A less focused and less concentrated urban structure has resulted.

Now, we see, however, that as the relative access value of land near the river has declined, other inherent values may assert themselves. Among these other values are recreational and residential value. One of the earliest selling points of St. Paul was, in fact, the beauty of its site, the views afforded from the bluffs up and down the river. Understanding the history of the area that has been at the heart of St. Paul's

basic industry means understanding the moment. What is of value now and in the foreseeable future? Though past projections have often been faulty, the city cannot escape the decision of how to retrofit this anchor of its public realms. For it is unquestionably the face of St. Paul. It is my hope that the City may find the following historical analysis and observations, as limited as they are, useful in arriving at a clearer understanding of where things are, at this moment, and be better convinced of a course of action.

Geologic History

St. Paul, Minnesota is situated, for the most part, atop limestone bluffs, about 100 feet above the water level of the Mississippi river. The area within St. Paul known today as Dayton's Bluff lies east of a covered creekbed that separates it from downtown. It contains land bought in about 1855 by developer Lyman Dayton who subdivided it into large estate lots, most of which were resubdivided into more typical city lots within a generation.

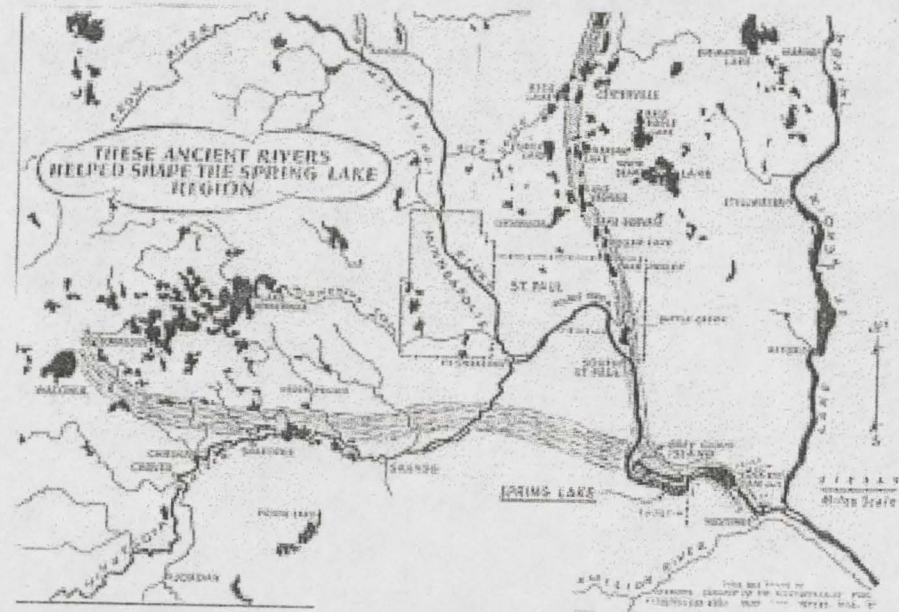
Around 12,000 years ago, the falls of St. Anthony which provided the water power to fuel the early timber and grain milling industries of Minneapolis were located about where Lowertown is today. It was twice the size of Niagra Falls, discharging over 10,000 cubic feet of water per second, fed by a drainage basin that reached to the Glacial Lake Agassiz (where the Red River valley is today in northwestern Minnesota).



After the glaciers retreated, and the route of the St. Croix river was realigned, the remnant stream-bed contained the confluence of Phalen Creek and Trout Brook. Where this stream flowed into the Mississippi river was a marshy inlet that served as a landing for the first steamboats to travel to this territory. The creek bed itself meandered in a zigzag fashion just above its outfall to the river.

Pre-Glacial Minnesota, from Bray cited in Woolworth¹

The creekbed between this east side neighborhood and downtown was at one time the route of the pre-glacial St. Croix river which flowed through an area now marked by a chain of lakes including Phalen in St. Paul, Gervais, Vadnais, Pleasant, Centerville, Pelican, Randeau, and Crossways (see map). This ancient riverbed is still the flypath for many birds which migrate up the Mississippi and follow the preglacial route to where the St. Croix valley remains intact.



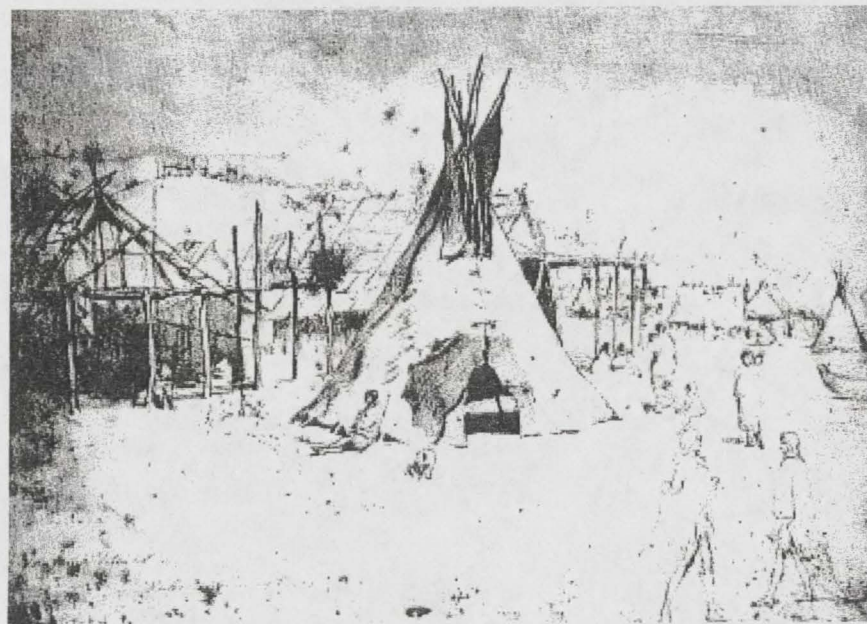
Pre-Glacial rivers St. Croix and Warren, Schwartz cited in Woolworth, ibid.

The plant communities existent in this area when the public land survey was conducted in the mid- 1800's were floodplain forest (silver maple, elm, cottonwood, willow) within the streambed, and Oak woodland (bur oak, pin oak, aspen and hazel thickets, and prairie openings) on higher ground. As the stream approached the Mississippi, it meandered and broadened into a marshy inlet. During periods of heavy flow, boats could follow this inlet as far inland as the location of 3rd Street.

Kaposia

The Mdewakanton Dakota were a branch of the larger Dakota nation who lived in woodlands close to the Mississippi river in what is today east central Minnesota and western Wisconsin. The Ojibway nation which occupied lands further north and east, around Lake Superior, often warred with Dakota tribes during the 1700's and into the 1800's, due in some part to the competition engendered by the fur trade with the French. The term "Sioux" is a shortened version of the Ojibway term Naudowessie or "snake" which the Ojibways applied to the Dakota. In their own language, the term Dakota means "friend" or "ally."

Prior to the Traverse des Sioux treaty of 1837, a band of Mdewakantons for some time made their summer home beneath the bluff in a village named Kaposia. (The village was sometimes located just downriver at the grand marais near the outfall of Battle Creek and used the river flats opposite where Holman airfield is today to plant corn.) After the treaty opened up the land between the St. Croix and the Mississippi rivers to white settlement, Kaposia was established more often on the west bank, in what is now South St. Paul.



Frank Blackwell Mayer's sketch of Kaposia in 1851 (after its relocation downstream and across the river.)

The 300 or so Dakota who resided at Kaposia in the summer, dwelt in large, wood frame lodges (see drawings by Mayer) called "tipitontkas" (large house) arranged in rows at the foot of the bluff. The lodges had gabled roofs like a log cabin, but were usually more square, though sometimes quite large, up to 30' by 60' for a chief's lodge. The interior was open with a raised divan around three sides of the perimeter. One or two openings in the roof allowed smoke to escape and light to enter in. The front doorway was about six feet square and before it stood an open flat "roofed" (covered with skins or bark) scaffold, much like an open porch under which a family might sit during the heat of the day.²

Kaposia means 'the lithe people' - their quickness at lacrosse earned this name from other Dakota bands. This painting by Seth Eastman depicts Dakota playing lacrosse near the mouth of the St. Peter's (today the Minnesota) river.

In winter, they generally left the village, dwelt in the forest, and hunted and trapped for game, living in tipis covered with buffalo hides and other animal skins. Tipis were up to ten feet in diameter and could be reconstructed for four to five seasons before new materials were needed. Some continued to use them during the summer months.⁴ Elm, basswood, and aspen wood and bark were used in the making of both tipis and summer lodges. In late winter, the men would hunt and trap for muskrat - the main fur with commercial value - to trade to the French (later British and finally American) fur traders. The Mdewakanton women planted corn in the spring and performed most of the labor within the village, making mocassins and other clothing, cooking, setting up and breaking campsites, caring for children, and observing religious customs.³

Paleo-Indian hunters likely occupied this area as far back as 12,000 years ago. Reverend Samuel Pond reported in his recollections of the Dakota that the central object of worship was the Unkteri, the extinct woolly mammoth.⁴ Perhaps the earliest human inhabitants of the western hemisphere arrived as a result of following herds of mammoths across an ice covered Bering strait during the last great ice age.



Seth Eastman drawing of burial scaffolds on bluffs overlooking river



Seth Eastman's portrayal of the muskrat hunt in late winter

The Dakota bands near the river followed in the steps of the Hopewell culture mound builders who had inhabited the area for about 3000 years. The latter day custom of the Dakota was to wrap the dead in their robe and place them on a scaffold or in the branches of a tree to protect the body from desecration by animals. The bones were later interred in the mounds in a secondary burial.⁵ Frank Blackwell Mayer's travel diary of 1851 reports scaffolds set up on the mounds atop the bluff on the east bank where Mounds Park is today.⁶ The Hopewell culture originated in the southeastern part of North America and significant settlement groups existed in Ohio and Illinois. In Minnesota, the greatest concentration of mounds attributable to this culture is in the Prairie Island area. The mounds located along Dayton's Bluff were a burial place for three bands of Mdewakantons - those at Kaposia, a band that settled at what is today Long Lake in New Brighton, and another along the Minnesota river. These bands also met seasonally on the flats beneath the bluffs to harvest wild rice and maple sugar.⁷

The flats beneath Dayton's Bluff teamed with wildlife prior to white settlement. It was a logical meeting place for trade among the Mdewakantons. It also was a logical place to meet French, British, and finally American fur traders who transported the furs along the Mississippi - the backbone of the interstate waterway in the 1700's and 1800's - to clothiers on the east coast and in Europe. More than a century prior to the establishment of Fort Snelling, Kaposia and the trading village between the limestone bluffs established the Lower Landing area as an early link between the Minnesota landscape and peoples beyond the waters.

White traders brought manufactured goods and liquor to trade for furs and over time a relationship of dependence was engendered. Increasingly, the livelihood of Native American villages was oriented to trade goods rather than direct subsistence from the land's bounties. This growing dependence no doubt played a seductive role in undermining Native American opposition to further white settlement. Out-flanked economically as well as militarily, it was probably inevitable that native cultures would be subjugated by "a race of men" (in H. W. S. Cleveland's words) capable of converting the natural landscape into a means of production. Marketing appeals to land buyers' racial pride often contained condescending sympathy for "quaint" native culture.

Jonathan Carver

The first Europeans to settle in the region were French fur traders. After Britain won the French and Indian War in 1763, it began to commission exploration for a hypothesized "Northwest Passage" (by which a river route from the middle of the continent could be linked to a river which flowed to the Pacific thereby establishing a link to Asian trade). In 1766, Robert Rogers, commander of Fort Michilimackinac at the north end of Lake Huron, commissioned Jonathan Carver to draft maps of the territory. Carver, a native of Connecticut, made his way from Sault Saint Marie to Green Bay, and down the Wisconsin river to the upper Mississippi river basin.⁸

Rogers was personally convinced that the source of the Mississippi would be near the source of the river "Ouragon" and thus make possible the Northwest Passage. Directed to meet James Stanley Goddard and Captain James Tate at the Falls of St. Anthony, Carver took the Wisconsin River to the Mississippi and then northward, reaching the site of present day St. Paul on November 14, 1766. In his journal, Carver recounted his discovery of a great cave:

"This day arrived to the great stone cave called by the Naudowessee Waukon Teebee, or in English the house of spirits. This cave I found to be a great curiosity, in a mouth of the cave fronting the river [is] (on the ascent near 45°) the entrance about ten feet broad and three feet high. I went in and measured the room upwards of thirty feet broad, and about sixty feet from the entrance of the cave [to] where I came to a lake. As 'twas dark I could not see the bigness nor the form [of it]. (The roof was about 20 feet high at the greatest elevation, the bottom clean white sand a little descending to the water from the mouth.) I cast a stone which I could hear fall at a distance and with a strange and hollow sound. I tasted of this water and found it to be very good.

". . . The rock at the entrance of the cave is of a lightish gray colour and very soft like the grit of a grindstone. I found many strange hiero-glyphicks cut in the stone some of which was very ancient and grown over with moss. On this stone I marked the arms of the king of England.

"Near this cave is the burying place of the Mottobauntoway band of Naudowessee. A few months before I came here dyed and was buried the chief of this band. I went to see the grave. It is impossible for me to describe all the hieroglyphicks and significant marks of regard and distinction this people had paid to the memory of this deceased grandee, much more than I had seen of the kind among any nations I had passed before."⁹

Carver continued up the Mississippi as far as the site of present day Elk River, then returned and explored the valley of the Minnesota as well, wintering most likely with the Wahpetons who escorted him back to the river's mouth the following Spring. He then returned along the Mississippi to the great cave he had entered, reaching it in time to meet three bands of Mdwakanton Sioux (Dakota) mourning the death of a chief of the Mantantonwan band on May 1, 1767. In his account of his travels (which he revised more than once), Carver records a version of the traditional Dakota burial speech to the departed. The German poet Schiller put the message to verse and the poem was later translated into English by various authors in the nineteenth century. Two were included in Rev. Edward D. Neill's history of the exploration of Minnesota.

Carver also included a rather grandiloquent account of his statement to the Dakota present. Its disingenuous mixture of flattery, intimidation, and paternalism unfortunately characterize all too well the insensitivity of whites toward Native Americans, whose hunting grounds they have appropriated with far less gratitude to their Creator. Carver employed grand imagery to depict to the Naudowessies the power of the British king, his good intentions to maintain peace between tribes, and the most able protector of the trade that represented an increasing share of Dakota livelihood.



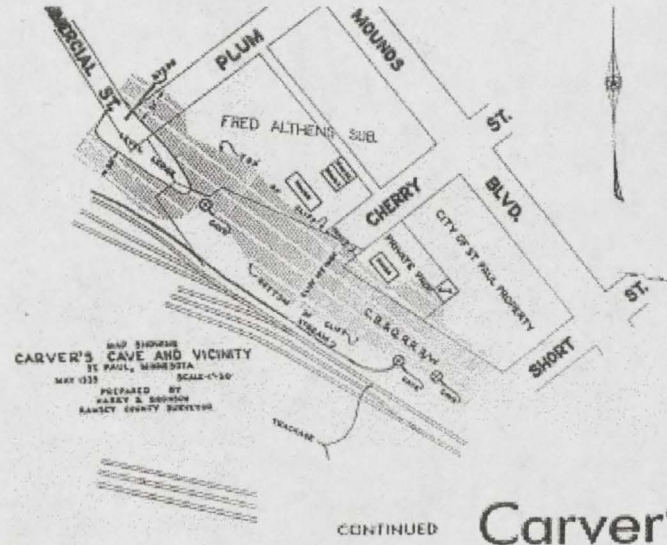
A conceptual map of central North America drawn in 1762 by Theo Jefferys. Carver sought a water route to the Pacific and may have assumed some of the geography indicated on this map, Contained in Edward Neill's 1858 History of Minnesota, Arno Press edition, 1975.

W. C. Fuller has written that, in the cave, Carver dreamed of a future city, "the centre of commerce of a continent. He foresaw that in the fertile soil and laughing waters of Minnesota, the elements were ripening for the sustenance of future populations who would be 'able to convey their produce to the seaports with great facility.'" Carver envisioned a water transportation network (that would include canals) to New York. In addition, Carver "conceived the project of a northern Pacific route by way of the Minnesota and Oregon rivers, which 'would open a passage for conveying intelligence to China and the English settlements in the East Indies.'"¹⁰

Carver's quest, like the French explorers (Hennepin, LaSalle, Champlain) before him and the Americans (Lewis and Clark, Pike, Long) after him, was essentially to complete the work of Christopher Columbus who, 275 years previously, had sailed west in search of the East. It would be another 148 years before a canal through Panama would provide a fairly direct water route. Til then, the intervening land mass provided a resource opportunity along with a transportation challenge. Good real estate speculator that he was, the value of the site's location was not lost on Jonathan Carver.

