

Run of the Mill

Archaeology and Industry



Laurel Historical Society
April 12, 2012



Tamara K. Hareven, *Amoskeag: Life and Work in an American Factory-City*, University Press of New England, Hanover, NH 1978.

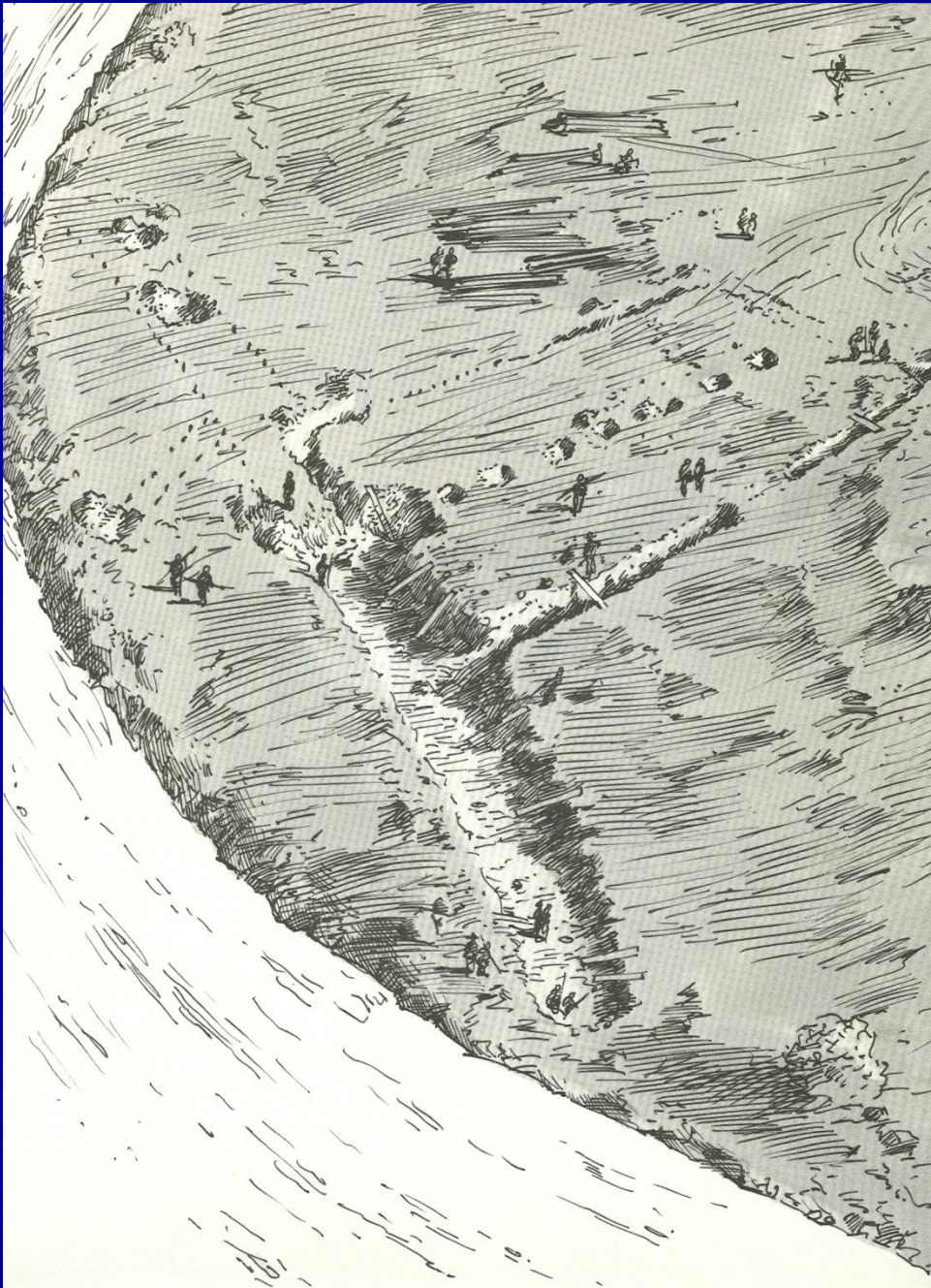
The Quintessential Mill: Darlington, Harford County, MD



Variability in Water Mill Design

- Intended Products
- Water Sources
- Dams & Races
- Wheels & Turbines
- Milling Stones

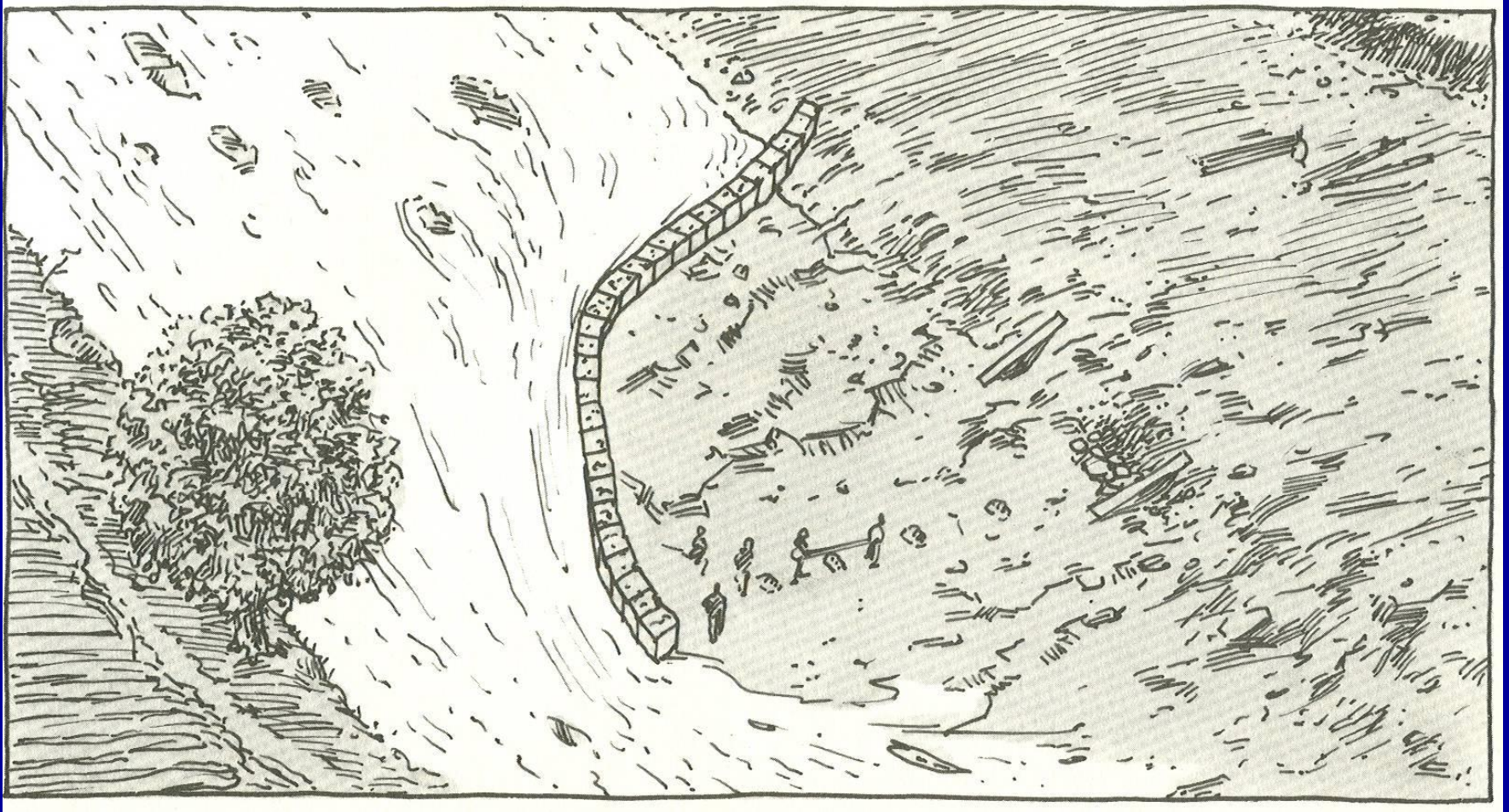


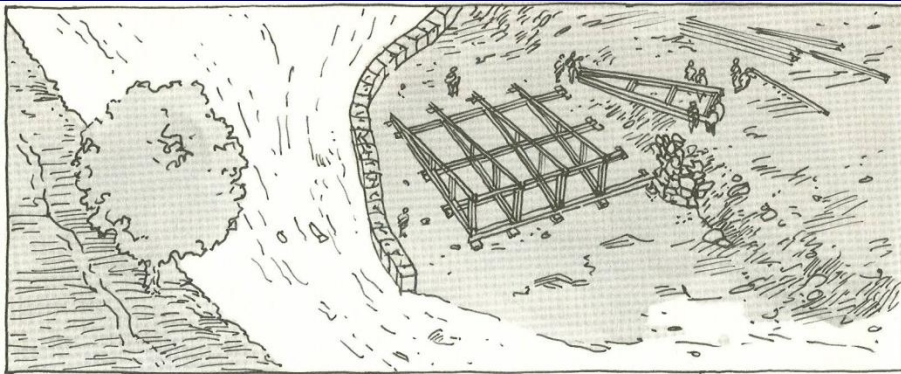


Building a mill: a series of drawings from David Macaulay's Mill (1983)

