

# MISSISSIPPI RIVER GORGE

The Mississippi River Gorge is a unique geological feature stretching from St. Anthony Falls to Fort Snelling. The 100-foot limestone bluffs are studded with natural springs and waterfalls, and sections of oak savanna, mixed hardwood, and floodplain forests. Near downtown St. Paul, the river opens up into a broad floodplain for its downstream course.

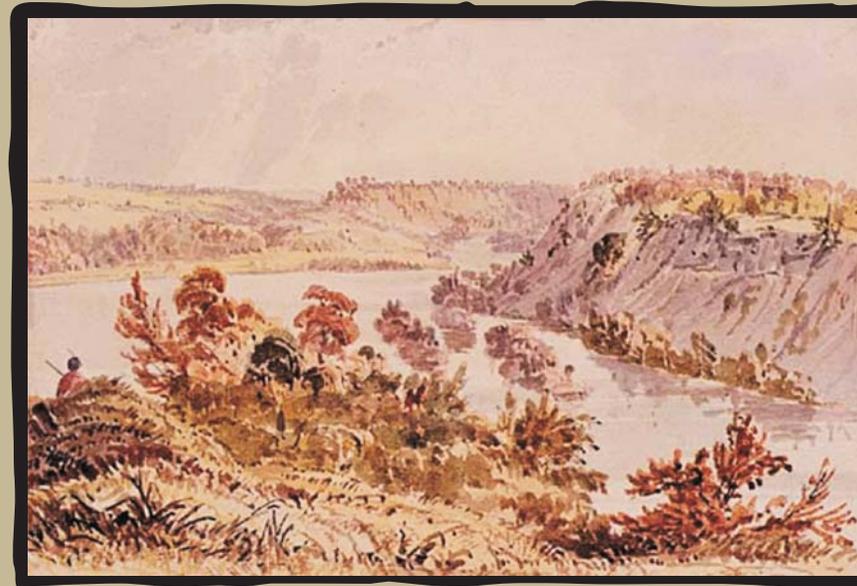
The last major advance of continental glaciers about 10,000 to 30,000 years ago shaped the layers of shale, Platteville Limestone and St. Peter Sandstone that were deposited more than 500 million years ago by inland seas. Sheets of glacial ice deposited layers of drift--pebbles, rocks, and sand--that comprise the soil underlying St. Paul.

About 13,000 years ago, Glacial River Warren flowed from the immense Glacial Lake Agassiz through the Minnesota River lowlands and excavated through the glacial drift below Trout Brook. A waterfall formed where the river encountered the hard Platteville Limestone. When the water dropped off the limestone ledge, it eroded the soft St. Peter Sandstone below the lip and the limestone collapsed in great tabular blocks; these blocks remain along the river valley.

Geologists have long been fascinated with the story of the movement of the ancient waterfall: from the river bend in downtown St. Paul, the falls worked their way upriver to Fort Snelling and the future confluence of the Minnesota and Mississippi rivers. The falls then stood 200 feet tall and were nearly a mile across. The falls next split in two; one branch ascended up the Minnesota River Valley for two miles until it reached

*This gorge from the Falls of St. Anthony to St. Paul has become a classic spot to the geographer and geologist. It represents more concisely than any other river valley in America the difference in a gorge made in the morning of the earth's history and another made last evening.*

The Journal of Geography (1902)



From Fort Snelling Looking Up, Seth Eastman, 1846.



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1. Mississippi River Gorge, 1895. (Mississippi River Commission)  
\* You are here 2. Two views of the gorge, left 1896; right, 1902.

a buried channel and disappeared. Present-day St. Anthony Falls ascended along the Mississippi Valley, traveling about eight miles during the next 10,000 years. When Father Hennepin saw and named the falls in 1680, they were about 3,000 feet south of their current position in Minneapolis.

Early explorers recorded their travels through the high bluffs of the gorge; in 1817 Colonel Stephen Long wrote the bluffs were

*decorated with Trees and shrubbery of various kinds. The Post Oak, Hickory, Walnut, Lynden, Sugar tree, White Birch and the American Box, also various evergreens, such as the Pine, Cedar, Juniper &c. added their embellishment to the scene. Amongst the shrubbery were the Prickly ash, Plumb & cherry tree, the goosberry, the Black and red raspberry, the Choak berry. Grape vine &c.*



Cross-section of the river near Meeker Dam, 1910. (U.S. Geological Survey)

The gorge became the heart of the vision of Chicago landscape designer H.W.S. Cleveland. In 1883 he encouraged the cities of St. Paul and Minneapolis to create a linked park system of boulevards. Cleveland praised the river banks "covered with a magnificent growth of trees and shrubbery, assuming all the picturesque forms which are incident to such growth in such a place, and which no art could imitate."

Photos courtesy Minnesota Historical Society unless noted.  
Funded in part by Federal Highway Administration.