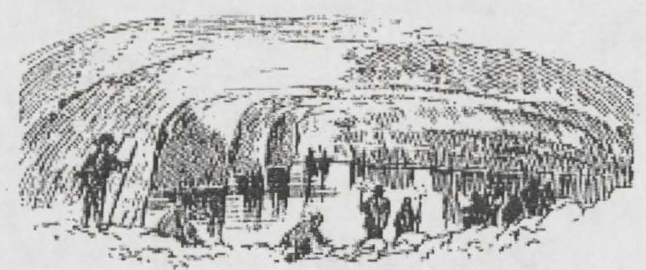
One reason the site beneath Dayton's Bluff is significant is that it contains within it the seeds of an entire continent's history and meaning. That meaning was not fulfilled by the sought-for water route, but by the addition of a mode of travel which in 1767 was being drawn by horses for short distances in the wealthier quarters of Paris and London. The prospect of a transcontinental railroad was not envisioned until steam engine technology became a reality in the 1820's and thereafter.

With railroad construction, the mouth of Carver's Cave has been closed and reopened, lost and rediscovered more than once in the last 140 years. Newspaper accounts of its rediscovery have been published in 1867, 1913, 1939, 1959, 1968, and 1977. The cave was last resealed in 1977 at the request of Dakota Indians until it can be determined whether it was ever used for burials.¹¹



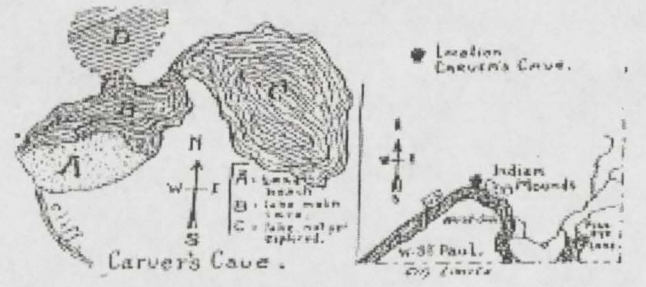
A site map indicates the approximate location of Carver's Cave.

Carver's Cave



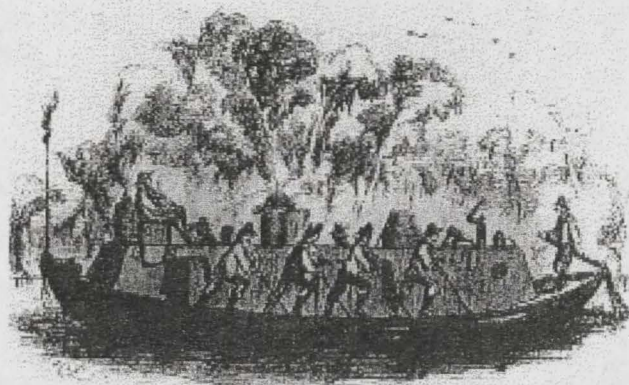
Interior of Carver's Cave May 1st 1867. The Centennial Anniversary of Carver's visit to the cave and treaty with the Indians

Interior of Carver's Cave looked like this in 1867 when the Minnesota Historical Society celebrated the centennial of Carver's council with the Indians by exploring the cave with bats and candles.



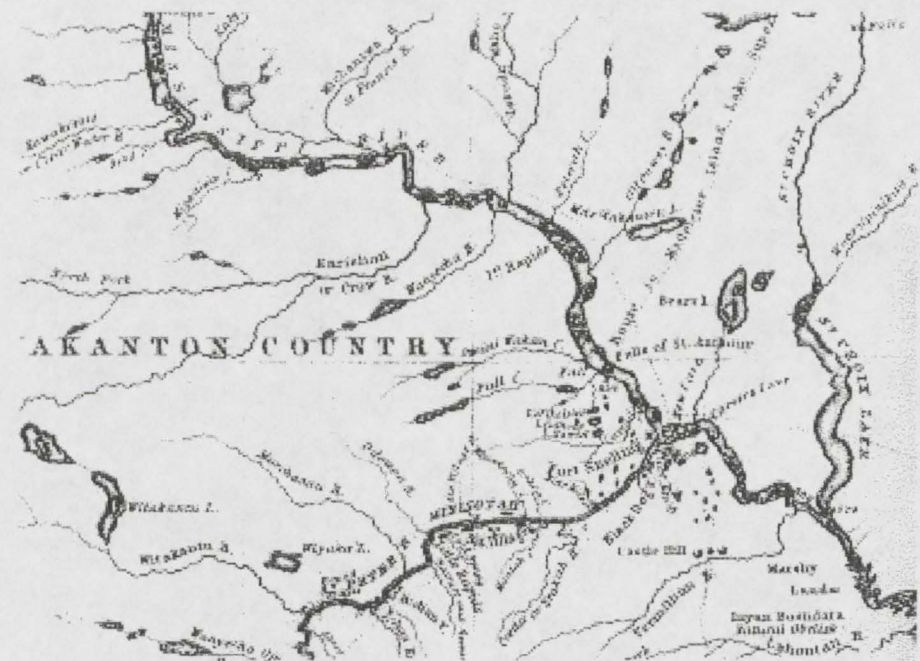
Fur Trade

Prior to the fur trade, this band of Dakota had lived on White Bear lake and its environs. The village of Kaposia located near the river during the period of French control prior to 1763. The French fur traders collected furs here and elsewhere along the upper Mississippi for transport down to New Orleans for shipment to European markets where American furs - particularly muskrat - were in high demand. Furs obtained by Ojibway and Cree Indians in the valley of the Red River of the north were transported to the Minnesota (at that time the St. Peter's) river and floated by keelboats or barges to the Mississippi. Starting in 1844, Norman Kittson sent furs by ox cart from Pembina to Henry Sibley's outpost of the American Fur Company in St. Paul.

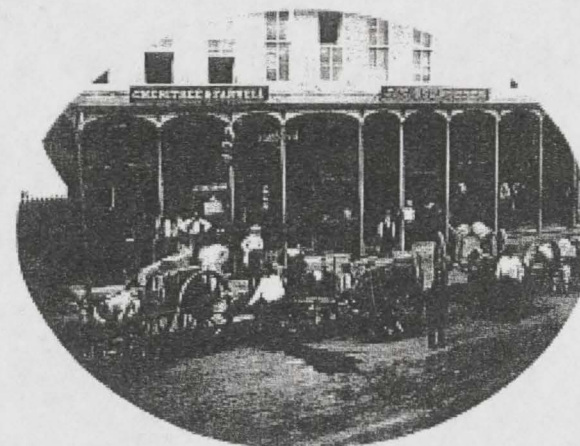


Keelboats were used to transport furs on the Mississippi and Minnesota rivers in the early 1800's.¹²

By establishing a settlement at the navigable headwaters of the Mississippi river in response to international markets, the Kaposian band presaged the future settlement of St. Paul as a transfer point between vast natural resources and a transport network connected to manufacturers and consumers. But, this "predestined capital" as explorer Jonathan Carver had dubbed it, was really a landscape artifact, a natural interface not sought nor immediately recognized by those Europeans impelled for nearly 400 years to find the "short way" to China. Nevertheless, it became a vital link in that chain.



Portion of an 1837 map drawn by Joseph Nicollet of the upper Mississippi river basin. (from Kunz)



Ox carts carried furs from Pembina in the Red River valley to St. Paul, part of the transportation network that made the area important to world markets. (Kunz)



Little Crow V - His Red Nation (by Ralph Mayer, 1851)

Little Crow

The chief most known to white settlers as Little Crow (a translation of La Petite Corbeaux, the name ascribed to his great great grandfather by French fur traders) was the fifth of a family of chiefs who had led the Mdewakanton Sioux (Dakota) for over 100 years. More direct English rendering of the original chief's Dakota name has been suggested as "the sacred pigeon-hawk which comes walking" or "the hawk that chases walking". (These renderings may imply that this line of chiefs was able to apprehend with little effort.) Little Crow V's personal name was Taoyateduta or "His Red Nation."



This name may bear witness to one of the most horrific stories (and there are others) that have taken place on or beneath Dayton's Bluff. The story goes that while dying from an accidental gunshot wound in 1845, Little Crow IV (known as Big Thunder) bequeathed to Little Crow V's half brothers the medals symbolic of succession to chiefdom. Little Crow V had lived for a decade at La qui Parle and his half brothers discounted his claim to be chief. But, he returned the following spring. Holcombe's *Minnesota in Three Centuries* relates the recollection of surviving Kaposians that Red Nation braved the warning and subsequent gunshot of his half brother, suffering a serious injury to both forearms which were crossed on his chest as he approached. He was tended by the physician at Fort Snelling but refused the recommended amputation of both arms. The grisly conclusion of the story is that when his half brothers returned to the village in the fall and sought mercy, he had them both bound and shot and tossed into the river. No one challenged this act or Little Crow's authority.¹³

The reason for this acquiescence may be because of the social decay wrought by whiskey sellers such as Pig's Eye Parrant, a local liquor producer and distributor who was often in trouble with the authorities. Before Father Lucien Galtier christened the settlement St. Paul, it had been referred to informally as Pig's Eye, much to Parrant's displeasure, as the moniker referred to his disfigured eye. Parrant had been operating in the area for some years, near to Fort Snelling. But, when in the late 1830's, the fort's commander ordered the dives known as Rum Town to be burned down, Parrant made his way down the Mississippi river to Fountain cave, to the lower landing, and eventually to the grand marais that bears his name today (modified, appropriately enough, for sewage treatment). After losing his last claim, he departed for Sault Ste. Marie, but died on the way, according to J. Fletcher Williams, "of a disease resulting from his own vices."¹⁴

Samuel and Gideon Pond, brothers and missionaries to the Dakota, arrived in Minnesota in 1834. While studying Dakota customs, they tried to teach agriculture and demonstrated the use of the

plow to the Kaposians with limited success. The plow represented an advance over the hoe previously used by native tribes. But whisky sellers were rampant and by the late 1840's, Pond lamented that the "older Indians had gradually lost their former habits of industry or were dead, and a new generation had grown up of insolent fellows."¹⁵



Little Crow was also dismayed at the state of affairs at Kaposia after his return. He requested the Indian agent to procure a missionary for his village, and asked for Dr. Thomas Williamson, whom he had known for years at Lac qui Parle as a Presbyterian missionary.¹⁶ Williamson arrived in late November, 1846 and soon requested a school teacher from the National Board of Popular Education. The following summer, a devout

Baptist, Harriet Bishop arrived, reputedly the first public school teacher in Minnesota Territory. Bishop started a Sunday school and a day school and was active in the local temperance movement. The first school in Minnesota was quite multicultural. A translator was required for those who spoke only French or Dakota.¹⁷



By the time of Taoyateduta's return, Kaposia had moved to a site on the west side of the Mississippi river, slightly downstream. Corn was planted on the river flats where Holman Airfield is today. But, increased white settlement and more land devoted to agriculture meant that the area was less productive for fur trapping. After the treaty of 1851 was ratified, the Mdewakantons moved to reservations upstream along the Minnesota river. When in 1862, the federal government failed to meet its commitments to the Dakota, Taoyateduta (Little Crow V) reluctantly led an attack on white settlers in western Minnesota. Henry Sibley, who had

served as territorial governor, was called upon to put down the uprising. The mass execution of 38 Dakota warriors on December 26, 1862 is the largest in U.S.history (though most of the death sentences had been commuted by President Lincoln at the request of Bishop Whipple).

The fur trade that had brought Europeans into a working relationship with native tribes in the middle of North America subsided as trains eventually replaced the ox carts and white settlers replaced native hunters. The economy diversified into other things, though for many decades bootmaking and fur goods remained a manufacturing activity located in the Lowertown area of St. Paul.¹⁸

White Settlement, Steamboats, and Rails

By the late 1840's, the landscape was being reordered. The more natural Dakota order of hunting ground, seasonal trading village and burial ground placed objects in relation to the purpose of the tribe. The new order of the Public Land Survey grid established a framework for separate, private parcels, year round structures, and capitalist enterprise. Neither the French nor the British had gained sufficient control of the upper Mississippi region to truly occupy it and impose a system of property ownership on its features. Though Carver's descendents claimed that Dakota chiefs had granted a huge tract of land about 100 miles east of the Mississippi between the latitudes of Lake Pepin and the falls of St. Anthony, the Dakotas lacked full control of the area and denied the authenticity of the claim to agents of the U.S. government.¹⁹

It was that government which eventually obtained control of the land and imposed a system of land ownership based on the abstract spatial order of the Cartesian grid. Its first emissary to reach the area was Zebulon Pike in 1805. Though off target in his search for explorers Lewis and Clark, he nevertheless negotiated control, though not exclusive use, of extremely important lands from the falls of St. Anthony to eventual location of St. Paul's lower landing for, as he put it, "a song" (and plenty of whiskey to sweeten its sound).²⁰

Use of liquor and other gifts to induce indigenous tribes to grant access and favor to French, British, and ultimately American forces in the area eventually produced cynism and animosity among Indians toward whites. After the War of 1812, Little Crow III is said to have refused such gifts and the commitments that went with them because the Dakota were left to make their own peace with warring parties after one white government or other had gained its own objectives.²¹ His refusal, however, may have been out of disdain for British or American power as from any moral outrage. Major Stephen Long, who traveled this stretch of the Mississippi in 1817 to survey Pike's acquisitions, reported that Little Crow's village at the Grand Marais (today's Pig's Eye lake) was able to control passage through that narrow portion of the

river and that the inhabitants of the village were, reportedly the worst beggars of any Dakota in that area.²² Until a clearly dominant force established itself at Fort Snelling, the Mdewakantons advantageously situated at Kaposia could enrich themselves by piracy or extracting the equivalent of tolls from passing traders.

Relations between whites and Indians improved somewhat under the administration of Lawrence Taliafero (1819-1840), who was appointed by President James Monroe to act as Indian Agent for the U.S. government in the area. Taliafero was respected by the Dakota and Ojibwas alike as honest and genuinely concerned for the welfare and safety of the Indian tribes. He sought to prevent their abuse by unscrupulous fur traders and whisky sellers. Not long after his retirement, Ojibwas killed a chief and two of Little Crow IV's (Big Thunder) sons, precipitating the battle of Kaposia between the tribes in 1842.

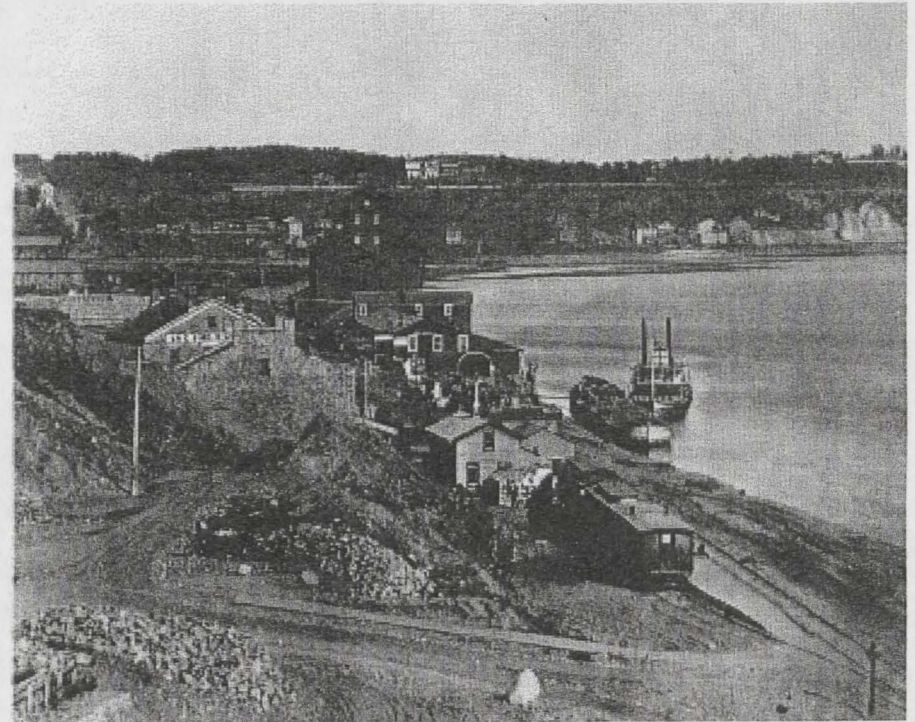
In May of 1823, the first steamboat, named the Virginia and measuring 22' in width by 100' in length, reached Fort Snelling. Historian Edward Duffield Neill described the scene thus: "the savages looked upon it with speechless wonder, supposing it was some gigantic water spirit, coughing, puffing, out hot breath and smoke, and splashing water in every direction. When the plank was thrown ashore, and it began to discharge steam, mothers, forgetting their children, with streaming hair, sought hiding places, and warriors, renouncing their stoicism, scampered away like afrighted deer." In this manner did "the great fire canoe," one of the chief enterprises of white 'civilization,' make its debut at the port of St. Paul.²³

White settlers began to stake claims in the area later to become St. Paul after 1837. Fur trading, farming, timber harvesting, and brewing were important in the early days, capitalizing on the land's natural assets. Milling of timber and then grain, bootmaking, furniture manufacturing developed as the population grew and the means to ship products to markets improved. But, St. Paul's location at the northernmost point of navigation on the Mississippi river made transportation and

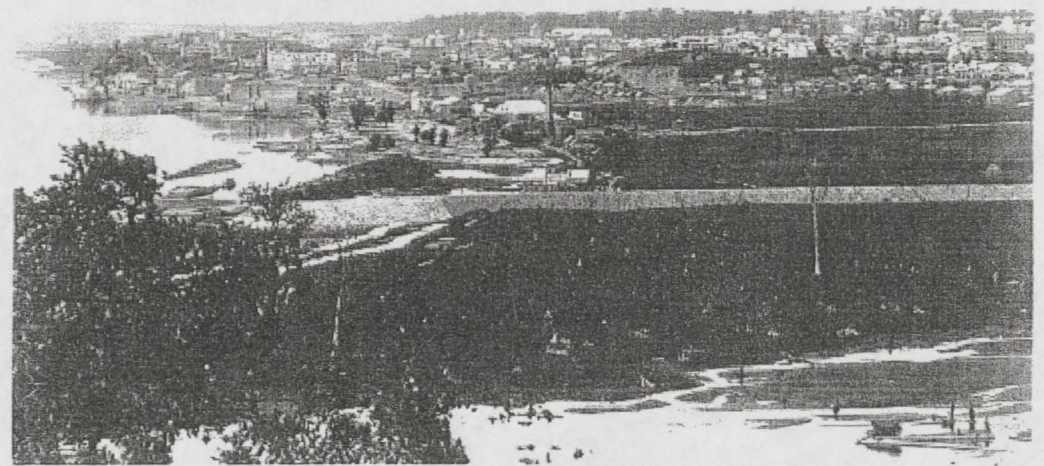
shipping (by barge, rail, and eventually truck) the key industry in the city's economy.