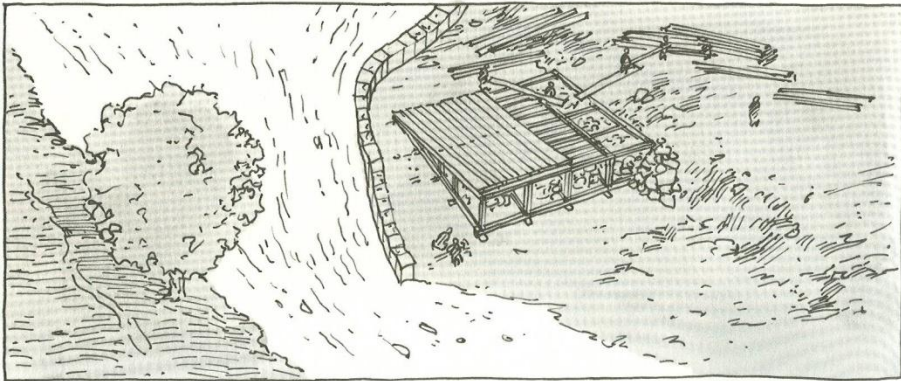
Mill foundations and race

Coffer dam and mill dam foundation

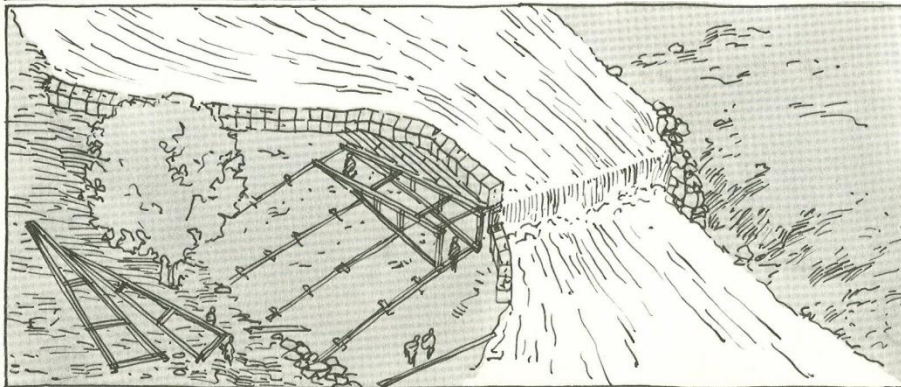




Coffer and mill dam trusses



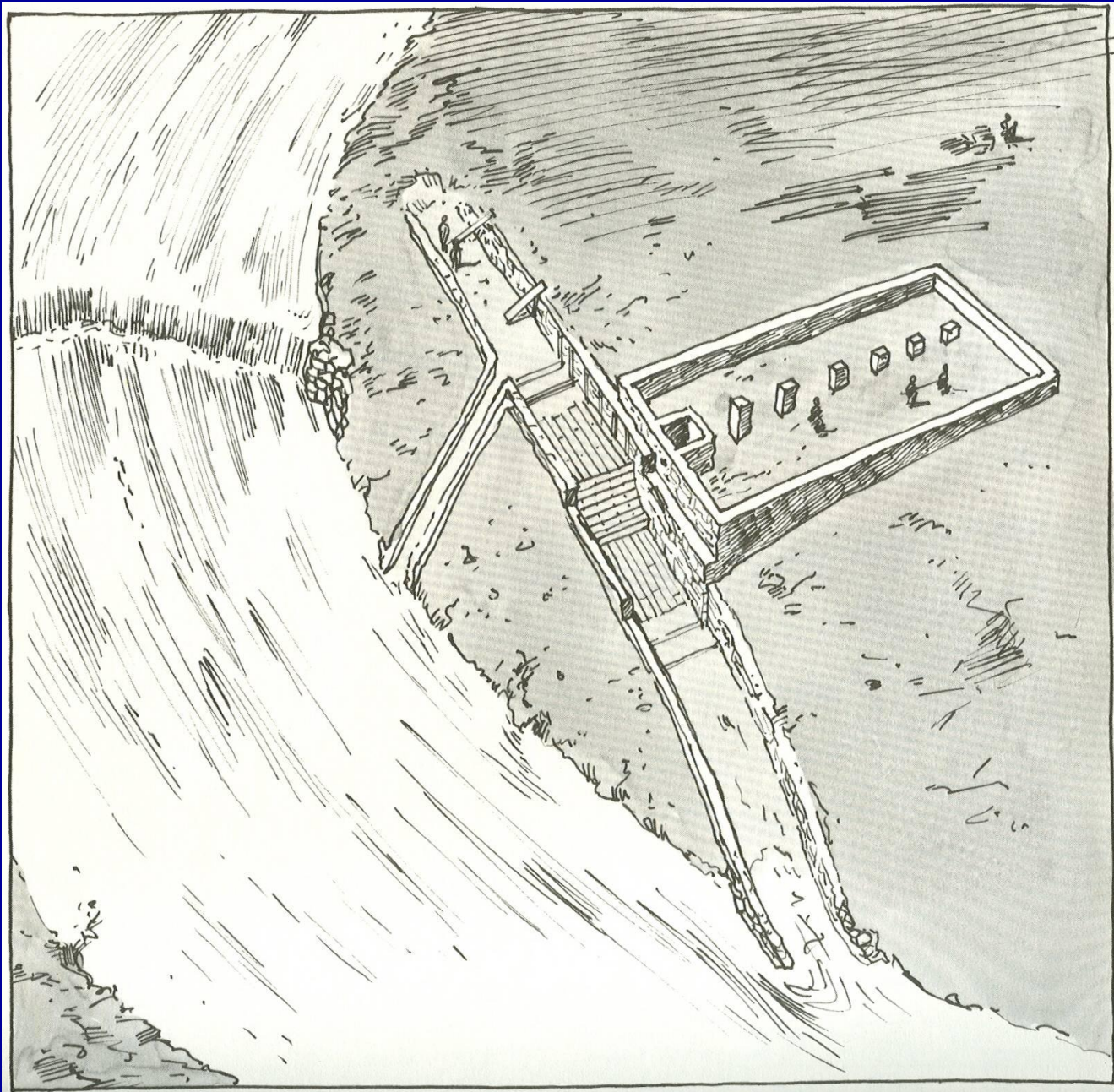
Ballast and planking



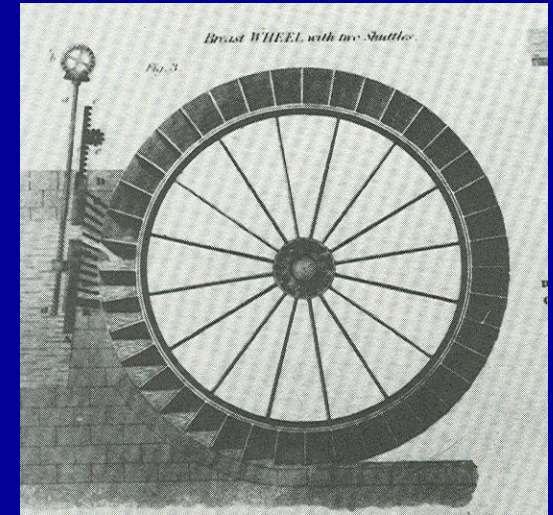
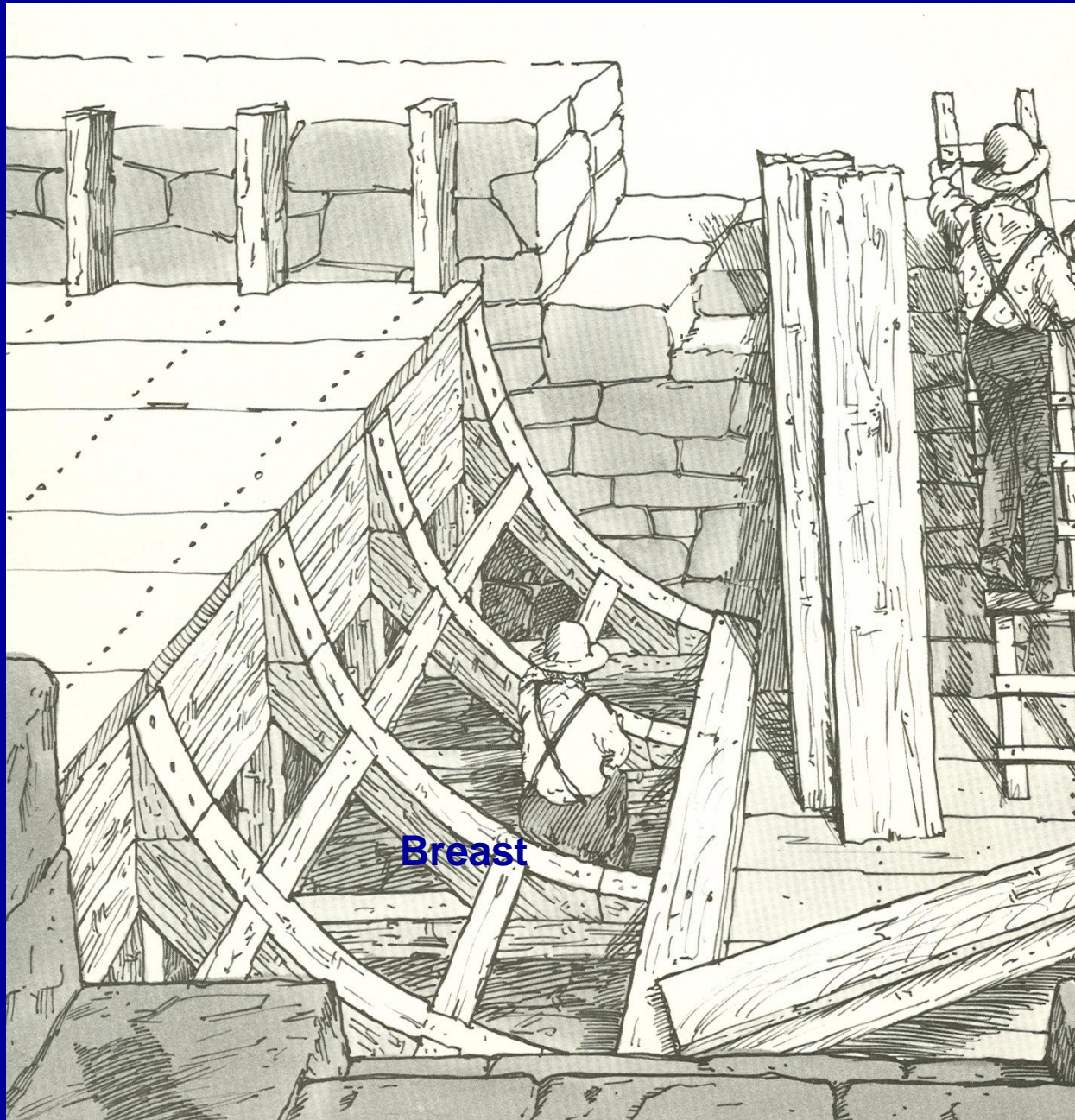
Moved coffer and mill dam truss assembly

