

John Gunn's Water Mill

The Story in Five Drawings

JOHNN GUNN'S WATER-POWERED mill, built more than 160 years ago, in 1852-53, was for about a dozen years a significant business in what is now the Lockport area just north of Winnipeg. Like the other seven water and 18 wind mills that served the growing Red River Settlement in the mid-nineteenth century, John Gunn's mill was essential for converting local farmers' wheat to flour, and thus to bread. All of these operations are long gone (a replica of Cuthbert Grant's 1829 mill stands in Winnipeg in the St. James area), with few physical traces of their existence. And there generally are only sketchy written accounts of their operations.

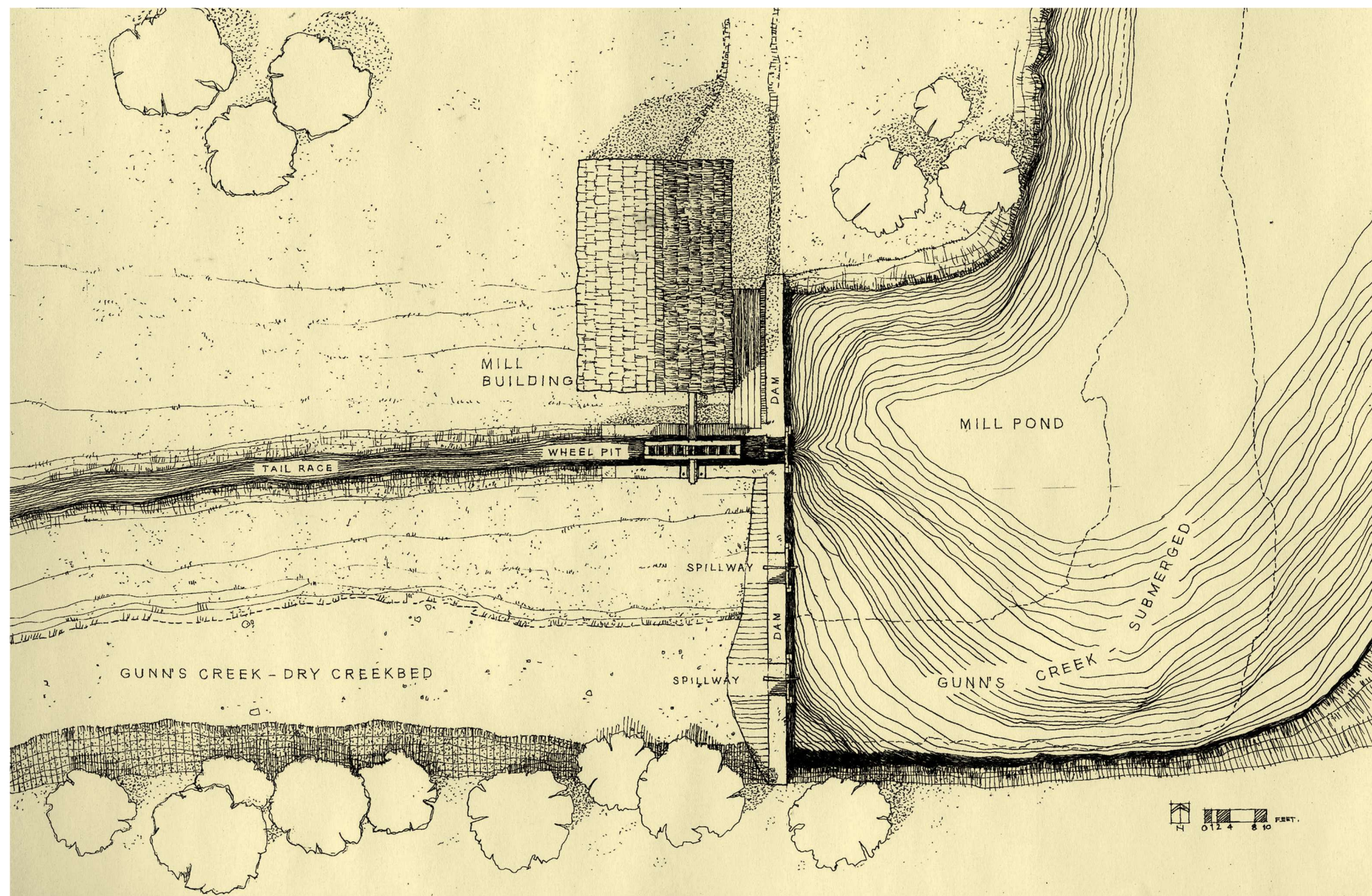
There is, however, one account, of John Gunn's mill, that provides a vivid and useful description that can be used to imaginatively recreate an early Manitoba water-mill operation.

