

THE RIVER Introduction

“Great River”

The Mississippi River valley has been inhabited by humans for nearly 11,500 years. Its modern name comes from the Ojibwe word *misi-ziibi* (“Great River”) — and thus the English name actually means “Great River River.” In the 1600s it brought European explorers and fur trappers to Minnesota; they were soon followed by soldiers, settlers and merchants. As the area around the Twin Cities came under United States control, the river became an artery for commerce and shipping.



THE RIVER

Nicollet Island



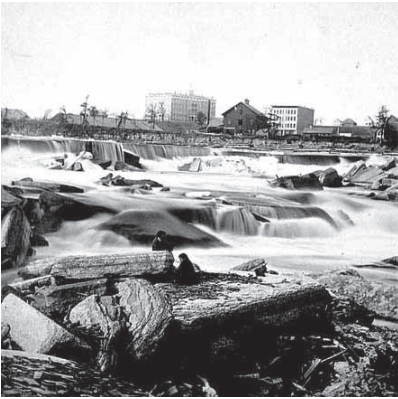
Nicollet Island

First settled in the 1860s, 40-acre Nicollet Island is the only inhabited island on the Mississippi River. On its north end, a historic district contains 43 restored Victorian-era homes.

Though originally used for factories and warehouses, the industry is long gone, leaving quiet residential streets and acres of parkland along the shoreline.

Other amenities include the 10,000-square-foot Nicollet Island Pavillion, DeLaSalle High School and the Nicollet Island Inn, housed in a former factory that also once served as a Salvation Army shelter.





St. Anthony Falls

St. Anthony Falls is the only major, natural waterfall on the Mississippi River. It's located in Minneapolis, just downstream from Nicollet Island.

The falls were known to the tribes of the area by various names: Kakabikah ("Waterfall over a cliff") to the Ojibwe, Minirara ("Curling water") and Owahmenah ("Falling water") to the Dakota. In 1680, Father Louis Hennepin became the first European to view the falls; he named them "St. Anthony Falls" after his patron saint, Anthony of Padua. Today the entire area is part of a national historic district.

Geology

The falls first appeared about 10,000 years ago and several miles downstream, where Fort Snelling sits astride the confluence of the Mississippi and Minnesota rivers. At the time the Mississippi flowed into a huge glacial river known as the River Warren, which carved the valley that the Minnesota flows through today.

In the centuries since the water has cut its way down and backward through the sandstone and limestone to its present location and height (about 76 feet total, broken up by dams and locks).

Industry

The falls were first used to generate power in 1848, when they were partly dammed for use by a sawmill. Demand for power boomed, leading to further damming and the excavation of vertical shafts to increase usable water flow. That led to increased erosion and ended in the 1869 collapse of an underwater tunnel, which washed away a large chunk of what was then Hennepin Island (it's now part of the shoreline). Fearing that the falls might collapse altogether, the government built the dams and concrete apron that protect the falls today.

Navigation

Indians established a portage trail around the falls, carrying canoes from a spot near the Southeast Steam Plant to a spot above the falls. That remained the only way to reach the upper Mississippi until 1948, when the Army Corps of Engineers began building a series of locks and dams. Though small, they allow limited commercial shipping on the upper river.





University of Minnesota

What eventually became the University of Minnesota's Twin Cities campus was founded as a prep school in 1851, seven years before Minnesota became a state. It moved to its present site on the east bank of the Mississippi River in 1857. That year it had 26 students.

Financial problems forced the University to close during the Civil War. It reopened in 1869 as a land-grant school. The first degrees — two of them — were granted in 1873; the first doctorate was awarded in 1888.

Since then, the system has expanded to 4 campuses, enrolling 66,000 students a year. The Twin Cities campus is one of the top three research universities in the country, offering degrees through 20 different colleges.



THE RIVER Ford plant



Twin Cities Assembly Plant

Built in 1924, the Twin Cities Assembly Plant is the oldest Ford plant still in operation. Built on 122 riverfront acres and employing 1,900 workers, the factory floor covers more than 2 million square feet. It has its own dam to generate electrical power and for years the sandstone underneath the plant was mined and used to make window glass.