Completed mill dam and foundation



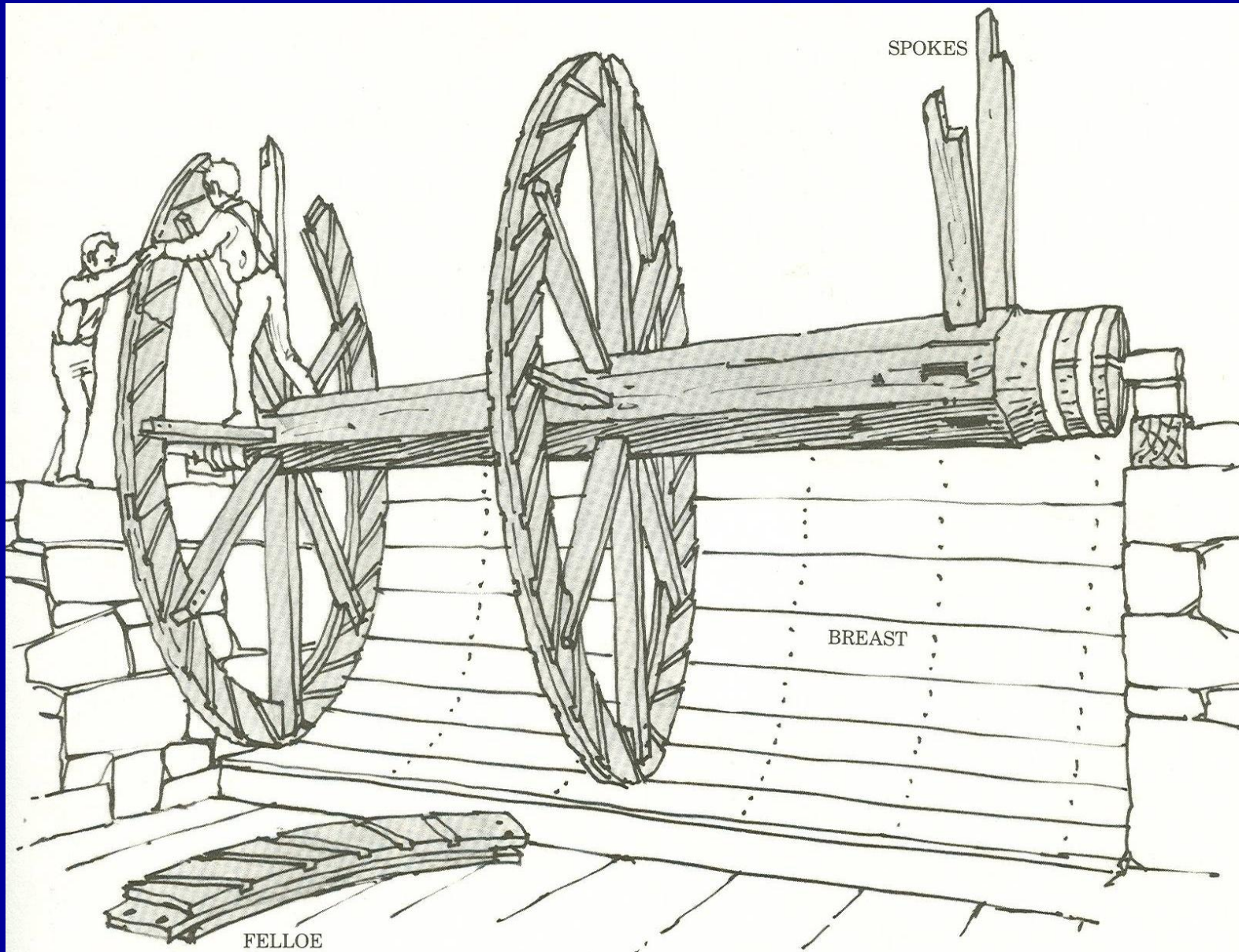


Birdseye
View

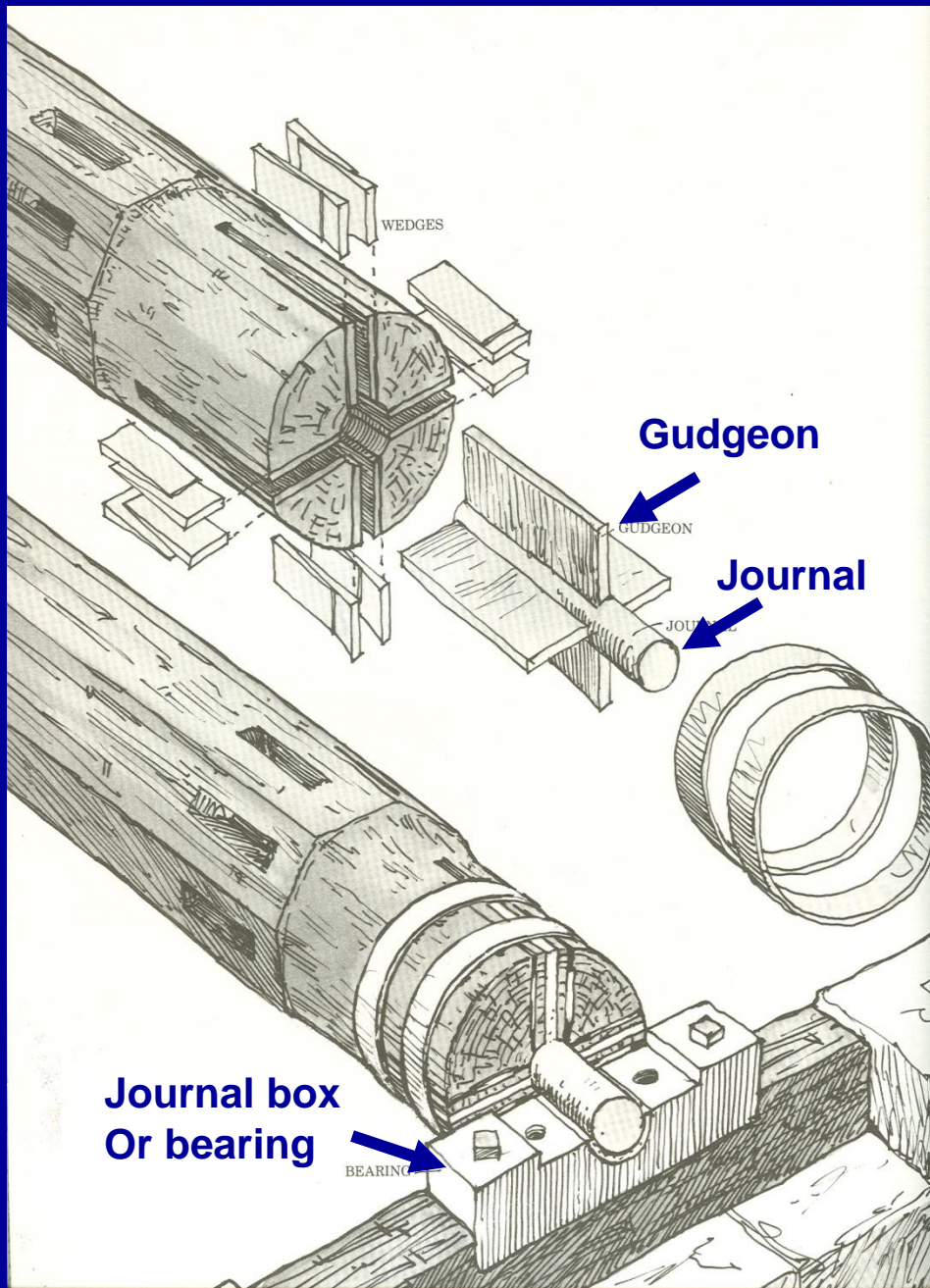


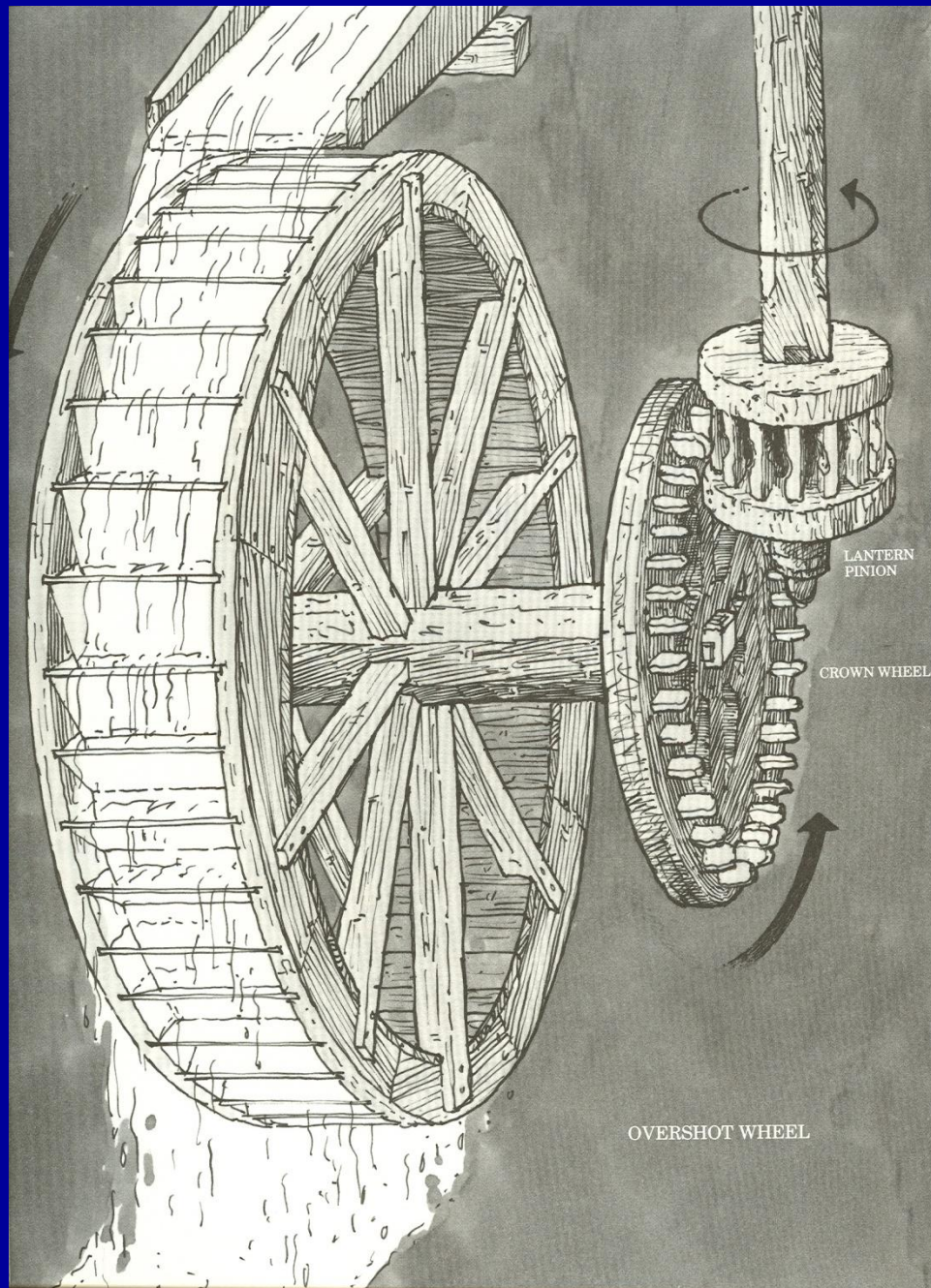
Wheelpit
construction

A really big wagon wheel



Wheelwright Terms:

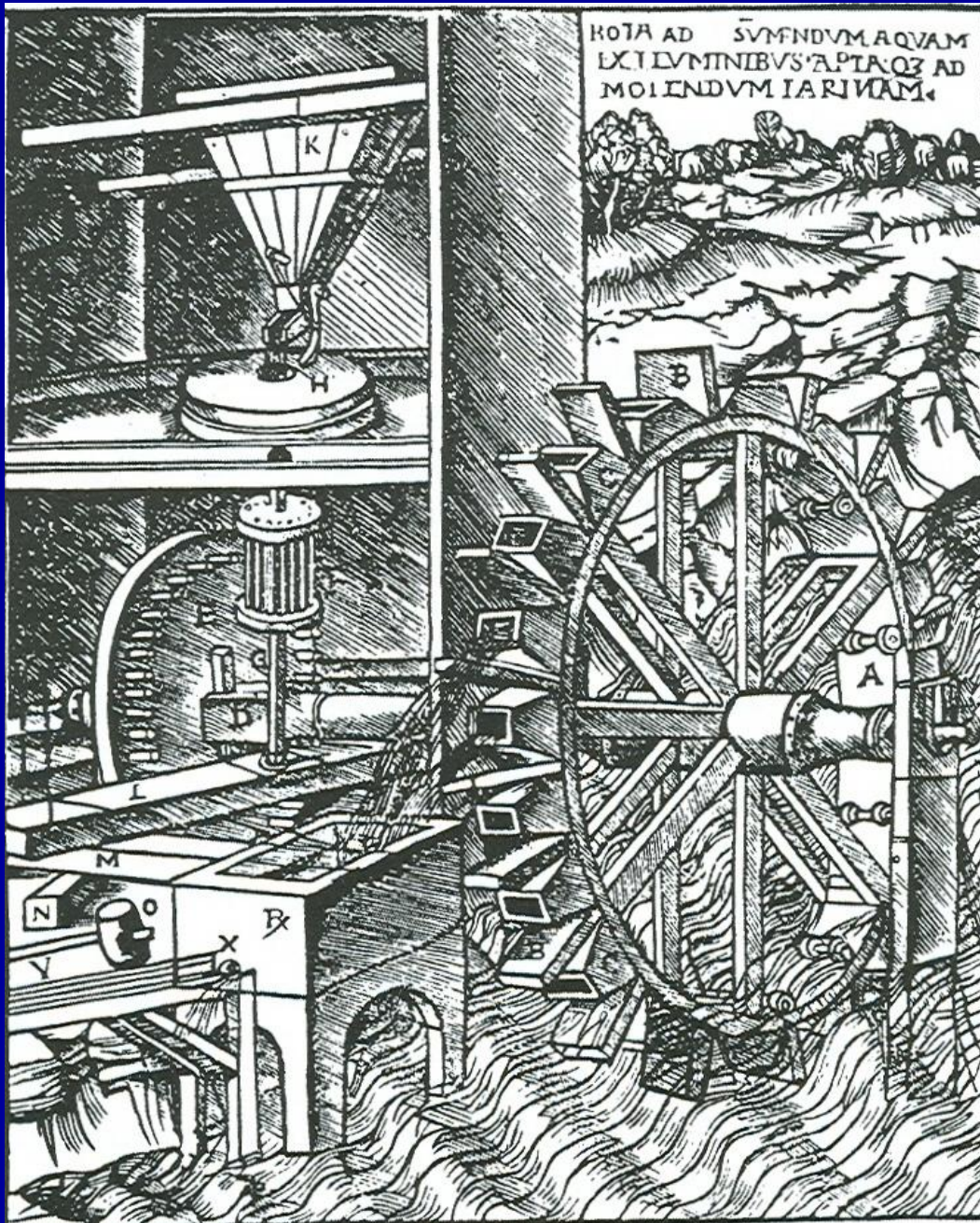




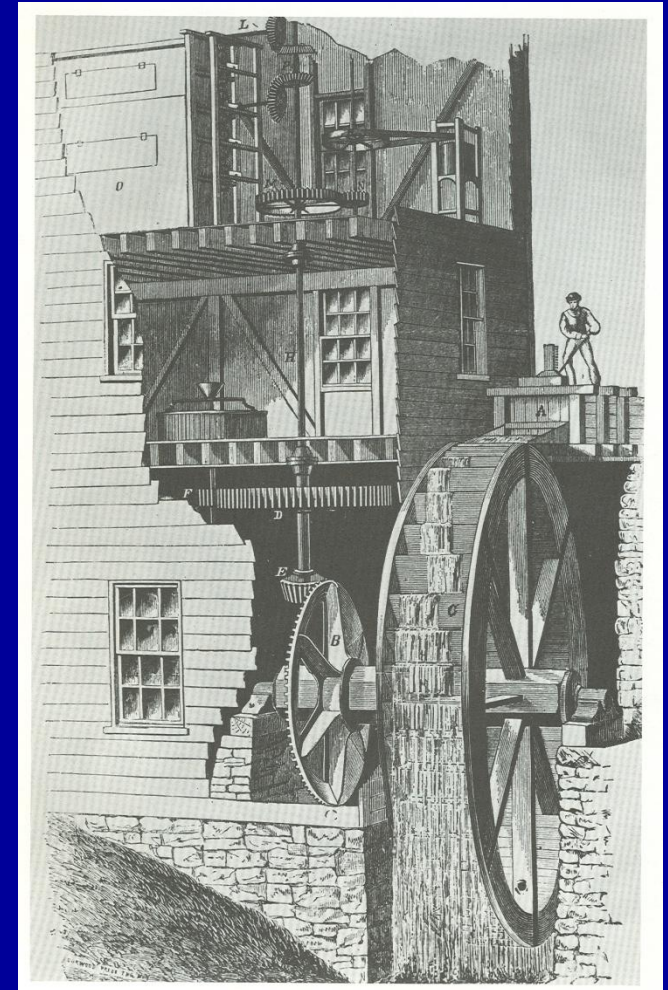
Transferring direction
of drive from
horizontal to vertical

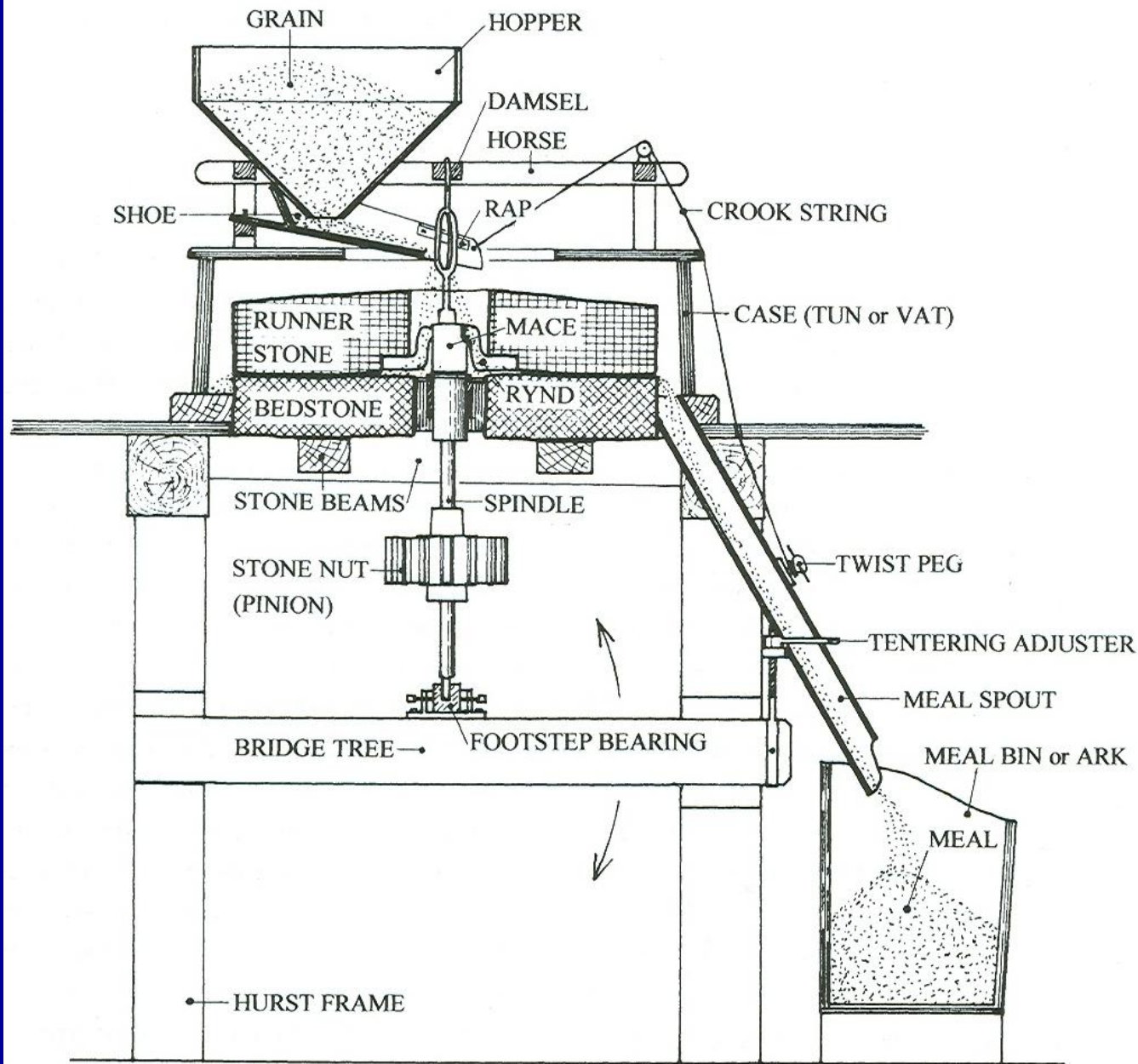
Use of a Face or Crown
Gear that meshes with a
Lantern or Pinion Gear

