

The Economic Sister Cities of Duluth, Minnesota

EIGHT CITIES · ONE GATEWAY · THE WEALTH THAT PASSED THROUGH

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A Gateway That Didn't Own Its Goods

Philadelphia · Montreal · Chicago · Buffalo
Cleveland · Pittsburgh · New York · the Twin Cities

Who financed Duluth's railroads, priced its wheat,
received its grain, ran its ore trade, owned its mines,
and organized the capital behind them.

THE RANKING

From the shortest hold to the deepest: Philadelphia financed the beginning;
Montreal built the Canadian rival; Chicago set the wheat price and briefly owned
the Vermilion; Buffalo received the grain; Cleveland ran the ore fleets;
Pittsburgh made the steel; New York owned the Mesabi; Minneapolis–St. Paul
organized nearly everything else.

EDWARD J. FOX, PhD

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Introduction: A Gateway That Didn't Own Its Goods

A gateway that didn't own its goods

For most of a century, some of the greatest wealth in North America passed through Duluth. The spring wheat of the Red River Valley and the Dakotas filled its elevators. The ore of the Vermilion and Mesabi ranges, the richest iron deposits in the country, poured through its docks. The white pine of the St. Louis River country was cut behind it. By 1886 Duluth-Superior was the largest wheat shipping port on the Great Lakes. In 1918 the harbor ranked third in the nation in cargo tonnage, behind only New York and Philadelphia; today it ranks in the mid-twenties, though it remains the largest port on the Great Lakes.

Yet very little of that wealth belonged to Duluth. *The Capital of the Northwest* describes the pattern three times over: Jay Cooke's railroad, the Mesabi's ore, and the St. Louis River's pine were each handled in Duluth while the capital behind them was organized somewhere else. The Mesabi, found by a Duluth family and shipped through Duluth's harbor, was financed, owned, and ultimately controlled from New York and Pittsburgh. Duluth received the docks, the railroad jobs, and the tonnage. It did not receive the ownership.

This paper follows that ownership out of Duluth. It asks, city by city, who financed Duluth's commodities, who priced them, who carried them onward, who owned them, and who organized the capital behind them. The answers lead to eight places: Philadelphia, the Canadian ports and Montreal, Chicago, Buffalo, Cleveland, Pittsburgh, New York, and the Twin Cities. Each was, in its own way, an economic sister city of Duluth.

What an economic sister city is

Duluth already has sister cities of the formal kind. Those partnerships are exchanges of friendship: students, officials, and host families traveling between towns that chose each other.

The cities in this paper did not choose Duluth, and Duluth did not choose them. They were bound to it by money and trade. An economic sister city, as this paper uses the term, is a city whose capital, markets, or institutions shaped what happened at the head of Lake Superior: one that financed Duluth's railroads, priced its wheat, received its grain, ran its ore trade, used its ore, owned its mines, or organized the banks that served its merchants. The relationship was rarely equal and never sentimental. In most of these chapters, the sister city took the larger share.

One city belongs to both lists. Thunder Bay, Duluth's first formal sister city, was formed in 1970 from Fort William and Port Arthur, the Canadian ports whose rivalry with Duluth is the subject of Chapter 2. Before the two cities were friends, they were competitors for the same grain.

The ranking

The chapters run from the least important of these cities to the most. The test is how deeply and how long each city shaped Duluth's economy. A city that owned Duluth's resources ranks above one that operated or handled them, and one that operated them ranks above one that only competed with Duluth or received its goods. Among cities of the same kind, a longer hold ranks above a shorter one.

1. **Philadelphia** financed Duluth's first boom through Jay Cooke and its first iron range through Charlemagne Tower. Its hold ended with Cooke's failure in 1873 and Tower's sale in 1887.
2. **Fort William, Port Arthur, and Montreal** built the Canadian rival to Duluth at the head of the lakes, financed and directed from Montreal, which in this period completely overshadowed Toronto.

3. **Chicago** set the world price of wheat and, for about eleven years, owned the Vermilion.
4. **Buffalo** was where Duluth's grain went: the transfer point between the lakes and the East, and a milling center in its own right.
5. **Cleveland** ran the ore trade's operating machinery: the ships, the sales agencies, and the fleets that carried Minnesota ore down the lakes.
6. **Pittsburgh** mined the Mesabi through Oliver, turned its ore into steel, and priced even Duluth's own steel through Pittsburgh Plus.
7. **New York** owned most of the Mesabi, its railroads, and its fleet, first through Rockefeller and then through Morgan's U.S. Steel.
8. **Minneapolis-St. Paul** organized nearly everything else: the railroad that founded Duluth, the grain exchange, the pine, the banks, and the Federal Reserve district that joined them.

The ranking is an argument, and each chapter ends by making the case for its city's place. Readers may weigh the cities differently. The order matters less than the pattern it reveals: the higher a city ranks, the more of Duluth's wealth was decided there.

Where this paper comes from

This paper is an addendum to the Upper Midwest Series. *Prairie Fire* compared the region's agrarian revolts. *The Golden River* followed the wheat, from the millstone to the grain elevator and the Great Lakes trade. *The Iron Shore* followed the ore of the Michigan copper country and the Minnesota ranges. *The Capital of the Northwest* followed the money, and argued that Duluth moved commodities while Minneapolis increasingly organized capital. *Common Wealth* followed the working people whose labor made the whole system run.

Each of those papers kept arriving at the same observation from a different direction: the wealth that passed through Duluth was owned, priced, or organized somewhere else. This paper takes that observation as its structure. Instead of following one commodity, it follows the cities where Duluth's commodities were financed and decided.

Much of the material comes from the earlier papers, and some chapters, especially the Twin Cities chapter, rest on them almost entirely. Other chapters, especially those on Chicago, Cleveland, and the Canadian ports, required new research. Every chapter ends with a source note that separates what comes from the earlier papers from what comes from new sources.

Source note

From the author's papers

- *The Capital of the Northwest*: the three cases of Cooke's railroad, the Mesabi, and the pine; the Mesabi "financed, owned and ultimately controlled from New York and Pittsburgh"; the docks, jobs, and tonnage that Duluth kept; and the gateway thesis.
- *Prairie Fire*, *The Golden River*, *The Iron Shore*, and *Common Wealth*: the descriptions of the series.

From the paper's chapters

- Duluth-Superior as the largest wheat shipping port on the Great Lakes by 1886 (Chicago chapter), and the summaries of each city's role.

New sources

- Thunder Bay as Duluth's first formal sister city, and its formation in 1970: [Perfect Duluth Day](#).
- The port's 1918 rank: [Duluth Seaway Port Authority](#), [Port History](#). The 2023 rank: [BTS data as](#)

summarized by MaritimEducation. Largest port on the Great Lakes: Duluth Seaway Port Authority.

Chapter 1: Philadelphia

The city that paid for the beginning

Duluth's first two ventures in large-scale capital were both financed from Philadelphia. In the late 1860s the banker Jay Cooke made Duluth the eastern terminus of his railroads and turned a settlement of a few families into a city. A decade later the Philadelphia lawyer and coal financier Charlemagne Tower paid to open Minnesota's first iron range and built the railroad that carried its ore to Lake Superior.

The two ventures were connected. Tower bought much of his western land out of the wreckage of Cooke's firm, so Philadelphia money that failed Duluth in 1873 helped open the Vermilion in the 1880s. Both ventures also ended the same way for Philadelphia: Cooke's collapsed, and Tower sold out to Chicago.

Philadelphia ranks as the least important of Duluth's economic sister cities, not because its money mattered little, but because its hold was the shortest. It made Duluth possible and then left it.

Jay Cooke's Duluth, 1868-1873

This section rests on *The Capital of the Northwest*.

Jay Cooke had become the most famous banker in America by selling Union war bonds to ordinary citizens during the Civil War. In the late 1860s he turned his attention to the far end of Lake Superior. He invested in the Lake Superior & Mississippi Railroad, which would connect St. Paul to the lake, and in 1870 he became financial agent for the Northern Pacific, the transcontinental line meant to run from Lake Superior to Puget Sound. Duluth was to be the eastern terminus of both.

The effect was immediate. In 1868 Duluth was home to about fourteen families. By 1870 it had more than 3,000 residents and a city charter. The first train from St. Paul arrived on August 1, 1870. Cooke also financed grain elevators at both ends of the line, including Duluth's Elevator A, the first in the Twin Ports. In 1871 the Kentucky congressman J. Proctor Knott ridiculed the town on the floor of the House, in a speech so widely reprinted that it put Duluth on the national map.

Everything rested on one source of capital. The Northern Pacific required enormous construction spending long before it could earn revenue, and Cooke's firm financed it by selling the railroad's bonds, at 7.3 percent interest, to investors who were growing skeptical. Duluth's first boom was, in effect, a bet placed in Philadelphia.

The crash of 1873

The bet failed. On September 18, 1873, Jay Cooke & Company closed its doors. Its collapse set off the Panic of 1873; the New York Stock Exchange closed for ten days, and the country entered one of the longest depressions in its history.

Duluth, as *The Capital of the Northwest* describes, lost roughly half its population. The Northern Pacific went bankrupt in 1875. In 1877 both the Lake Superior & Mississippi and the city itself were reorganized: the railroad as the St. Paul & Duluth, and the city as a village whose bondholders recovered 25 cents on the dollar. Duluth did not regain city status until 1887, after it had repaid its debt.

The Capital of the Northwest draws the lesson that frames this whole study. Duluth's geography was real, but geography alone did not build a city. Its first rise and its first collapse were both decided by a financial house more than a thousand miles away.

Charlemagne Tower and the Vermilion, 1875-1887

Philadelphia's second venture grew out of the first. Charlemagne Tower had spent twenty-five years in Pottsville, Pennsylvania, as a lawyer and developer of anthracite coal lands and the railroads that served them. In 1875, at sixty-eight, he moved to Philadelphia. According to the Tower-Soudan Historical Society, drawing on Hal Bridges's biography *Iron Millionaire*, Tower came out of the Northern Pacific failure with large grants of western land: he took over large tracts of Jay Cooke & Company's land in Minnesota, North Dakota, and Washington. Cooke's collapse had left Tower liquid, and landed.

That same year a Duluth promoter found him. As *The Iron Shore* describes, Minnesota's iron story passed through several hands: Ojibwe residents showed iron-bearing rock to a government blacksmith in the 1860s, the surveyor George Stuntz investigated it, and the Duluth businessman George C. Stone pursued it. In 1875 Stone brought samples of Vermilion ore to Tower, who sent his own experts, led by the geologist Albert Chester, before agreeing to join Stone and the Michigan mining man Edward Breitung. From that partnership came the Minnesota Iron Company, with Tower as its principal partner and chief financier.

Tower's money did what Duluth could not do for itself. It opened the Soudan Mine, which made Minnesota's first ore shipment in 1884, and it built the Duluth & Iron Range Railroad to carry that ore to docks at Two Harbors. The deep underground mine drew Cornish miners from Michigan's Copper Country, and the town that grew beside it took Tower's name.

Philadelphia's hold on the Vermilion lasted only three years beyond the first shipment. As the Chicago chapter describes, a syndicate led by Henry H. Porter of Chicago wanted Tower's railroad to reach its own ore lands, and threatened to build a competing line when he refused to sell. Tower had no control over the lake shipping that carried his ore east. In 1887 he sold the mines and the railroad together. The Vermilion passed from Philadelphia to Chicago, and eleven years later into Morgan's Federal Steel.

Sources: *The Iron Shore*; Tower-Soudan Historical Society, Charlemagne Tower, citing Bridges, *Iron Millionaire* (1952); Tower-Soudan Historical Society, Soudan Underground Mine; MNopedia, Vermilion Iron Range; the Chicago chapter of this paper for the 1887 sale.

Why Philadelphia ranks least

Philadelphia's capital mattered more to Duluth's beginnings than any other city's. Cooke's money created the town, gave it its first railroad and its first elevator, and put it on the national map. Tower's money opened Minnesota's iron industry and built its first ore railroad. Without Philadelphia, Duluth might have waited another decade to begin.

But Philadelphia's hold was the shortest in this paper. Cooke's Duluth lasted five years, from the first boom to the crash of 1873. Tower's Vermilion lasted three years past its first shipment before it was sold to Chicago. After 1887 no Philadelphia interest owned, priced, or organized any major part of Duluth's economy. Every city in the chapters that follow held on longer.

Philadelphia also shows the pattern of the whole paper in its simplest form. Twice, Duluth's future was decided by a Philadelphia fortune: once when Cooke's firm failed, and again when Tower chose to sell. In neither case did Duluth have a voice.