The retreat of the falls upriver over thousands of years had left the river with sizable (and hazardous) chunks of limestone debris. The safest landing for steamboats was at about the mouth of Phalen creek where the falls had first been after the glaciers last retreat. This became the Lower Landing. Norman Kittson and Henry Sibley moved the headquarters of the American Fur Company from Mendota to St. Paul, making it the transfer point. By the time Minnesota became a state in 1858, over 1000 steamboats per year made their way to the Lower Landing. Steam power led to larger vessels and the needs of these larger vessels dictated that the northern terminus of most shipping on the Mississippi river would be located at St. Paul's Lower Landing. Later "improvements" to the river channel opened up barge traffic as far as Minneapolis' mill. But, in the intervening years, steam power fueled a more far reaching connection (railroads) linked to more destinations and took less time. In 1864, Kittson and James J. Hill formed the Red River Transportation Company. Later, they acquired the St. Paul and Pacific Railroad and from it built the Great Northern line. The interchange between these two modes within sight of Dayton's Bluff is what really built St. Paul in the mid 1800's.

The value of the land was recognized by more than just producers. An 1850 directory listed nearly as many lawyers as carpenters. There were already six hotels to accommodate the increasing flow of immigrants arriving by steamboat.²⁴ Prior to intensive use by the railroad industry, the land beneath Dayton's Bluff was home to the North Star Brewery and a sawmill on the banks of Phalen Creek. The expansion of the railroad industry and the nexus between water and rail transport at the Lower Landing/ Union Depot area in the mid to late 1800's accommodated an increasing flow of people and products, eventually displacing these early uses by the early 1900's. A century later, the nexus is limited to freight transfers. The bustling of people has largely disappeared.



Views of the Lower Landing area in the early 1860's, from town (above) and from Dayton's Bluff (below)



Among the first white settlers to stake a claim in the area to become downtown St. Paul were (Big) Ed Phelan and John Hays. In September of 1839, Hays was found dead on the bank of the river downstream from Carver's cave, a victim of violent blows. Phelan was immediately suspected as he was poorer and coarser than Hays and had evidently threatened Hays previously. Phelan was arrested and hauled to Prairie du Chien where, after a hearing, he was released for lack of hard evidence. (A Dakota Indian, Dowah the Singer, confessed on his death bed after being wounded in the battle of Kaposia that he had killed Hays.) During his absence, Vetal Guerin occupied Hays' claim which was recognized by a local justice of the peace due to Phelan's absence of over six months. Guerin later married Adele Perry who bore him the first child in St. Paul. Phelan filed a new claim covering land that includes the Hamm Brewery site and a stretch of the creek that bears his name. Under indictment for perjury in 1850, he fled west for the gold rush, but was killed on the way.²⁵

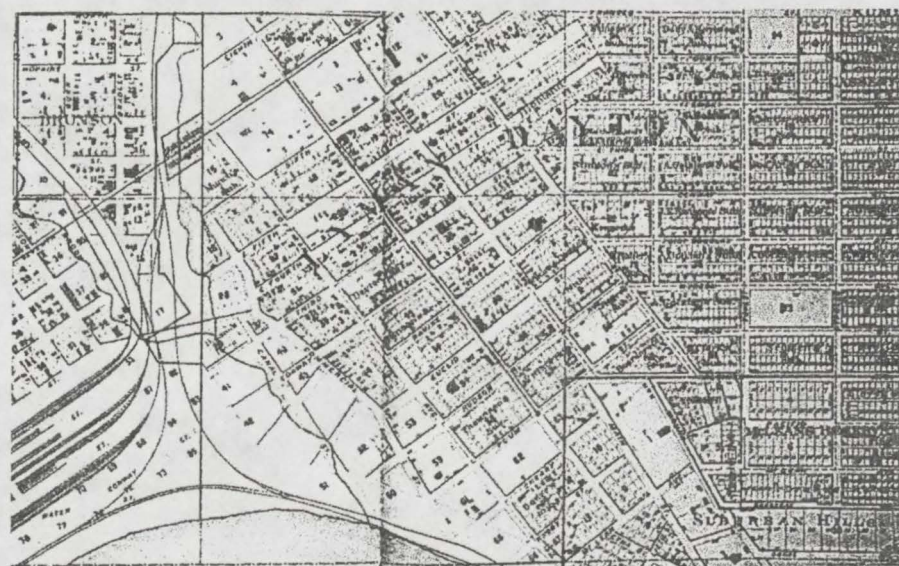


Lyman Dayton

The man whose name has become associated with the bluffs east of Phalen Creek was a dry goods wholesaler from Connecticut who, for health reasons, chose to become a real estate developer at about the age of 40. By 1855, he had purchased over 5000 acres of land east of Phalen Creek that separated it from St. Paul proper. The development was originally conceived as a haven for the well-to-do with large estate lots with views of the Mississippi river that were later resubdivided into much smaller urban lots with the extension of the city's sewer system in the 1880's. (See maps from 1867 and 1887.) Dayton also had a role in the formation of the Lake Superior and Mississippi railroad. He died in 1865, the year James J. Hill came to live in St. Paul.²⁶



1867 (above) and 1887 (below) plat maps of portions of the Dayton's Bluff neighborhood. Dayton is pictured, left.

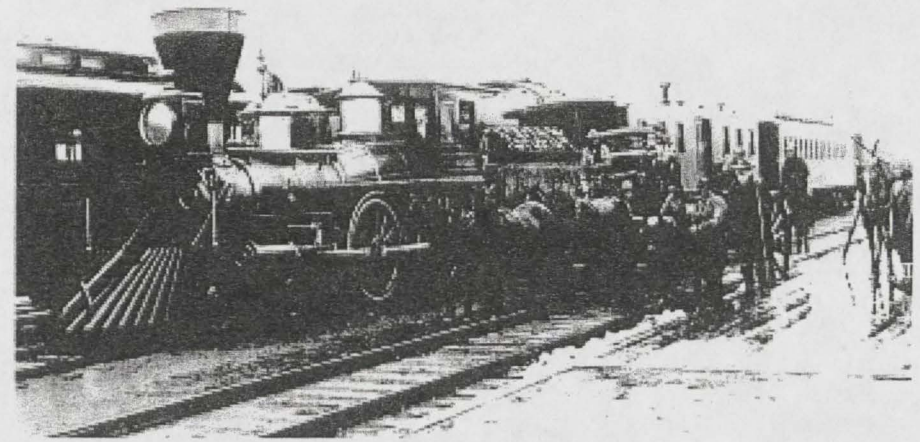


The first railroad line in Minnesota to carry a train was the St. Paul and Pacific. On June 28, 1862, the steam locomotive William Crooks pulled coach cars filled with dignitaries away from a 7' x 9' depot on the banks of the Mississippi near the mouth of Phalen Creek, with Webster Gardner at the throttle. According to railroad historian, Richard Prosser in *Rails to the North Star*:

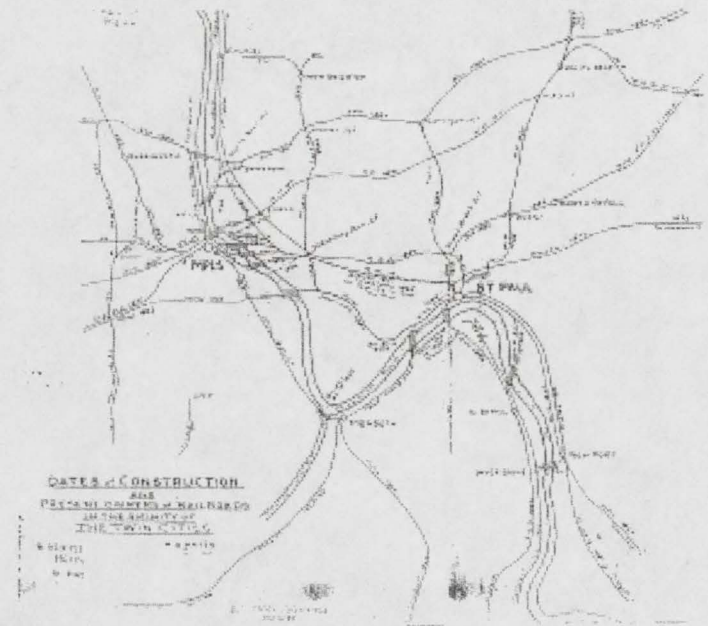
“the No. 1 chuffed away from the depot amid a swirl of wood smoke and noisily ascended the long grade up out of the river to the prairie beyond. The astonishment of the travelers was at least matched by that of the onlookers, as white citizens and Indians alike stared in bewildered amazement at the apparition. Horses and farm animals panicked and ran pell-mell for shelter. The journey to St. Anthony consumed a little over an hour, and the village of the Falls turned out in force to inspect this new miracle of travel. Speeches of welcome were made, proclaiming that Minnesota had come of age, that the world might now take note and pay homage to a state soon to receive wealth and prosperity in unlimited quantities.

“...As the sun faded into the west, reactions of Minnesotans differed. Some indeed believed that this was the unlocking of a door to great opportunity and economic welfare. Others viewed this new development with uncertain curiosity: it was at least a novel plaything, or perhaps a fad which would soon pass. Still others saw it as a noisy, filthy, highly-dangerous monster which disrupted the well-ordered life of the livestock, put an end to tranquility, and ought to be packed up and sent back down the river at the earliest opportunity.”²⁷

Because rail transport relies on a minimum of friction, the preferable grade is as flat and even as possible. The steeper or hillier the terrain, the greater the construction cost. In lieu of this, many rail routes, including those in the area of St. Paul, follow the relatively flat gradient of a streambed or riverbed. A map documenting the rail lines built in the Twin Cities area up to 1910 shows the pattern of this practical expedient. (Ramsey Co. Historical Society)



The William Crooks, first locomotive in Minnesota



Rail transportation was not new by the 1860's when it reached Minnesota. Horse drawn street cars had been used in Britain and France for a century. With the application of James Watt's steam engine technology to rail in the 1820's, lines began to be built to connect cities on the east coast. In the 1830's, a Massachusetts physician named Samuel Barlow advocated a government railroad to the Pacific coast. In the 1840's, Asa Whitney who was familiar with the conditions of trade with China and India, proposed a railroad from Lake Michigan through Prairie du Chein on the Mississippi river, over land to Lewis and Clarke's pass through the Rockies, down the Clearwater and Snake rivers to Walla Walla, along the Columbia and through the Cascade Mountains to Puget Sound. He requested a land grant of over 77 million acres through (and by) which he could develop the railroad which would then be turned over to the government. He died in poverty, unable to gain acceptance of his proposed project. The public remained quite skeptical at a time when no railroad had yet traversed the Alleghenies.

A generation after invention of the steam locomotive, river boats were still the preferred mode of long distance travel since the route required no costly construction. Advocates of canals stressed the advantages of water transport over railroads. But, the potential time savings of rail transportation led many to pursue construction solutions. A civil engineer from Vermont, Edwin F. Johnson, was an early advocate of building a rail line from the Hudson to the Mississippi river. While building a line from Chicago to Fond du Lac Wisconsin in 1852, he developed a more specific alignment for a northern rail route to the Pacific and arguments in its favor which were submitted in 1853 to Jefferson Davis, who was then Secretary of the War Department and empowered to recommend a specific route. Among the advantages enumerated by Johnson were the presence of more game in the northern regions to sustain a larger population (this evidenced by the larger Indian population in these regions), the waterway connection to the industrializing cities of the northeast, connection to the Red River of the North, mineral deposits and other natural wealth, and the greater proximity to oriental ports from Puget Sound than from San Francisco.²⁸



The northern route delineated by Edwin F. Johnson in 1853 (Modelski)

Edwin F. Johnson's route would have commenced from St. Paul. A connection to Lake Superior at Duluth was comprehended in the congressional action which eventually chartered the line in 1864. Connection of transcontinental rail routes to water ways at established ports was a logical outcome, given the preeminence of water transport prior to the Civil War. Water transport continued to be preferable for certain products moving between certain destinations. But, the arrival of rail at St. Paul served to diminish the importance of its water link to St. Louis, the Ohio River, and New Orleans in favor of the overland connection to Chicago and the Great Lakes. Two sets of rapids in the Iowa stretch of the Mississippi limited the size of vessels that could reliably make the journey to the Lower Landing in St. Paul and the advantage

of speed via railroad also cut into the traffic - particularly passenger traffic - using the river route.

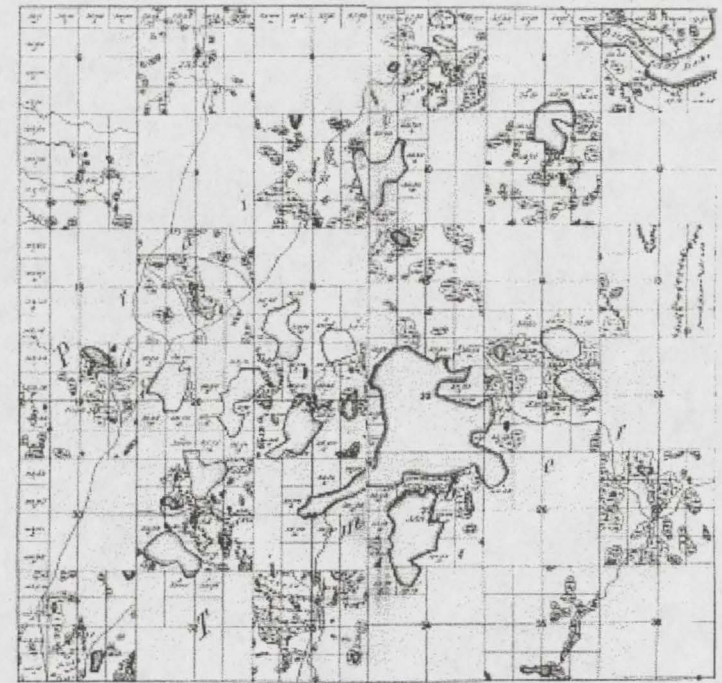
During the middle of the 1800's, states granted conditional charters to build rail lines over limited distances, to serve regional markets. The charter would elapse in a few years if the work was not completed. Many routes were not finished within the allotted time. This led to successive consolidations over time as smaller or incomplete lines were acquired by larger, better-heeled operations like the Great Northern and the Northern Pacific railroads, both owned in part by James J. Hill.

The transcontinental railroads were mammoth undertakings (a fitting characterization since they replaced that prehistoric motive for movement into and over the northern plains). To build a rail line, one needed money, material, migrant labor, and land rights. In addition, the land through which the rail line would be placed needed to be occupied by farms and small settlements to provide fresh water for steam and to generate freight and passengers for the rail line to carry. So, not surprisingly, the plans for building railroads were also proposals for settlement and economic development.