Note succession of
increasingly smaller gears



Medieval European and 19th-century American drive systems

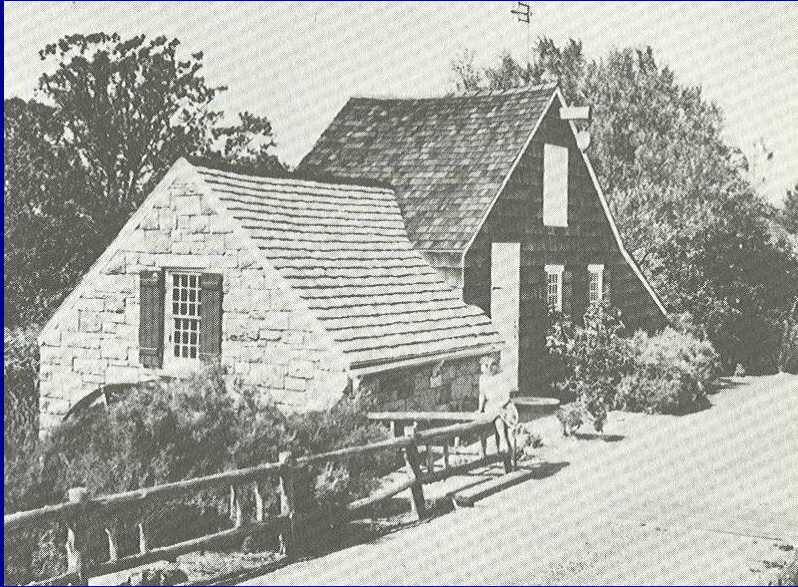




Milling mechanism and terms

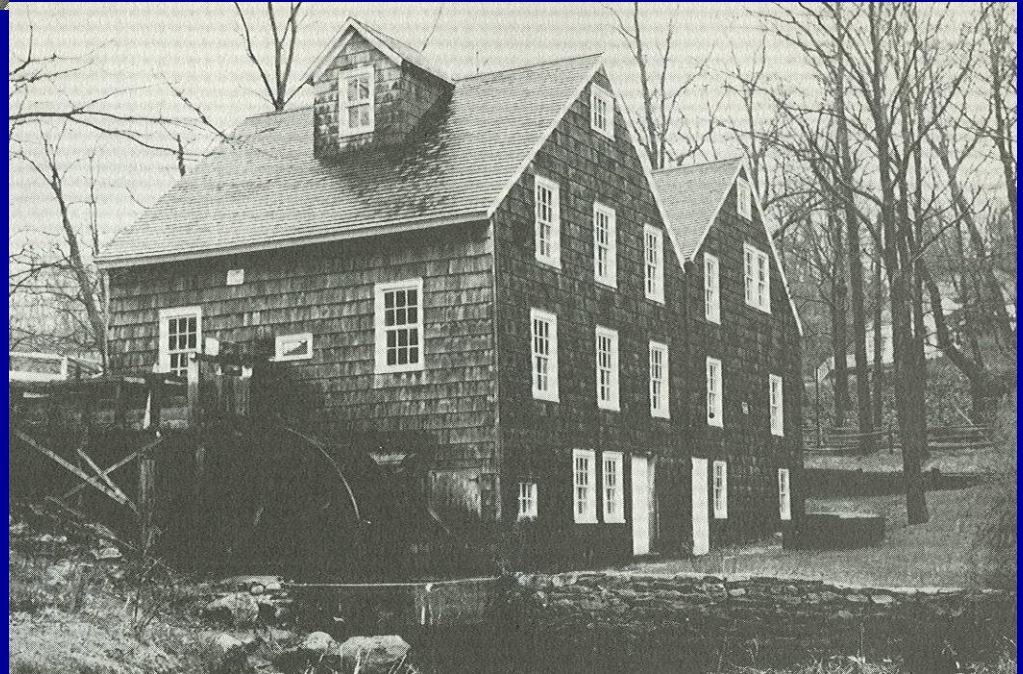
Variability in Water Mill Design

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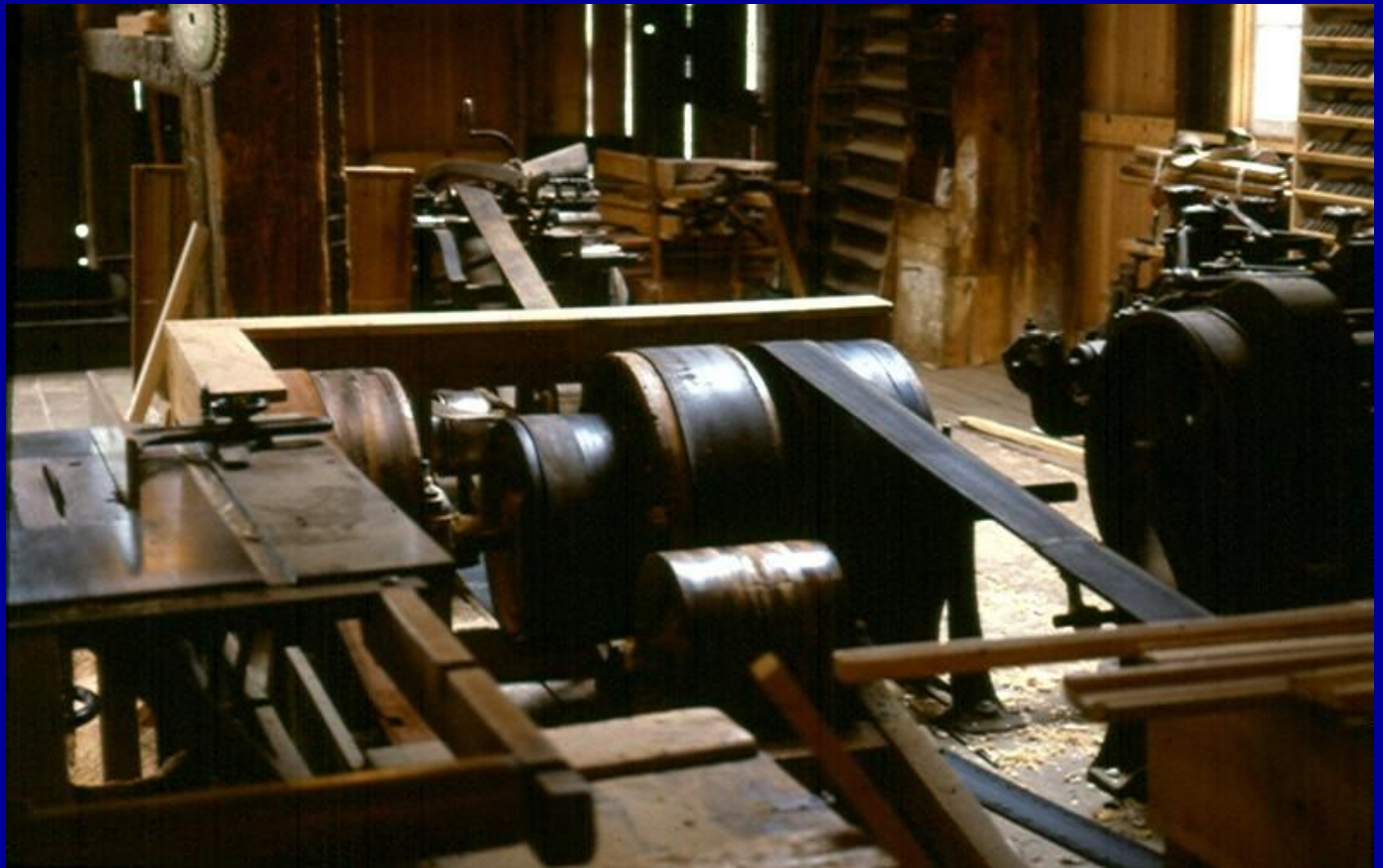
Setauket, Long
Island, New York
1824