The plant primarily makes Ranger and Mazda B-Series pickup trucks, and has long been known as one of the most efficient factories Ford has. But Ford's financial problems, the declining popularity of small pickups and the plant's age led Ford to announce in 2007 that the plant would close in 2008. The loss of well-paying jobs is a significant blow to the local economy. On the other hand, the closure will make the sprawling site available for development.



THE RIVER Fort Snelling



Fort Snelling

Built between 1819 and 1825 on the bluffs overlooking the confluence of the Mississippi and Minnesota Rivers, Fort Snelling played a pivotal role in the settling of Minnesota.

Called “Fort St. Anthony” during construction, it was renamed Fort Snelling after Col. Josiah Snelling, who oversaw the building project and became the fort’s first commander. Snelling was the northwestern-most outpost of a string of forts stretching back to

Lake Michigan, construction of which began after the War of 1812. The forts let the United States take control of the valuable British-dominated fur trade in the area by keeping noncitizens from using the major rivers for shipping — the first step toward establishing firm ownership of the sprawling land.

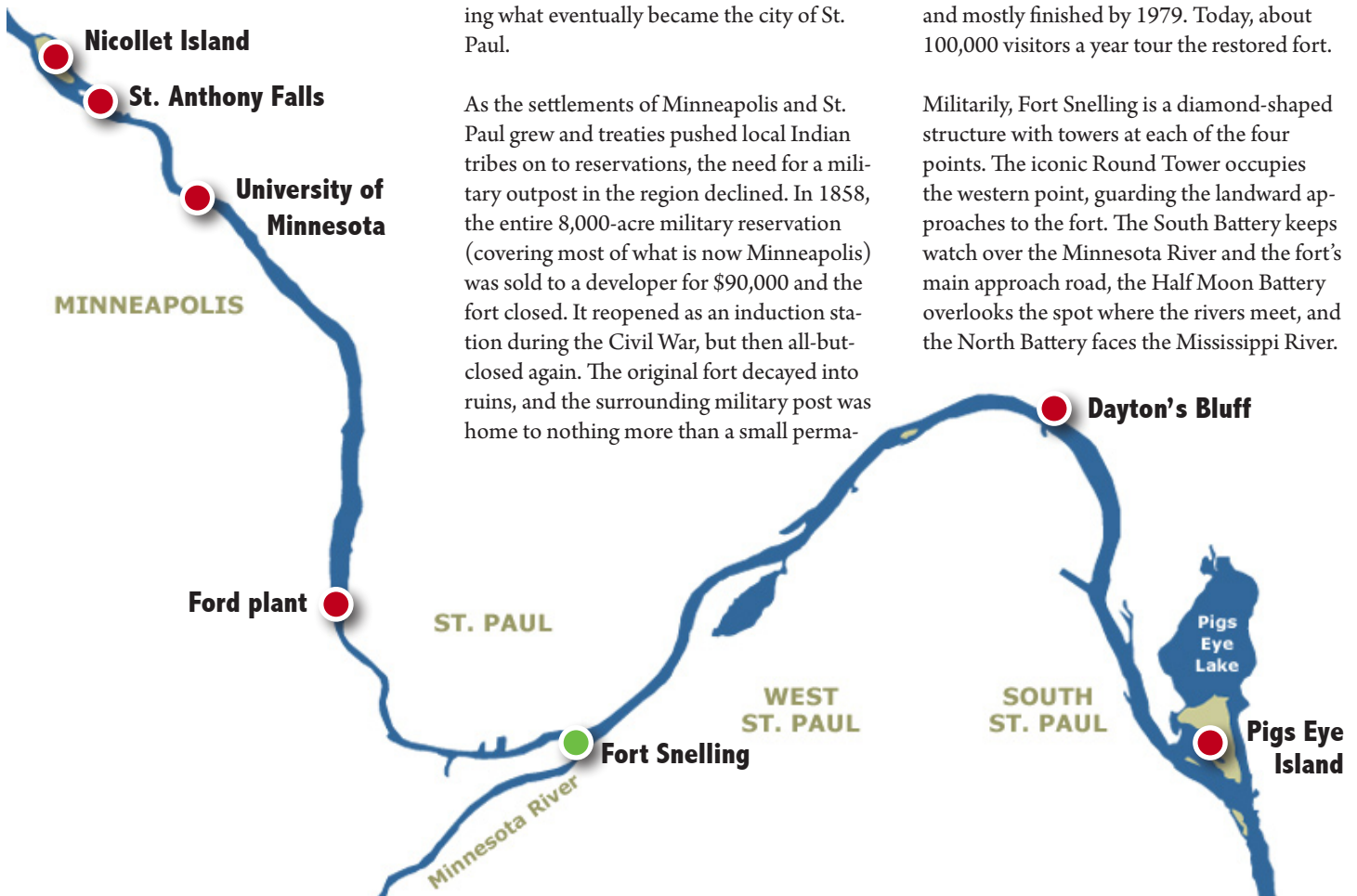
The fort drew traders, Indians and merchants, and over the next 30 years a community sprang up around it, including a group of Scotch and Irish refugees fleeing a troubled colony in Canada. The refugees were ordered to move further downriver in 1839 — forming what eventually became the city of St. Paul.