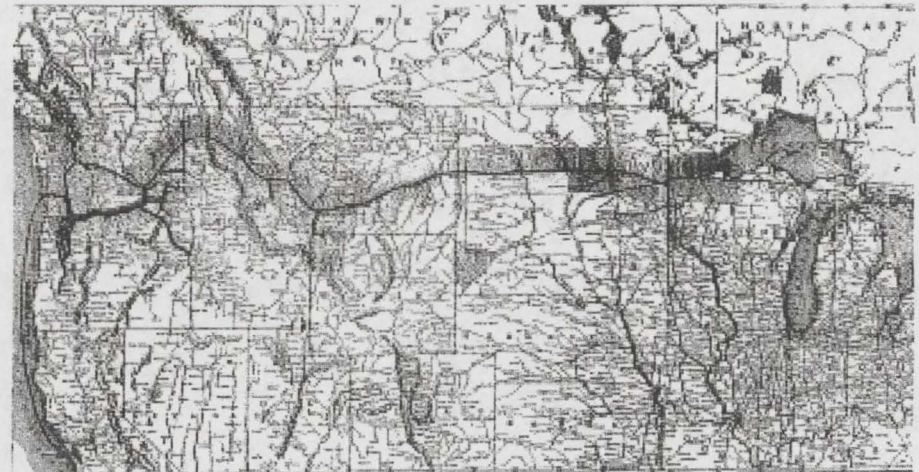
And there was no shortage of such plans. At a national scale, the debate focused on whether a northern or a southern route would be more expedient. The route issue was another source of rivalry and division between segments of the country approaching war over the question of slavery. St. Paul was, of course on the northern route. President Lincoln and the Republican Congress supported this route by awarding substantial land grants in keeping with the project envisioned by Asa Whitney. The grant of land awarded by Congress to the Northern Pacific Railroad entailed the odd numbered sections within every township through which its line passed. These could be sold off to raise funds for the construction of the line.²⁹ Though the world would little note nor long remember it, the potential for enhancing the land values of newly arrived Yankee investors by securing the northern route offered yet another incentive for bravery in the Civil War.

NORTHERN PACIFIC RAIL ROAD COMPANY.

Township N^o 140 N. Range N^o 41 W 5th Mer.



Map of a typical township in Minnesota with odd numbered sections surveyed for potential development. NPRR Land Department. (MHS)

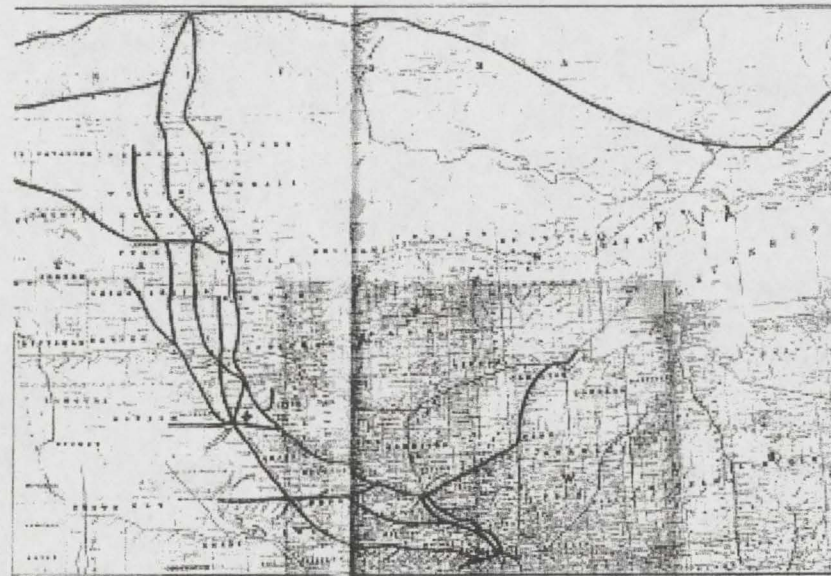


A map showing the land grant eventually awarded to the Northern Pacific Railroad by the U.S. Congress in 1864. (Modelski)

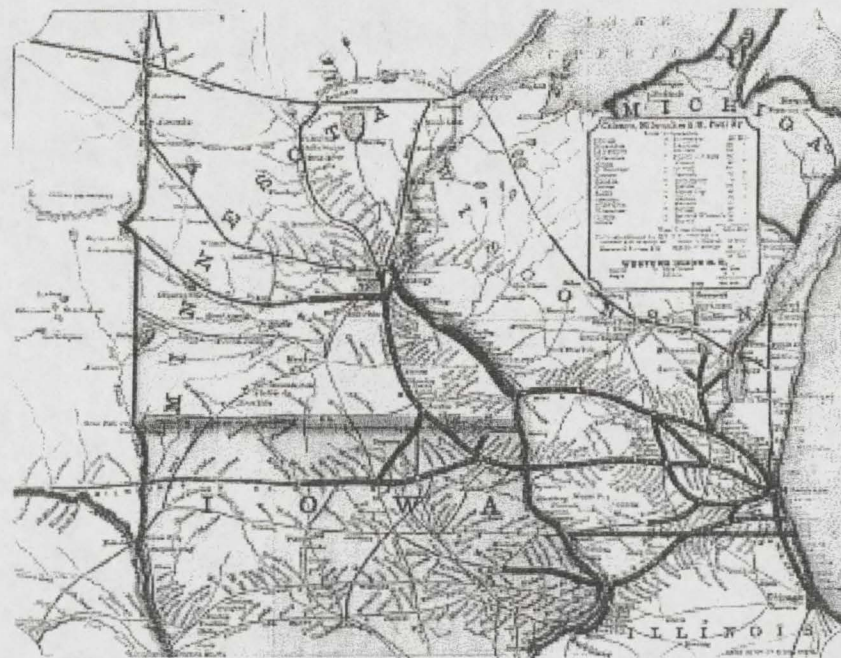
Even with a grant of land from the U. S. government, most buyers (farmers or land speculators creating new town sites) would not commit to buy until the line was in place or under construction near their site. Until land sales and operating profits could be realized, most of the construction costs had to be financed through borrowing. These loans would be repaid as the new line earned revenue from operations and as the granted land adjacent to the line was sold. Land purchases were also made on a time basis (usually ten years at 7% interest, computed annually). In an economic climate of expanding growth, investments were highly leveraged. The entire development program put great strain on the credit markets as each segment of the operation depended on borrowing and all were seeking loans at once. Until the new settlers had grown a crop to sell, there was little increased output to put toward the chain of debt that had made western lands accessible. In September, 1873, the bonding house which handled the bonds of the Northern Pacific Railroad, Jay Cooke and Co., defaulted on payments to some of its creditors and a financial panic ensued not unlike the stock market crash of 1929.

In essence, the crash of 1873 was an indication that borrowing to build future productive capacity had outpaced the actual growth in production, the revenues from which would retire the debt. Ventures such as railroads were highly speculative, at least in the short term. Jay Cooke's prospectus for the bond sale had glowed with praise of the natural riches and economic potential of the lands through which the railroad would run. It echoed the arguments made by Asa Whitney and Edwin F. Johnson for the northern route. But, after the debacle, newspapers ridiculed the scheme as "a wild scheme to build a railroad from Nowhere, through No-Man's-Land to No-Place."³⁰

Though the panic was severe, it did not last. Advances in transportation, however slowed by tightening credit, had a growing market of immigrants to relocate. The railroads made abundant and cheap land more accessible to growing masses in Europe who had been forced to leave a fully cultivated and overcrowded countryside for opportunities



Two railroads that met in St. Paul: Lines of the St. Paul, Minneapolis, and Manitoba Railway, 1882. by American Bank Note Co. above, and those of the Chicago, Milwaukee, and St. Paul by Rand McNally in 1874. Cited in Andrew Modelski's Railroad Maps of North America.



elsewhere. In his *Highways of Progress*, James J. Hill correctly assessed the potential of railroads to connect supply with demand when he said, "Land without people is a wilderness, and population without land is a mob."³¹ Thomas Jefferson could not have said it better.

The Northern Pacific Railroad did not take a passive role in the process of wedding supply to demand. One of its more astute moves early in the development of their transcontinental line was to dispatch agents to Europe to inform the public of opportunities to settle in the American Northwest. The bounty identified by Johnson and Cooke was made known to potential groups of immigrants in Great Britain through the publication known as *Land and Emigration*. Though this monthly publication sought to spread information to all considering emigration, the emphasis was on organized groups or "cooperative" emigration.³² This had advantages in selling larger blocks of land. It also helped ensure the sufficiency and survival of new settlements and thereby the likelihood that they would generate traffic in the future.

The motivations of the railroad were not as democratic as the destination country professed to be. The paper warned that those moving to America needed to possess enough money and property to sustain themselves for a year. The poor and those of certain occupations - clerks, insurance agents, the unskilled - were discouraged from emigrating. Individuals must be healthy, resourceful, and willing to take care of themselves because, as the company publication put it: "heaven reserves most of its help for those who show a determination to help themselves."³³ The self-interest of the railroads seeking emigrants can be seen as counter to the self-interest of conservative European governments who likely preferred the more compassionate entreaty put by the French into the mouth of the Statue of Liberty:

Give me your tired, your poor,
Your huddled masses, yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me.



Connemara Patch on the bank of Phalen Creek in the 1880's. Overcrowded conditions again.

Connemara Patch

The railroad did not act alone in drawing groups to emigrate to America. In this country, the Roman Catholic Church and other religious societies made the call to occupy the land a heavenly as well as an earthly mission. In Minnesota, Bishop John Ireland worked with the Catholic Colonization Society in Liverpool headed by Father James Nugent and with similar agencies in America and Europe to attract groups of Catholic immigrants. With land granted to the railroads, these colonists could establish new congregations on the Minnesota prairies. When the bad Irish potato harvest of 1879 began to cause hunger, Nugent asked Bishop Ireland if his diocese could find a place for about 50 families from a rocky coastal region called Connemara in County Galway, of the western province of Connaught. Overcrowded conditions were not new there. In 1641, Oliver Cromwell had forced many landowners from eastern Ireland into Connaught, giving its more fertile land to Protestant English aristocrats.

The "Connemaras" as they were called lived in fishing villages and rented small 3 to 5 acre plots with poor soil, which they planted simply as garden farms to supplement their main livelihood gained from the sea. Nugent reasoned that, if some could relocate to America, those remaining could better survive on the available land.

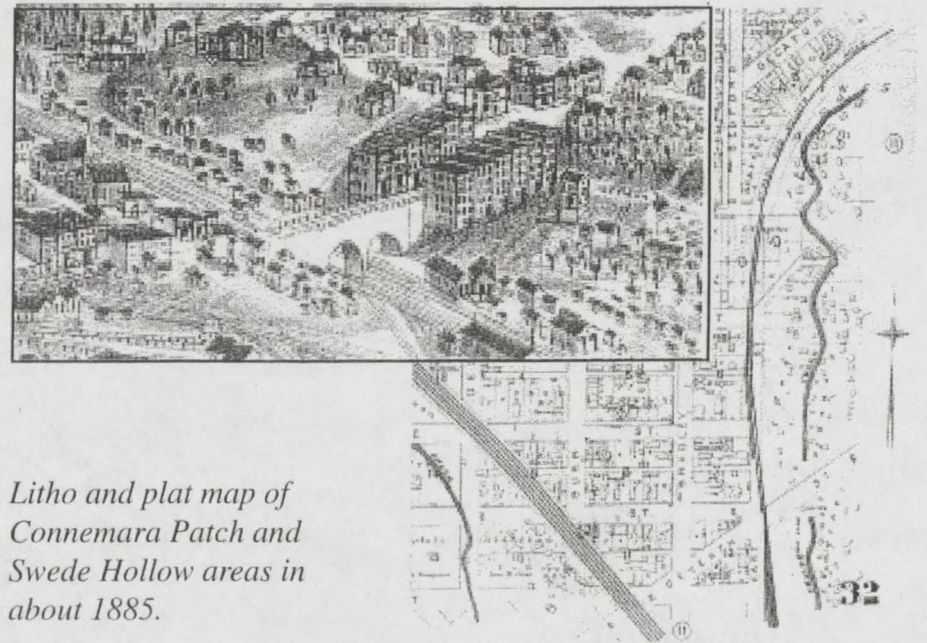
Destitute and unprepared for life on the Minnesota prairie, about 300 Connemaras left Galway on June 11, 1880 and arrived in Boston 11 days later where they were met by Dillon O'Brien. The Northern Pacific had agreed to provide free transportation for the group from Boston to St. Paul. O'Brien escorted his charges to St. Paul, collecting meals and additional clothing for them from the St. Patrick's Society in Chicago along the way. When they reached St. Paul, about 45 young men and 35 young women were secured employment. The rest were sent to the colony in Graceville, in western Minnesota. O'Brien later described the Connemaras unflatteringly: "The kindly but visionary Father Nugent ...[had chosen] from the congested districts not the competent but the incompetent; not the industrious but the shiftless; a group composed of mendicants who knew nothing of farming, and were entirely unfitted to cope with life on the American prairie."³⁴

Bishop Ireland personally purchased some of the railroad's land for the Catholic colonization effort. He provided the Connemaras with some necessary supplies and had Graceville's residents break five acres of prairie sod in each new 20 acre plot. Despite his investment, however, the Connemaras did not succeed in Graceville. Most took day labor jobs with neighboring farmers, did not tend to their own land or build their houses to withstand the winter cold, sold off supplies given them, and expected the Bishop to arrange for their needs. In response, Bishop Ireland commenced a public works program, offering day labor jobs for \$1.00 a day (less than the prosperous farmers paid) and cut off credit for provisions to any who did not take the work.

The winter was early and severe, causing suffering among the Connemaras. In spring, they were relocated again to St. Paul where

many were provided work on the railroad. No further record of failure is indicated (unless offhand comments of the current governor regarding St. Paul's street layout suggest that some Connemaras got jobs in city planning).

In *Catholic Colonization on the Western Frontier*, James P. Shannon cites numerous correspondences which attest to the low regard in which the Connemaras were held by those working hardest for their success and generally exonerates all Catholic officials in the failure that occurred. To this writer, however, it seems that the personal financial investment of some of these men may have blinded them to realities concerning the Connemaras' suitability for larger scale agriculture, the lateness in the growing season at which they arrived at Graceville (after July 1st), and most importantly, that the Connemaras were essentially draftees taken from their home so that others could use the land they had partly depended on. Their coarse speech and lack of manners might have signaled disdain over the lack of choice accorded them as much as an actual defect of character.



*Litho and plat map of
Connemara Patch and
Swede Hollow areas in
about 1885.*

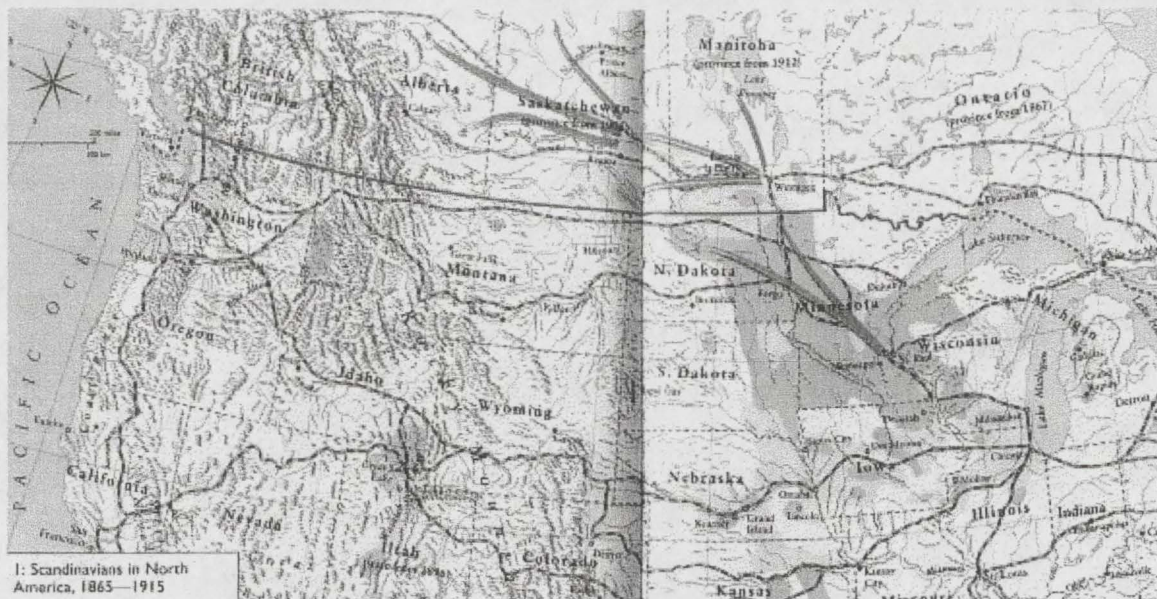
The Connemaras settled along Phalen Creek in St. Paul and in the area known as Bohemian Flats on the west bank of the Mississippi river in Minneapolis, downstream a short distance from the milling district around St. Anthony Falls. The shanty town along Phalen Creek between 4th and 6th Streets was smaller and less remembered than a similar informal settlement dating to about the same time: Swede Hollow. These two nineteenth century barrios were home to successive waves of immigrants from Sweden, Ireland, Italy and eastern Europe, and finally Mexico until condemned as unsafe in the 1950's.

Ethnic Migrations

The Connemaras were not the first, nor were they the last group of immigrants to settle in the neighborhood of Dayton's Bluff. An earlier wave of Irish immigrants to the U.S. following the potato famine of the late 1840's had brought a number of Irish to central and southern Minnesota while it was a territory. Some were lumberjacks who had migrated with their employers from New England. The railroads became a major employer for Irish immigrants as time went on.