Stony Brook, Long
Island, New York
ca. 1750





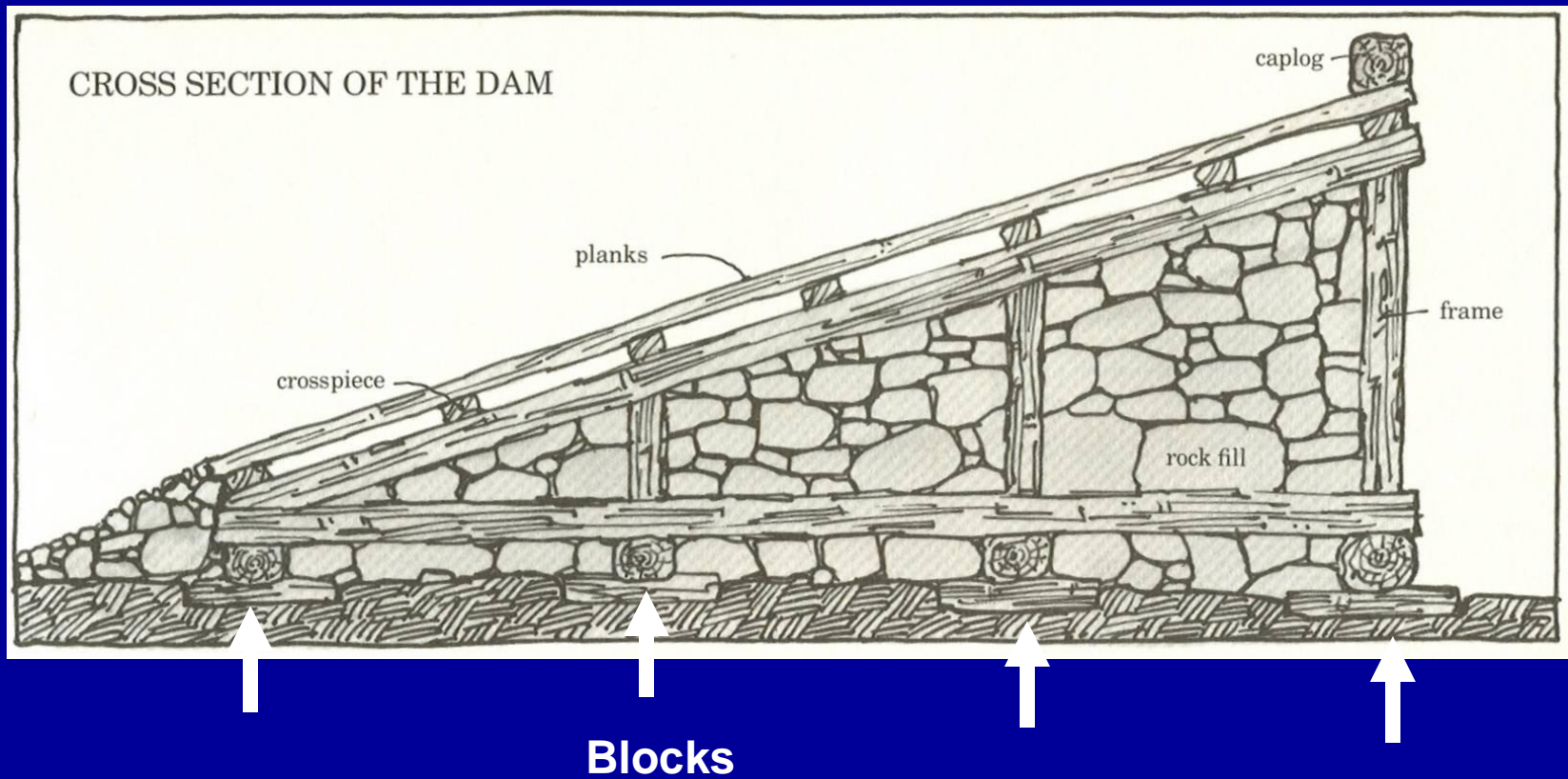
Joinery shop in mill complex



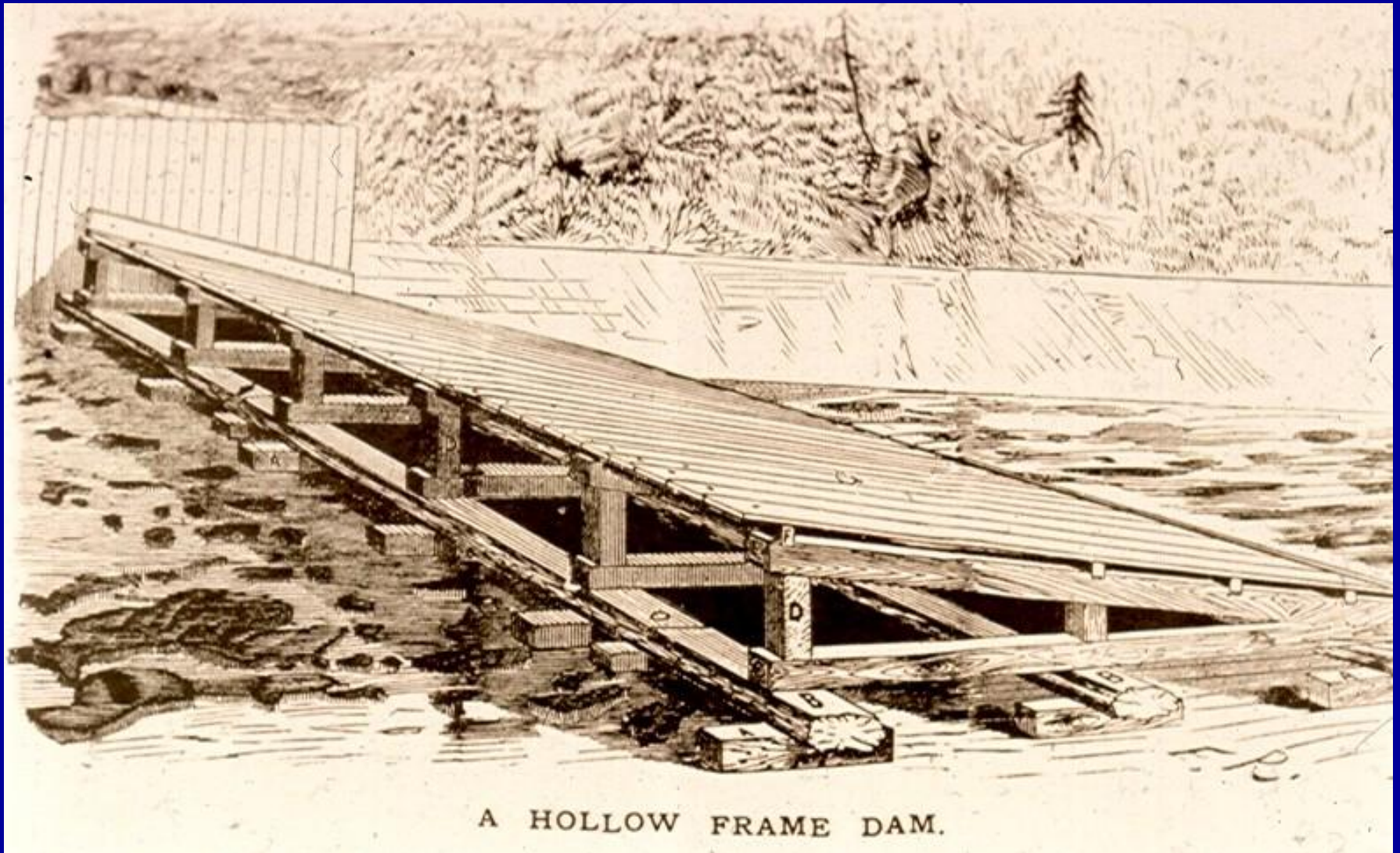
Sawmill interiors



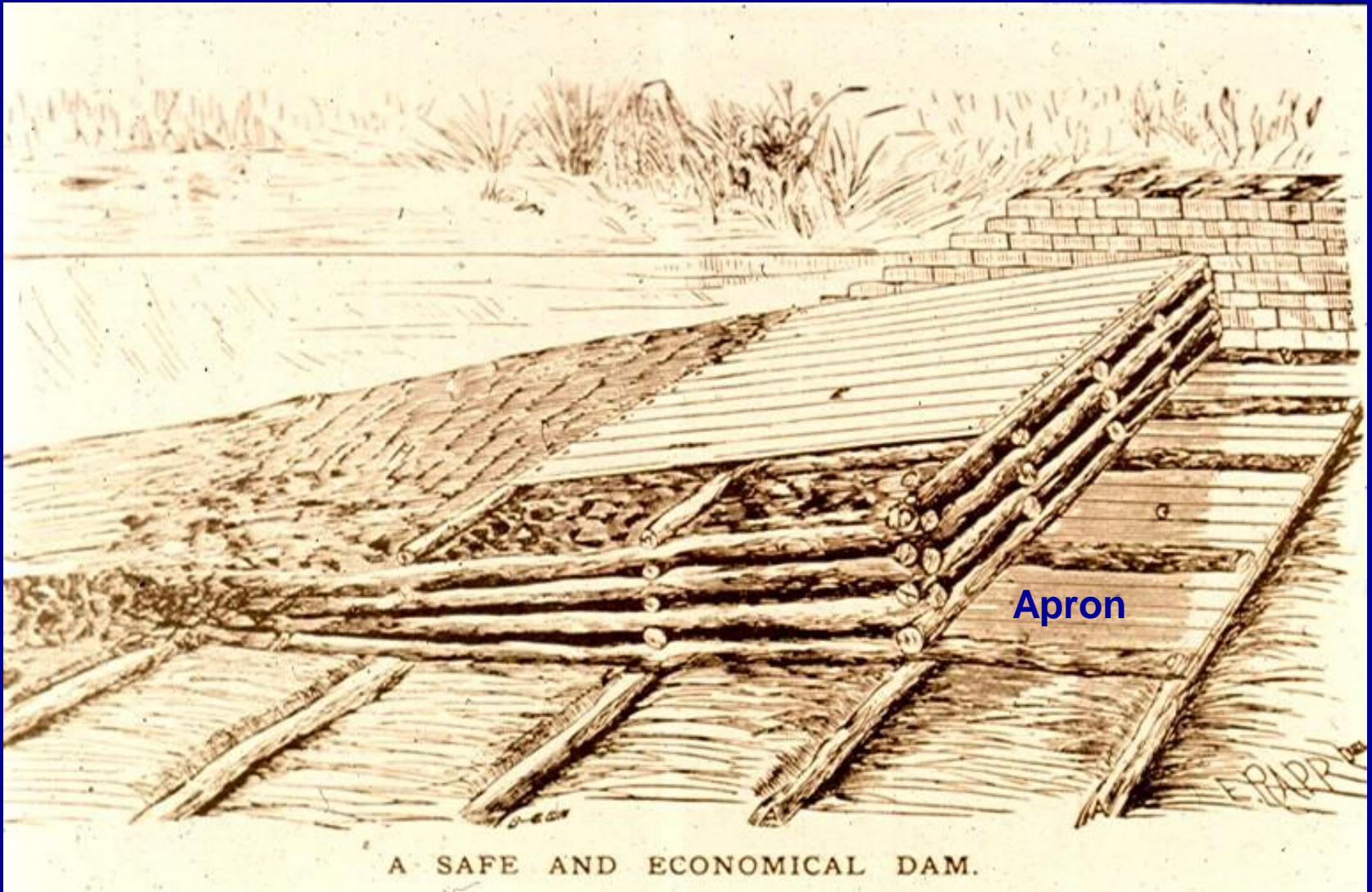
Framed dam comparable to that illustrated by David Macaulay

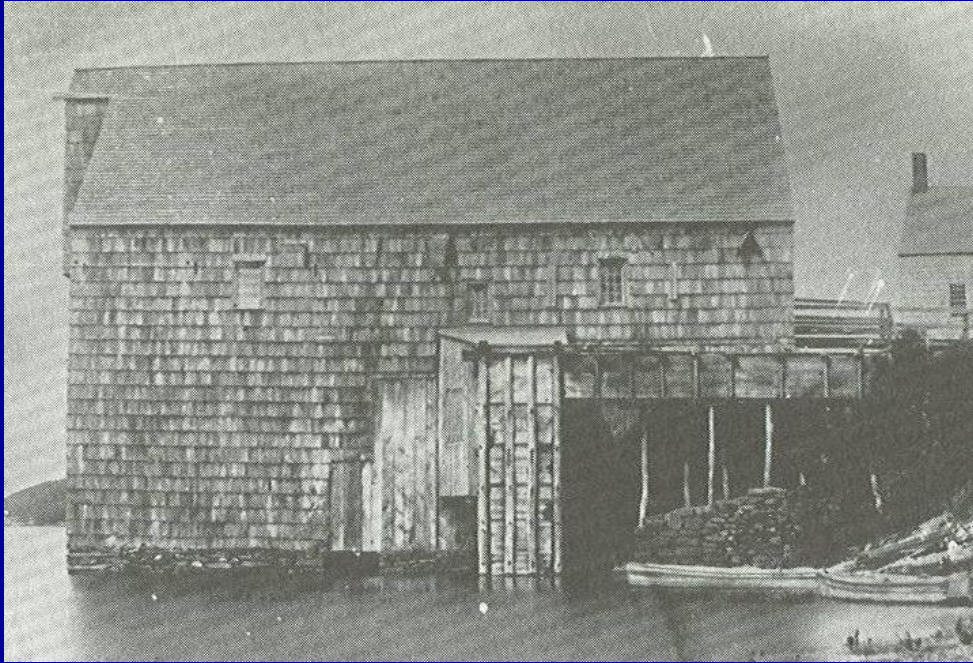


No ballast...pinned to blocks



Timber framed and earthen filled





Tidal mills



Millpond at Rutland Road and Defense Highway (MD 450)