Source note

From the author's papers

- *The Capital of the Northwest*: Cooke's railroads, Duluth's growth from fourteen families to more than 3,000 residents, the first train on August 1, 1870, Elevator A, Proctor Knott's speech, the 7.3 percent bonds, the failure of September 18, 1873, the 1877 reorganizations, and the 1887 return to city status.
- *The Iron Shore*: Stuntz, Stone, and Tower; the Duluth & Iron Range; the Soudan's first shipment in 1884; and the Cornish miners.

From the paper's other chapters

- The 1887 sale of Tower's properties to Porter's Chicago syndicate, and the passage to Federal Steel (Chicago chapter).

New sources

- Tower's Pottsville career, his 1875 move to Philadelphia, and his acquisition of Jay Cooke & Company's western lands: Tower-Soudan Historical Society, citing Bridges, *Iron Millionaire* (1952).
- Stone's 1875 approach to Tower, Albert Chester's examination, the partnership with Breitung, and Tower's role as chief financier: Tower-Soudan Historical Society; MNopedia.

Chapter 2: Fort William, Port Arthur, and Montreal

The first shipment

The first wheat ever exported from the Canadian prairies passed through Duluth. On October 21, 1876, twelve Manitoba farmers brought about 857 bushels of Red Fife wheat to the riverbank at Winnipeg. A Toronto seed firm, Steele Brothers, had bought it for planting in Ontario. It was sacked, loaded onto the Red River steamer *Minnesota*, and sent south just before the river froze.

There was no Canadian way to get it east. The wheat went by steamer to Fisher's Landing in Minnesota, by rail to Duluth, by lake vessel from Duluth to Sarnia, and by rail to Toronto. The steamer belonged to a company dominated by James J. Hill of St. Paul. In its first shipment, the grain of the Canadian West moved through an American railroad man's boat and an American lake port.

This chapter is about how that changed, and who changed it. Within seven years, a Canadian railway had reached Lake Superior at Port Arthur, and a second head of the lakes began to rise about 150 miles up the north shore from Duluth. The money behind it did not come from Toronto. It came from Montreal, and some of the same Montreal men had just financed Hill's railroad in St. Paul.

Sources: [Manitoba grain elevator study](#); [Manitoba Historical Society](#), John Higgins.

Montreal, not Toronto

A reader today knows Toronto as Canada's financial capital and may assume it always was. For the period this paper covers, it was not. From Confederation to the Depression, Montreal was Canada's New York: its largest city, its main port, and the seat of its money.

The Bank of Montreal, founded in 1817, was the country's first bank and its leading financial institution. Along St. James Street stood the head offices of the banks, insurers, and trust companies that financed Canadian railways, shipping, and industry. The owners of those enterprises built their mansions on the slopes of Mount Royal, in the district later called the Square Mile.

The stock markets tell the same story in numbers. By 1907 the Montreal Stock Exchange ranked among the world's major exchanges. In 1910 its trading came to about \$2.1 million, against about \$900,000 in Toronto. Toronto passed Montreal in trading only in 1934, on the strength of Ontario mining finance, and did not pass it in population until the 1970s.

The distinction matters for Duluth. When Duluth competed with Port Arthur and Fort William, it was not competing with a Canadian counterpart to Minneapolis. It was competing with the capital of Montreal, the one city in Canada that could build a railway across the continent.

Sources: [Montreal Exchange, historical highlights](#); [Rotman School case study](#), [How Toronto Became the Financial Capital of Canada](#); [Canada's History](#), The Associates.

Montreal money in St. Paul, 1878

Montreal's first large investment at the head of the Mississippi was not in Canada at all. It was Hill's railroad.

The St. Paul & Pacific had failed in the Panic of 1873, the same panic that ruined Jay Cooke and Duluth. Its bonds were held in Holland, and its line to the Red River lay unfinished. Hill and his steamboat partner Norman Kittson saw what it could become, but they lacked the money to buy it. Donald A. Smith, the

Hudson's Bay Company's chief officer in Canada, brought in his cousin George Stephen, president of the Bank of Montreal.

In 1878 the four formed George Stephen & Associates, with the New York banker John Stewart Kennedy as a quiet partner. London banks would not lend, so Stephen and Smith secured short-term credit from the Bank of Montreal itself. In Montreal it was widely rumored that Stephen had used his position to borrow at preferred rates on thin collateral. The line was reorganized as the St. Paul, Minneapolis & Manitoba, and in 1890 it became the Great Northern.

So the capital behind St. Paul's railroad empire came partly from Montreal. That fact belongs to the Twin Cities chapter as well as this one. Here it sets up the break that followed.

Sources: [Canada's History](#), [The Associates](#); [Dictionary of Canadian Biography](#), [George Stephen](#); [Dictionary of Canadian Biography](#), [James Jerome Hill](#).

The break of 1883

The same partners then built the Canadian Pacific, and on the question of Lake Superior they split. Stephen became the CPR's first president, Smith drove its last spike, and Hill sat on its original board. Hill wanted the new line to dip into the United States and connect with his Manitoba road. That would have kept western Canada's traffic flowing through Minnesota.

Ottawa and the Montreal partners wanted a line built entirely in Canada, across the rock and muskeg of the north shore. Hill argued that such a line would be ruinously expensive to build and would lose money to run. He lost. His grievances ran deeper than the route: he objected when Stephen had the Manitoba road buy a Canadian line to protect the CPR's monopoly, and he resented pledging his own shares for CPR loans. On May 3, 1883, he resigned from the CPR board.

For Duluth, this was the decisive moment of the chapter. Had Hill won, Canadian grain might have kept moving south through Minnesota for decades. Because the Montreal side won, the Canadian West would ship its wheat from a Canadian port on Lake Superior.

Sources: [Dictionary of Canadian Biography](#), [James Jerome Hill](#); [The Canadian Encyclopedia](#), [James Jerome Hill](#); [Creston Museum](#), [Railway Wars in the Kootenays](#).

A second head of the lakes

The CPR line from Winnipeg to Port Arthur opened in 1882, and grain began arriving by train in 1883. That fall, the first grain bound overseas was gathered at Winnipeg and sent by rail to Port Arthur. In 1884 the CPR began building its first terminal elevator there, the King elevator, which held about 350,000 bushels.

The route that followed ran through Montreal at both ends. Grain arrived at Port Arthur and Fort William by train and left by ship, down the Great Lakes and the St. Lawrence to Montreal and the world market. For roughly a century, from the 1880s to the 1980s, almost all Prairie grain took that path. The railway that fed it was run from Montreal, financed by Montreal's bank, and answered to Montreal's directors.

Montreal milling capital followed the railway. The first flour mill at Fort William, with its own terminal elevator, was built by the Ogilvie company, a Montreal syndicate. The boom years came between 1896 and 1914, as settlement filled the Prairies. By 1929 the two ports had 32 elevators holding 88.5 million bushels.

This was the pattern the paper traces in Duluth, reproduced on Canadian soil. A lake port handled a vast western resource, while the ownership and the decisions sat in a distant city. For Port Arthur and Fort William, the distant city was Montreal.

Sources: [Parks Canada](#), [Grain Transshipment at the Lakehead](#); [Manitoba Historical Society](#), [the Prairie Sentinels](#); [Friends of Grain Elevators](#), [timeline](#).

What it meant for Duluth

The CPR ended the Minnesota connection. Before 1883, Manitoba's small surpluses moved south along the Red River, as the first shipment had. Afterward, as Winnipeg became the key city of the Canadian West, its grain funneled to the Canadian shore of Lake Superior instead. A tariff reinforced the border: an American duty of twenty cents a bushel limited Manitoba's shipments into the neighboring states.

Hill answered on his own side of the line. Shut out of the Canadian route, he pushed his Manitoba road west on American soil. He also extended it to Superior, Wisconsin, where he opened a grain terminal and a line of modern lake steamers. The Twin Ports' grain trade would draw on the American Northwest: Minnesota, the Dakotas, and later Montana.

The two heads of the lakes then grew up as mirror images. As *The Golden River* describes, by the 1920s Duluth-Superior was the primary western terminal where prairie and Red River Valley wheat met the lakes. Port Arthur and Fort William played the same role for the Canadian Prairies, with the Winnipeg Grain Exchange serving as the northern twin to Minneapolis, as *Prairie Fire* puts it. Each port handled a wheat country's harvest. Neither controlled the capital behind it.

For Duluth's history, the lesson is that its hinterland had a hard northern edge, and Montreal drew it. The boundary that shaped Duluth's grain trade was not only the forty-ninth parallel. It was the decision, made in Montreal and Ottawa, to build a Canadian railway around Lake Superior rather than through Minnesota.

Sources: [Manitoba grain elevator study](#); [Manitoba History, Imports and Exports 1870-1890](#); [Dictionary of Canadian Biography](#), James Jerome Hill.

Coda: after Montreal

Toronto's rise came after the pattern at Port Arthur and Fort William was set. Its financial strength grew from mining: Toronto became the center for financing Canada's mineral wealth. The Depression hit Montreal especially hard, and in 1934 trading volume on the Toronto Stock Exchange passed Montreal's for the first time. Toronto never gave the lead back, though Montreal remained Canada's financial capital for some years after.

By then the two ports had run on Montreal's railway and Montreal's bank for half a century. Toronto's later dominance does not change who built the second head of the lakes, and reading it back into the 1880s would miss the chapter's point.

One more change reshaped both ports. As *The Golden River* describes, the St. Lawrence Seaway opened in 1959. A ship could now load wheat at Fort William or Port Arthur and sail straight to Liverpool or Rotterdam, bypassing Buffalo's transfer docks entirely. Duluth's own Julius Barnes had campaigned for such a channel for more than three decades. He died in April 1959, weeks before it opened. The Seaway made both heads of the lakes ocean ports.

Sources: [Montreal Exchange, historical highlights](#); [Rotman School case study](#); *The Golden River*, Chapter 5.

Source note

Most of this chapter is new research. The parts drawn from the author's earlier papers are few but load-bearing.

From the author's papers

- *The Capital of the Northwest*: the Panic of 1873 and Jay Cooke's collapse in Duluth, and this paper's organizing idea that Duluth handled resources whose capital was organized elsewhere.
- *The Golden River*, Chapters 4 and 5: Duluth-Superior as the primary western grain terminal by the

1920s; the Seaway's opening in 1959, the Fort William and Port Arthur example, and Julius Barnes.

- *Prairie Fire*: the Winnipeg Grain Exchange as the northern twin to the Minneapolis Chamber of Commerce.

New sources

- The 1876 first shipment through Duluth: Manitoba grain elevator study; Manitoba Historical Society.
- Montreal's financial standing and the 1934 turning point: Montreal Exchange history; Rotman School case study.
- The Associates of 1878 and the Bank of Montreal financing: Canada's History; Dictionary of Canadian Biography entries for Stephen and Hill.
- Hill's 1883 resignation and his Superior terminal: Dictionary of Canadian Biography; The Canadian Encyclopedia; Creston Museum.
- The Port Arthur and Fort William elevators and the Ogilvie mill: Parks Canada; Manitoba Historical Society; Friends of Grain Elevators.
- The twenty-cent tariff: Manitoba History, Imports and Exports 1870-1890.

Chapter 3: Chicago

The city Duluth measured itself against

In the 1880s, Duluth passed Chicago as the leading handler of wheat. For a city that had lost its charter after 1873, it was a remarkable reversal. Chicago was the greatest grain market in the world, and Duluth had overtaken it in the one commodity that mattered most to the Northwest.

Yet Duluth never became Chicago, and the reason is the subject of this chapter. Chicago's power over Duluth did not come from moving more grain. It came from setting the price of grain, and later from owning the iron ore that Duluth's railroads carried. Duluth could win the tonnage. Chicago kept the market and a share of the ore.

Chicago ranks third among Duluth's economic sister cities. Its influence was real and lasting, but narrower than that of the cities in later chapters. It was a rival first, and an owner only for a short time.

Source: William Cronon, lecture notes on farms and markets.

The grain rival

Chicago built the modern grain trade. By the early 1850s it was the greatest primary grain market in the world, and no other city received half as much grain. Its Board of Trade, founded in 1848, created a grading system in 1857 that let grain from many farms be stored together and sold by grade. Once grain could be bought and sold as a standard commodity, traders could contract for future delivery, and the first true futures market grew up in Chicago. As *Prairie Fire* notes, the northern farmer sold into a world market whose price was set in Liverpool and Chicago.

Duluth came to the grain trade late and grew fast. The Northern Pacific brought Red River Valley wheat to Rice's Point in the late 1870s. Duluth received an average of 1.7 million bushels a year from 1876 to 1880, and 9.2 million a year from 1881 to 1885. In January 1881, eight Duluth businessmen incorporated the Duluth Board of Trade. The new Sault lock opened larger ships to Lake Superior, and by 1886 Duluth-Superior was the largest wheat shipping port on the Great Lakes.