As the settlements of Minneapolis and St. Paul grew and treaties pushed local Indian tribes on to reservations, the need for a military outpost in the region declined. In 1858, the entire 8,000-acre military reservation (covering most of what is now Minneapolis) was sold to a developer for \$90,000 and the fort closed. It reopened as an induction station during the Civil War, but then all-but-closed again. The original fort decayed into ruins, and the surrounding military post was home to nothing more than a small perma-

nent garrison for the next 80 years. World War II provided one final heyday for the fort. Once again pressed into service as an induction station, Fort Snelling gave more than 300,000 soldiers their first taste of military life. For many of them Fort Snelling was also their last stop before leaving the military after the war ended.

Interest in restoring the original fort picked up after the war’s end. It hit a crisis point in 1956, when highway planners proposed encircling the round tower — one of the few structures still standing — with a highway cloverleaf. Public outrage killed that idea and led to a series of archaeological digs that uncovered the perimeter of the old fort. In 1961 the state established the 2,800-acre Fort Snelling State Park, and the original fort site itself became Minnesota’s first national historic landmark. Reconstruction began in 1965 and mostly finished by 1979. Today, about 100,000 visitors a year tour the restored fort.

Militarily, Fort Snelling is a diamond-shaped structure with towers at each of the four points. The iconic Round Tower occupies the western point, guarding the landward approaches to the fort. The South Battery keeps watch over the Minnesota River and the fort’s main approach road, the Half Moon Battery overlooks the spot where the rivers meet, and the North Battery faces the Mississippi River.





Dayton's Bluff

This once-wealthy neighborhood sits on a large, high bluff overlooking the Mississippi. The bluff and the neighborhood are both named after Lyman Dayton (no relation to the department store Daytons), the land speculator who bought the 5,000-acre site in 1849. He designed it as a neighborhood of wealthy homeowners to rival Summit Hill, though it never quite reached that height. Most of the stone mansions built at the time have since been demolished, replaced by Victorian-era homes that are still there today.

Humans have occupied the site for thousands of years. Ancient burial mounds dot the bluff. From the 1600s to the mid-1800s it was home to a large Dakota village, Kaposia. The Dakota also used the bluff as a burial ground. At the base of it was Carver's Cave, a huge cavern containing rock paintings and an underground lake. It was largely destroyed by railroad construction in the late 1880s.

The first European to stake a land claim on the bluff was William Evans, a discharged soldier from Fort Snelling who established a farm there in the 1830s. He had served with, and was friends of, John Hays and Edward Phalen, both of whom settled nearby. Hays later became St. Paul's first murder victim, with Phalen (for whom Phalen Park is named) charged with the killing; Evans testified at the trial.





Pigs Eye Island

This low, swampy island is home to Minnesota's largest heron rookery. But it is perhaps best known for the role it played in the story of Pierre "Pig's Eye" Parrant, the first settler in what is now St. Paul (and whose whiskey operation gave the area its first name, Pig's Eye).

After losing or selling the claim near Fountain Cave that made Parrant famous, he tried to stake a claim to a site on the island (then known as Pointe LeClaire) in 1844. The island's existing tenant, a carpenter named Michel LeClaire, objected and took Parrant to court. Neither claim was clearly superior, so the judge ruled that neither man had properly staked a claim and the first person to do so would get the land. That led to an eight-mile footrace through swamp and forest, a race that the far-younger LeClaire narrowly won.