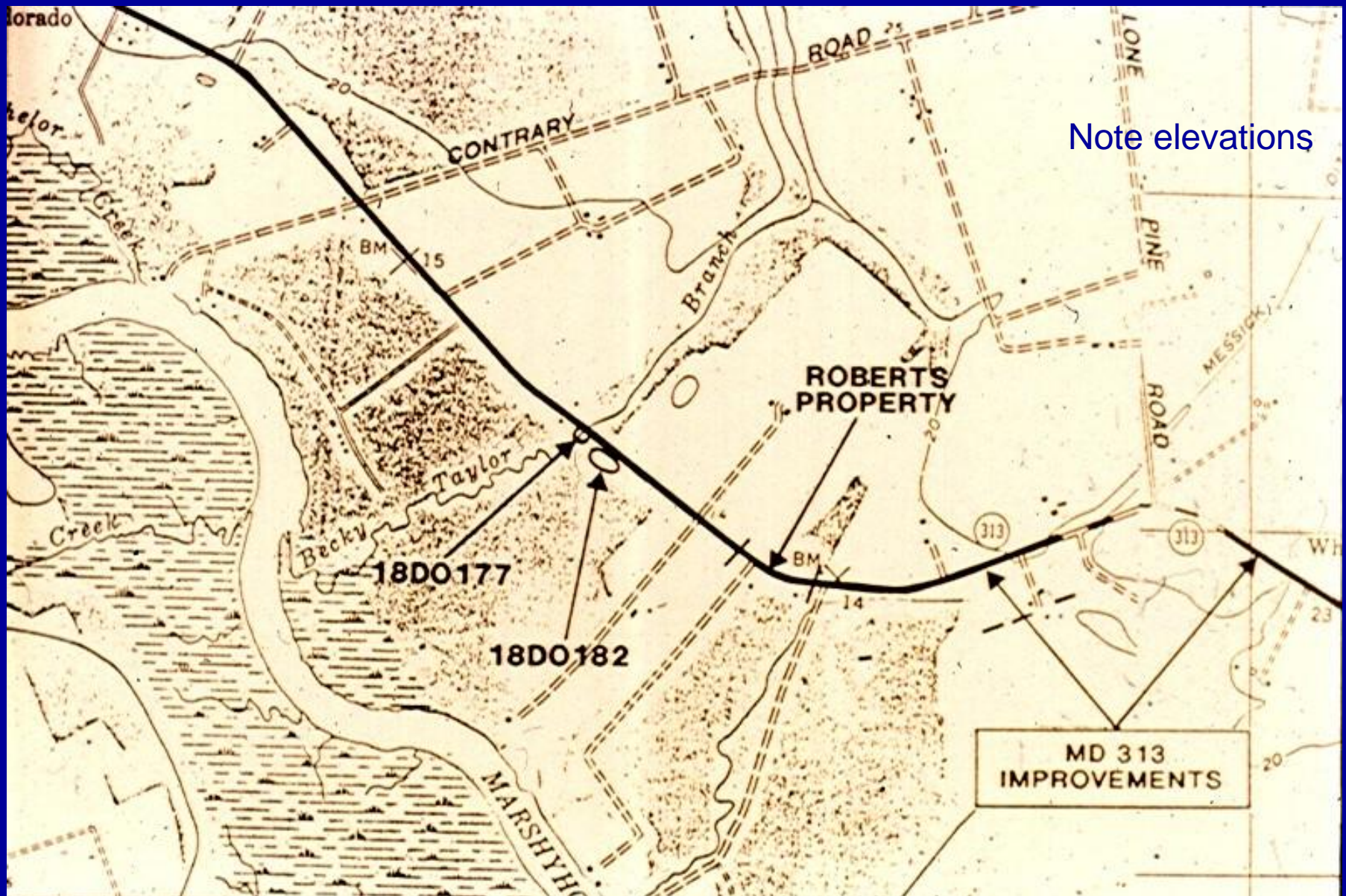


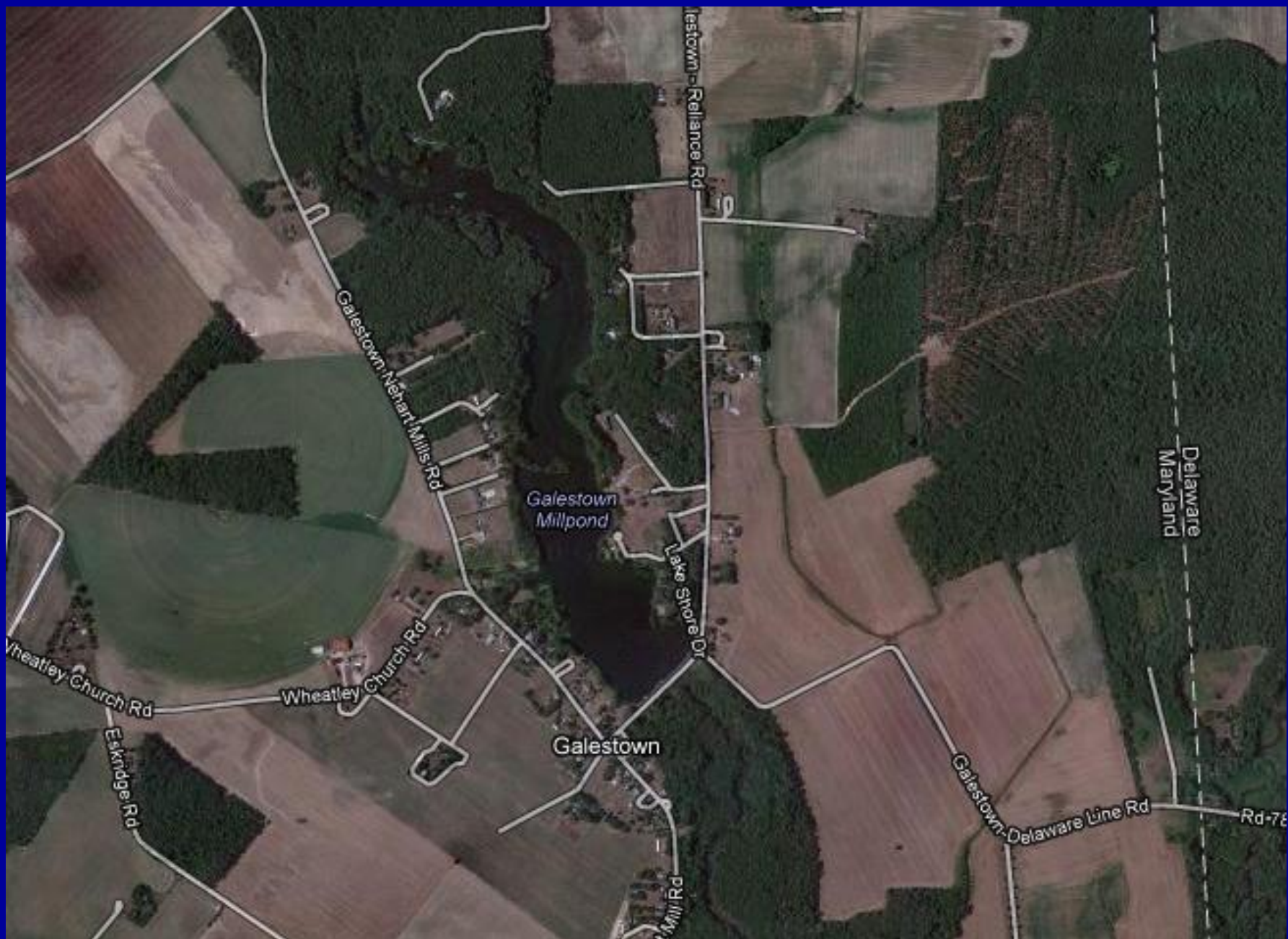
Low
earthen
dam on
Tarnan's
Branch,
Rutland,
Anne
Arundel
County

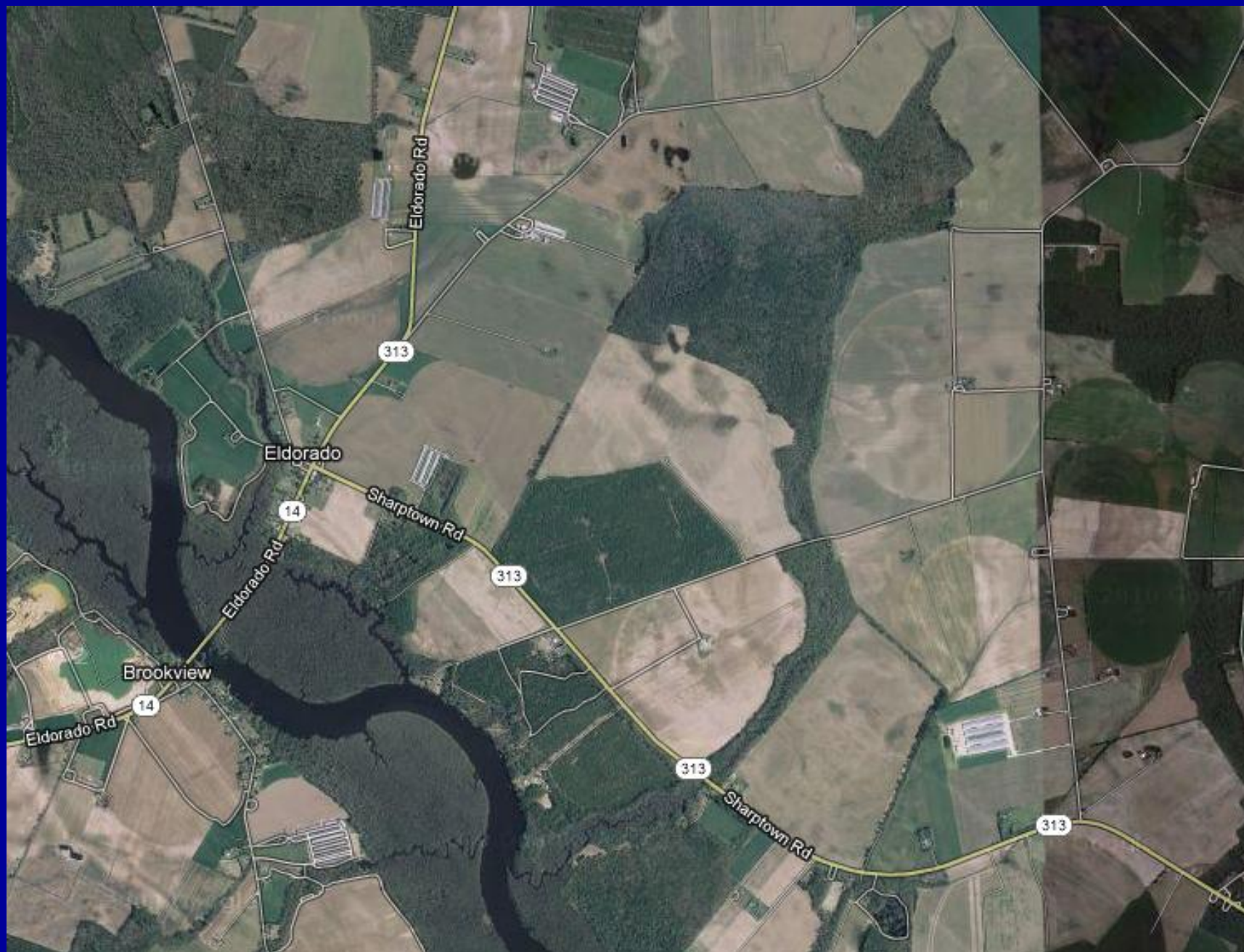
Half-mile-long headrace from low earthen dam

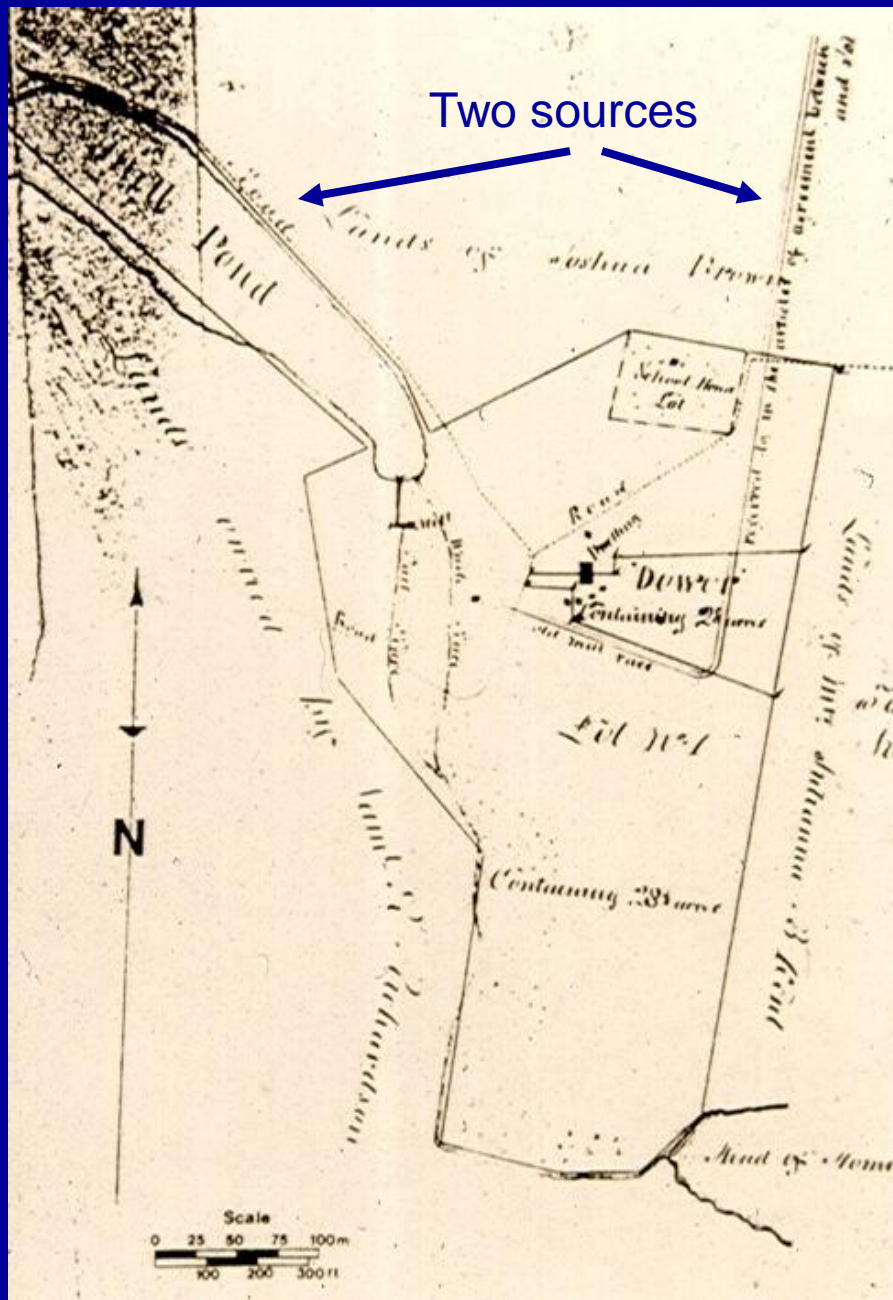


Mill site in Dorchester County





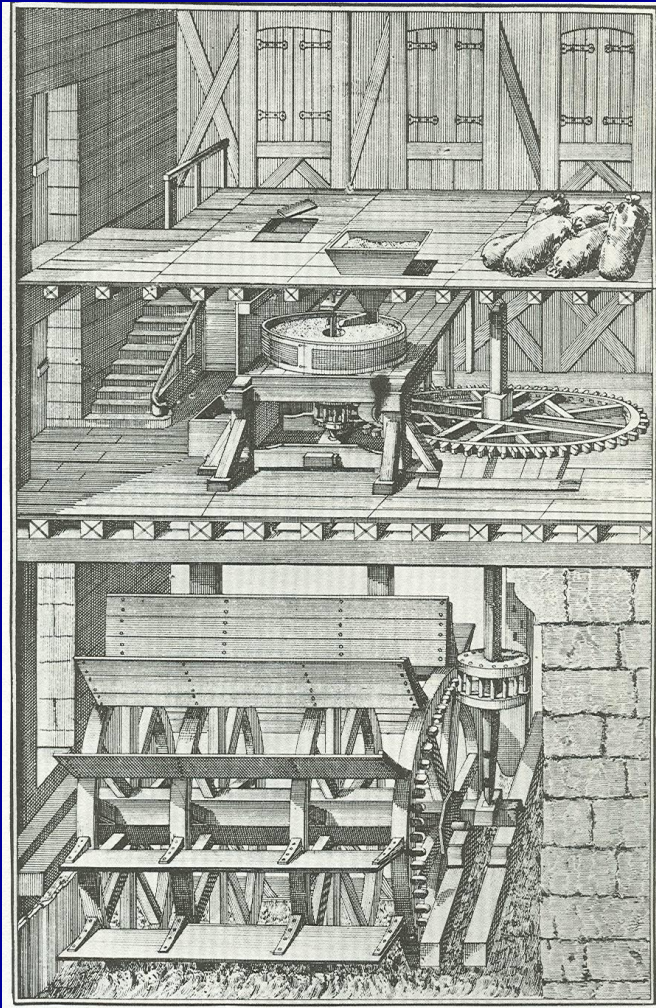




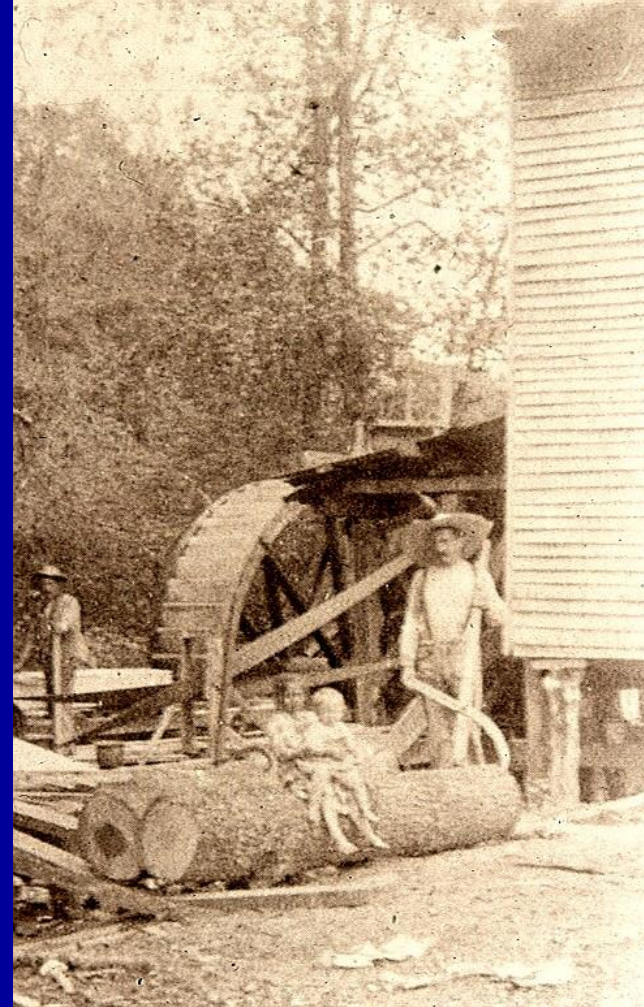
White Hall Mill, by
US 50 just west of
Chesapeake Bay
Bridge