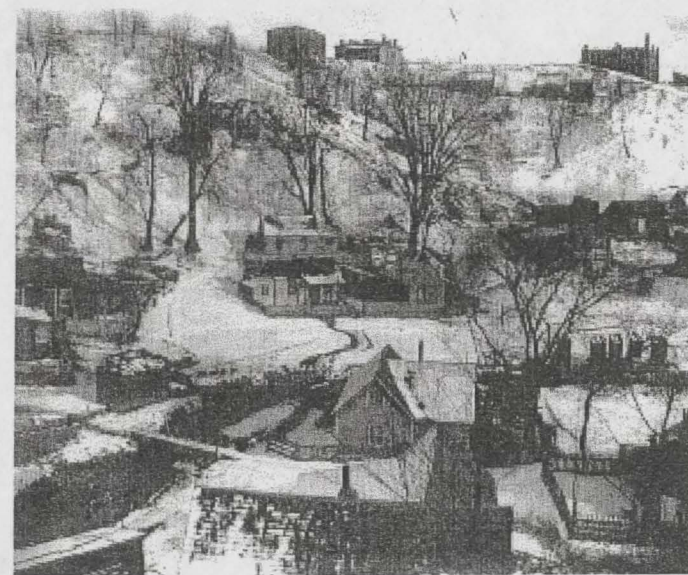
Many Germans came to the area beginning in the 1850's. They were relatively successful, holding jobs as skilled craftsmen, merchants, restaurateurs, brewers, and bankers. On the east side, they tended to live between East 7th Street and the Mississippi River, in Lyman Dayton's subdivision overlooking the river.

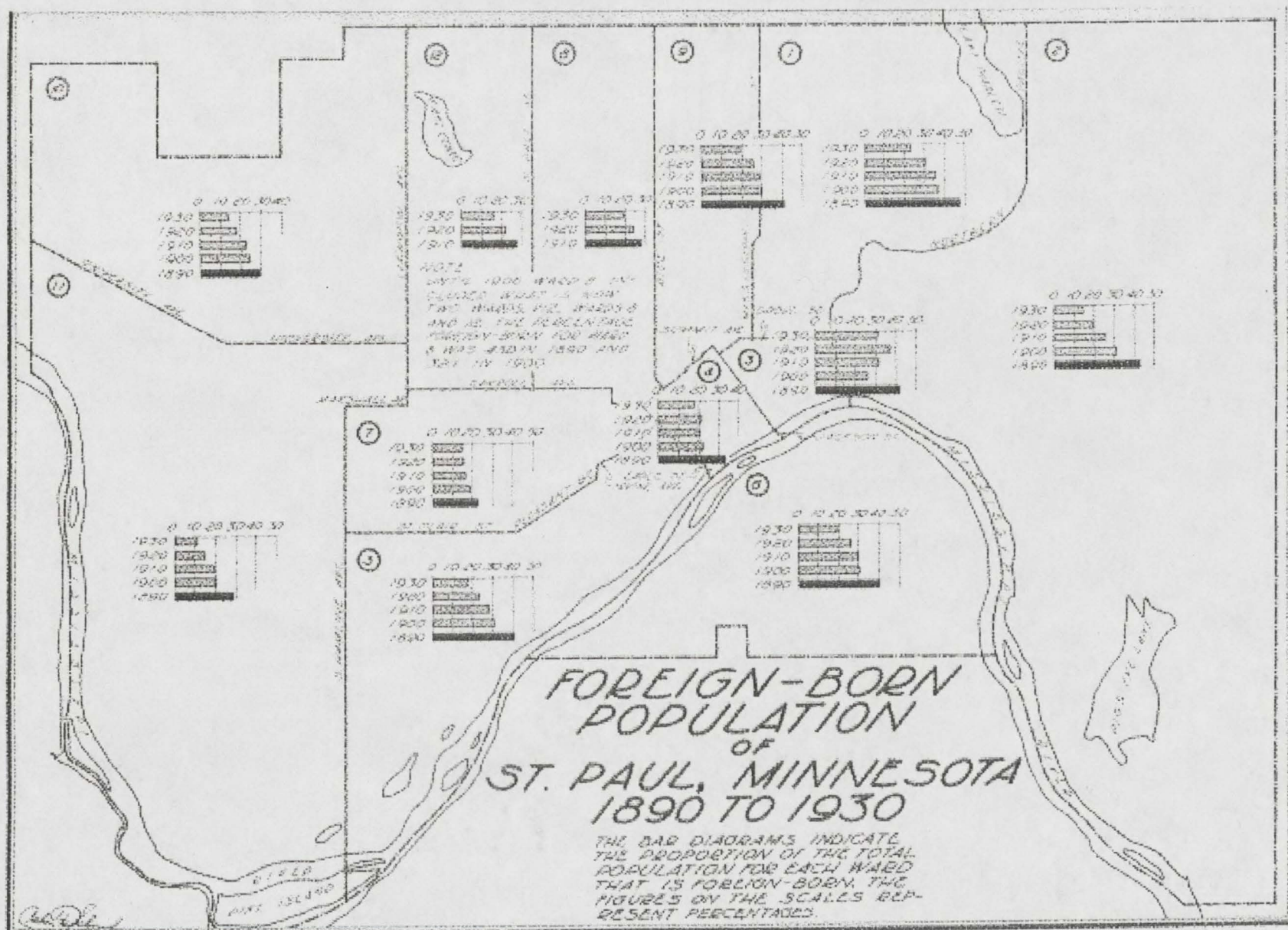
Scandinavians began to arrive in the 1870's to work as laborers in building the railroad. For a generation, many lived in the shanty town north of Est 7th Street along Phalen Creek known as Swede Hollow. In time, they established businesses near the downtown area and moved to nicer residential neighborhoods around Lakes Phalen and Como.³⁵



Map of Scandanavian settlement in the Northwest, 1865-1915, from The Settling of North America, Helen Tanner, ed.

Swede Hollow





Calvin Schmid's excellent study of Twin Cities' economic and demographic history, *Social Saga of Two Cities*, published in 1937, includes this map charting the change in foreign-born population in St. Paul from 1890 to 1930. In almost all neighborhoods, foreign-born declined as a proportion of total residents. In the Dayton's Bluff neighborhood, the proportion declined from about 42% to under 15%.

After 1882, there was a sudden increase in immigrants from eastern and southern Europe. Italians, Russians, Poles, Greeks, and Jews came to St. Paul in much greater numbers than before, constituting eight in ten new immigrants for the rest of the century. As the Irish moved up the ladder in the railroads' growing ranks, and as Swedes found better business opportunities, these new immigrants, especially the Italians, moved into the jobs and housing left by those moving on.

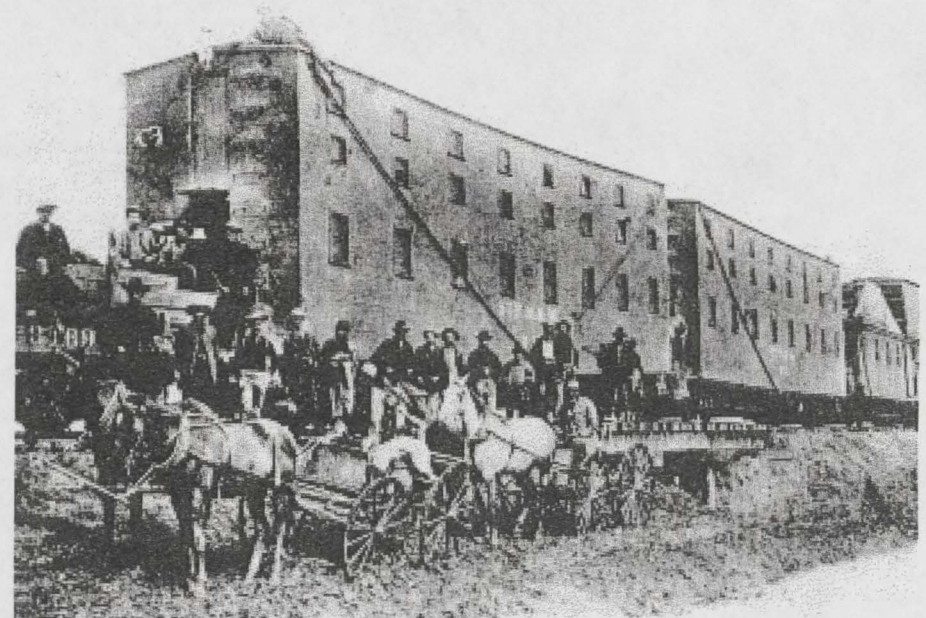
Life in Swede Hollow was memorable for many who grew up there and succeeded in finding a better home elsewhere. The railroad line which stretches to Lake Superior winds through the valley. The daily experience by European immigrants of the mechanical behemoths produced reactions not unlike those of earlier native inhabitants. Gentile Yarusso's memoirs relate close encounters with railroad time:

"We needed no alarm clock to tell us it was nine o'clock, time to be getting home, for at this time every evening, a freight train would come up the track skirting the Hollow. It wasn't an ordinary freight train. Three large coal-burning locomotives assisted by a pusher in the back would come thundering up from the Burlington Yards some two miles south of the Hollow. We children would sit high up on the bank and watch it go by.

"The giant locomotives would come puffing up the track, their headlights glowing like the eyes of a serpent, winding around the curves of the Hollow. What noise, what thunder as the engines passed us? Cinders and sparks fell all around us, on our heads, on our shoulders. Windows in the homes would rattle. Mothers would call for their children. Some of the smaller kids would become frightened and start to cry. Fathers would be cursing the whole spectacle. After the freight train was out of sight, we would slowly walk back home. Stillness would settle over the Hollow. Occasionally one might hear the barking of a dog." (Yarusso, 1977)³⁶



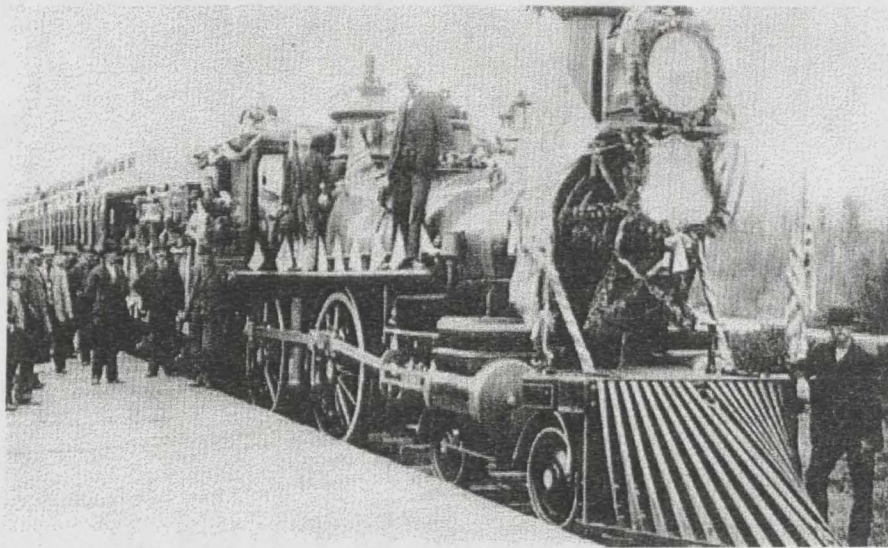
Above, lines of the Great Northern Railway in 1890 by Poole Bros.. Below, dormitory cars used to house workers building the St. Paul, Minneapolis, and Manitoba line in the 1880's. Modelski, ibid.



Finishing the Missing Link

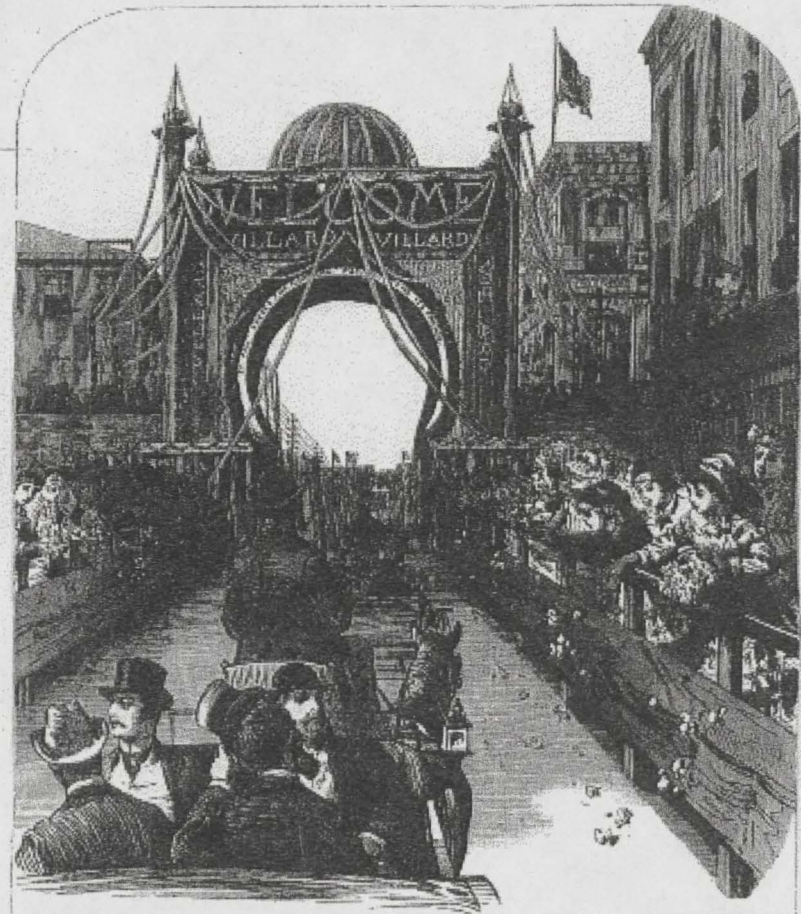
On September 8, 1883 at Gold Creek in western Montana, the long sought trade route through the through the northwestern United States was completed with the driving of the golden spike to connect portions of the Northern Pacific Railroad. The first transcontinental link had been established in 1869 at Promontory Point in Utah where another famous golden spike connected the Union Pacific and Central Pacific lines. The front page of Frank Leslie's Illustrated Newspaper dated September 15, 1883, featured a lithograph of the celebration on September 3rd. A party of dignitaries, led by U. S. President Chester A. Arthur, processed from Union Depot along 3rd Street toward a triumphal arch at Cedar Avenue on its way west to join in the ceremony in Montana. The Villard referred to on the archway was Henry Villard, then President of the Northern Pacific Railroad. Both the Northern Pacific and the Southern Pacific (New Orleans to Los Angeles) lines were connected in 1883. The Sante Fe Railroad was also in service by then, running between Chicago and southern California via New Mexico.

(Below) Gold spike celebration at Gold Creek, Montana, Sep. 8, 1883

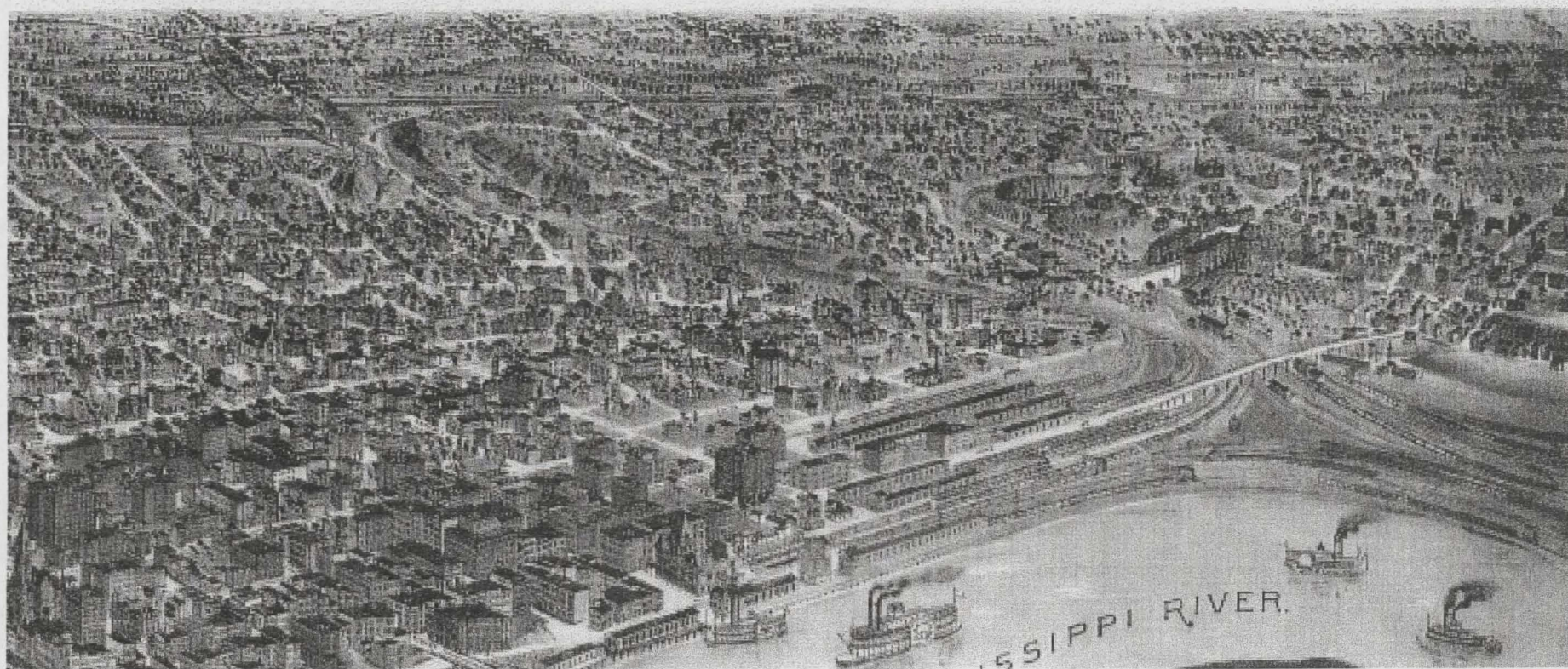


FRANK LESLIE'S THE ILLUSTRATED NEWSPAPER

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THE OPENING OF THE SOUTHERN PACIFIC RAILWAY—GRAND CELEBRATION AT ST. PAUL, MINNESOTA, SEPT. 8, 1883. LADIES AND CHILDREN REMEMBER, FLOWERS UPON THE VILLARD HURDS AT THE ARCH ON THIRD STREET.