Duluth had real advantages. Its terminals let ships load directly, with shorter turnarounds than in crowded Chicago. And it sat at the end of the shortest haul from the new spring-wheat country. By the 1880s the wheat frontier had moved north and west, into country closer to Lake Superior than to Lake Michigan.

But volume did not make Duluth a price-setter. The Duluth Board of Trade became an important market, yet Chicago remained the place that set world prices for wheat. Minneapolis, as *The Golden River* describes, built its own exchange in 1881 and became the principal market for hard red spring wheat. Duluth handled the grain between those two poles, the way it handled so much else: as the gateway, not the counting house.

Sources: Cronon, lecture notes; The History People, Duluth Board of Trade Building; St. Louis River Alliance, post-industrial history; Duluth News Tribune, a historical view; University of North Dakota, The Great Dakota Boom.

Chicago capital on the Vermilion, 1887

Chicago's first hold on Duluth's iron came three years after the first ore left Minnesota. As *The Iron Shore* describes, Charlemagne Tower of Philadelphia financed the Vermilion Range and its railroad, and the Soudan Mine made its first shipment in 1884. His Minnesota Iron Company ran the mines, and his Duluth & Iron Range Railroad carried the ore to docks at Two Harbors.

By 1887, a syndicate had bought ore lands north of Tower and wanted his railroad to reach them. Its leading figure was Henry H. Porter, a Chicago railroad executive tied to the Union Steel works. Accounts differ on its other backers, with some placing them in Chicago and others in the East. When Tower refused to sell, the syndicate let it be known that it would build a second railroad beside his and compete directly. Tower had no control over the lake shipping that carried his ore east, and much of it answered to the same eastern and midwestern steel interests. He divided his holdings into the mines and the railroad, required any buyer to take both, and sold. Reported prices vary, from about \$6.4 million to \$8.5 million.

A note on names matters here. Many accounts say that Illinois Steel bought the Duluth & Iron Range in 1887, but the Illinois Steel Company did not yet exist. It was formed in 1889 by consolidating three Chicago-area firms: the North Chicago Rolling Mill, the Union Iron Company, and the Joliet Steel Company. The buyers of 1887 were the Chicago interests who would form it two years later.

Under Chicago ownership the Vermilion properties grew quickly. The railroad reached Ely in 1889 to serve the Chandler Mine and pushed a line toward the new Mesabi Range in 1890. Its shipments passed a million tons in 1892, and five ore docks stood at Two Harbors by 1895.

Sources: MNHS, Duluth, Missabe and Iron Range Railway records; Tower Soudan Historical Society; Mesabi Tribune, Charlemagne Tower Sr. and Jr.; Missabe Railroad Historical Society, corporate history; Illinois Steel Company.

From Chicago to Morgan

Chicago's ownership of the Vermilion lasted about eleven years. Illinois Steel became the largest steel producer in the United States, but it struggled through the depression of the 1890s. Meanwhile, as *The Iron Shore* and *The Capital of the Northwest* describe, the Mesabi opened in 1890 and passed to Rockefeller, Oliver, and Carnegie. Chicago's steelmakers now faced Pittsburgh rivals with their own Minnesota ore.

The answer came from New York. In September 1898, J. P. Morgan organized the Federal Steel Company, a New Jersey holding company, and made Elbert H. Gary, Illinois Steel's general counsel, its president. Federal Steel took in Illinois Steel, the Lorain Steel Company of Ohio, the Johnson Company of Pennsylvania, the Elgin, Joliet & Eastern Railway, and the Minnesota Iron Company.

The federal government's 1911 antitrust petition against U.S. Steel describes what Minnesota Iron brought with it. It owned or leased about 40,000 acres of mineral land in Minnesota. It controlled the Duluth & Iron Range Railroad, the Minnesota Dock Company, and the Minnesota Steamship Company, whose fleet numbered nine steel steamers and seven steel barges. The same petition charged that Federal Steel's stock exceeded the value of its properties by at least \$20 million.

In 1901, Federal Steel was merged with Carnegie Steel to form United States Steel. The Vermilion's mines and railroad, first financed from Philadelphia and then bought by Chicago, now belonged to Morgan's corporation, with a Chicago lawyer at its head. Gary's name went on the steel city U.S. Steel built in Indiana, and, as *The Capital of the Northwest* notes, Morgan's on the company town beside the Duluth steel plant.

Sources: *United States v. U.S. Steel*, petition, October 27, 1911; Illinois Steel Company; Encyclopedia of Milwaukee, North Chicago Rolling Mill and Illinois Steel; FundingUniverse, U.S. Steel history.

Why Chicago ranks third

Chicago shaped Duluth in two ways, and neither lasted as long as the influence of the cities in later chapters.

In grain, Chicago was a rival that Duluth partly beat. Duluth took the tonnage of the northern wheat trade

in the 1880s and held a large share of it for decades: between 1919 and 1935, nearly a fifth of all grain shipped on the Great Lakes passed through Duluth-Superior. What Chicago kept was the price. It remained the place where the world's wheat was valued, and Duluth's grain moved under that price, with Minneapolis as a second pole closer to home.

In iron, Chicago was an owner for a short time. Its capital held the Vermilion from 1887 to 1898 and extended the railroad toward the Mesabi. Then the properties passed into Morgan's Federal Steel and, three years later, into U.S. Steel. The decisive owners of Minnesota's iron, as the chapters on Pittsburgh and New York will show, were elsewhere.

Chicago therefore ranks above Philadelphia, whose hold on Duluth ended in 1873 and 1887, and above the Canadian ports, which competed with Duluth rather than owning any part of it. It ranks below Buffalo, Cleveland, Pittsburgh, New York, and the Twin Cities, each of which shaped Duluth's economy for longer or more deeply.

For Duluth's history, the Chicago chapter carries a simple lesson. Handling the most grain did not make Duluth the grain capital, and Chicago's purchase of the Vermilion did not keep the Vermilion in Chicago. In both commodities, control moved to where the price was set or the capital was pooled.

Source note

The author's papers touch Chicago only in passing, so most of this chapter is new research.

From the author's papers

- *Prairie Fire*: the northern farmer's world price set in Liverpool and Chicago.
- *The Golden River*, Chapter 3: the Chicago Board of Trade and Minneapolis Chamber of Commerce as grading institutions, and the founding of the Minneapolis exchange in 1881.
- *The Iron Shore*: Charlemagne Tower, the Duluth & Iron Range, and the Soudan's first shipment in 1884; the Mesabi's opening.
- *The Capital of the Northwest*: Duluth's loss of its charter after 1873, the Mesabi's passage to Rockefeller, Oliver, and Carnegie, and Morgan Park.

New sources

- Duluth passing Chicago in wheat in the 1880s, Chicago's grading system and futures market: William Cronon's lecture notes, drawing on *Nature's Metropolis*.
- Duluth's grain receipts, 1876-1885: University of North Dakota, *The Great Dakota Boom*.
- The Duluth Board of Trade, 1881: The History People; University of Minnesota Duluth archives.
- Duluth-Superior as the leading Great Lakes wheat port by 1886, and its share from 1919 to 1935: St. Louis River Alliance.
- The 1887 sale of Tower's properties: MNHS finding aid; Tower Soudan Historical Society; Mesabi Tribune.
- Illinois Steel, Federal Steel, and the Minnesota Iron Company's holdings: the 1911 federal antitrust petition; Encyclopedia of Milwaukee; company histories.

Chapter 4: Buffalo

The other end of the lake

For most of a century, much of the wheat that left Duluth by water was bound for Buffalo. Duluth was the western terminal of the Great Lakes grain trade, and Buffalo was its eastern one. The two cities rose and fell together on the route between them.

Buffalo did not own Duluth's grain, finance its elevators, or set its price. Its hold was geographic. Niagara Falls blocked any direct water route from the upper lakes to the Atlantic, so the grain had to stop in Buffalo, be lifted out of the lake boats, and move on by canal or rail. As *The Golden River* puts it, that forced transfer was the entire economic engine behind Buffalo's elevators, rail yards, and flour mills.

Buffalo ranks fourth among Duluth's economic sister cities. It was less a master than a partner: the city at the other end of the rope, whose fortunes followed Duluth's tonnage and whose decline, after 1959, foretold changes that would reach Duluth too.

The transfer point

Buffalo's place in the grain trade began with the Erie Canal. When the canal opened in 1825, it gave Great Lakes wheat a continuous water route to New York City, and Buffalo sat at its western end, where lake traffic had to stop and transfer to canal boats. Grain receipts at Buffalo rose from roughly 112,000 bushels before the canal to some two million bushels within a decade.

The canal solved the problem of movement, but not the problem of transfer. Every bushel still had to be carried by hand from ship to barge. In 1842 a Buffalo merchant, Joseph Dart, and a Scottish-trained engineer, Robert Dunbar, attacked that bottleneck with a steam-powered marine leg: a movable arm carrying a belt of buckets that lifted grain straight out of a ship's hold. Dart's elevator opened in June 1843 and handled 229,260 bushels in its first year, working nearly seven times faster than a crew of men.

The idea spread within four years, and within fifteen Buffalo was the largest grain-shipping port in the world. By 1888, the Western Elevating Company alone moved more than 85 million bushels a year through the port. Dart's marine leg was the ancestor of every elevator that later rose at Duluth and Superior, including the concrete ones of the 1900s.

So the grain trade Duluth joined in the 1870s was already built around Buffalo. Duluth's elevators were designed to fill lake boats, and Buffalo's to empty them. The two ports were halves of one machine.

Source: *The Golden River*, Chapter 2 and Chapter 4.

The lake run: Hill's line from Duluth to Buffalo

The clearest link between the two cities was built by a St. Paul railroad man. James J. Hill had invested in eastern railroads with terminals in Buffalo, and he wanted to connect them by water with his railroad's terminal at the head of Lake Superior. He also saw a threat: rival railroads were trying to pool their Buffalo elevators and raise the fees charged to other lines. Hill moved first. He formed the Great Northern Elevator Company to build an elevator and dock in Buffalo, and on June 12, 1888, he incorporated the Northern Steamship Company.

The company's stock, \$1.5 million, was almost all owned by his St. Paul, Minneapolis & Manitoba Railway. Six identical package freighters, built in Cleveland for \$220,000 each, made their first voyages in 1889. Trips between Buffalo and Duluth took twelve to eighteen days, with stops at Cleveland, Detroit, the Soo, and Houghton.

The freight ran both ways, and its pattern shows what each city was to the other. Westbound, the boats carried merchandise from the East: goods for Duluth's wholesale houses, such as Chapin Wells Hardware, Wells Stone Mercantile, and Stone and Ordean, and much more for the Twin Cities and beyond. In April and May 1892, of 2,929 tons carried west, 664 were for Duluth merchants and 2,181 for the Twin Cities and points west. Eastbound, the same boats hauled prairie wheat to the mills of Buffalo: 939,000 bushels in 1889, and 1.2 million in 1890.

Hill's Buffalo elevator went up in 1897. Built by the Great Northern Railway in about six months and designed by its bridge engineer, Max Toltz, it held about 2.5 million bushels and was among the first electrically powered elevators. Four years later Toltz built a larger one, of about 3 million bushels, for the Great Northern at West Superior. The two elevators stood at opposite ends of one railroad's lake route.

Hill kept the freight line until 1903, when Hill's company sold the six freighters to the Eastern Trunk Lines for \$2.8 million, and they ran on as the Mutual Transit Company. But the pattern held for decades: eastern goods came west through Buffalo to Duluth, and western grain went east through Duluth to Buffalo.

Sources: [National Museum of the Great Lakes, Workhorses and White Flyers](#); [Buffalo Architecture and History](#), [Great Northern Elevator](#); [Historic American Engineering Record, Great Northern Elevator](#); [Preservation Ready](#), [Great Northern Grain Elevator](#).

Buffalo milling: Northwest wheat, Minneapolis money

In 1930, Buffalo passed Minneapolis as the country's leading flour-milling center, producing about 11 million barrels a year to Minneapolis's 10.8 million. Buffalo had cheap hydroelectric power from Niagara Falls, was closer to eastern and foreign markets, and enjoyed favorable rail rates. Its wheat came down the lakes from Lake Superior ports, American and Canadian; after World War I, federal trade rules drew mills toward cities well placed to grind Canadian wheat.

But the mills themselves were largely Minneapolis property. Washburn-Crosby built its first Buffalo mill in 1903 or 1904, and Pillsbury followed. By 1927 the two Minneapolis firms held 52 and 26 percent of Buffalo's flour capacity. Minneapolis remained the headquarters of the nation's two leading millers even after its own mills declined. Their capital investment, in the Minnesota Historical Society's phrase, powered Buffalo's rise.

