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Subterranean Venice

“And Styx with nine wide channels roars around.” Milton, *Paradise Lost*

During the half-century between 1880 and 1930, Minneapolis was the flour milling capital of the world, drawing upon the hard spring wheat of Minnesota and the Dakotas, and milling it into flour by means of the water power generated at St. Anthony Falls. The casual visitor to Mill Ruins Park in Minneapolis today, however, should realize that much of what he or she sees in that park was once hidden under the old Shiely gravel yards, and part of a complex subterranean landscape that has now vanished. If you wanted to see those same mill tunnels even a dozen years ago you would have had to put on your coveralls, grab your flashlight, and embark upon the subterranean waters in a makeshift raft.

The mill tunnels in this part of the system were flooded to a depth of 8 feet with stagnant green water. Or I should say that the water appeared green in the light of a flashlight, while it was more probably just a loathsome gray. Moored on the beach, however, was a sturdy wooden raft, about the size of a garage door, and supported by 55-gallon steel drums for floats. Standing on this raft, it was easy to propel ourselves up and down the canals with a pole, like a subterranean gondolier, and hence the tailrace system was soon dubbed “Subterranean Venice.” In places where our pole wasn’t long enough to touch the bottom of the tunnel, we’d have to push along the walls to move forward. In some of the tunnels there were narrow stone ledges along which we could walk for some distance, but rarely did they go all the way to the ends of the tunnels—and that’s where the voids got interesting.

Poling ourselves up the largest of these tunnels, the First Street Tunnel, for example, we’d see dark openings high up in the walls—windows, as it were, into even more passages. It was great fun to stop and climb up into them—securely mooring the raft so that it didn’t float away while we were thus engaged. I’ll tell you some of these adventures after explaining how the mill tunnels operated. The terminology and tunnel names I use are those of the official archeological survey carried out in the 1980s.

In 1857, the Minneapolis Mill Company began digging the First Street Canal parallel to the Mississippi River. Underneath it, the First Street Tunnel was dug. The canal was covered over with wooden planks where it ran along First Street (this plank road has been recreated in Mill Ruins Park). Water, diverted from the river, entered the upstream end of the canal through a gatehouse (which filtered out debris such as logs), was carried out to the individual mills by branch canals, and then spilled down through holes into the tailrace tunnels below. The water fell through iron draft tubes up to 4 feet in diameter, spinning turbines on the way down, and hitting deflection cones at the bottom (to prevent erosion of the floor). The water then flowed through the various tailrace tunnels, called spurs, which merged to form the First Street Tunnel. The latter emptied into an open-air channel that carried the water back to the river. I would have loved to see this magnificent underground space back in its glory days, when the mills were running full blast. Back then there were strings of lights running through the tunnels, and good boardwalks for the workers to use. Most of that wood was scavenged afterwards, leaving the inexplicably bare tunnels we see today.