A portion of the Orcutt Litho Company's 1888 lithograph of St. Paul showing the Lower Landing, Union Depot, and the rail yard in the Phalen Creek bed beneath Dayton's Bluff at far right. The lithograph was commercially sponsored by J. H. Mahler Co.

Continental Economic Growth on Track

Completion of a transcontinental rail connection from St. Paul to the Pacific at Puget Sound may be seen in a poetic sense as an intermodal fulfillment of Jonathan Carver's - and others - vision of a Northwest Passage. But, in a more practical sense, the railroad effectively replaced the river as the major means of transportation and, in so doing, moved the most important intermodal connection to Chicago. For most passenger travel, the railroad became the most direct means to the Pacific. But, more importantly, by 1890, trade with Asia had become a secondary objective. Most of the cargo or passengers on transcontinental runs were headed for destinations within the continent rather than overseas. *Intracontinental* trade had far outpaced international trade as America's economy, driven by land development, began to eclipse the might of Europe's imperial powers.

While St. Paul became an important gateway to the upper midwest, the transportation hub of the country clearly was Chicago. Most rail lines in the midwest went to Chicago and from there, goods were shipped to and from the major markets and manufacturing cities of the northeast. William Cronon's book on the development of Chicago, *Nature's Metropolis*, is a fascinating study of an important American city that grew up very rapidly in the mid to late 1800's on the basis of its place in a transportation revolution. The advent of the railroad hastened the transformation of millions of acres of virgin prairie and northern forest into commodities, making them accessible inputs to a system of production being built in emerging urban centers. Cronon cites Everett Chamberlin as attributing Chicago's growth to "a junction of Eastern capital and Western opportunity." Another booster proclaimed that "Nature built Chicago through her artificer, Man."³⁷

Chicago was at the top of the transportation hierarchy by the late 1800's. St. Paul occupied an important position in the next tier of transfer points. Like Chicago, the Twin Cities became the major manufacturing center and transfer point for much of the land's product in the

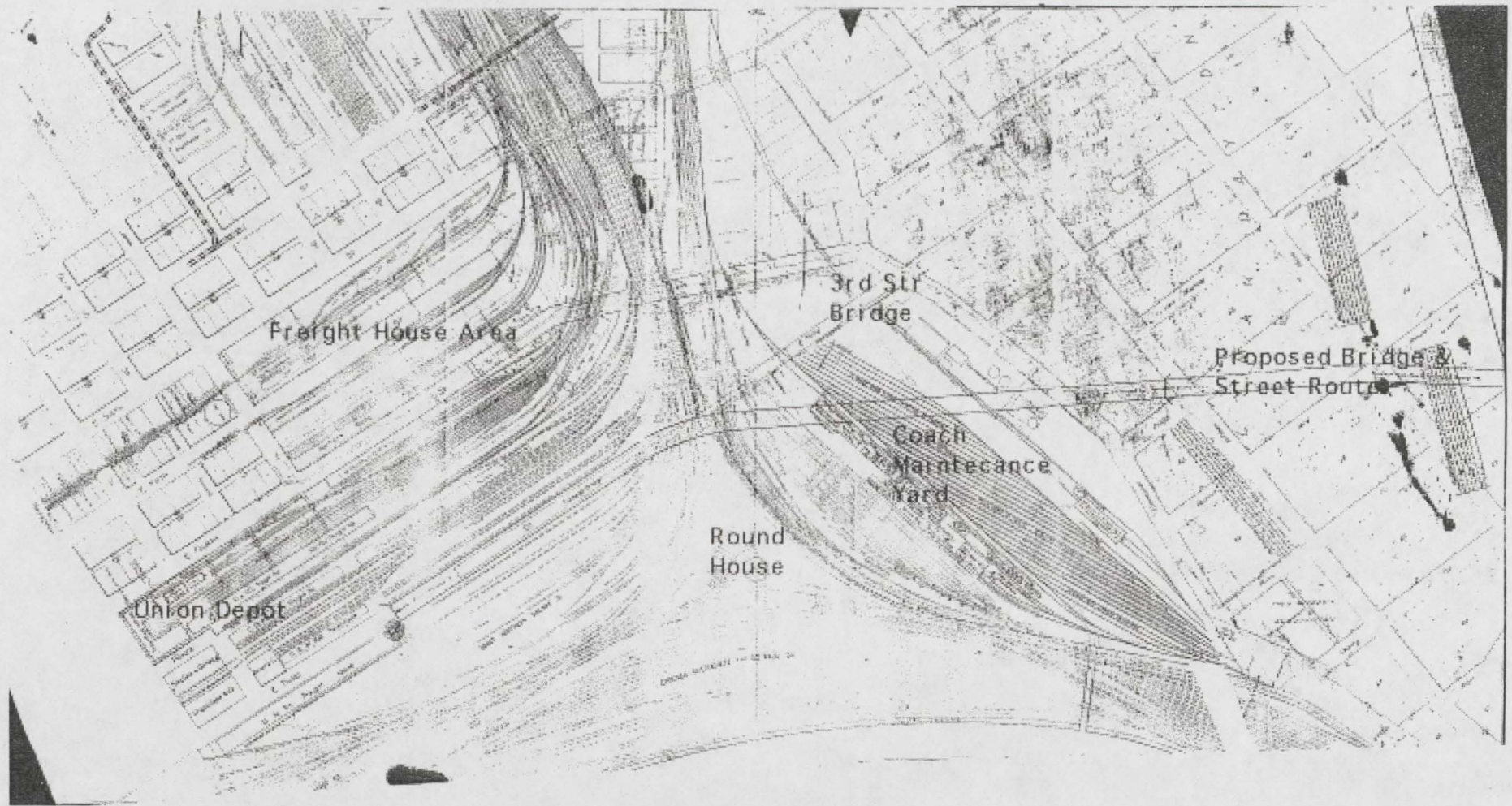
upper midwest. Railroad connections greatly reduced time to market and transmuted the economic geography of the landscape from one responding to the rhythms of natural processes to one responding to the rhythms established by mechanical power. In Karl Marx's terms, railroads accomplished "the annihilation of space by time." As the temporal distance between destinations was reduced by the speed of the locomotive, the effect on space was to increase its potential value as a function of its proximity to the means of access. St. Paul was then situated at the crossroads of rail access to the grain fields of the northern U. S. and Canada, the Great Lakes, and Chicago, and of water access to the midwest and the Gulf of Mexico. Its access to vast resources and national markets made it a linchpin in the economic life of a huge area.

As a result, rail transportation became one of the leading industries of the city for over half a century and extensive investment was made in railroad equipment maintenance facilities, freight houses, and passenger accommodations, much of it continually in evidence from atop Dayton's Bluff. (*View west from Dayton's Bluff, circa 1910. MN Historical Society photo. Note Phalen Creek in foreground.*)





Map of St. Paul, circa 1925, showing rail lines, streets, major water bodies. Highlighted area contains (left to right) Lowertown area, Union Depot, Lower landing, Northern Pacific Rail Coach Maintenance Yard, and southwest portion of Dayton's Bluff Neighborhood.



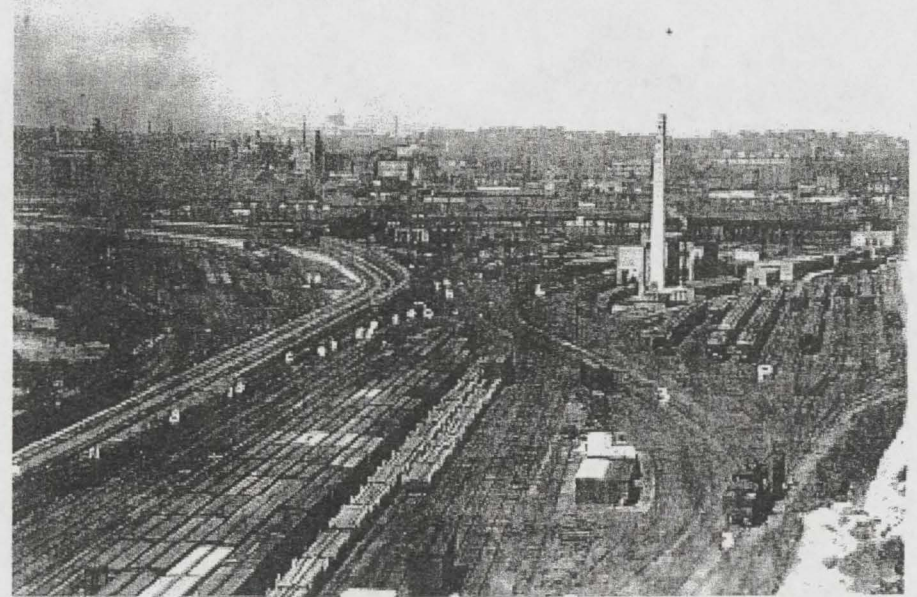
Plan of the Northern Pacific rail yard and vicinity, circa 1925. The coach maintenance yard occupies space through which Phalen Creek formerly flowed. The creek was run through storm sewer pipe under ground as part of the railroad's "improvement" of the site in the early 1920's. Courtesy Minnesota Historical Society.

The Rise and Fall of a Railroad Empire

From 1870 to 1920, railroads extended lines across all parts of the country and became the primary long distance haulers of both passengers and freight. As time went on, land grants from the federal government became unnecessary to induce construction of lines connecting important destinations. From St. Paul, the Northern Pacific extended to Duluth and to Puget Sound on the Pacific coast. The Great Northern extended to Duluth, Winnipeg, to Sioux Falls, and to Puget Sound. The Chicago, Milwaukee, St. Paul and Pacific extended to Chicago. The Chicago and Northwestern extended to Omaha. The SOO Line extended to Sault Saint Marie. From neighboring Minneapolis, a line extended to St. Louis.

By 1920, in Minnesota, over 9000 miles of track had been laid. Freight tonnage carried on Minnesota tracks grew from 8.3 million tons in 1885 to 85.8 million tons in 1910. In 1917, the federal government nationalized the railroads because of World War I and did not return them to private hands until March of 1920. Freight tonnage continued to increase, peaking in 1929 at 120 million tons. During this period of railroad domination, products from mines grew from 14% of all tonnage to over 55%. Products of forests, on the other hand declined during the 1885-1929 period from 19.2% to 9.1% though the absolute volume of such freight had increased over sixfold.³⁸ The stretch of tracks that run at the foot of Dayton's Bluff continues to carry, even today, more freight than almost any similar stretch of track in the country.

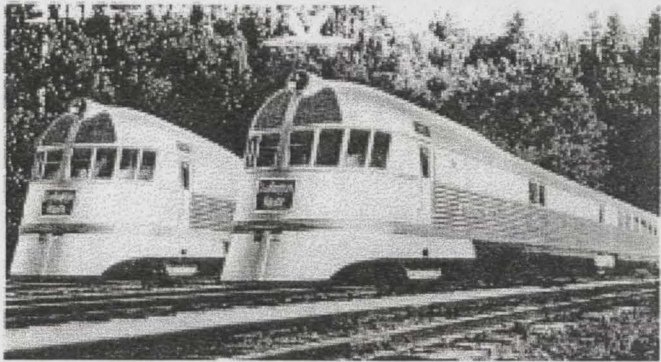
Rail passenger traffic in Minnesota increased from 5.1 million in 1900 to 18.3 million in 1920. After the war, automobiles became more affordable because of assembly line mass production. Purchase and use of automobiles took off and rail passenger traffic declined. By 1925, it had dropped to 7 million and by 1930, to 3.3 million.³⁹ Shorter lines lost business the fastest as they were at a greater disadvantage to the automobile. Longer routes between major destinations continued to hold some advantage over automobiles, but began to lose ground to



The Northern Pacific Coach Maintenance Yard in 1931 (MHS photo)

airplanes. Inevitably, the power afforded by the automobile to set one's own route and schedule proved overwhelming, especially when the right-of-way for cars and trucks was publicly financed while that for railroads was privately owned and maintained. These costs were internalized in the ticket prices of train fares and freight rates, becoming part of the marginal cost calculus of consumers of rail services. Other surface and air modes did not have to internalize all such costs and therefore presented the consumer with a lower marginal cost (price) profile.

The coach maintenance yard facilities that were built over what had been the meandering watercourse of Phalen Creek were planned in 1915, but not built until the early 1920's, after World War I and the return of Northern Pacific Railroad properties to private hands. Much like a large department of the federal government, the Northern Pacific had prepared for the past. Nevertheless, despite declining passenger traffic and demand for coach cars, the operation continued for about 50 years. The buildings and tracks remained in place until the late 1970's.



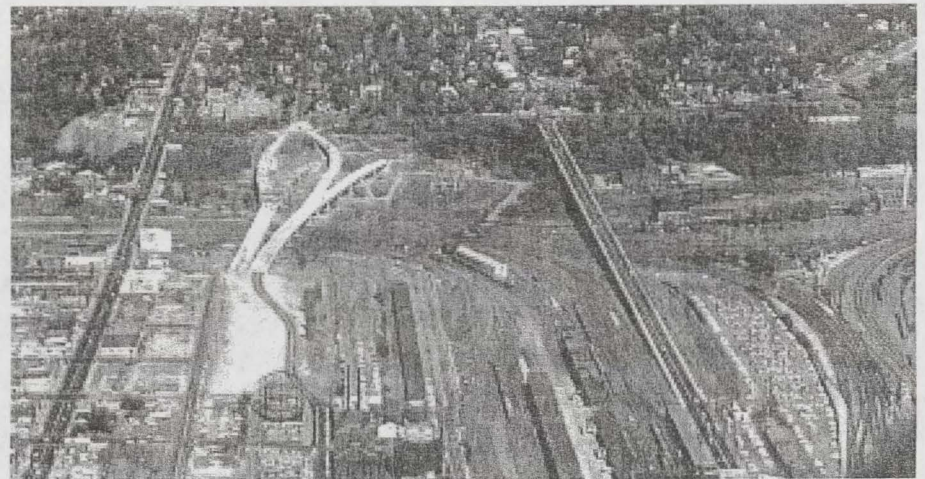
The diesel Twin Zephyr, introduced in 1936 by the Chicago, Burlington and Quincy to run between Chicago and the Twin Cities, fr. Prosser: Rails to the North Star.

Losing passengers and freight to more flexible modes of transport, the more successful railroads invested in conversion of their engine fleets to diesel engines beginning in the 1930's. Diesels did not require a fireman to shovel coal into the engine, nor frequent stops to replenish coal and water supplies. Small villages on the western prairies had in many cases been platted by the land grant railroads at regular intervals precisely to render such service to the trains that connected them to industrial cities. The advent of diesel made such stops unnecessary, unless there was freight or passengers to pick up. To reduce the expense of time, stops were consolidated at more important locations. As freeways later had with automotive traffic, diesel technology applied to rail transport had a tendency to concentrate economic activity in larger urban areas. Railroads also consolidated. The Northern Pacific, Great Northern, and Chicago Burlington and Quincy merged to form the Burlington Northern Railroad in the 1960's. Federally subsidized Amtrak assumed passenger service nationwide in 1971.

The picture in the upper right portion of the page shows the coach maintenance yard and other rail facilities between downtown St. Paul and Dayton's Bluff in the late 1950's. The death knell of the operation is sounded in the next photograph showing the interstate freeway under construction in the mid 1960's. The coach yard has been si-



A view from the air over downtown St. Paul in 1959 above. The 3rd Street bridge is prominent in the middle of the picture with the coach yard beyond. Below, construction of Interstate 94 is underway between the 3rd and 7th Street bridges. The coach yard is to the right. (MHS photos)



lent for a generation now. What follows in the succeeding pages is a visual documentary comparing views of the area photographed in the past with those gained more recently by the author.