Parrant was so incensed at the outcome that he left Minnesota for good, leaving behind a legend. He also got the last laugh on LeClaire, as the island in question now bears his name. It's also now home to Minnesota's largest sewage-treatment plant.



THE RIVER History

The history of the Mississippi in the Twin Cities

The modern Mississippi River formed 12,000 years ago during the last ice age. While the Twin Cities region was covered and flattened by glaciers, the Great Lakes and a wall of hard rock diverted the ice flows away from south-eastern Minnesota, leaving a glacier-free area known as a coulee.

As the glaciers melted they formed huge lakes (one, Glacial Lake Agassiz, was larger than all the Great Lakes combined, covering northwestern Minnesota and extending far into Canada). Their runoff carved the river valley through the Twin Cities flats and into the coulee.

Human activity

Humans arrived in the area 11,500 years ago. As the melting glaciers retreated to Lake Superior, human hunters moved north following mammoths, giant beavers and other megafauna. Evidence of these early humans has been found at sites throughout Minnesota, including some in Hennepin County. The most commonly found items are arrowheads.

Around 10,000 years ago a drought killed off the mammoths and cleared the way for the rise of the buffalo. Humans shifted to hunting

this new animal, but otherwise remained nonomadic hunter-gatherers.

The first evidence of agriculture appeared 4,000 years ago with the rise of the Woodland people, who are best known for their burial mounds — many of which are still visible today. Lower Grey Cloud Island, just south of the Twin Cities along the Mississippi, is home to an Early Woodland site. You'll find information on other sites on the Links page.

The Woodland people were part of a robust trade network that stretched across the continent. Some excavated mounds contained flint knives from the Rocky Mountains and copper axes — highly prized metal tools — from the Lake Superior area.

The Mississippian culture appeared about 1,000 years ago, featuring bows and arrows and a more advanced agriculture. They thrived for centuries until disappearing in the 1600s, forced out by other Indian tribes and the arrival of Europeans.>

European exploration

The French were the first European explorers to enter Minnesota, coming down from what

is now Canada. In the 1660s they explored the western end of Lake Superior. In 1673, A Catholic missionary, Jacques Marquette, and fur-trader Louis Joliet led a canoe expedition across Wisconsin, following the Wisconsin River to where it flows into the Mississippi near modern-day Prairie du Chien, on the Wisconsin-Iowa border. They were the first Europeans to lay eyes on the Mississippi.

Six years later, Sieur Du Luth (after whom the city of Duluth is named) traveled from Lake Superior as far south as Lake Mille Lacs, while Pierre and Jean Pepin, coming up the Mississippi from the south, explored the Lake Pepin area.

A year later, in 1680, Sieur de La Salle led an expedition to the juncture of the Mississippi and Illinois rivers. While the main group turned back (they would return the next year and travel south to the Gulf of Mexico), he sent Michel Aco and Father Louis Hennepin north to explore the upper reaches of the Mississippi. They discovered the source of the Mississippi and became the first Europeans to see (and name) St. Anthony Falls.

THE RIVER About the site

Who I am

My name is Steven Ray. I'm a graphic designer who earns his daily bread designing pages for the Star Tribune newspaper here in Minneapolis.

About this site

"The River" began as an assignment for a Web design class I took at Minneapolis Community College. My task was to design a small Minneapolis-related website; the Mississippi seemed like a natural topic for the project. But once I got into it I got a little carried away. There were so many fascinating details, and every new story led to another,

equally interesting one — or related back to existing stories in interesting ways. I ended up doing far more research than was healthy or sane, and the result is what you have here: An ongoing effort that I hope is a fun and intriguing introduction to the history and spirit of the river.

Contact me

I'm just one guy putting this thing together in my spare time, without editors or research assistance. So if you find a typo, an error, or feel I've left out something important or interesting, e-mail me at raytri@yahoo.com and let me know.

Cool facts about the Mississippi

Length

Hard to say, because the river's winding channel is constantly changing. The best estimates put it between 2,300 and 2,500 miles.

Width

20 to 30 feet at the headwaters; four miles wide at Lake Onalaska (near LaCrosse, Wis.), where a dam on the Black River helps hold water in the river channel. The widest natural point on the river is Lake Pepin, with a width of 2 miles.

Depth

Less than 3 feet at the headwaters; about 200 feet deep near New Orleans.