Laveille Mill in Port Republic, Calvert County





Overshot wheel



Undershot wheel

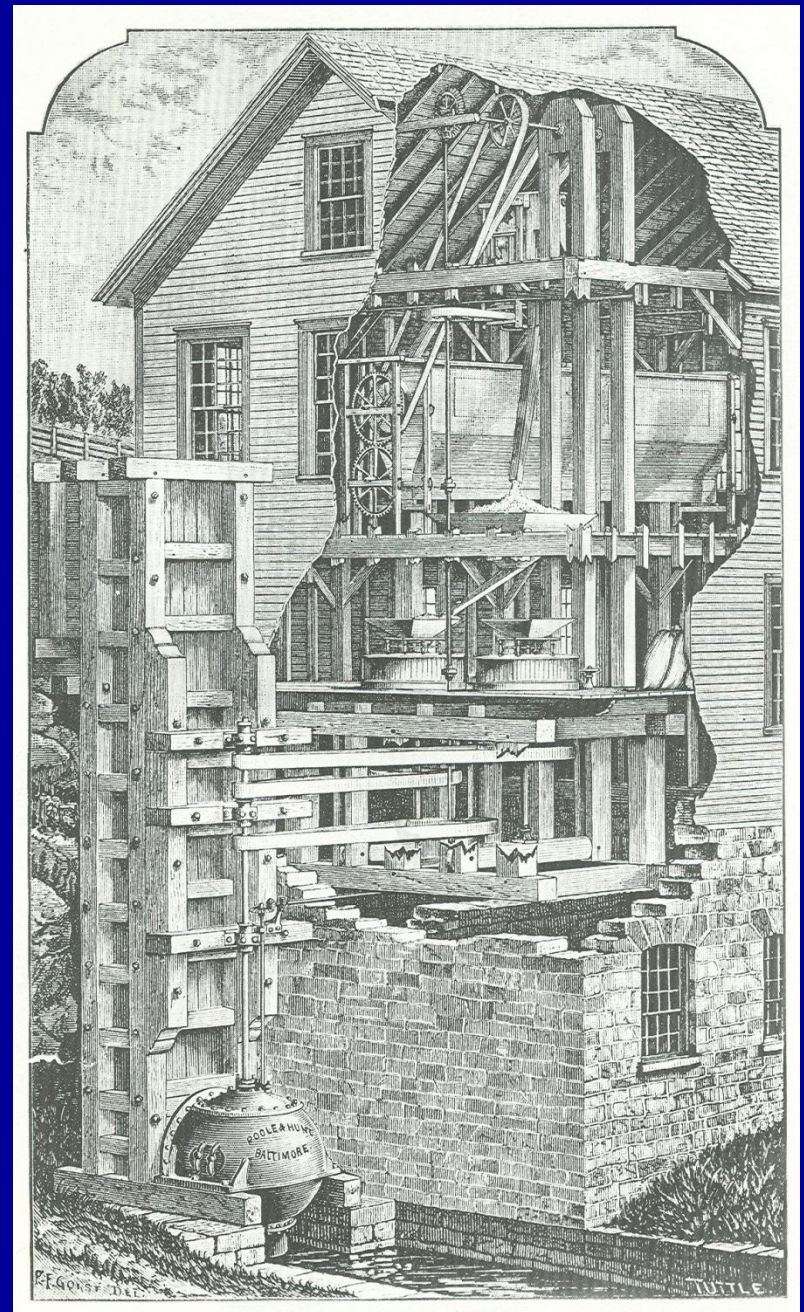
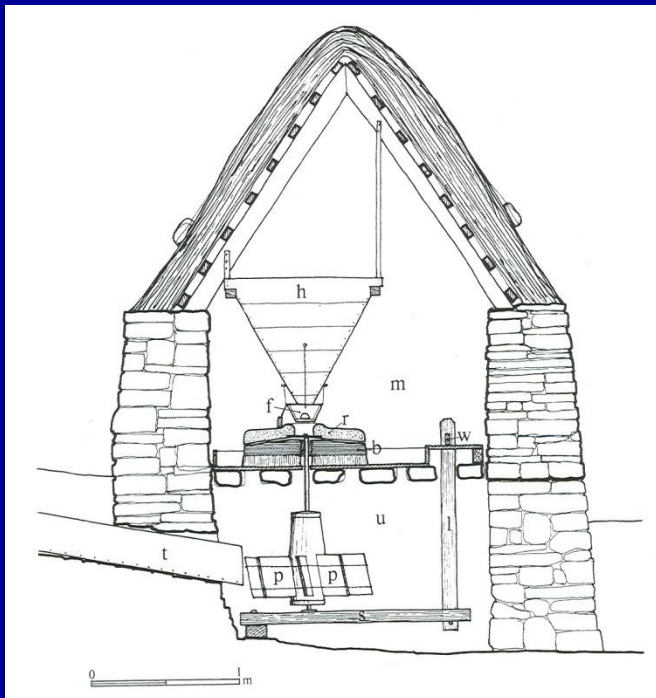


Overshot Wheel

Mill reconstructed at
Stratford Hall,
birthplace of Robert E.
Lee, President of
Washington College,
Lexington, Virginia

Modern enclosed turbine

Roman or Medieval 'horizontal flutter wheel'



Derelict turbines



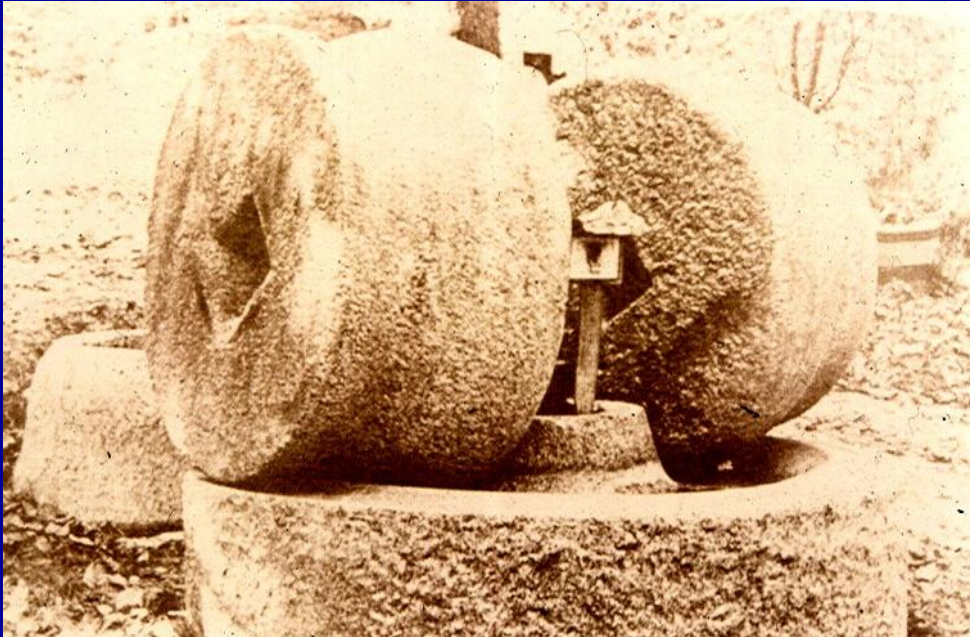


Imported buhr stones,
Landis Valley Farm
Museum,
Pennsylvania

Specialty stone, Laveille Mill, Calvert County



Paint grinding
stones

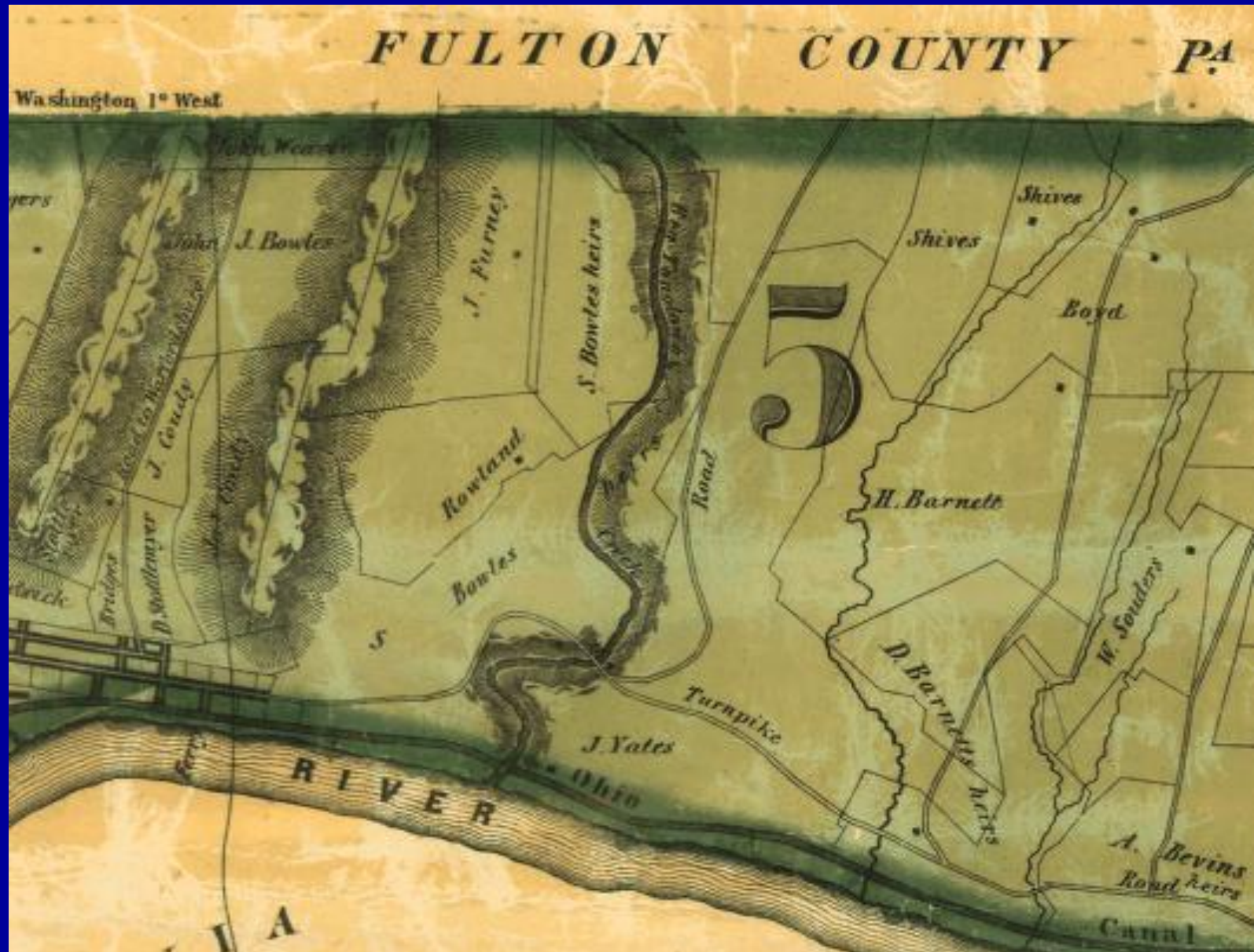


'Flint' grinding
stones

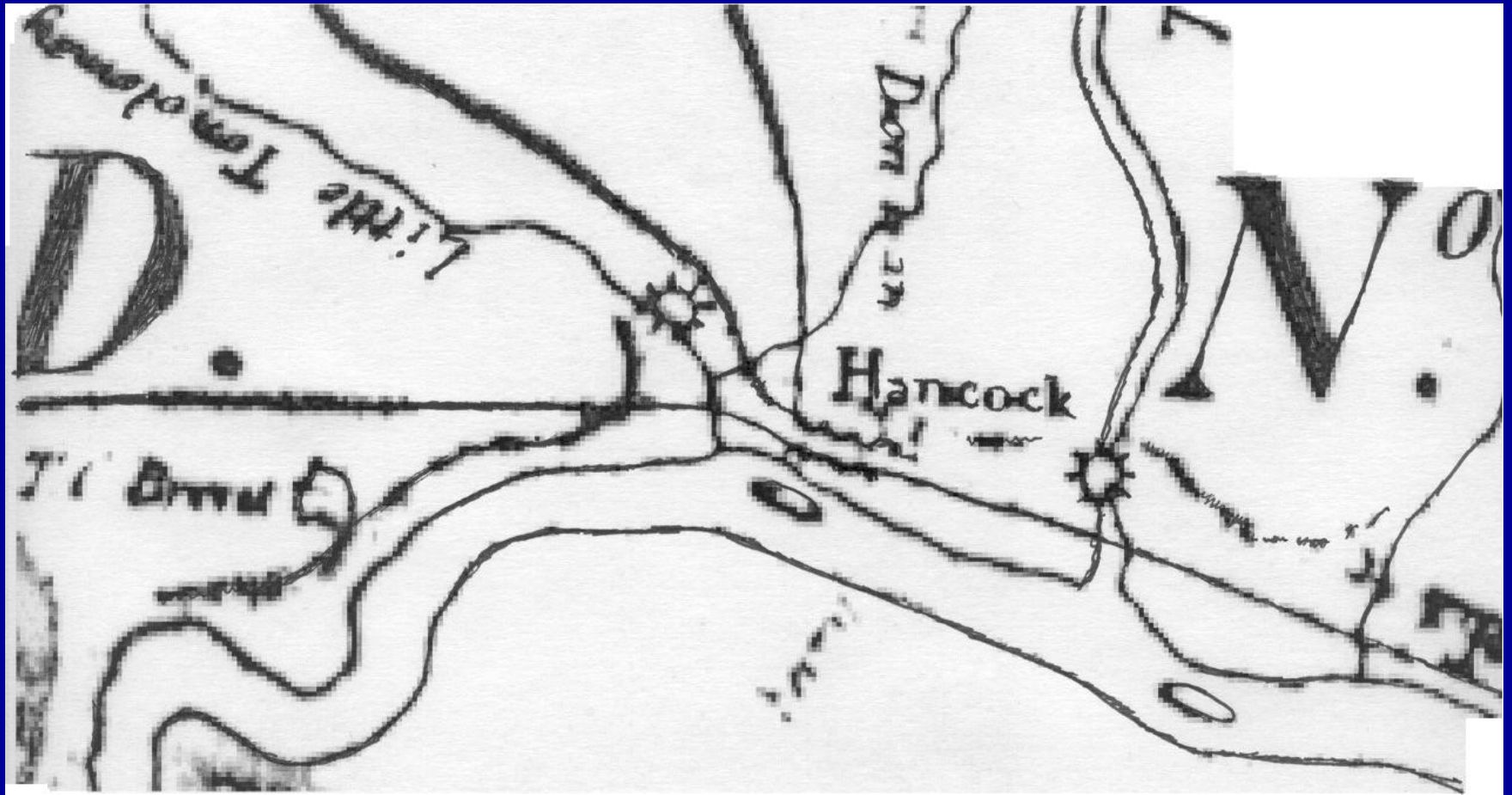
Investigating a mill site: Samuel Bowles Mill, Hancock, Maryland