The arrangement brings the paper's pattern into sharp relief. Wheat grown in the Northwest moved through Duluth's elevators and down the lakes to be ground in Buffalo, in mills owned from Minneapolis. Duluth handled the grain, Buffalo handled the grinding, and the Twin Cities held the ownership. Buffalo's rise was, in a real sense, a Minneapolis strategy carried out at the far end of Duluth's lake route.

As *The Golden River* describes, Buffalo's milling industry, once among the largest in the world, withered after the Seaway. Some of the large mills, though, ran for decades more. One local marker holds that Buffalo kept its title as a milling center until the ConAgra mill closed in 2006.

Sources: [Minnesota Historical Society, Minneapolis flour milling boom](#); [MNopedia, Minneapolis flour-milling industry during World War I](#); [Historical Marker Database, Buffalo's grain legacy](#); [Western New York Heritage, the City Ship Canal and General Mills](#).

The Seaway and after

The St. Lawrence Seaway, opened in June 1959, cut the rope between the two cities. As *The Golden River* describes, Buffalo's business leaders had seen it coming. In 1932, when the first Seaway treaty was signed, the president of Buffalo's Corn Exchange warned that it would make Buffalo a side port to the commerce of the Great Lakes. He was right. Before 1959, more than two hundred million bushels of grain reached Buffalo in a good year; afterward the total never again topped one hundred million. Rail shipments of grain

out of Buffalo fell from 7.5 million bushels in 1958 to 73,600 in 1964.

For Duluth, the same event looked like a victory. Julius Barnes, the Duluth grain merchant who had campaigned for a deep-draft channel for more than three decades, wanted Lake Superior wheat to reach Liverpool and Rotterdam without touching a transfer dock. That is exactly what the Seaway allowed. A ship could load at Duluth or Superior and sail to Europe without stopping in Buffalo.

The two cities' fates diverged, but only for a time. Duluth-Superior's grain trade had a late revival in the 1970s, driven by Soviet grain purchases, and reached a peak of roughly 13.9 million metric tons in 1978. It proved the twin ports' last great harvest. Unit trains and rail deregulation after 1980 let grain move directly from the northern Plains to the Pacific Northwest and the Gulf, bypassing the Great Lakes altogether. Buffalo's decline came first, but the same logic, a cheaper route around the old gateway, reached Duluth twenty years later.

Today Buffalo's concrete elevators still line the Buffalo River, the largest concentration of grain elevators in one place anywhere in the world. At the other end of the lakes, Duluth and Superior still load grain, though far less than at their peak. The two waterfronts remain the two ends of one machine.

Source: *The Golden River*, Chapters 5 and 6.

Why Buffalo ranks fourth

Buffalo ranks above Chicago because its tie to Duluth was longer and closer. Chicago was Duluth's rival in grain and briefly an owner of Minnesota iron. Buffalo was Duluth's partner for about eighty years, from the late 1870s to 1959: the other half of the machine that moved Northwest wheat to the East and to Europe, and the port through which eastern goods came west to Duluth's wholesalers.

Buffalo ranks below Cleveland, Pittsburgh, New York, and the Twin Cities because it never controlled anything at Duluth. It owned no mines, financed no railroads, and set no prices there. Even its own great mills were largely owned from Minneapolis, and the most direct link between the two ports, the Northern Steamship line and its Buffalo elevator, was built by a St. Paul railroad.

Buffalo's lesson for Duluth's history is the fragility of a gateway. Buffalo prospered because geography forced every bushel to stop there, and it declined the moment the Seaway removed that necessity. Duluth's grain trade rested on the same kind of geographic necessity, and the unit trains of the 1980s showed that it, too, could be routed around.

Source note

This chapter leans heavily on *The Golden River*. The new material is concentrated in two sections: Hill's lake line and Buffalo milling.

From the author's papers

- *The Golden River*, Chapter 2: the Erie Canal, Buffalo's grain receipts before and after 1825, Dart and Dunbar's marine leg, the first year's 229,260 bushels, and the Western Elevating Company's 85 million bushels in 1888.
- *The Golden River*, Chapter 4: the division of labor among Minneapolis, Duluth-Superior, and Buffalo by the 1920s.
- *The Golden River*, Chapter 5: the Seaway, the 1932 Corn Exchange warning, Buffalo's collapse in grain receipts and rail shipments, its surviving elevators, and Julius Barnes.
- *The Golden River*, Chapter 6: the 1970s revival, the 1978 peak, and the unit-train era.

New sources

- The Northern Steamship Company, its freight, and its Buffalo terminal: National Museum of the Great Lakes, *Inland Seas*, drawing on the company's records at the Minnesota Historical Society.
- The Great Northern Elevator in Buffalo and its West Superior counterpart: Buffalo Architecture and History; Historic American Engineering Record; Preservation Ready.
- Buffalo passing Minneapolis in flour milling, and Minneapolis ownership of Buffalo's mills: Minnesota Historical Society; MNopedia; Western New York Heritage; Historical Marker Database.

Chapter 5: Cleveland

The operating capital of the ore trade

If New York and Pittsburgh owned Minnesota's iron, Cleveland ran it. The ships that carried ore from Duluth and Two Harbors, the agents who sold it, the managers who scheduled the fleets, and the docks that received it on Lake Erie were, to a remarkable degree, Cleveland's. So was much of the expertise: Cleveland men had been mining and shipping Lake Superior ore for forty years before the Mesabi opened.

The Capital of the Northwest argues that the capital behind the region's iron was organized elsewhere, in New York and Pittsburgh. This chapter adds a third center. Ownership sat in New York and Pittsburgh, but much of the working machinery of the ore trade was organized in Cleveland, and even John D. Rockefeller, when he took the Mesabi, ran it through Cleveland men he had known since high school.

Cleveland ranks fifth among Duluth's economic sister cities: below the cities that owned Duluth's resources outright, but above those that only competed with it or received its goods.

Cleveland owned the Michigan ranges first

Lake Superior iron was a Cleveland business long before it was a Duluth one. On November 9, 1847, fifteen Cleveland men formed the Cleveland Iron Mining Company to explore the ore of Michigan's Upper Peninsula. Samuel Livingston Mather, a lawyer who had moved to Cleveland in 1843, was its leading force for its first fifty years. The company sent the first cargo of ore through the Sault Ste. Marie canal in 1855, built railroads and docks, and in 1869 started its own fleet of ore carriers, which were shipping 200,000 tons a year by 1880.

In 1891 Cleveland Iron merged with the Iron Cliffs Company to form Cleveland-Cliffs, then the leading mining company on the Marquette Range. A rival house had formed in 1883, when Mather's eldest son, Samuel Mather, joined James Pickands and Jay Morse in Pickands Mather & Co. Pickands had spent years in Marquette, where he opened a hardware store supplying the mining companies and served as mayor. During the 1880s and 1890s Pickands Mather became a sales agent in the new ranges of Wisconsin and Minnesota and began managing docks and buying steamship companies.

A third house belonged to the Hanna family, through M. A. Hanna & Co. Together these Cleveland firms dominated the ore trade on the Great Lakes, controlling, by one account, 80 percent of the ore vessels on the lakes, as well as massive tracts of ore land.

So when the Mesabi opened in 1890, the men who knew how to mine Lake Superior ore, sell it, and ship it were already in Cleveland. Duluth's new range entered a trade whose operating center was at the other end of the lakes.

Sources: [Encyclopedia of Cleveland History](#), [Cleveland-Cliffs](#); [Iron and Steel Industry](#); [Pickands Mather & Co.](#); [James S. Pickands](#).

The Central High circle

The men who would run the ore trade grew up together. Cleveland's Central High School, founded in 1846, was the first free public high school west of the Alleghenies. Its early students included John D. Rockefeller, Marcus A. Hanna, and Samuel Mather.

Rockefeller and Hanna were classmates and became lifelong friends. Hanna's family moved to Cleveland in 1852, when he was about fifteen. He graduated from Central in 1857, married Charlotte Rhodes, and joined her father's firm, which grew to have interests especially in coal and iron and later became M. A. Hanna & Co. Rockefeller married another Central student, Laura Spelman.

The friendship reached from business into national politics. Hanna managed William McKinley's presidential campaigns of 1896 and 1900 and served as a United States senator from Ohio from 1897 until his death in 1904. Rockefeller was reported to have given \$250,000 to the 1896 campaign. That was the same year the Rockefeller, Carnegie, and Oliver interests divided the Mesabi among them.

For Duluth's story, the Central High circle matters because it explains how quickly Rockefeller could run a Minnesota ore business he had acquired almost by accident. He did not need to build an organization. The organization already existed in Cleveland, among men he had known since boyhood.

Sources: [Encyclopedia of Cleveland History](#), [Central High School](#); [Mark Hanna](#); [Teaching Cleveland](#), [Hanna Was at the Forefront](#); [SNAC](#), [Marcus Alonzo Hanna](#).

Running Rockefeller's Mesabi from Cleveland

As *The Capital of the Northwest* describes, Rockefeller took control of the Merritt family's railroad and ore properties by 1894, after the Merritts could not repay what they owed him in the Panic of 1893. He now owned mines, a railroad, and docks at Duluth, organized as the Lake Superior Consolidated Iron Mines. He ran them largely through Cleveland.

The sales went to a Cleveland house. In the 1890s, Oglebay, Norton and Company acted as sales and shipping agent for Rockefeller's Lake Superior Consolidated.

The ships were bought through Samuel Mather. Rockefeller saw the ore business the way he had seen oil refining: overproduction and ruinous competition would break most producers, and whoever controlled transportation could control the trade. In early 1895 he asked Mather to contract with shipbuilders around the Great Lakes for twelve ore freighters. He told Mather bluntly that he could help build the fleet and earn a large commission, or Rockefeller would find someone else. Mather invited bids from every yard he could reach and took the twelve lowest. Rockefeller spent \$3 million on the ships, and in March 1896 he announced the Bessemer Steamship Company.

Cleveland yards built at least some of them. The *Sir William Siemens*, launched in 1896 by Cleveland's Globe Iron Works, was one of three 432-foot freighters that each held the unofficial title of largest on the lakes. Her port of registry was Duluth. A ship built in Cleveland, bought through a Cleveland agent, and owned by a New York oilman carried Duluth's name on her stern.

In 1900 Rockefeller added the fleet of the American Steel Barge Company, about thirty whaleback steamers and barges. When he sold to U.S. Steel the next year, his ships joined others in a fleet of 112 vessels under the Pittsburgh Steamship Company.

Sources: [Samuel Livingston Mather II](#), citing Chernow, *Titan*; [Oglebay Norton Corporation](#); [SS Sir William Siemens](#); [National Museum of the Great Lakes](#), [The Frontier: Handmaiden to Giants](#).

Cleveland's ore houses on the Minnesota ranges

U.S. Steel's Oliver Iron Mining Company dominated the Mesabi after 1901, as *The Iron Shore* and *The Capital of the Northwest* describe. But the independent operators that worked beside it were often Cleveland houses, mining ore for steel companies that did not own their own ranges.

Pickands Mather was the most visible. In 1903 it began production at the Albany Mine near Hibbing, with its miners housed at the Albany location. In 1904 it opened the Scranton Mine, also near Hibbing, under a State of Minnesota lease. The Scranton ran underground for almost twenty years, then as an open pit, and in half a century produced nearly twenty-five million tons of ore, paying the state millions in royalties. Its general manager of mines, Billy Chinn, had started as a blacksmith's helper at the Soudan in 1884.

The Cleveland houses mattered even more in the taconite era. When natural ore ran low, as *The Iron Shore*

describes, commercial taconite production began at Silver Bay and Hoyt Lakes in 1957. Both plants had Cleveland partners. Reserve Mining, at Silver Bay, was a partnership of Oglebay Norton, Cleveland-Cliffs, and the American Rolling Mill Company. Erie Mining, at Hoyt Lakes, was a partnership of Pickands Mather and Youngstown Sheet & Tube. Later, Pickands Mather managed Hibbing Taconite, which opened in 1976 with Bethlehem Steel and Stelco as its main owners.

The line runs to the present. In 2020 Cleveland-Cliffs bought ArcelorMittal's American business, and with it the managing role at Hibbing Taconite on the site of the old Hull-Rust-Mahoning pit. A Cleveland company that began in 1847 on Michigan's Marquette Range now operates on Minnesota's largest open-pit mine.

Sources: [Knight Lab story map](#), [Mesabi Range mines](#); [Mesabi Tribune](#), [Early Days with Pickands Mather](#); [Mesabi Tribune](#), [Mining Begins on the Mesabi](#); [IRRRB 75-year history](#); [Cleveland-Cliffs](#), [Hibbing Taconite technical report](#); [Hull-Rust-Mahoning Open Pit Iron Mine](#).