This booklet, which focuses on the building and site through five drawings, is extracted from a larger report developed for the St. Clements Heritage and Tourism Committee, and which provides a great deal more information on the history and context of the site, and of the history and development of water mill in Manitoba. It is recommended that anyone interested in this fascinating subject, and the individual story of John Gunn and his water mill, consult that report for more in-depth material.

The following images and support texts are a conjectural imagining of John Gunn's mill, which likely ceased operations in the late 1860s, when steam power made water and wind mills obsolete. It relies on a close reading of George Henry Gunn's ca. 1930 account of his father's mill,

from its construction to its operation; that account is reproduced as an appendix to this document.

The captions that accompany each of the following images contain specific recollections of George Henry Gunn with some additional reasoning based on an exploration of the site and of research undertaken on water mill operations. There are occasional instances where George Henry Gunn's information is slightly contradictory or where the absence of a key detail has required some interpolations to determine likely features and details. But for the most part, these drawings provide a reasonably faithful recreation of a Red River Settlement-era water mill – and serve as a reminder of the kind of ingenuity, skill and determination that attended Manitoba's earliest attempts at industry and manufacturing.

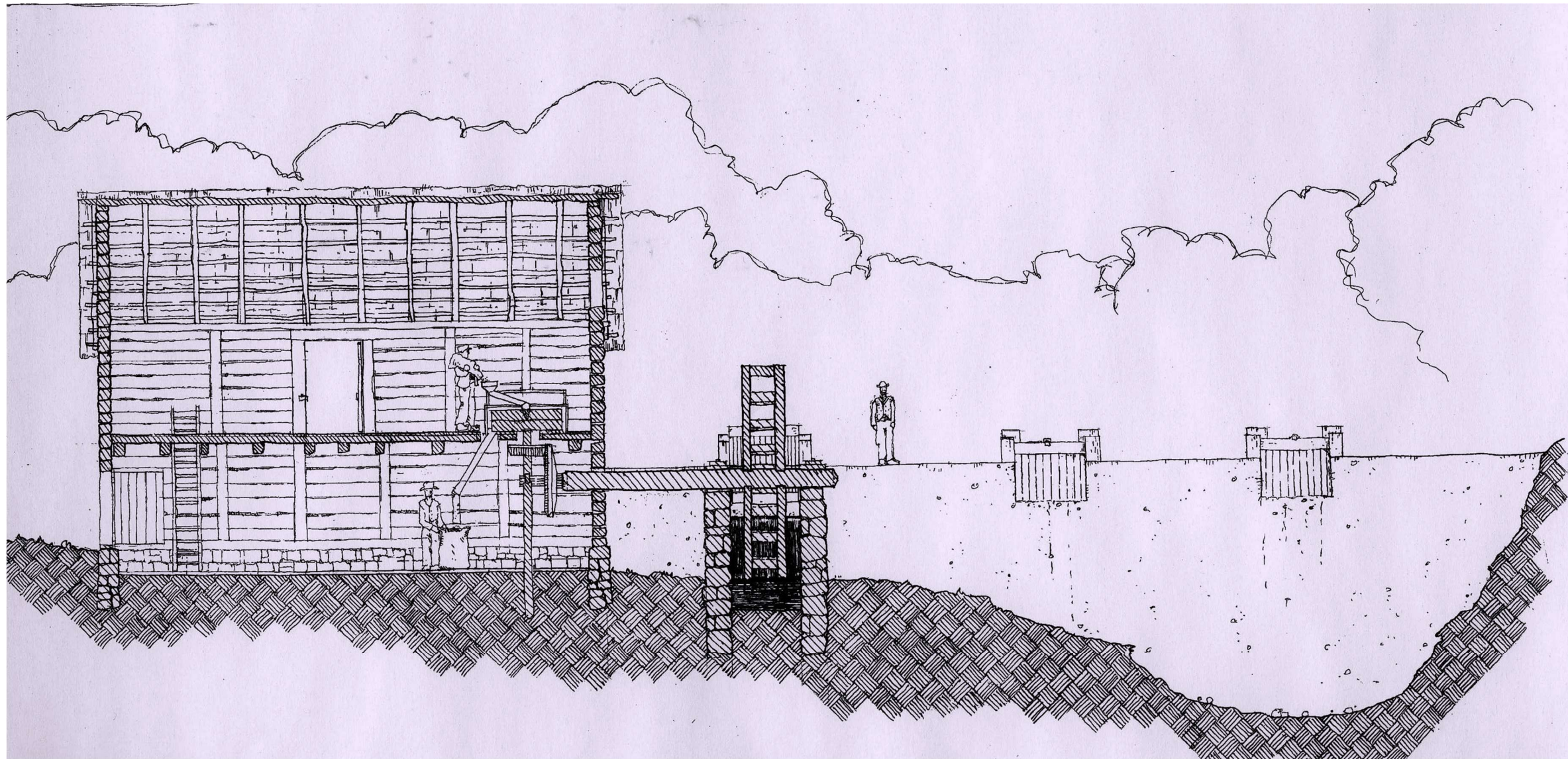


Gunn's Mill Site Plan

The site plan opposite has been developed using George Henry Gunn's account, supplemented with information about the operation of undershot water mills. The plan shows the mill on the north side of Gunn's Creek – this is not explicitly stated by George Henry Gunn, but is surmised by various details he provides. The site has been selected to correspond to the known stone debris field still visible at Gunn's Creek, presumed to be the remnants of the dam (it is thought that the larger stones from the dam and building were recycled in other building projects). The building is oriented north-south, with access on the east side and via a planked "bridge" situated between the building and the northern edge of the dam. George Henry Gunn observes that there were three spillways (and sluice gates), shown here, but does not describe a major—and critical—feature of the operation – the wheel pit. This has been determined to be in the position noted on the plan, to give adequate access to the mill building but also sufficient depth for the wheel to turn. George Henry does not describe the trench that must have been excavated to house the wheel and the tail race feature that would allow water to exit the wheel pit, and make its way back to the existing channel of Gunn's Creek.