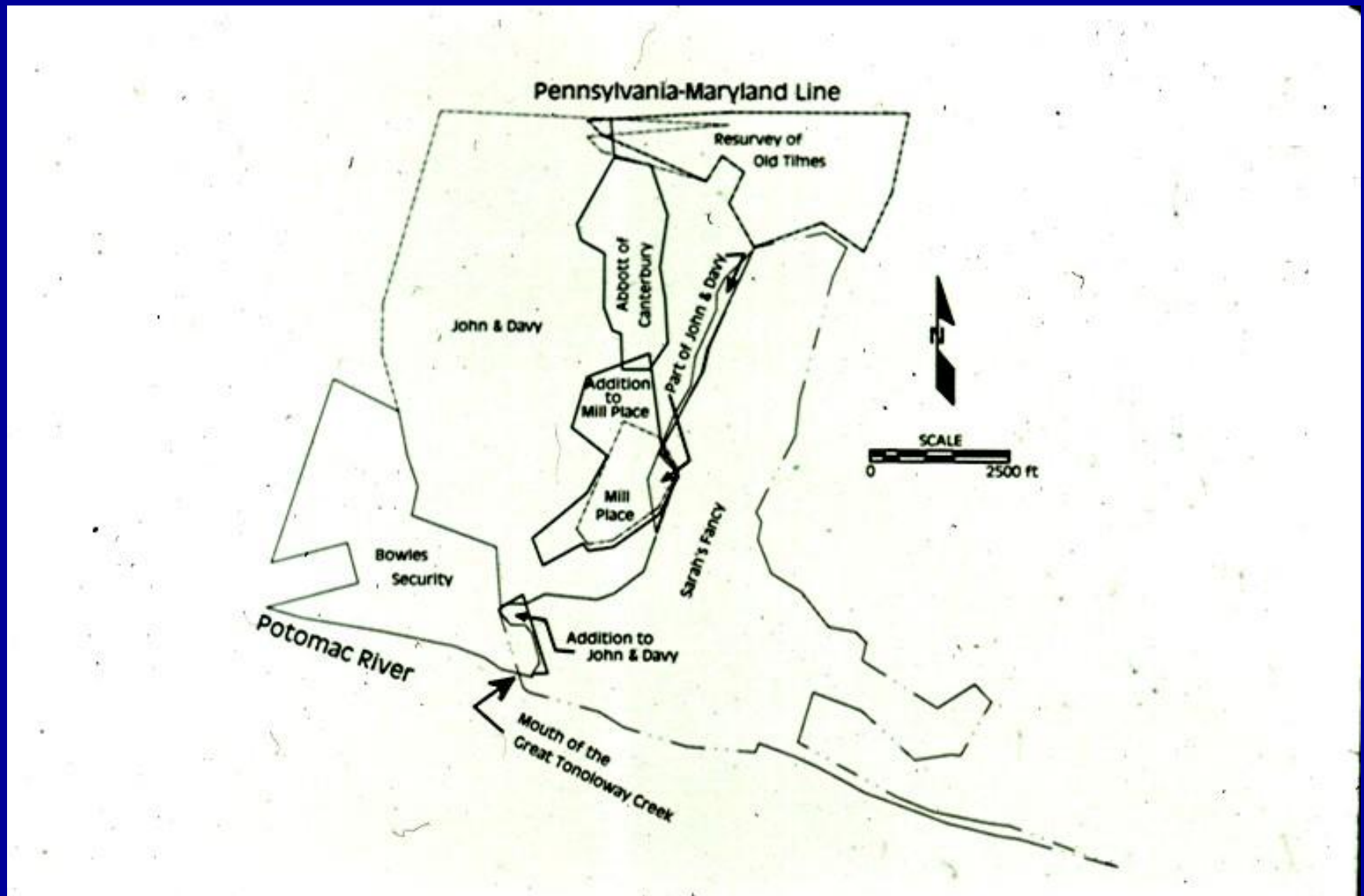
Thomas Taggart's (1859) Wall Map



Varlé 1808 map



Reconstruction of late 18th-century land plats



US 70 above and National Turnpike (US 40)



Riffles, a tell-tale sign of a dam



Timber dam remnant



Submerged timbers from dam



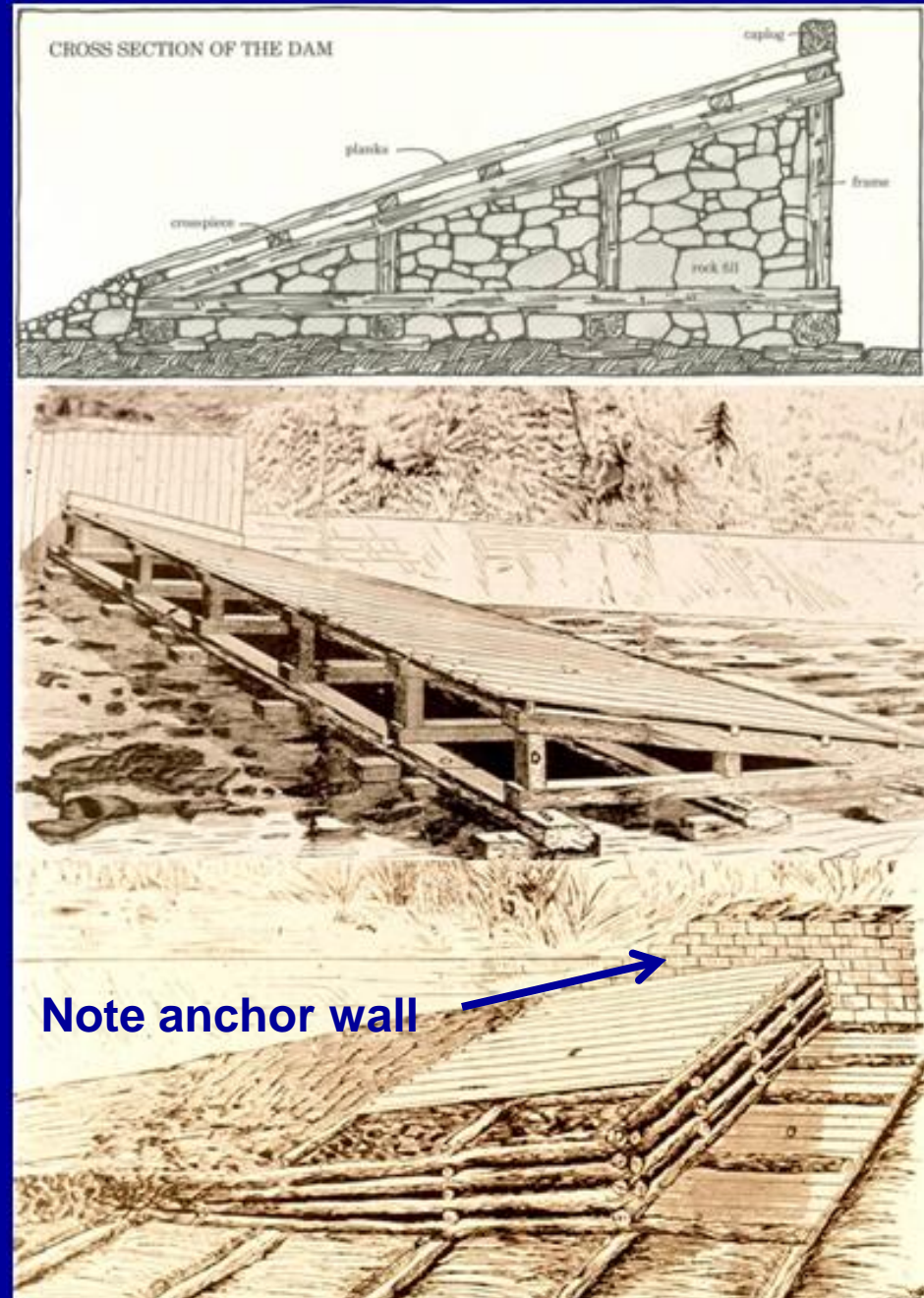
Dovetails and vertical planks



Vertical planks for downstream side of dam



One of these styles?
Or, a composite of
two or three types?



Probable wheelpit remnant



Deteriorating wheelpit wall

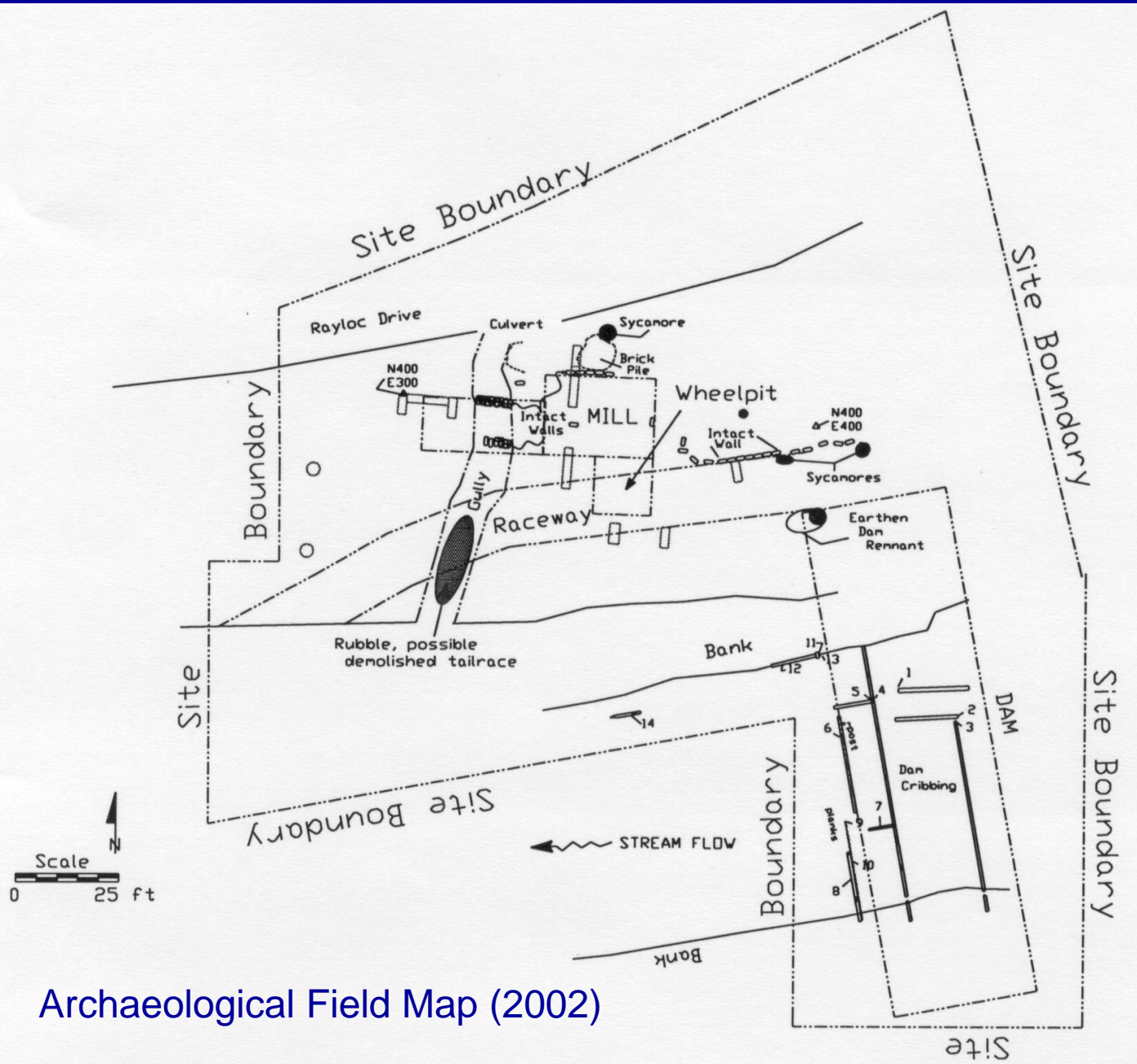


Block with lugs for end of wheel shaft



Mill walls exposed by failed stormwater drain





Conservation successes



Conservation failure