The other end of the ore run

The ore that left Duluth and Two Harbors mostly came down to the Lake Erie ports, to be moved by rail to the blast furnaces of Ohio and Pennsylvania. At the upper end, loading was already fast: the high timber docks at the head of the lakes let ore fall by gravity through chutes into the holds. At the lower end, unloading was the bottleneck. As late as the 1890s, a lake freighter could lie at a wharf in Cleveland, Sandusky, or Ashtabula for a week or more while gangs of men shoveled out the holds.

A Clevelander solved it. George H. Hulett patented his automatic ore unloader in 1898, and the first went into service at Conneaut, Ohio, in 1899, built for the Pittsburgh & Conneaut Dock Company. It could unload 275 tons an hour; later electric Huletts, built in Cleveland, could unload a thousand. Unloading costs fell from about 18 cents a ton to 5, and a boat could be emptied in five to ten hours instead of days. Between 1898 and 1960, more than 75 Huletts were built by Cleveland's Wellman-Seaver-Morgan company and its predecessors and successors, and nearly 45 of them worked on Lake Erie and the Cuyahoga River.

The Hulett changed the ships that sailed to Duluth. Lake freighters were redesigned around it, doubling in length and quadrupling in capacity. Cleveland's machines at one end of the lakes set the size of the boats that called at Duluth and Two Harbors at the other. The *William A. Irvin*, now a museum ship in Duluth, appears in a well-known photograph discharging ore under a Hulett at a Lake Erie port.

Cleveland men also ran the fleets. When U.S. Steel's 112-vessel Pittsburgh Steamship fleet proved too complex to manage, the corporation turned in 1904 to Harry Coulby, a Pickands Mather partner widely regarded as the most capable fleet manager on the lakes. He agreed on condition that he keep running Pickands Mather's fleets too, and he served as the Pittsburgh fleet's president until 1924. Pickands Mather's own vessels were organized in 1913 into the Interlake Steamship Company, the second-largest fleet on the lakes.

Sources: [Duluth Seaway Port Authority](#), [The Hulett Ore Unloader](#); [ASME Landmark: Hulett Ore Unloaders](#); [Society for Industrial Archeology newsletter](#), Summer 1992; [Cleveland 101](#), [Huletts](#); [National Museum of the Great Lakes](#), [The Frontier: Handmaiden to Giants](#); [Encyclopedia of Cleveland History](#), [Pickands Mather](#).

Why Cleveland ranks fifth

Cleveland ranks above Buffalo because its hand reached into Minnesota. Buffalo received Duluth's grain but controlled nothing at the head of the lakes. Cleveland's firms mined Minnesota ore, sold it, carried it, and unloaded it, and they did so for more than a century, from the Mesabi's opening to Cleveland-Cliffs at Hibbing today.

Cleveland ranks below Pittsburgh, New York, and the Twin Cities because it was more often the operator than the owner. Rockefeller used Cleveland men to run the Mesabi, but the profit went to Rockefeller. U.S.

Steel hired a Cleveland manager for its fleet, but the fleet belonged to U.S. Steel. Even in taconite, Cleveland houses were usually partners and managers for steel companies based elsewhere.

That distinction adds something to the argument of *The Capital of the Northwest*. Duluth's iron was owned from New York and Pittsburgh, but it was worked, in large part, through Cleveland. Ownership, operation, and handling were three different things, and Duluth kept only the third: the docks, the railroad jobs, and the tonnage.

Source note

The author's papers mention Cleveland only once, so nearly all of this chapter is new research.

From the author's papers

- *The Capital of the Northwest*: the Merritts, Rockefeller's control by 1894, the American Steel Barge Company, the 1901 sale, and the argument that Duluth handled resources whose capital was organized elsewhere.
- *The Iron Shore*: Oliver and Carnegie on the Mesabi, the Soudan's 1884 shipment, and commercial taconite at Silver Bay and Hoyt Lakes in 1957.

New sources

- Cleveland Iron Mining, Cleveland-Cliffs, Pickands Mather, Hanna, and the Great Lakes ore fleet: Encyclopedia of Cleveland History.
- The Central High circle: Encyclopedia of Cleveland History; Teaching Cleveland; SNAC; biographies of Hanna.
- Rockefeller's Bessemer fleet and Samuel Mather's role: Wikipedia entry on Mather, citing Chernow's *Titan*; National Museum of the Great Lakes.
- Oglebay Norton as Rockefeller's sales agent: company history.
- Pickands Mather's Minnesota mines: Mesabi Tribune; Knight Lab story map.
- Reserve and Erie Mining partnerships: IRRRB 75-year history.
- Hibbing Taconite and Cleveland-Cliffs: Cleveland-Cliffs SEC technical report.
- The Hulett unloader: Duluth Seaway Port Authority; ASME; Society for Industrial Archeology.

Chapter 6: Pittsburgh

Where Minnesota ore became steel

Much of the Mesabi's ore ended its journey in the blast furnaces and steel mills of the Pittsburgh district. There, more than anywhere else, Minnesota's iron was turned into rails, plates, and girders. It was also, from 1892 onward, where much of the Mesabi was controlled.

The Capital of the Northwest sums up the arrangement in three sentences: Pittsburgh's Henry Oliver, backed by Andrew Carnegie, mined the ore; Rockefeller's railroad and ships moved it; Carnegie's mills turned it into steel. It concludes that the richest iron range in the country was financed, owned, and ultimately controlled from New York and Pittsburgh. This chapter follows the Pittsburgh half of that sentence.

Pittsburgh ranks sixth among Duluth's economic sister cities. Its hold was deeper than Cleveland's because Pittsburgh firms owned the mines and used the ore. It was also longer than any one owner's, because Oliver Iron Mining, a company born in Pittsburgh, ran U.S. Steel's Minnesota mines for more than half a century.

Oliver and Carnegie take hold, 1892-1896

Pittsburgh reached the Mesabi within two years of its discovery. After the Merritts began shipping ore from Mountain Iron in 1892, Henry W. Oliver, a Pittsburgh businessman, traveled to the range and leased the Mountain Iron mine on the spot. The lease, signed August 1, 1892, required a royalty of 65 cents a ton, at least 200,000 tons a year beginning in 1893, and an advance of \$75,000 on royalties. On September 30, 1892, Oliver incorporated the Oliver Mining Company with \$1.2 million in capital.

Andrew Carnegie did not want in. From a retreat in England he predicted that the ore venture would bring more trouble and less profit than almost any other branch of his business. His partner Henry Clay Frick disagreed, and Rockefeller's move into the Mesabi changed the calculation. In February 1894 Rockefeller took over the Merritts' holdings. That April, Carnegie's interests put \$500,000 into Oliver's company in exchange for half its stock, so that Pittsburgh would have its own ore rather than depend on Rockefeller's. By 1896 Carnegie held five-sixths of the Oliver company.

The decisive bargain came in 1896. Frick and Oliver went to Rockefeller and leased his Mesabi mines at a royalty of 25 cents a ton, when other mine owners were getting 65. Carnegie Steel guaranteed to take at least 600,000 tons a year from Rockefeller's mines and to ship that ore, plus another 600,000 tons a year from Oliver's mines, over Rockefeller's railroad and ships. Rockefeller accepted the low royalty because he had ore and no mills, and Carnegie had mills and wanted ore. As the Minnesota Historical Society puts it, the three reached a compromise: Oliver would mine, Rockefeller would transport, and Carnegie would make the steel.

That is the arrangement *The Capital of the Northwest* describes. The detail matters for Duluth: the terms under which the Mesabi was worked were set in Pittsburgh and New York, in a negotiation between two national fortunes, and Duluth's role was fixed as the place where Rockefeller's railroad met his ships.

Sources: [MinnTac](#), citing Van Brunt (1921) and Harvey (1928); [MNopedia](#), [Oliver Iron Mining Company](#); [Time](#), "Steel: Who Said Competition?" February 5, 1940.

The Pittsburgh squeeze

The 1896 alliance changed the price of ore overnight. According to a 1940 account in *Time*, news of the Carnegie-Rockefeller agreement broke the ore market from \$4 a ton to \$2.50, and other mine owners,

fearing a squeeze, tried to sell out at almost any price. A study in Northern Michigan University's *Upper Country* journal describes the same move from the other side: with a major hold on the Mesabi, Carnegie and Oliver cut the price of their ore from four dollars a ton to two dollars and fifty cents, and the lower price put pressure on the smaller companies.

This was vertical integration, and Pittsburgh was its home. Carnegie Steel now controlled the ore it needed, at a royalty far below what independents could charge. The advantage lay with the firm that owned mills as well as mines. Independent Mesabi operators without a mill behind them faced a market set by a buyer that no longer needed them.

The squeeze ended in consolidation. When U.S. Steel was formed in 1901, it bought out Rockefeller's Mesabi holdings, fearing, in *Time's* account, that he might use his ore as the base of a rival steel company. Between the Rockefeller purchase and the Oliver company it inherited from Carnegie, the new corporation started with about two-thirds of the Mesabi's then-known ore reserves.

For Duluth, the Pittsburgh squeeze meant that the Mesabi's ownership narrowed within a decade of its discovery. The range the Merritts had opened as a Duluth venture in 1890 was, by 1901, largely the property of a single corporation assembled around a Pittsburgh steel company.

Sources: *Time*, February 5, 1940; *Upper Country: A Journal of the Lake Superior Region*.

Oliver Iron Mining under U.S. Steel

The Pittsburgh company outlived its founders' independence. When Carnegie Steel went into U.S. Steel in 1901, Oliver Iron Mining became the corporation's mining division and took over the former Rockefeller mines as well. The transfer, by one account, brought 41 mines, 1,000 miles of track, and a fleet of 112 ships under its control. By 1907, Oliver controlled about 913 million tons of the region's ore.

Oliver then ran the Mesabi for decades. At its peak it operated 128 mines across the Iron Range. By 1940, *Time* reported, it had produced upward of 40 percent of the nation's iron ore, nearly all of it for its parent company; it sold ore to outsiders only as an accommodation. That year's advertisement offering Mesabi ore for sale gave its address as the Wolvin Building, Duluth. The company born in Pittsburgh was doing its selling from Duluth.

Oliver was also the company Mesabi workers organized against. As *Common Wealth* describes, nearly 16,000 miners, many of them Finnish, struck under the Western Federation of Miners in 1907. Oliver broke the strike by bringing workers directly from Europe and blacklisting strikers. In 1916, miners struck again under the Industrial Workers of the World; Oliver hired armed guards, and a picketer, John Alar, was killed in Virginia. Even after U.S. Steel recognized the Steel Workers Organizing Committee in 1937, Oliver kept unions out of its mines until 1943.

Oliver's engineers also helped carry the range into the taconite era. Its experimental plant at Mountain Iron, Pilotac, went into operation in 1953 and grew into U.S. Steel's Minntac operation. The Mountain Iron mine that Henry Oliver leased from the Merritts in 1892 thus became, sixty years later, the site of the Pittsburgh company's next generation of mining.

Sources: *Upper Country: A Journal of the Lake Superior Region*; MinnPost, Oliver Iron Mining Company operated 128 mines; MNopedia, Oliver Iron Mining Company; *Time*, February 5, 1940; *Common Wealth*.

Pittsburgh Plus

Pittsburgh's reach extended even to steel made in Duluth. As *The Capital of the Northwest* describes, U.S. Steel agreed in 1907, under pressure from Minnesota legislators pressing for an ore tonnage tax, to build a steel plant at Duluth. The Minnesota Steel Company took eight years to build the works and the company town of Morgan Park, and the first steel was tapped on December 11, 1915.

The plant faced a pricing system that erased the value of its location. Under “Pittsburgh Plus,” steel was sold at the Pittsburgh price plus the freight from Pittsburgh to the buyer, wherever the steel was actually made. A Duluth buyer of Duluth steel paid for freight from Pittsburgh that never moved. Critics called the difference “phantom freight,” an extra profit for the mills.

The fight against it was a western and farm-state cause. In 1923, the Michigan Farm Bureau reported that Illinois, Iowa, Minnesota, and Wisconsin had appropriated money to fight Pittsburgh Plus, and that other state legislatures had passed resolutions condemning it. The Western Association of Rolled Steel Consumers, backed by 32 states, brought the complaint to the Federal Trade Commission, and in 1924 the commission ordered U.S. Steel to cease and desist. The commission later estimated that the order saved farmers \$30 million and purchasers in the West and South more than \$150 million a year.