Elevation

1,475 feet above sea level at the headwaters; it loses more than half of that before leaving Minnesota, and then gradually descends to sea level where it enters the Gulf of Mexico.

Sediment load

The river carries an average of 436,000 tons of sediment each day. That adds up to 159 million tons over the course of a year. Dirt weighs about 120 pounds per cubic foot, so that's enough dirt every day to make a pile 220 feet wide at the bottom and 144 feet tall — the height of a 14-story building. In a year it would make a pile 1,320 feet across and 1,455 feet high — six times wider and a little higher than the Sears Tower in Chicago.

Current speed

1.2 mph at the headwaters; 3 mph at New Orleans. A raindrop falling on the headwaters at Lake Itasca would take about 90 days to reach the Gulf of Mexico.

Flow rate

6 cubic feet per second at the headwaters, meaning if you were standing on the bank and not moving, six cubic feet of water would flow past you every second — barely enough to fill a standard bathtub in

two seconds. At New Orleans, the average flow rate is 600,000 cubic feet per second — enough to fill 44,500 bathtubs every second.

Where's the water come from?

The Mississippi's water shed covers 41 percent of the continental United States, encompassing 31 states and two Canadian provinces. Any rainwater or snow melt in that area that doesn't trickle down into underground aquifers ends up in the river.

Agriculture

All that water and sediment produces rich farmland. 92 percent of the United States' agriculture exports come from the Mississippi River basin.

Shipping

The river is a highway, too: 850 miles of it are navigable to barges. 60 percent of U.S. grain exports (accounting for 78 percent of all grain exports worldwide) are shipped down the Mississippi to freighters waiting in New Orleans. The Ports of New Orleans and South Louisiana and Baton Rouge cover 172 miles of riverbank, and together form the largest port in the world in terms of tonnage shipped.

Wildlife

60 percent of all North American birds use the Mississippi River basin as their migratory path. The river and its tributaries are home to 241 species of fish.

Boundaries

Minnesota is the only state the Mississippi flows through; it forms the border of nine other states.

Locks and dams

Of the 850 navigable miles, 670 are reachable only because of 29 locks that mark the river between Minneapolis and St. Louis. 10 are either in Minnesota or on a stretch of the river that Minnesota shares with Wisconsin.

THE RIVER Links

General information

Wikipedia entry on the river

http://en.wikipedia.org/wiki/Mississippi_River

Facts and figures from the National Park Service

<http://www.nps.gov/archive/miss/features/factoids>

Locks and dams on the river

<http://www.mvp.usace.army.mil/recreation/default.asp?pageid=145>

Ancient history of the river valley

Summary at About.com

<http://minneapolis.about.com/cs/history/a/aa122200a.htm>

Minnesota's geological history

<http://www.mnsu.edu/emuseum/prehistory/minnesota/geology/prehistoricminnesotageology.html>

Minnesota's glacial history

<http://www.mnsu.edu/emuseum/prehistory/minnesota/geology/glacial-past.html>

Geography

Navigation charts. They form the basis for the map used on this site

<http://www.mvp-wc.usace.army.mil/ftp/pub/navcharts>

A tour of the river coming through the Twin Cities from the south

<http://www.big-river.com/GEMA4.html>

A field guide to interesting sites along the river

http://fieldguide.fmr.org/browse_main_map.php

Human prehistory

List of Minnesota archaeological sites

<http://www.mnsu.edu/emuseum/prehistory/minnesota/sites>

All about arrowheads

<http://www.tcinternet.net/users/cbailey/lithic1.html>

Burial mounds

The Bloomington mounds as viewed by the city

<http://www.bloomington.k12.mn.us/departments/technology/ConTech/BLOOMING/BloomingtonHistory.htm>