The key features to note on this plan then are: the dam that interrupts the flow of Gunn's Creek and creates the mill pond; the main sluice gate, wheel, wheel pit and tail race that form the main features developed to convert water to power; and the mill building, in which all grain-grinding and production aspects were concentrated. The heavy graphic treatment of the building's roof describes that feature's material construction – grass thatch.

The drawing also shows the slightly steeper bank of the south side, and the situation of Gunn's Creek – submerged under the mill pond on the right and as a dry creek bed on the left.



Gunn's Mill Longitudinal Sectional Drawing

The technical drawing above shows the mill building, dam and land as if all were sliced vertically north to south to reveal their internal workings or construction. This kind of drawing is especially useful for showing how buildings are put together. In this instance the drawing also shows how the wheel pit was configured, how the axle attached to the wheel entered the building, and also how various other internal functions were organized and developed in the mill building. The dark hatching at the bottom of the drawing shows the slope of the land, including the dry creek bed of Gunn's Creek at the lower right. The dam is shown stretching from left to right, with sluice gates and spillways as per George Henry Gunn's account. Figures are used to give a sense of scale, and also within the building to suggest milling activities – on the upper level pouring a bag of grain into the grinding-stone hopper and in the lower level collecting in a bag the resulting ground flour distributed from the hopper by a chute. A key feature of the drawing is the wheel, wheel pit and sluice gate. The drawing shows how water from the main sluice gate would flow down into the wheel pit and through its force turn the wheel, which then would turn the large axle connected to the wheel and thence engage the wheels and gears within the mill building. The drawing also shows the main entrance into the second floor, the postern door on the north side used to access the ground floor, as well as a ladder that must have been used to move between ground and second floors – presumably through an opening in the floor of the second storey.