Then and Now - Landscape change beneath Dayton's Bluff



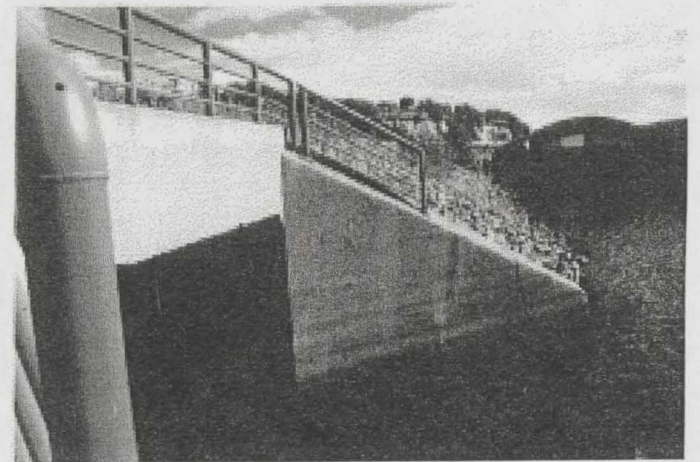
Riverfront, rail yard, and still open Phalen Creek channel, circa 1910, Minnesota Historical Society photo.

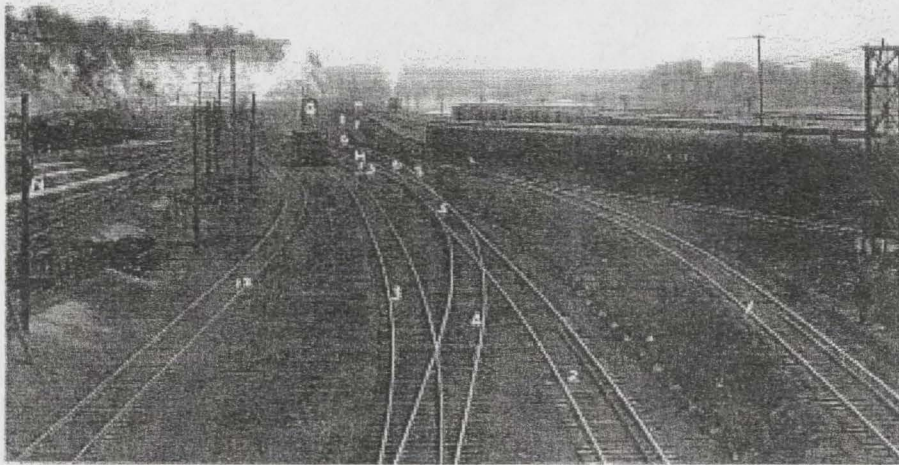
Phalen Creek and the Lower Landing in 1861



Riverfront with barges where Lower Landing was, Riverfront Park, Warner Road (center), and remnant rails (on right), downtown St. Paul in background. (Photo by author)

Phalen Creek outlet today (2000)

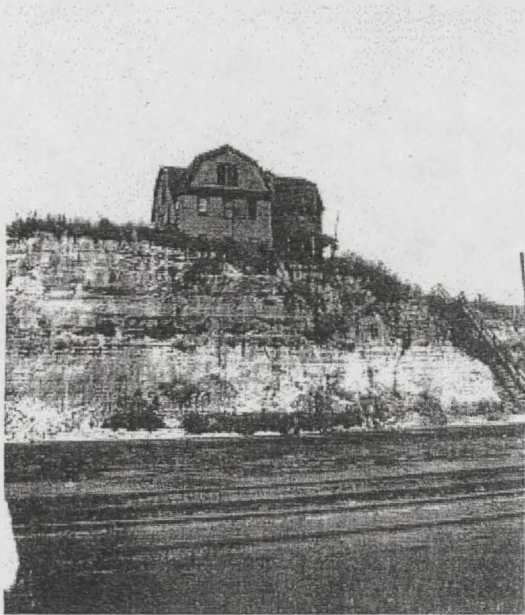




Views of tracks in down river direction. (MHS photo)



Views to the southeast along BN tracks. Light beacon at Mounds Park for early aircraft visible below. Photos by author, Gary Shallcross, 1999.

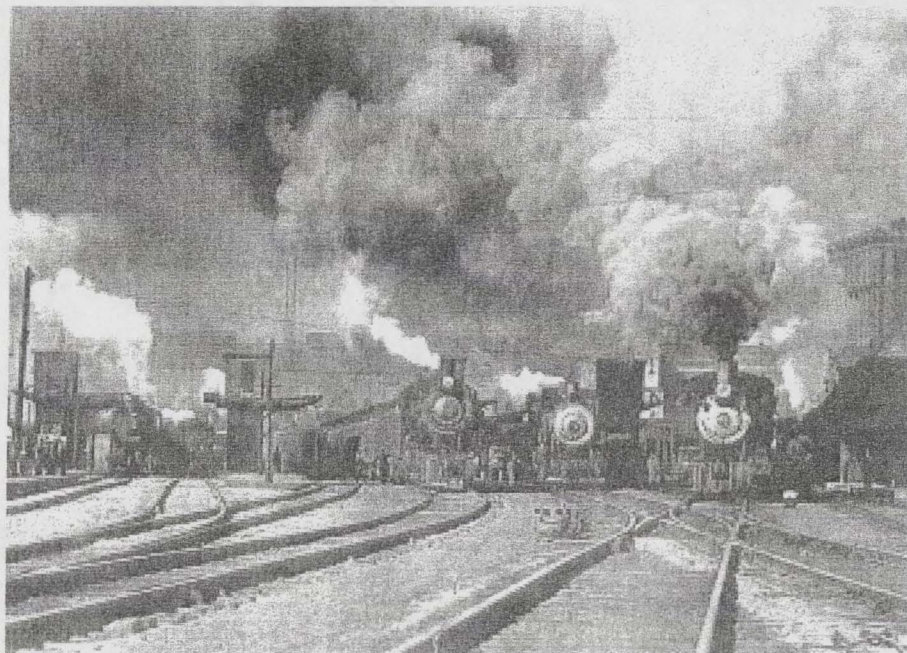


At left, the Burlington House, an early Inn at the end of Earl Street overlooking the river from Dayton's Bluff. MHS photo circa 1912.





Left, as Groucho Marx put it in *A Night in Casablanca*, "This is like living in Pittsburgh - if you can call that living." (MHS photos of the Union Depot and steam engines, circa 1925)



Freedom From Insects

Ensures Happy, Contented,
Efficient Workers



"The bedbug and the flea,
The louse and bumblebee,
In my bed and in my clothes
Bite my body, limbs and nose;
Dash my sleep and sap my power,
Make me weak and turn me sour!"

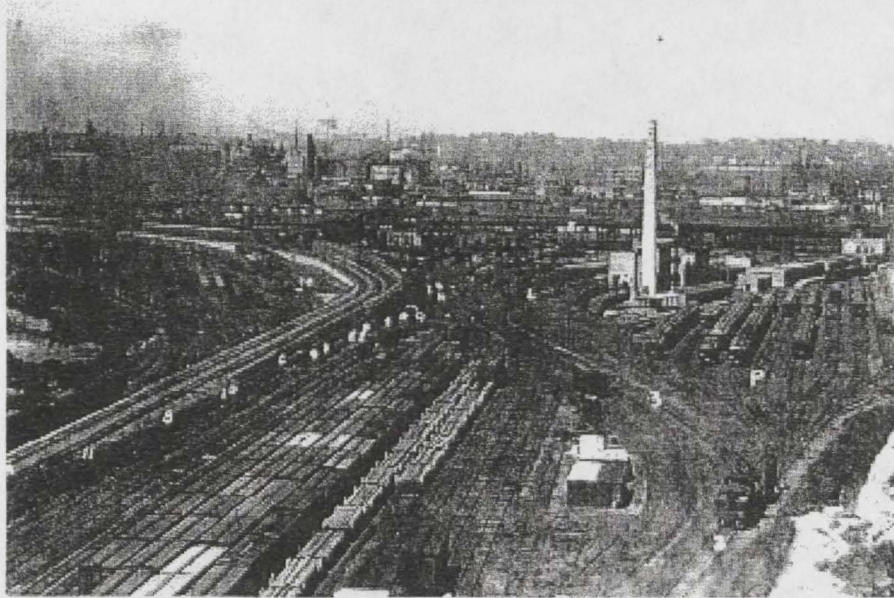
—Wail of a Camp Worker.

Railroad Calcyanide

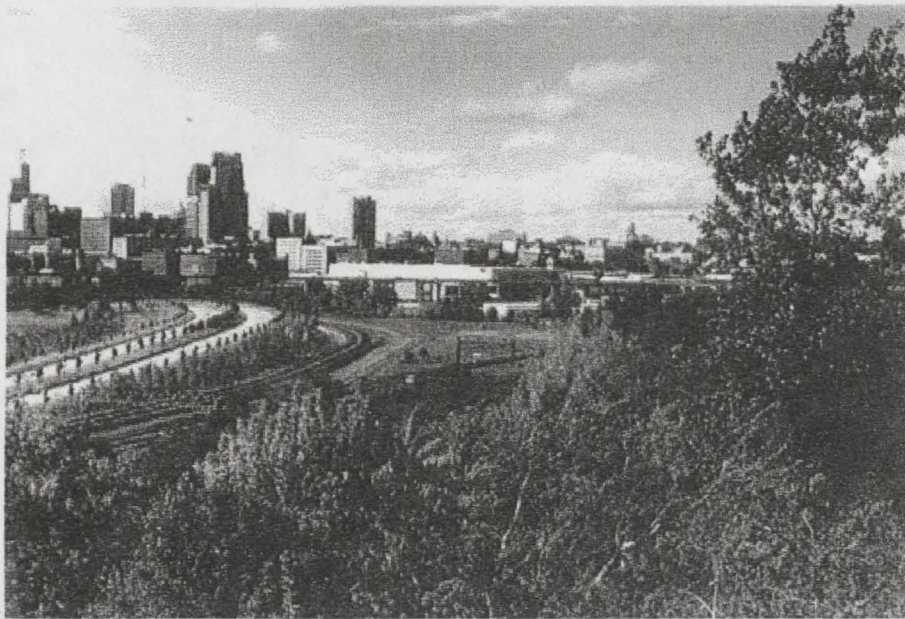
The Fumigant
Without an Equal

Destroys All Insects
and Rodents

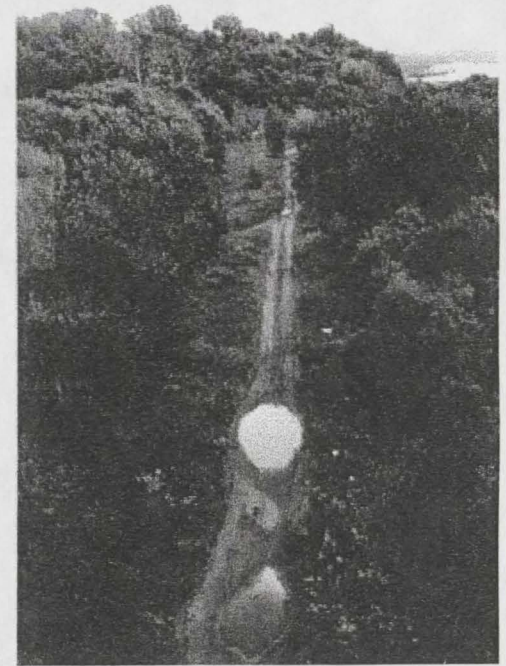
Upper right, a brochure on the wonders of Calcyanide, used by the NPRR in the 1930's and 1940's to control pests. From Northern Pacific company records on file at the Minnesota Historical Society. Recent soil tests by the Minnesota Pollution Control Agency on the site have detected cyanide residues in the area of the old coach maintenance yard.



Tracks and maintenance yard of the Northern Pacific in 1931. View is looking northwest from Dayton's Bluff. A present day view below.



Viewing the site of the former coach maintenance yard from the 3rd Street bridge looking south in 1999. The natural order has reasserted itself as volunteer vegetation runs rampant, swallowing most external evidence of the industrial era that was once the glory of St. Paul. (1999 photos by the author)





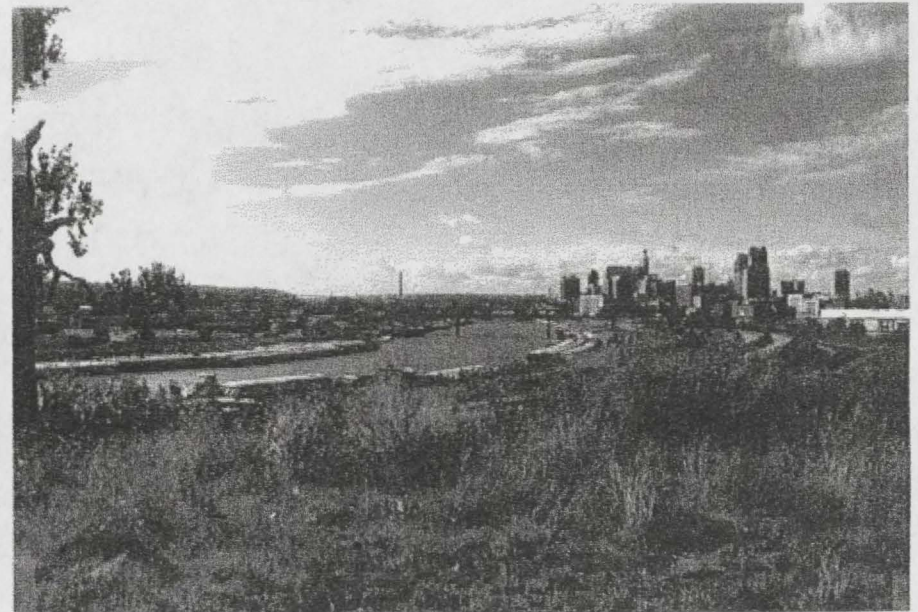
A round house similar to the one below once occupied the space in the center of the present era photo at right. Round houses provided maintenance to steam locomotives between runs and were equipped with a turntable (center) which was used to redirect them to the track of their next assignment. (They were also, according to Watty Piper, social places, where engines could go when they were not busy.)



Looking north, the land between the tracks. The 3rd Street bridge is in the background .

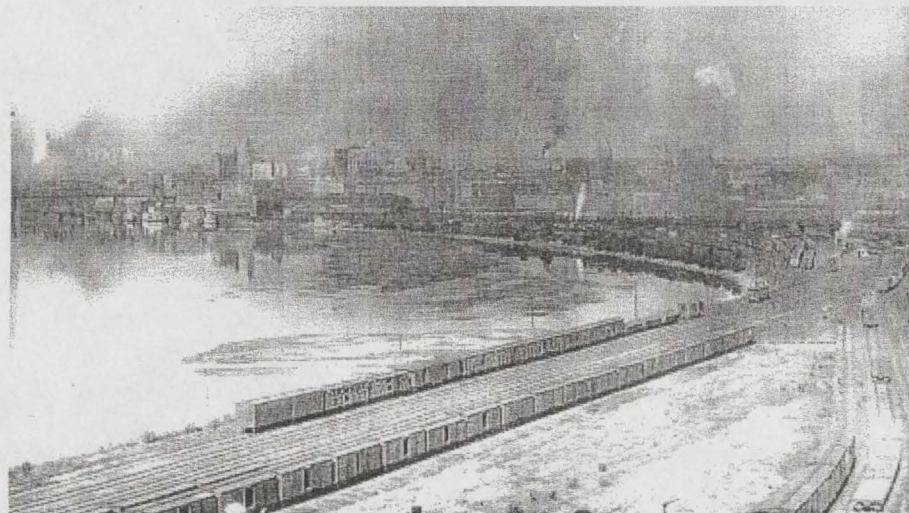


The river channel from Indian Mounds Park, 1910-1914. (MHS photo)

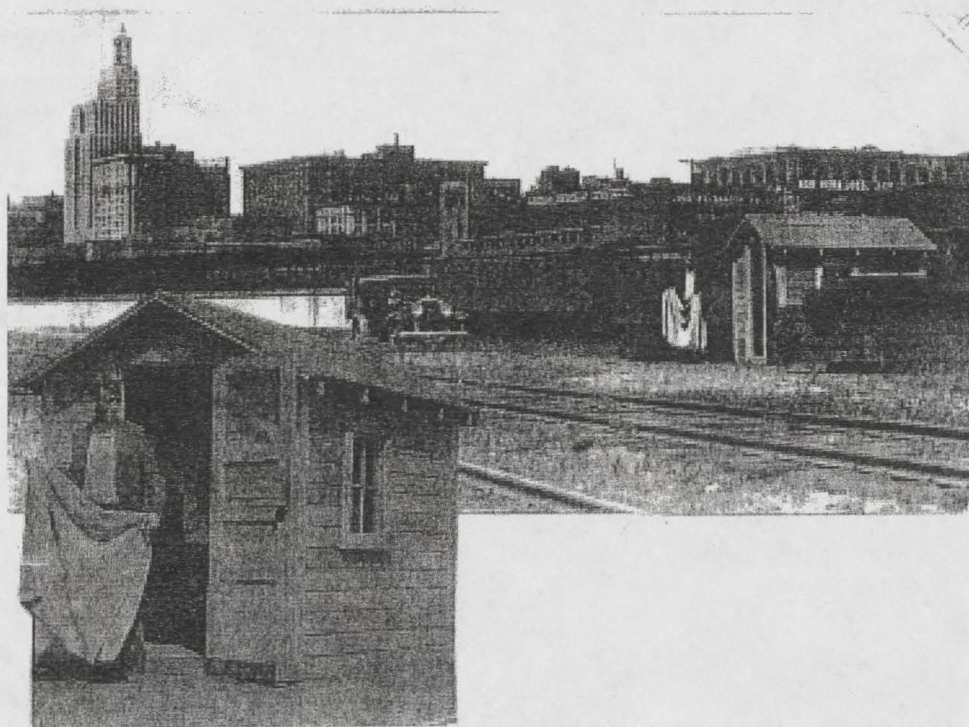


Mississippi River channel from Dayton's Bluff. Photo by author, 1999.

