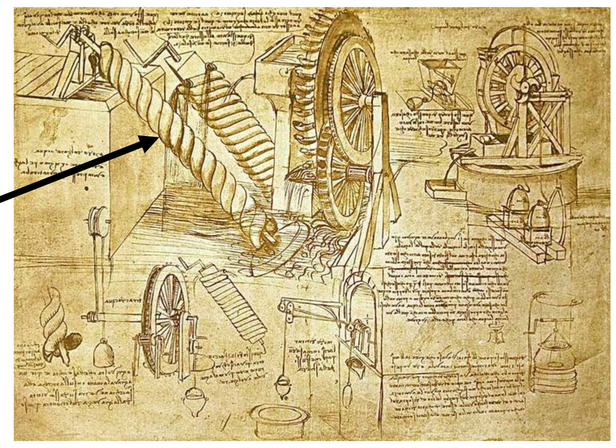
Turbines Present

Archimedes Screw

Reverse this so water comes in at the top, and the screw turns.

By turning an Archimedes screw you can lift water up.

The Hanging Gardens of Babylon may have been irrigated this way 2,500 years ago—400 years before Archimedes was born.



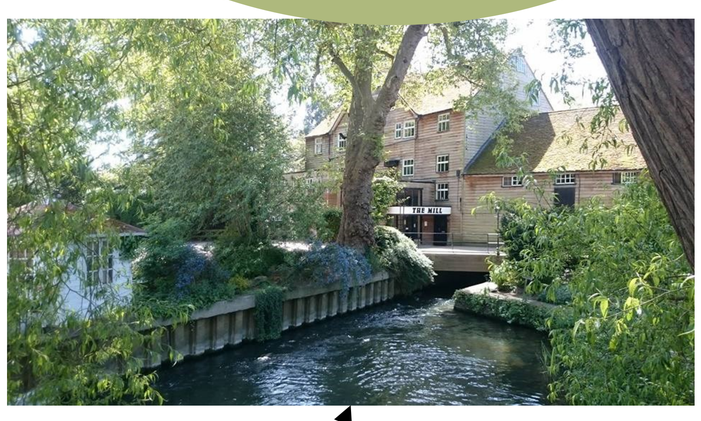
Ways to lift water drawn by Leonardo da Vinci 1481 (wikiart.org fair use policy)

Connect the screw to a generator to create electricity

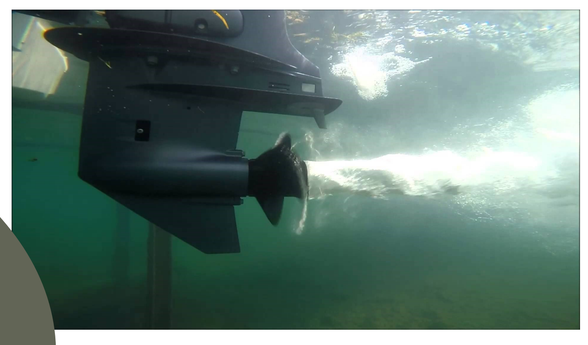
The Domesday Book mentions a mill at Mapledurham.
800 years later there's still a working watermill there.
It's been joined by a huge Archimedes screw

Siphonic propeller

The Domesday Book lists mills at Sonning.
This mill is a theatre now but it also generates electricity.



A boat's propeller pushes water backwards and the boat forwards.
At Sonning Mill they reverse this idea.



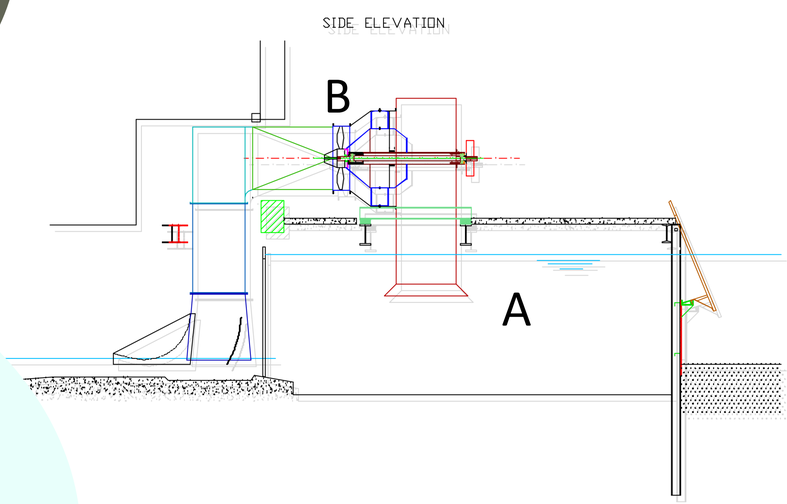


Diagram of siphonic turbine system used courtesy Sonning Mill & Derwent Hydro Electric

This turbine works by water [A] from the Thames being siphoned up over a propeller [B] which turns, driving a shaft which drives a belt to a generator.

Around 18kw is generated and this saves 75 tons of carbon dioxide from entering the atmosphere each year.