Pulse magazine article on excavating burial mounds

<http://www.pulsetc.com/article.php?sid=1539>

Burial mounds in Minnesota

<http://www.mnsu.edu/emuseum/archaeology/sites/mn/bloomington-mounds.html>

European exploration

Jacques Marquette and Louis Joliet

<http://www.mrnussbaum.com/history/marquette.htm>

Timeline (pdf) of French exploration in America

<http://courseweb.stthomas.edu/mlwlosey/mnaatf/MNFrenchFacts.pdf>

Robert Cavalier de La Salle

http://encarta.msn.com/encyclopedia_761565370/La_Salle.html

Wikipedia entry on Louis Hennepin

http://en.wikipedia.org/wiki/Louis_Hennepin

Nicollet Island

Wikipedia entry

http://en.wikipedia.org/wiki/Nicollet_Island

Nicollet Island Inn

<http://www.nicolletislandinn.com>

Nicollet Island community organization

<http://nicolletisland.org>

Information about living on the island

<http://nicolletisland.com/index.shtml>

St. Anthony Falls

Wikipedia entry

http://en.wikipedia.org/wiki/Saint_Anthony_Falls

Glacial River Warren

http://en.wikipedia.org/wiki/Glacial_River_Warren

River Warren Falls

<http://www.nps.gov/archive/miss/maps/model/rwfalls.htm>

1869 tunnel collapse

http://en.wikipedia.org/wiki/Hennepin_Island_tunnel

Historic district

http://www.ci.minneapolis.mn.us/hpc/landmarks/St_Anthony_Falls.asp

National Park Service data, including maps and photos

<http://www.nps.gov/archive/miss/maps/model/stanthony.html>

University of Minnesota

Wikipedia entry

http://en.wikipedia.org/wiki/University_of_Minnesota

The University's description of its history

http://www1.umn.edu/twincities/01_abt_gen_hist.php

The Morrill Land Grant Act of 1862

http://en.wikipedia.org/wiki/Morrill_Land-Grant_Colleges_Act

A Minneapolis Public Library writeup

<http://www.mpls.lib.mn.us/history/ed2.asp>

Ford Motor Co. assembly plant

Wikipedia entry

http://en.wikipedia.org/wiki/Twin_Cities_Assembly_Plant

St. Paul's redevelopment planning site

<http://www.stpaul.gov/depts/ped/fordsite>

MPR report on the plant's closing

<http://minnesota.publicradio.org/display/web/2006/04/13/fordclosure>

Fort Snelling

Wikipedia entry

http://en.wikipedia.org/wiki/Fort_Snelling,_Minnesota

Minnesota Historical Society page

<http://www.mnhs.org/places/sites/hfs/history.html>

Col. Josiah Snelling, the fort's namesake

http://en.wikipedia.org/wiki/Josiah_Snelling

The story of the fort's restoration

<http://www.mnhs.org/places/sites/hfs/map/fortrest.html>

A virtual tour of the fort

<http://www.mnhs.org/places/sites/hfs/tour/tour.html>

The surrounding park

http://www.dnr.state.mn.us/state_parks/fort_snelling/index.html

Dayton's Bluff

Wikipedia entry

http://en.wikipedia.org/wiki/Dayton's_Bluff

A photo tour of the neighborhood's historic houses

<http://www.geomyidae.com/index.php?TopicID=daytonsbuff>

Ramsey County Historical Society article

<http://www.rchs.com/neighborhoods/daytonbluff.htm>

Indian Mounds Park

<http://www.nps.gov/archive/miss/maps/model/mounds.html>

Carver's Cave

http://fieldguide.fmr.org/site_detail.php?site_id=281

Neighborhood community council

<http://www.daytonsbuff.org>

Pig's Eye Island

The heron rookery

<http://www.dnr.state.mn.us/snas/sna01009/index.html>

Biography of Pierre Parrant

http://en.wikipedia.org/wiki/Pierre_Parrant

Fountain Cave article

<http://www.nps.gov/archive/miss/maps/model/fountain.html>

Michel LeClaire's run-in with Pierre Parrant over the island

<http://www.lareau.org/pep-l.html#leclaire>

An 1876 Minnesota Historical Society account of the LeClaire-Parrant dispute (Google Books; turn to page 147)

http://books.google.com/books?id=w_w7AAAAIAAJ

Other locations

Lake Pepin

<http://www.mississippi-river.org/lakepepin.html>

Tourist information

The river in Minnesota

http://www.twincitiestours.com/info_mississippi_river.html

1995 New York Times travel piece on islands in the Twin Cities part of the river

<http://query.nytimes.com/gst/fullpage.html?res=990CE7DC103DF93BA25755C0A963958260>

The Experience the Mississippi website, containing travel information for the full length of the river

<http://www.experiencemississippiriver.com/home.cfm>

THE RIVER: A visual introduction to the Mississippi • <http://stevenray.name/theriver>