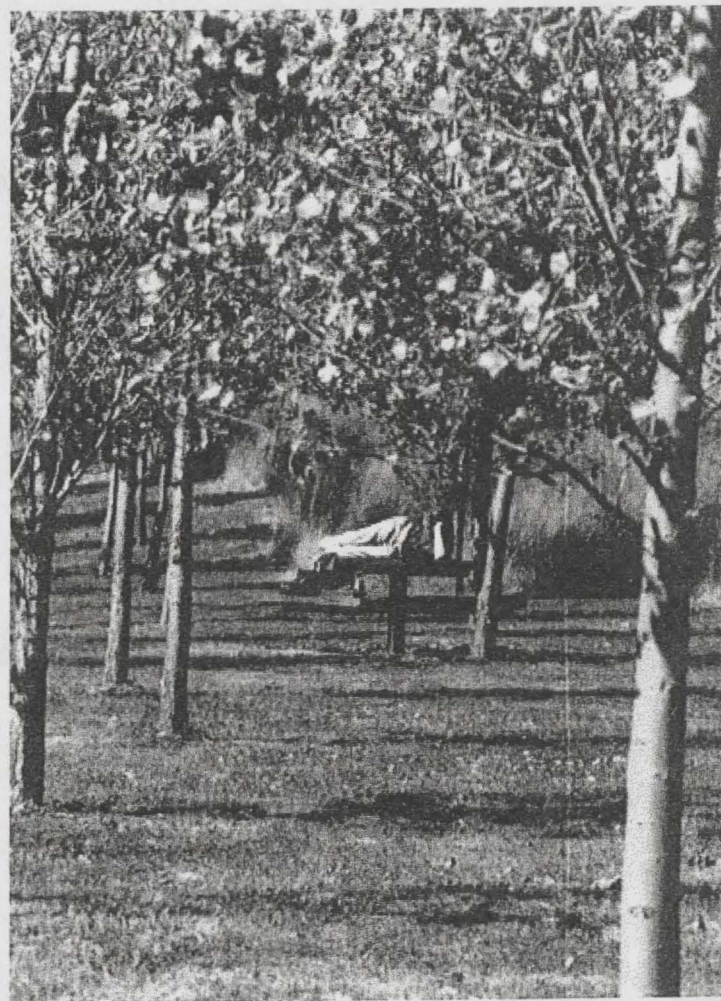
The river channel silting up in 1888. (MHS photo)



The channel of the Mississippi River has narrowed since the arrival of the white man. Space along its banks was filled between 1860 and 1930 to provide more room for railroad tracks. As the railroads declined, some of this space was converted to roadway space. The roadway (Warner and Shepard Roads) have now been moved further inland and the river's edge is being converted to public open space. This, in belated recognition that the river is perhaps the most important recreational amenity in the region as well as the central watercourse and drainage way.



In the 1930's, a "homesteader" claimed over 4 acres of railroad land on grounds that a deed had never been properly filed.



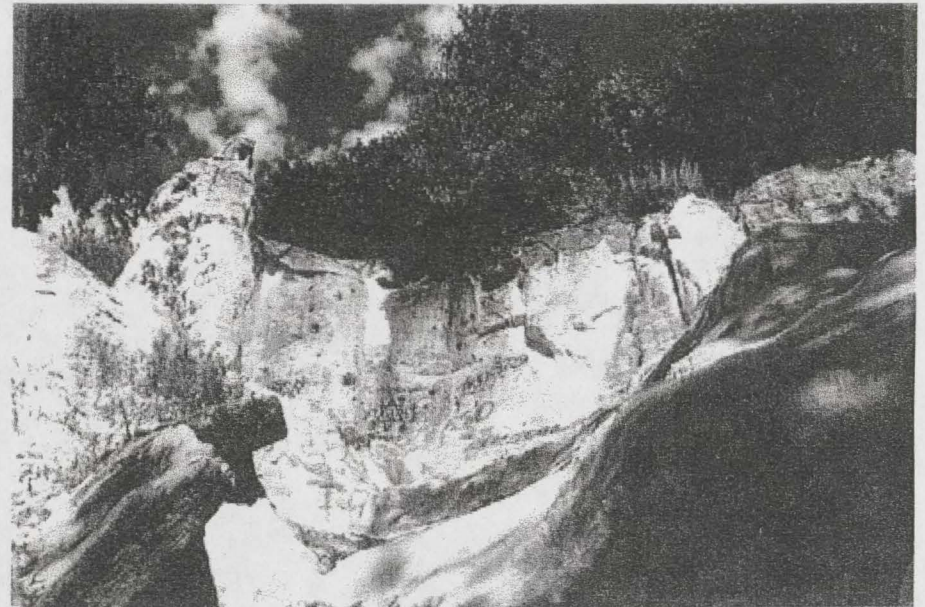
A man rests on a picnic table in the riverfront park adjacent to the Lower (now Lambert's) Landing. (Photo in 1999 by the author)



Above, dumping is a problem at the BN site. Below, the remaining building constructed by Standard Oil in 1914, and unpaved parking area. Photos by the author, 1999.



Above, debris in a cave (not Carvers) beneath the bluff. Below, graffiti painted and carved on limestone bluffs.



The Northern Pacific Coach Maintenance Yard is succumbing, in a way, to natural succession. The reemergence of vegetation may serve to remediate some of the toxic chemical contaminants left by the former maintenance operation. The present landscape, while unkept, is beautifully surreal, with the air of a forgotten formal garden gone to seed. But, of course, the form derives from no intent to garden the land. This is an accidental orchard. Its template a departed ghost.



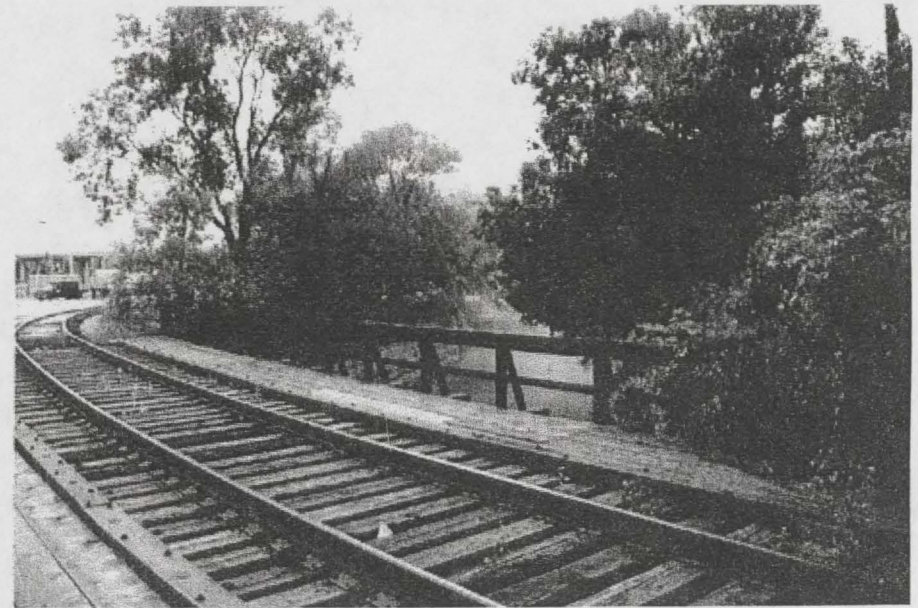
Photos by the author, Fall 1999.



Some historic structures on the site still serve their original function. How long they will remain may depend on the viability of the use to which the site is put in the future. Preservation of built objects that inform the visitor of past types and patterns of activity helps to integrate the past with the future.



*Old retaining wall for former Hoffman Avenue, date unknown.
Railroad bridge over 4th Street underpass. (Photos by author)*



East Meets West

It is interesting to note that the Northern Pacific Railroad chose as its company symbol a variation of the Chinese Monad and Korean Tah-guk. As has been stated often in this historical analysis, one of the driving purposes in crossing the ocean and then the continent that wasn't supposed to be there was to reach the Orient. Though it was not immediately recognized, the people of the orient had already crossed an ocean and become inhabitants of the western hemisphere. The symbol of the monad has been found in burial mounds such as those that still exist on top of Dayton's Bluff. The railroad that traversed a continent to make connection with the orient trade is no longer in operation. Yet, the connection it made and the symbol it adopted - an interaction of opposite or complementary forces - continues to operate and bring into relationship people from opposite sides of the world. In this long search, St. Paul may be like a gold spike, driven into the ground to hold fast a way of bringing them together.



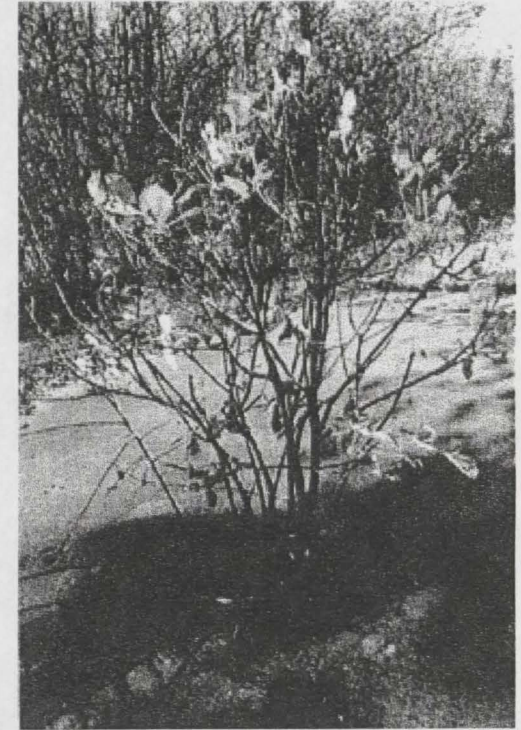
Northern Pacific company logo, taken from the Chinese Monad and the Korean Tah-guk, symbolising Yin and Yang, the Great Extreme or Duality of all existence.



Mounds at Indian Mounds Park.

A Phoenix - Life Arises from Death

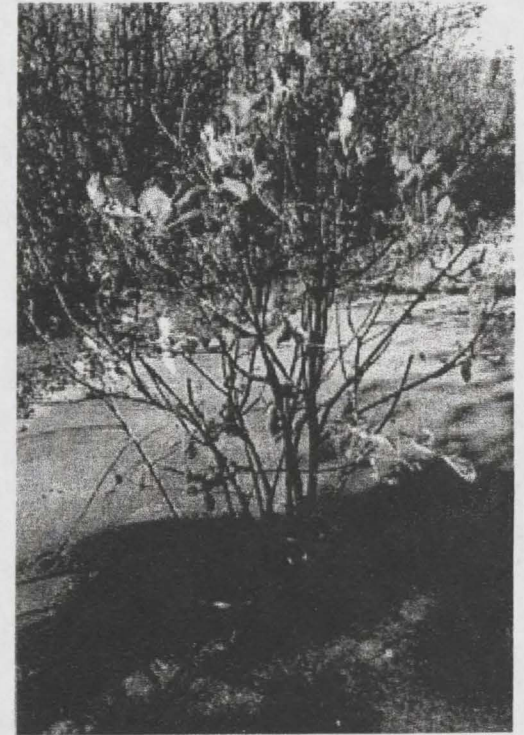
The history of the land between the bluffs is replete with greed, animosity, lies, warfare, death, deception, delusion, and abandonment. It contains great opportunities and great failures. It also contains the Wakon - Tibi, the dwelling of mystery revered by the Dakota, found by Jonathan Carver, and buried under the rubble of railroad construction. Yet, as Nature reasserts itself and overcomes the banishments of previous rulers, the omen of renewal is made visible. *Death, wrote the apostle Paul, is swallowed up in victory!*



*The "Opportuni-tree" sprouting through opening in pavement.
Photo by author, 1999.*

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Photo by author, 1999.*

Footnotes

- 1 - Nancy Woolworth: *An Historical Study and a Cultural Resources Survey of Indian Mounds Park (21RA10) Ramsey County, Minnesota*, Woolworth Research Associates for City of St. Paul, August, 1981.
- 2- Frank Blackwell Mayer: *With Pen and Pencil on the Frontier in 1851*, (diary and sketches), MN Historical Society Press, St. Paul, 1986, p. 131.
- 3- *ibid*, chapter 7, pages 106-7.
- 4- Samuel Pond: *The Dakota or Sioux in Minnesota As They Were in 1834*, MHS Press, St. Paul, 1986, p. 87.
- 5- Woolworth, *ibid*, p. i.
- 6- Mayer, *ibid*, p. 113. Mayer notes the hill "which overlooks their former place of residence."
- 7- Woolworth, *ibid*, p. 19 citing Henry Rowe Schoolcraft's account which places the common meeting place on the flats adjacent to Carver's Cave.
- 8- Minnesota Historical Society: *The Journals of Jonathan Carver 1766-1770*" edited by John Parker, MHS Press, 1976.
- 9- MHS, *ibid*.
- 10- W. C. Fuller: *Carver's Cave "Wakon Toebe the Dwelling of the Great Spirit"* MN Historical Society, 1936, p. 1.
- 11- Minneapolis Tribune article of Sept. 28(?), 1977. "Carver's Cave: Found, rehidden once again"
- 12- Virginia Kumz: *The Mississippi and St. Paul*, Ramsey County Historical Society, St. Paul, 1987, p. 6.
- 13- Francis Miller: *Glimpses of Kaposia - The Village of Little Crow, Over the Years*, Dakota Co. Historical Society, vol. 26, no. 3, 1986
- 14- Virginia Kunz: *St. Paul, the First 150 Years*, The St. Paul Foundation, Research by Jane McClure, 1991, p. 14 quoting J. Fletcher Williams.
- 15- Samuel Pond: *Two Missionaries*, p.281, quoted in introduction to Ponds's reminiscences by Gary Clayton Anderson, p. xvi, published 1986.
- 16- Francis Miller, *ibid*
- 17- Kunz: *St. Paul, the First 150 Years*, p.28.
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- 19- Edward D. Neill: *Explorers and Pioneers of Minnesota in History of Ramsey County and the City of St. Paul*, North Star Publishing, Minneapolis, 1881, p.71.
- 20- Neill: *ibid*, p.
- 21- C. C. Andrews, editor: *History of St. Paul, Minnesota*, D. Mason & Co. Publishers, Syracuse, NY, 1890, p. 41.
- 22- Francis Miller, *ibid*.
- 23- Edward D. Neill: *History of Minnesota*, Arno press edition, New York, 1975, (originally published by Lippincott in Philadelphia, 1858), p. 336.

- 24- Andrews, *ibid*, p.62.
- 25- Kunz: *St. Paul, The First 150 Years*, p. 14, quoting Williams.
- 26- <http://www.daytonabluff.org/LymanDayton>, p.2.
- 27- Richard Prosser: *Rails to the North Star*, Dillon Press, Mpls, p. 8.
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- 29- James P. Shannon: *Catholic Colonization on the Western Frontier*, Yale University Press, Binghamton, NY, 1957, chap. 5
- 30- Smalley, *ibid*, p. 204.
- 31- quoted in *Railroads and the Settlement of Minnesota, 1862-1880*, a Masters Thesis by Harold F. Peterson to the U. of Mn grad school in 1927. Page 1.
- 32- Gordon Iseminger: "Land an Emigration" *North Dakota Quarterly*, Summer 1981, p. 70-92.
- 33- Iseminger, *ibid*, p. 81.
- 34- Shannon, *ibid*, p. 157.
- 35- St. Paul YMCA: *East District Recreational Study/ Historical account of neighborhood ethnic patterns*, 1929, MHS.
- 36- cited in Archeological Report for the East CBD Bypass by the 106 Group, Anne Ketz, p. 4-23.
- 37- William Cronon: *Nature's Metropolis*, W. W. Norton Co., New York, chap. 2, p. 63, 73.
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- 39- Prosser, *ibid*, chap.9.

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