

# Bell/Ritson Tide Mill

The Ritson/Bell mill most likely was used to grind maize into cornmeal. The dried corn would be brought by small boat or gundalo. The corn is poured into the center hole of rotating runner stone. Cornmeal exits between the stones and is sifted to yield the desired consistency.

The mill would sit idle much of the day as the mill pond filled. The gates would close when the tide started to go out. When the tide was about half way to low the sluice gate would be opened by the miller and the mill would start turning.

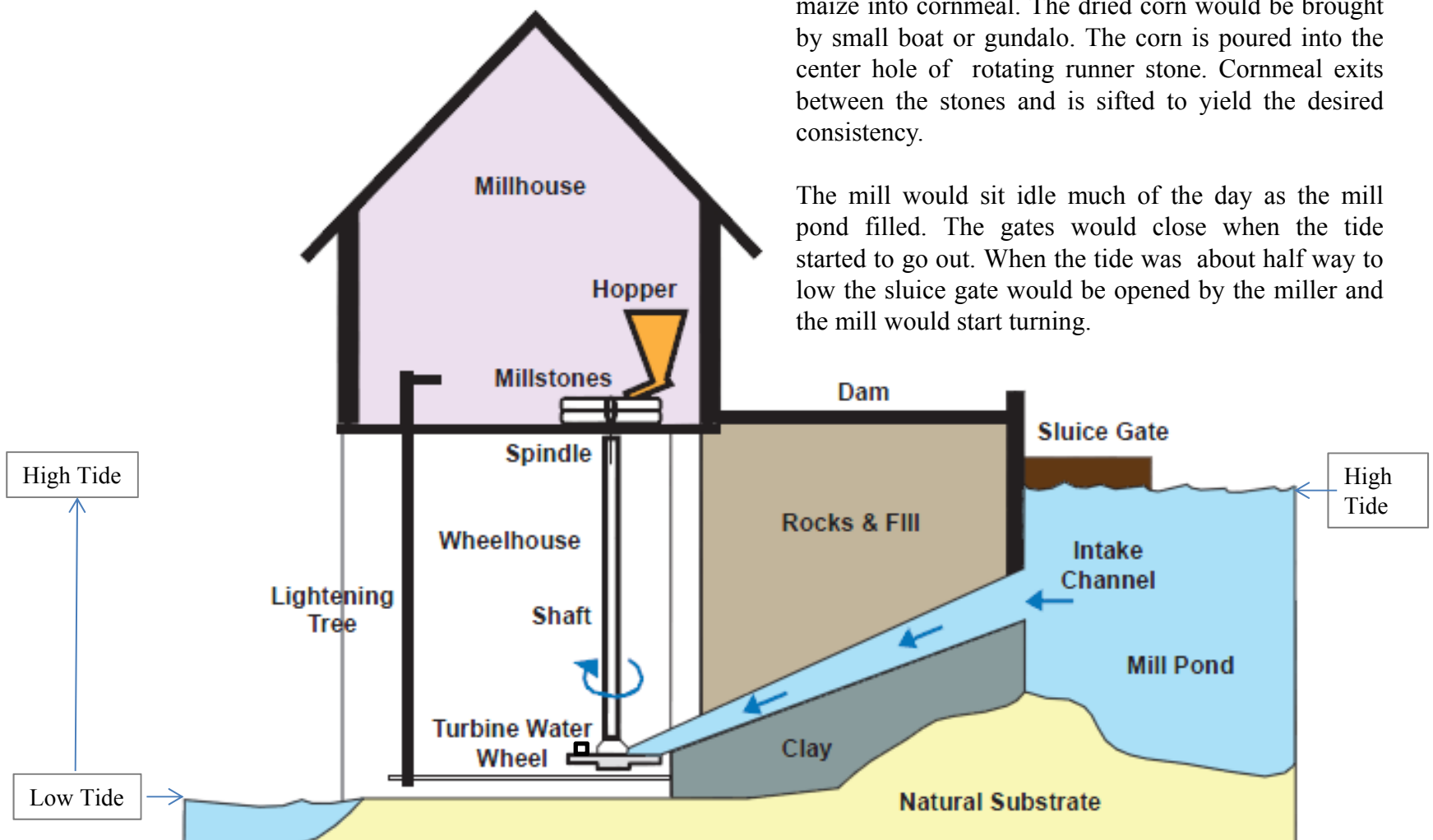
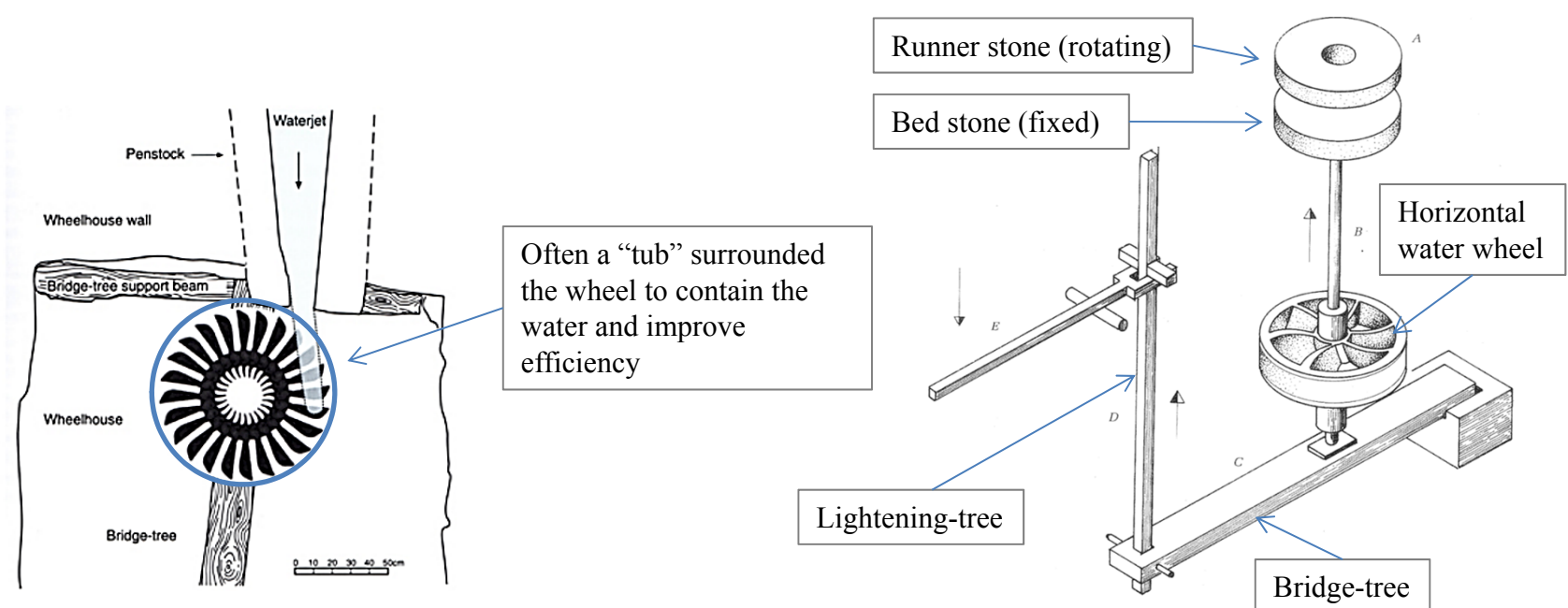


Illustration from *Harnessing the Tides* by McErlan & Crothers – Adapted by Denise Brown

The Ritson/Bell mill likely used a “horizontal” wheel. This type is well suited for tide mills with a shallow mill pond of 6-7 feet. It could operate for 2-3 hours every 12.5 hours. Every day the start and stop time would be about 1 hour later.

The Lightening tree was a common method of “tentering.” This is the term for raising the upper stone or “runner” to adjust the gap for a fine or coarse grind. The stones did not actually touch each other. The stones would rotate at a speed of 1-2 revolutions per second.



A plan showing the bridge-tree. Illustration from *Harnessing the Tides* by Thomas McErlan & Norman Crothers. 2007.

<http://www.waterhistory.org/histories/murcia/murciaill8.png>