For Duluth, the victory came late. As *The Capital of the Northwest* notes, the works survived as a marginal operation for half a century. U.S. Steel closed the plant’s hot side in 1971, eliminating about 2,500 skilled jobs, and the last major operation, the coke plant, closed in 1979. Pittsburgh Plus is the clearest case in this paper of a distant city’s rule reaching directly into Duluth’s own economy: even steel made at the head of the lakes was priced as if it came from Pittsburgh.

Sources: *The Capital of the Northwest*; Michigan Farm Bureau News, August 10, 1923; Time, “Cease and Desist”; Federal Trade Commission, Annual Report 1929.

Why Pittsburgh ranks sixth

Pittsburgh ranks above Cleveland because it owned what Cleveland operated. Cleveland men sold Rockefeller’s ore and managed U.S. Steel’s fleet; Pittsburgh’s Oliver company held the mines, and Pittsburgh’s mills consumed the ore. Pittsburgh also reached further into Duluth itself than any city before it in this paper. Through Pittsburgh Plus, it set the price even of steel made in Duluth.

Pittsburgh ranks below New York because Pittsburgh’s steel interests were themselves absorbed by New York capital in 1901. Carnegie sold to Morgan, and Oliver Iron Mining became a division of a corporation organized and financed on Wall Street. After that, Pittsburgh remained the operating headquarters of American steel, but the ultimate owners of the Mesabi were elsewhere.

Pittsburgh’s lesson for Duluth’s history is the power of the buyer. The Mesabi had the ore, and Duluth had the docks, but the steel mills decided what the ore was worth. In 1896, the Pittsburgh interests used that power to set a royalty of 25 cents a ton; in the 1920s, they used it to price Duluth’s own steel. Owning the market for a resource, the chapter shows, can matter as much as owning the resource.

Source note

This chapter rests on the author’s papers for its frame and on new sources for the detail of the 1890s.

From the author’s papers

- *The Capital of the Northwest*: Oliver, Carnegie, and Rockefeller’s division of the Mesabi; ownership from New York and Pittsburgh; the 1907 steel plant concession, Morgan Park, the 1915 first steel, Pittsburgh Plus, the 1924 FTC order, and the closures of 1971 and 1979.
- *The Iron Shore*: Oliver and Carnegie on the Mesabi and the 1901 consolidation.
- *Common Wealth*: the 1907 and 1916 Mesabi strikes, John Alar, and Oliver’s resistance to unions until 1943.

New sources

- The 1892 Oliver lease and the Oliver Mining Company’s incorporation: MinnTac entry, citing Van Brunt (1921) and Harvey (1928).

- Carnegie's \$500,000 and the 1896 compromise: MNopedia.
- The 1896 lease terms, the ore price break, and U.S. Steel's two-thirds of Mesabi reserves: *Time*, February 5, 1940.
- The ore price cut and Oliver's 913 million tons by 1907: *Upper Country* journal, Northern Michigan University.
- Oliver's 128 mines and Pilotac: MNopedia; MinnPost.
- The Pittsburgh Plus campaign and its results: *Michigan Farm Bureau News*, 1923; *Time*; Federal Trade Commission annual report, 1929.

Chapter 7: New York

The owner

By 1901, the richest iron range in the country belonged to a corporation organized in New York. *The Capital of the Northwest* puts the point plainly: the Mesabi had been found by a Duluth family and was shipped through Duluth's harbor, but it was financed, owned, and ultimately controlled from New York and Pittsburgh. Duluth received the docks, the railroad jobs, and the tonnage. It did not receive the ownership.

New York's hold came through two men. John D. Rockefeller, whose Standard Oil was run from New York by the 1890s, took the Merritts' mines and railroad in 1894 and built the fleet that carried their ore. J. P. Morgan then bought Rockefeller out and joined his holdings to Carnegie's and Chicago's in United States Steel. Between them, they turned a Duluth discovery into an asset of the largest corporation in the world.

New York ranks seventh among Duluth's economic sister cities, second only to the Twin Cities. It owned more of Duluth's resources than any other city. What keeps it from first place is distance: its interest in Duluth was as an asset, not as a place.

Rockefeller's Mesabi, 1893-1901

As *The Capital of the Northwest* tells it, the Merritts found merchantable ore at Mountain Iron in 1890. When the existing railroads would not serve the range, they organized their own, the Duluth, Missabe & Northern, with early backing from a southern Minnesota banker, K. D. Chase. The first ore reached Superior in October 1892. Leonidas Merritt then insisted on building all the way into Duluth, with the family's own ore docks, and that decision required outside money. It brought in the American Steel Barge Company, a firm tied to Rockefeller.

The line and docks were finished in 1893, just as the country entered its worst depression to that time. The Merritts had built with borrowed money. By their account, they had pledged their holdings as collateral for a call loan of \$420,000, arranged through Rockefeller's adviser Frederick T. Gates, and the loan was called in the panic with twenty-four hours to pay. They conceded that Rockefeller offered them a year to buy the properties back, but no financier would lend to them. By 1894 Rockefeller controlled their railroad and ore properties.

The family sued for fraud and won a \$940,000 verdict in federal court in Duluth. The verdict was reversed on appeal, and in 1897 the Merritts settled for \$525,000 and signed a statement retracting their accusations. Gates published *The Truth About Mr. Rockefeller and the Merritts*; Leonidas Merritt answered it with a pamphlet of his own. Historians have generally concluded that Rockefeller acted within the business practices of his era, though whether he intended to defraud the Merritts is still disputed.

Rockefeller held the Mesabi for about seven years. He organized the properties as the Lake Superior Consolidated Iron Mines, built a fleet to carry the ore, and in 1896 leased the mines to the Carnegie interests at a low royalty in exchange for their traffic on his railroad and ships. When he sold to U.S. Steel in 1901, Gates put the profit at about \$55 million, roughly a quarter of Rockefeller's fortune that year, as *The Iron Shore* reports.

Sources: *The Capital of the Northwest*; *The Iron Shore*, citing Chernow, *Titan*; the Pittsburgh and Cleveland chapters of this paper for the 1896 lease and the Bessemer fleet.

Morgan's corporation, 1901

U.S. Steel gathered nearly every piece of Duluth's iron economy into one New York-organized company. In 1898, J. P. Morgan had financed Federal Steel, which took in Chicago's Illinois Steel and the Minnesota

Iron Company with its Vermilion mines, the Duluth & Iron Range Railroad, and a fleet of ore boats. In 1900, when Carnegie threatened to build a rival mill, Morgan negotiated to buy Carnegie's steel holdings. United States Steel was incorporated on February 25, 1901, merging Carnegie Steel, Federal Steel, and National Tube, and began operations on April 1. Capitalized at \$1.4 billion, it was the largest corporation the world had yet seen and accounted for about two-thirds of the nation's steel output.

Morgan also bought out Rockefeller. By the account in *Time* forty years later, the corporation feared that Rockefeller might use his Mesabi ore as the base of a rival steel company. With Rockefeller's Lake Superior Consolidated and the Oliver company inherited from Carnegie, U.S. Steel started with about two-thirds of the Mesabi's then-known reserves.

The transport system came with it. Both of the head-of-the-lakes ore railroads, the Duluth & Iron Range to Two Harbors and the Duluth, Missabe & Northern to Duluth, were under U.S. Steel control by 1901. The ore fleets of Rockefeller, Carnegie, and Federal Steel were combined into the Pittsburgh Steamship Company, 112 vessels in all.

In a single year, the mines of both Minnesota ranges then in production, the railroads that carried their ore to Lake Superior, and most of the ships that carried it down the lakes passed to one corporation. The Vermilion's Chicago owners, who had bought out Philadelphia's Charlemagne Tower in 1887, and the Mesabi's Rockefeller and Pittsburgh owners had all sold to Morgan.

Sources: [Lakeshore Rail Maps](#), [Corporate Changes](#); [Illinois Steel Company](#); [United States v. U.S. Steel, petition, 1911](#); [Time, February 5, 1940](#); [Trains, Duluth, Missabe & Iron Range history](#); [National Museum of the Great Lakes, The Frontier](#).

The Hill ore lease, 1907-1915

One large block of the Mesabi stayed outside Morgan's corporation in 1901. James J. Hill's family, urged on by his son Louis, had bought western Mesabi land in the late 1890s, and by 1906 the Great Northern held what was reckoned the second-largest ore reserve on the range, behind only U.S. Steel's. The Hepburn Act of 1906 barred railroads from hauling minerals they owned, so in December 1906 the lands were placed in a trust, Great Northern Iron Ore Properties, whose certificates went to the railway's shareholders. The trust was headquartered in St. Paul.

New York leased what St. Paul owned. After years of negotiation, U.S. Steel and the Hill interests announced terms in October 1906. U.S. Steel, through a subsidiary, agreed to pay a royalty of 85 cents a ton, rising by 3.4 cents every year, and to ship the ore exclusively over the Great Northern at 80 cents a ton. It guaranteed minimum tonnages that began at 750,000 tons in 1907 and were to reach 8.25 million tons by 1917. In return, U.S. Steel took an option to end the lease on January 1, 1915, with two years' notice. The federal Bureau of Corporations called the royalty unprecedented: from 1902 to 1906 the average royalty on Mesabi ore had been 26 cents a ton.

The lease touched Duluth in two ways. First, the ore did not pass through Duluth's harbor: the Great Northern carried it to its own docks at Allouez, across the bay in Superior. Second, U.S. Steel bought the land for its Duluth steel plant in 1907, shortly after the lease was signed. The largest ore deal of the decade was made between a St. Paul trust and a New York corporation, and the ore moved over a St. Paul railroad to a Wisconsin dock.

The lease lasted less than a decade. In October 1911, with Congress investigating U.S. Steel and a federal antitrust suit about to be filed, the corporation announced that it would cancel at the earliest date allowed, January 1, 1915. At the end of 1914 the trustees took back eight mines U.S. Steel had developed, bought much of the equipment in place, and leased the properties to smaller steel and mining companies. The trust went on collecting royalties from St. Paul until it was dissolved in 2015.

Sources: Mullin and Mullin, *U.S. Steel's Acquisition of the Great Northern Ore Properties*, NBER Working Paper 5662 (1996), drawing on *The Iron Age* and the Bureau of Corporations' 1911 report; GNRHS, *Great Northern Iron*; Duluth News Tribune, 2015.

Decisions made in New York

The decisions that mattered most to Duluth after 1901 were made in the corporation's New York offices, or argued in Washington about it. Three show how far that reach extended.

The steel plant. As *The Capital of the Northwest* describes, U.S. Steel agreed in 1907, under pressure from Minnesota legislators pressing for an ore tonnage tax, to build a steel plant at Duluth. The Pittsburgh chapter tells what became of the plant under Pittsburgh Plus. What belongs here is where the choice was made: whether Duluth would make steel, and on what scale, was a corporate decision, and the plant's first steel was not tapped until December 1915, eight years after the promise.

The Stanley hearings. In May 1911 the House of Representatives created a special committee, chaired by Augustus Stanley of Kentucky, to investigate U.S. Steel. That July, the Bureau of Corporations reported that the corporation's power over the industry rested chiefly on its ore holdings, and on the Hill lease in particular. Duluth's own history was put on the record. In November 1911 Alfred Merritt testified against Rockefeller, retelling the loss of the family's mines, and in February 1912 James J. Hill testified about the Great Northern lands and the ore traffic.

The antitrust suit. The Justice Department filed suit to dissolve U.S. Steel in October 1911, the same month the corporation announced it would cancel the Hill lease. The federal district court in New Jersey ruled for U.S. Steel in 1915, noting that the lease had been given up and that other ore was available. The Supreme Court affirmed in 1920. The corporation survived intact, and with it New York's ownership of most of the Mesabi.

In each case Duluth was the subject rather than a party. Its plant was a concession, its founding family appeared as witnesses, and its future was settled by a court ruling on a New Jersey corporation.

Sources: *The Capital of the Northwest*; Mullin and Mullin (1996); Covina Argus, November 25, 1911, on Alfred Merritt's testimony; *United States v. United States Steel Corp.*, 223 F. 55 (D.N.J. 1915), affirmed 251 U.S. 417 (1920).

Why New York ranks seventh

New York ranks above Pittsburgh because Pittsburgh sold to it. In 1901 Carnegie's mills and Oliver's mines became parts of a corporation organized and financed on Wall Street, and after that the ultimate owner of most of the Mesabi, its railroads to the lake, and its fleet was in New York. No other city in this paper owned so much of what passed through Duluth.

New York ranks below the Twin Cities for the reason given at the start of this chapter: its interest in Duluth was as an asset, not as a place. Its bankers did not build Duluth's banks, mills, or neighborhoods, and its corporation gave Duluth a steel plant only when the state pressed it to. The Hill lease also shows the limit of New York's reach. The one great block of Mesabi ore it did not own outright was St. Paul's, and when New York let the lease go in 1915, the ore went back to St. Paul.

