

Background Information Document

Topic

Classification of Waterwheels

(after T Schiøler “Roman and Islamic Water-lifting Wheels” Odense University Press 1973)

Details

The Mills Archive contains images and information about the use of traditional machinery for water lifting as well as for milling and other uses. The use of animal (including human) power as well as waterpower is well documented. The following table explains some of the terms encountered, using the classification system devised by Schiøler.

Different versions of these machines were common in N Africa, the Middle East, Southern Europe and the Indian subcontinent

Classification of Waterwheels

Machines with gear			
Short shaft (noria)			
	Parallel cogs	Potgarland	Spain
		Bucket chain	Syria
	Radial Cogs	Potgarland	Syria
		Bucket chain	Syria
Long shaft (saqiya)			
	Parallel cogs	Potgarland	Pakistan
		Bucket chain	India
	Radial Cogs	Potgarland	Egypt
		Bucket chain	Egypt
Elevated shaft (saqiya)			
	Parallel cogs	Potgarland	Italy
		Bucket chain	Palestine
	Radial Cogs	Potgarland	India
		Bucket chain	Syria
Machines without gear			
Water-driven wheel (hydraulic noria)			
	Pots		Iraq
	Compartmental rim		Syria
Treadwheel			
	Pots		Spain
	Compartmental rim		Italy