That sets up the last city chapter. New York owned Duluth's iron; the Twin Cities organized the capital behind almost everything else, and held on to it.

Source note

The first half of this chapter rests mostly on the author's papers; the Hill lease and the federal investigations are largely new.

From the author's papers

- *The Capital of the Northwest*: the Merritts' railroad and docks, the call loan, the lawsuit and settlement, Rockefeller's control by 1894, ownership "from New York and Pittsburgh," and the 1907 steel plant concession.
- *The Iron Shore*: Gates's figure of about \$55 million in profit to Rockefeller, citing Chernow's *Titan*.

New sources

- Morgan's consolidation and the transport system: *Time*, February 5, 1940; Lakeshore Rail Maps; *Trains*; National Museum of the Great Lakes; the 1911 government petition in *United States v. U.S. Steel*.
- The Hill lease terms, the 26-cent average royalty, the 1907 plant land purchase, the 1911 cancellation, and the 1914 handback: Mullin and Mullin, NBER Working Paper 5662 (1996), which draws on *The Iron Age* and the Bureau of Corporations' 1911 report.
- The Great Northern Iron Ore Properties trust: GNRHS, *Great Northern Iron*; *Duluth News Tribune*, 2015.
- Alfred Merritt's testimony: *Covina Argus*, November 25, 1911.

Chapter 8: Minneapolis-St. Paul

The capital of the Northwest

The Capital of the Northwest puts the relationship in one sentence: Duluth moved commodities, while Minneapolis increasingly organized capital. Duluth grew great because the region's grain, ore, and lumber passed through its harbor. Minneapolis, and St. Paul beside it, grew into something different: financial and corporate centers whose institutions served a territory far larger than either city.

By 1914 the distinction was written into federal law. When the Federal Reserve System was created, Minneapolis was named headquarters of the Ninth District, which came to include Minnesota, Montana, the Dakotas, northwestern Wisconsin, and Michigan's Upper Peninsula. Duluth, the district's greatest port, became one of its member cities. As *The Capital of the Northwest* puts it, the choice did not create Minneapolis's financial importance. It recognized a network that was already there.

The other cities in this paper reached Duluth from a distance. Philadelphia financed its first boom, Chicago priced its wheat, Buffalo received it, Cleveland ran its ore trade, Pittsburgh used its ore, and New York owned it. The Twin Cities were different. They were 150 miles away, in the same state, tied to Duluth by the first railroad to reach it, and they shaped nearly every part of its economy except iron. The rivalry between Duluth and Minneapolis is the one that Duluth's own histories know best. This chapter argues that it was less a rivalry than a relationship between a gateway and its capital.

The Twin Cities rank first among Duluth's economic sister cities. The chapter treats them as one city with two halves, because that is how they worked: Minneapolis brought grain, milling, and banking capital, and St. Paul brought railroad, lumber, and wholesale capital.

Minneapolis and grain

Duluth and Minneapolis organized their grain markets in the same year. In January 1881, as the Chicago chapter describes, eight Duluth businessmen incorporated the Duluth Board of Trade. That fall, as *The Golden River* tells it, twenty-one Minneapolis bankers, millers, merchants, and railroad men met in a bank basement to open a cash grain market. They settled on the name Minneapolis Chamber of Commerce because another club already held the title Board of Trade.

The two exchanges served different ends of the same trade. By the 1880s Minneapolis had passed St. Louis as the nation's leading flour city, and its mills, led by the houses of Pillsbury and Washburn-Crosby, bought the hard spring wheat of the Northwest before it went anywhere else. By 1900 Minnesota was the largest primary wheat market on earth, and the Minneapolis exchange, later renamed the Minneapolis Grain Exchange, became the principal market for hard red spring wheat, as it remains today. *The Golden River* describes the division of labor that held by the 1920s: Minneapolis was the flour-milling capital of the continent, and Duluth-Superior was the western shipping terminal where the prairie's wheat met the lakes.

Minneapolis firms also owned much of Duluth's side of that division. Frank H. Peavey of Minneapolis, whose company ran chains of country elevators across the Northwest, bought the Duluth Elevator Company in 1894. In 1899 he built the experimental concrete silo outside Minneapolis that *The Golden River* credits with transforming elevator design, and in 1900 he carried the idea to Rice's Point. The Peavey Duluth Terminal's first fifteen bins were, according to the Historic American Engineering Record, the first reinforced concrete grain storage built in the United States. The Peavey elevators later passed to Cargill, another Minneapolis grain house.

So the wheat that reached Duluth's harbor had often been bought by Minneapolis country elevators, priced on the Minneapolis exchange, and stored in elevators owned by Minneapolis companies. Duluth handled the tonnage. The decisions about what the grain was worth and where it went were increasingly made

upriver.

Sources: *The Golden River*; Historic American Engineering Record, [Peavey Duluth Terminal Elevator \(HAER MN-97\)](#) and [Peavey Globe Elevator \(HAER WI-107\)](#).

St. Paul and the railroads

Duluth began as St. Paul's port. As *The Capital of the Northwest* describes, the Lake Superior & Mississippi Railroad, financed by Jay Cooke, was built to connect St. Paul to the lake, and the first train from St. Paul arrived on August 1, 1870. After Cooke's failure the line was reorganized in 1877 as the St. Paul & Duluth. From its first year, Duluth's link to the rest of the country ran through the Twin Cities.

A year later, St. Paul's railroad empire began with Montreal money. As the Canadian chapter shows, in 1878 James J. Hill and Norman Kittson of St. Paul joined George Stephen and Donald Smith of Montreal to buy the bankrupt St. Paul & Pacific, with short-term credit from the Bank of Montreal. The line became the St. Paul, Minneapolis & Manitoba, and in 1890 the Great Northern. Its headquarters stayed in St. Paul.

When Hill reached the head of the lakes, he chose Superior over Duluth. He built docks and elevators at West Superior and organized a Great Lakes steamship line to carry the wheat onward. The Eastern Railway of Minnesota, incorporated in 1887, built a line from Hinckley to the Superior side of the harbor and acquired terminal and dock property there; the Great Northern leased it in 1902 and bought it outright in 1907. The same pattern held for iron. As the New York chapter describes, the Great Northern's Mesabi ore went to its docks at Allouez, in Superior.

In 1896 Hill and his associates also took control of the bankrupt Northern Pacific, the transcontinental that Cooke had meant to begin at Duluth. Within a generation, then, the two great railroads that had been promised to Duluth were both run from St. Paul. One of them bypassed Duluth's side of the harbor altogether.

Sources: *The Capital of the Northwest*; the Canadian chapter of this paper; [MNHS, Eastern Railway Company of Minnesota records](#); [HistoryLink, James J. Hill](#); [Historical Marker Database, James J. Hill](#).

St. Paul and the pine

The pine behind Duluth was cut with Twin Cities money. As *The Capital of the Northwest* describes, lumbermen were working the white pine of southern St. Louis County by the early 1880s, twenty miles up the St. Louis River at the falls where Cloquet grew. The capital came mainly from St. Paul. The C. N. Nelson Lumber Company built a sawmill at Cloquet, served by the St. Paul & Duluth and the Duluth & Winnipeg railroads.

Then came Frederick Weyerhaeuser, already the country's leading lumberman. He came to Cloquet in 1883 and eventually held interests in all three of its major lumber companies. In 1891 he moved his household to St. Paul, and in 1896 his son Rudolph moved to Cloquet to manage the Northern Lumber Company. The Weyerhaeuser companies ran their mills cooperatively, owned many of Cloquet's stores, houses, and hotels, and in 1898 added the Northwest Paper Company, which in time took control of the lumber companies themselves.

The Capital of the Northwest draws the conclusion. By the turn of the century Minneapolis was the world's leading lumber market, and the Weyerhaeuser interests at Cloquet were directed from St. Paul, on the same Summit Avenue where Hill ran his railroads. "In the history of iron, Minnesota appears as a region whose resources were owned from New York and Pittsburgh. In the history of lumber, the Twin Cities played that role toward northern Minnesota."

The pine ran out. Northern Lumber's mills stopped in 1919 and Cloquet Lumber's in 1927, and by then most Weyerhaeuser capital had followed the timber to the Pacific Northwest, to land bought from Hill's

Northern Pacific in 1900. Lumber, *The Capital of the Northwest* concludes, was the capital that came, took what it could, and left.

Sources: *The Capital of the Northwest*, Sections 2 and 7, citing Healey, *Frederick Weyerhaeuser and the American West*.

Banking the Northwest

This section rests almost entirely on *The Capital of the Northwest*.

Before 1913, banks were bound together by correspondent relationships. A country bank kept an account with a larger one, used it for payments and collections, and drew on it when it needed cash. Duluth's banks financed the merchants, elevators, and shippers of the grain trade, and by around 1900 the city had many of the marks of a financial center, with directors drawn from mining, shipping, lumber, grain, and wholesale trade. But Minneapolis had an advantage Duluth could not reproduce. Its economy combined milling, grain trading, railroads, wholesale commerce, and banking, and its banks built correspondent ties with country banks across the agricultural Northwest. As *The Capital of the Northwest* puts it, Minneapolis did not have to receive every bushel of grain; its banks could finance the people who handled it.

The Federal Reserve Act turned that network into an institution. Thirty-seven cities asked to be Reserve Bank headquarters, and the organizing committee polled the nation's banks on where they preferred to be served. Minneapolis was the first choice of banks in most of the states that became the Ninth District. On April 2, 1914, it was named one of the twelve Federal Reserve cities, and its bank opened that November with eight employees.

In 1929 the network became two holding companies, both in the Twin Cities. Executives of Minneapolis's Northwestern National Bank organized Northwest Bancorporation, which brought in banks in Minneapolis, Duluth, Fargo, Sioux Falls, and Des Moines. The same year, Hill's First National Bank of St. Paul and the First National Bank of Minneapolis formed the First Bank Stock Corporation. Contemporaries called the pair the "Minnesota Twins." Their successors are U.S. Bancorp and Wells Fargo.

Duluth's own bankers took part in that system rather than standing outside it. John N. Peyton, from an early Duluth banking family, founded Citizens State Bank in 1912; it became Pioneer National Bank of Duluth, affiliated with Northwest Bancorporation. Peyton went on to become Minnesota's commissioner of banks and, from 1936 to 1952, the first president of the Federal Reserve Bank of Minneapolis. A Duluth banker, in other words, ended his career running the regional bank that had made Minneapolis Duluth's financial capital. Pioneer National stayed in the Peyton family for more than a century. In 2018 it was absorbed by Park State Bank, owned by the Minneapolis-based Park Financial Group, and, in the words of *The Capital of the Northwest*, its ownership now sat in Minneapolis like so much of Duluth's capital before it.

Sources: *The Capital of the Northwest*, Sections 1-5, citing the Federal Reserve Bank of Minneapolis, Federal Reserve History, MNopedia, and "Mr. Peyton's Bank" (*The Region*, 2005).

The paradox

The Capital of the Northwest names the limit of the Twin Cities' reach in two sentences: "Minneapolis may have organized the capital behind the region's grain. The capital behind its iron was organized elsewhere." The Mesabi, the region's greatest resource, was owned from New York and Pittsburgh, as the two previous chapters show.

There was one partial exception, and it came from St. Paul. The Hill family's Great Northern Iron Ore Properties held 67,000 acres of Mesabi land from a St. Paul office. But the trust never mined its own ore. From 1907 to 1915 it leased the best of it to U.S. Steel, and for a century afterward it collected royalties

from companies that did. St. Paul owned a share of the Mesabi as a landlord, not as an operator, and the ore it owned went to Superior, not Duluth.

The Capital of the Northwest sorts the region's resources into three patterns. Grain capital stayed and built permanent institutions: the mills, exchanges, and grain houses of Minneapolis became national corporations headquartered there. Iron capital stayed under absentee ownership, because the ore remained and the mines kept running for distant owners. Lumber capital came from the Twin Cities, took the pine, and left. Duluth's relationship with the Twin Cities covered all three. The Twin Cities built the institutions that grain created, owned the pine outright, and, apart from Hill's lands, stood outside the ownership of iron.

Sources: *The Capital of the Northwest*, Sections 2 and 7; the New York chapter of this paper for the Hill trust.

Why the Twin Cities rank first

New York owned more of what passed through Duluth. The Twin Cities rank above it because they shaped more of Duluth's economy, for longer, and from closer at hand.

The breadth is the first reason. Every other city in this paper touched one or two of Duluth's trades. The Twin Cities touched nearly all of them: the railroad that founded the city, the grain that filled its elevators, the pine cut behind it, the banks that financed its merchants, and the Federal Reserve bank that supervised them. Only iron stood largely outside their reach.

The second reason is permanence. Philadelphia's money collapsed in 1873, Chicago's hold on the Vermilion lasted about eleven years, and New York let the Hill lease go after eight. The Twin Cities' institutions stayed. The Minneapolis Grain Exchange still prices hard spring wheat, the Ninth District is still run from Minneapolis, the successors of the two 1929 holding companies are among the country's largest banks, and a Duluth bank held by one family for more than a century passed to Minneapolis ownership in 2018.

The third reason is that the Twin Cities were a capital in the full sense: the place where the region's decisions were made. Duluth competed with them for that role and lost, not because it lacked wealth, but because, as *The Capital of the Northwest* argues, Duluth moved commodities while Minneapolis organized capital. Of all Duluth's economic sister cities, the Twin Cities were the one Duluth could not do without, and the one that could most easily do without Duluth.

Source note

This chapter draws more heavily on the author's papers than any other in this paper.

From the author's papers

- *The Capital of the Northwest*: the chapter's thesis (Duluth moved commodities, Minneapolis organized capital); the Lake Superior & Mississippi and the St. Paul & Duluth; Cloquet, Weyerhaeuser, and the lumber pattern; correspondent banking, the 1914 Federal Reserve decision, Northwest Bancorporation, First Bank Stock, and the "Minnesota Twins"; the Peyton family and Pioneer National; the grain-iron paradox and the three patterns of capital.
- *The Golden River*: the 1881 founding of the Minneapolis Chamber of Commerce, Minneapolis passing St. Louis in flour, Pillsbury and Washburn-Crosby, Minnesota as the largest primary wheat market by 1900, the Peavey-Haglin silo, and the 1920s division of labor.

From earlier chapters of this paper

- The Duluth Board of Trade (Chicago); George Stephen & Associates and the Bank of Montreal (Canadian chapter); the Hill ore trust and the Allouez docks (New York).

New sources

- Peavey's purchase of the Duluth Elevator Company in 1894 and the Peavey Duluth Terminal's 1900 concrete bins: Historic American Engineering Record, HAER MN-97 and WI-107.
- The Eastern Railway of Minnesota, its Superior terminals, and its lease and purchase by the Great Northern: Minnesota Historical Society finding aid.
- Hill's docks and elevators at West Superior and his Great Lakes steamship line; the 1896 Northern Pacific acquisition: HistoryLink; Historical Marker Database.

Conclusion: What Duluth Kept

What the sister cities took

Eight chapters have followed Duluth's wealth to the cities that financed, priced, carried, owned, or organized it. Taken together, they show one pattern repeated in every commodity Duluth handled.

Philadelphia's Jay Cooke built Duluth's first boom and, when his house failed in 1873, took the city's charter down with it. Montreal's bankers built a second head of the lakes at Fort William and Port Arthur and drew the Canadian West's grain away from Minnesota. Chicago set the world price of wheat and, for about eleven years, owned the Vermilion. Buffalo received the grain and milled much of it. Cleveland ran the ore trade's ships, sales, and fleets. Pittsburgh's mills used the Mesabi's ore, and its pricing system set the price even of steel made in Duluth. New York owned most of the Mesabi, its railroads to the lake, and its fleet. And the Twin Cities organized nearly everything else: the railroad that founded Duluth, the grain exchange that priced its wheat, the pine cut behind it, and the banks that financed its merchants.

In each case Duluth held the resource for a time and the position for good. The grain, the ore, and the pine passed through its harbor. The ownership, the price, and the decisions were made somewhere else. *The Capital of the Northwest* puts it in one line: Duluth moved commodities, while Minneapolis increasingly organized capital. The chapters show that the same was true, in its own way, of every city in this paper.

This conclusion asks the other question. If Duluth gave up so much, what did it keep?

The docks, the railroad jobs, and the tonnage

The first thing Duluth kept was its position. *The Capital of the Northwest* is careful on this point: Duluth's later history should not be described simply as decline. The city kept the physical assets that had made it important in the first place, including Lake Superior, the harbor, the rail connections, the ore docks, the grain elevators, and the shipping and industrial facilities. Those assets stayed valuable because the underlying geography never changed. Duluth still sat at the western end of the Great Lakes.

Every chapter of this paper confirms it. Chicago kept the price of wheat, but the wheat still moved through Duluth; between 1919 and 1935, nearly a fifth of all grain shipped on the Great Lakes passed through Duluth-Superior. New York owned the Mesabi, but much of its ore still rode the Duluth, Missabe & Northern to the docks in West Duluth. Even the Twin Cities, which organized so much of Duluth's capital, still needed its harbor. As *The Capital of the Northwest* concludes, the whole regional system needed the physical gateways through which its commodities moved.

Common Wealth adds what that position meant for the people who worked it. The docks and elevators of Duluth-Superior were chokepoints. Ore, grain, and coal passed through a small number of docks, rail yards, and elevators, and a stoppage there could halt shipments from an entire region. The owners could live in New York or Minneapolis; the work of moving their goods had to be done in Duluth.

The steel plant is the exception that proves the rule. It came, as *The Capital of the Northwest* describes, from politics rather than markets: a 1907 concession to Minnesota legislators pressing for an ore tax. It survived as a marginal operation for half a century, and in 1971 U.S. Steel closed its hot side, eliminating about 2,500 skilled jobs. *Common Wealth* names the lesson: the ore was fixed, but the processing was not. What Duluth kept was what could not be moved.

Sources: *The Capital of the Northwest*, Section 8 and Conclusion; *Common Wealth*, sections on the docks and on deindustrialization; the Chicago chapter of this paper for the grain share.

The labor history that stayed

The second thing Duluth kept was its working people and the institutions they built. This section rests on *Common Wealth*.

Duluth held several kinds of labor side by side. The craft unions of the American Federation of Labor organized the building trades, printers, machinists, and other skilled crafts, and the harbor's longshoremen belonged to the International Longshoremen's Association. The CIO's industrial unions organized workers by workplace, and their largest base in Duluth was the U.S. Steel plant at Morgan Park, where Steelworkers Local 1028 represented the Duluth Works. The two traditions met in the 1937 timber strike, which was run from Duluth: its union newspaper was published there, and its attorney, Henry Paull, was a Duluth labor lawyer.

Duluth labor also shaped state law. W. E. "Billy" McEwen, editor of the Duluth *Labor World* and secretary of the Minnesota State Federation of Labor, was closely involved in drafting Minnesota's first workers' compensation law in 1913. Not every struggle succeeded. In 1912 Duluth's streetcar workers struck for union recognition and lost, an urban echo of the earlier defeats on the Mesabi.

Those institutions outlasted the industries that produced them. When the sawmills closed, the mines mechanized, and the Duluth Works shut down, workers' compensation and unemployment insurance cushioned the change for workers who had never carried a union card. The unions themselves survived too, merging after 1955 into what is now the Duluth AFL-CIO Central Labor Body, and their center of gravity moved to the hospitals, schools, and public offices that remained tied to the city.

This is the one part of Duluth's wealth that none of its sister cities could take. Capital could be moved to Minneapolis or New York, and processing could be moved to other mills or to Motley. The labor history, and the public institutions it helped create, stayed where the work had been done.

Sources: *Common Wealth*, sections on Duluth, "Beyond the Contract," and deindustrialization, citing Hudelson and Ross, *By the Ore Docks* (2006), and Alanen, *Morgan Park* (2008).

A Duluth case: Kemp Fisheries

One Duluth business shows the paper's whole pattern in a single company's life: a local firm that won against outside capital, grew into a national one, and was then sold to it.

The opponent was Chicago. The A. Booth company, a Chicago wholesale house, ran its Lake Superior trade out of Duluth. According to the National Park Service, Booth tied the Isle Royale fishery to Chicago's wholesale market and dominated Duluth's fish business into the 1890s, when Norwegian fish merchants, trading in fresh herring, began to win a larger share. On the Canadian shore Booth's hold lasted longer. A history of the Canadian Lake Superior fishery describes Booth's position there as a monopoly that left little room for smaller firms, until, in the 1930s, a number of small companies fell heir to its business.

That was the opening the Kemps used. A. Kemp Fisheries was founded in Duluth in 1930 by Aron and Abe Kemp. It bought fish on the Canadian side, from a plant in Ontario, and marketed it in competition with Booth; it later moved back to include the American shore of Lake Superior as a source. The company became best known for lutefisk, the lye-cured cod of Scandinavian holiday tables across the Upper Midwest.

The next generation took the company far beyond the lake. Around 1961 Louis Kemp left the University of Minnesota to take over his father's Lake Superior fish business, and in 1967 he became its president. He expanded into Alaska, processing salmon and herring there; his 350-foot mothership, the *Bering Trader*, was in its day the largest-capacity seafood processor in Alaskan waters. In 1985 the company began producing surimi, Alaska pollock flavored to taste like crab. The next year it introduced the Crab Delights brand and renamed itself the Louis Kemp Seafood Company. A Duluth fish house had become a national brand.

Then it followed the path of so much Duluth enterprise before it. The lutefisk line was sold in the 1980s to a Minneapolis firm; Olsen Fish Company of Minneapolis still sells a Kems brand of lutefisk alongside its own. Louis Kemp Seafood passed to Tyson, which still employed 190 people at the West Duluth plant making imitation crab in 1999, then to International Home Foods, the parent of Bumble Bee, and in 2000 to ConAgra. In August 2002 ConAgra announced that it would close the plant, which dated to the 1930s, and move production to Motley, Minnesota; about 120 jobs were lost. The Louis Kemp brand now belongs to Trident Seafoods of Seattle.

Kemp's story touches three of the paper's cities. It began by challenging Chicago's Booth, found its supply in the ports of Fort William and Port Arthur, and ended, for its oldest product, in Minneapolis. It is a reminder that Duluth did produce capital of its own. What it could not do, time and again, was keep it.

Sources: The author's own knowledge (the Ontario plant, the return to U.S. sources, lutefisk, and the 1980s sale to a Minneapolis firm); *National Park Service, Booth Island Fishery*; *Fishermen and Their Trade on Canadian Lake Superior*; A. Kemp Fisheries; *Duluth News Tribune*, "Kemp Seafood plant will leave Duluth"; *Mesabi Daily News*, "Plant Closing," August 23, 2002; Jewish Book Council, Louie Kemp; *Jewish News*, 2025; Olsen Fish Company, lutefisk brands; Trident Seafoods.

The gateway and its sister cities

The phrase "sister cities" usually means a formal friendship between towns. The cities in this paper were sisters in a harder sense: they shared Duluth's wealth, and most of them kept the larger share. Philadelphia and Chicago came and went. Montreal built a rival. Buffalo, Cleveland, and Pittsburgh took the grain and ore on to the next stage of their journey. New York and the Twin Cities owned and organized what remained.

Yet the ranking in this paper is not a list of losses. Each chapter found something Duluth held that the other city could not: the harbor at the western end of the lakes, the shortest haul from the spring-wheat country, the docks where the Mesabi met the ships. The sister cities needed Duluth as much as Duluth needed them. What they did not need was for Duluth to own anything.

The Kemp story shows that Duluth could build capital of its own when an opening appeared. The sister-city story shows why that capital so often left: the price, the market, and the next round of investment were set elsewhere, and a successful Duluth firm was worth the most to someone else. What stayed was what could not be moved: the harbor, the work, and the people who did it.

The Capital of the Northwest ends by observing that the history of Minneapolis cannot be separated from the history of Duluth. This paper extends that sentence to eight cities. Duluth's history was written in all of them, and theirs, in part, was written at the head of the lakes.

Source note

Except for the Kemp case, this conclusion rests on the author's papers and this paper's own chapters.

From the author's papers

- *The Capital of the Northwest*: the gateway thesis, Duluth's retained physical assets, the steel plant concession and the 1971 closing, and the closing observation that Minneapolis's history cannot be separated from Duluth's.
- *Common Wealth*: the docks as chokepoints; Duluth's AFL and CIO unions, Local 1028, the 1937 timber strike and Henry Paull; Billy McEwen and the 1913 workers' compensation law; the 1912 streetcar strike; the survival of labor institutions; and the principle that the ore was fixed but the processing was not.

From the author's own knowledge

- Kemp Fisheries' Ontario plant, its return to U.S. sources, its lutefisk, and the 1980s sale of the lutefisk line to a Minneapolis firm.

New sources

- The Kemp case: National Park Service; the history of the Canadian Lake Superior fishery; the *Duluth News Tribune* and *Mesabi Daily News* on the 2002 plant closing; profiles of Louie Kemp; Olsen Fish Company; Trident Seafoods.