

BUILDINGS AT RISK

Voyage down the Silverburn – river's rich history of mills

In this article, Dave Martin of the Isle of Man Natural History and Antiquarian Society takes a voyage down the Silverburn river, looking at how the power of the river was used, some of the associated industries around it and their buildings – both lost and saved.

Man has always sought extra power to help with his tasks, small or large. One of the most enduring and flexible power sources used in the island was the horse – in the fields for ploughing and haulage, and then, via horse walks, to drive stationary machinery such as threshing mills.

Using horses to drive stationary machinery was effective, but there's a limit to how much power you can get from a horse walk. Wind and water have long been harnessed too in the right locations.

We will look at wind- and horse- mills in future articles, but here we are concentrating on one area which has a rich variety of uses of water power.

Power from water depends on the flow – how big the river; and the head – how fast it is / how far it drops.

Some watercourses, even with reasonable seasonal volume, because of the lack of fall, such as the Lhen River (Trench) or the Killane River, can only support one mill each; however the Silverburn has power aplenty.

The Silverburn has multiple sources on the slopes of South Barrule in the Cringle-Corlea area, and is joined in Ballasalla by the Awlin Ruy which rises on the Eastern side of the Ballamodha road near Cordeman.

Descending through almost 800 feet (250 metres) over a length of just 6 miles (10 kilometres) the Silverburn has powered at least 15 diverse tasks and industries across multiple sites.

Many users sharing a common power source is never easy, but the Silverburn generally had power to spare, so disputes were rare, unlike some other Manx rivers.

Before we cast-off on our voyage down the Silverburn, since some of the activities occur at multiple sites, and some sites hosted multiple processes, here are a few notes on some of the types of activity that occurred.

Many of these are described as 'Mills' – a generic



Plan of the Silverburn mills. Many of these uses are relatively alien to us now, however the buildings can still tell a powerful story – of those who worked there, and those whom they served.

Many of the buildings and much of the physical evidence has been lost, but there are a few left – some gradually decaying, but a few have been fortunate and found sympathetic owners and new lives, illustrating the importance of finding sustainable uses for our built heritage.

term used for processing on one site – e.g. a cotton mill – what we might now call a 'Factory'. So 'Mills' are not just those for milling/grinding cereals.

All of the following processes were water-powered within the six miles or so of the Silverburn:

Threshing and grinding corn: Threshing is separating the grains of cereal from the ears in which they have grown, opening the sheaves and shaking the heads to separate the grain.

Carting the bulky sheaves to be threshed was inefficient, so threshing was usually done on each farm, or very close by that occurred.

threshing mills at individual farms.

Basic rolling or crushing of grain to make it digestible for animals was sometimes done on-farm, but grinding the corn for flour was a more skilled and complicated trade, so dedicated corn grinding mills developed. Threshing has modest power needs and can be met by a horse or two, whereas grinding needs steady long-term power and hence the development of wind- and water-powered mills.

Corn mills might have had a small / secondary threshing mill driven from the same power source; although Golden Meadow Mill latterly had a separate threshing mill powered by its own waterwheel.



Twin waterwheels at Golden Meadow Mill – smaller one for threshing, larger one for grinding the corn



Water-powered ice cream machinery at Creg Mill (Manx Ices)

After grinding, flour had a short shelf life, so apart from the likes of Abbey and Castle mills, the usual practice was for a customer to bring their grain in, maybe a bag or two at a time, and each customer got their own flour back. Millers could also add value with corn-drying kilns, as the grain needs a low moisture content before it is ground, otherwise it turns to paste rather than flour.

Some canny millers also

realised that the warm ovens could cause the grain to sprout – i.e. malt – and they branched out as brewers as well.

In the 1511 Manorial Roll, two of the Millers on the Silverburn – John Gretehede of Granby (Grenaby) Mill, and William Hubart of Castletown (Golden Meadow?) Mill – also held brewing licences.

Other grinding: Mills along the Silverburn were also used to pulverise or grind: bark to be used as a 'tanning'

agent for fishing nets etc.; earth colours such as ochre and umber for use as pigments; friable stone such as 'rottenstone' for use as polishing agents; and tobacco leaves to make snuff.

Fabric and fibre: Scutching – first seen in the island for flax.

The cut flax was left to steep in retting ponds to allow the fleshier material to soften, scutching then scraped this off leaving just the fibres to be



The remains of Ballasalla cotton factory



Working a scutch mill



A fulling mill mechanism

used to make linen and paper. Similar scraping was used for cotton to remove seeds etc.

Carding - effectively combing the raw fibres to disentangle and align them ready for spinning.

Spinning - combining the fibres into threads for weaving, or yarns to make nets or belaid into ropes and hawsers.

Fulling - also known as 'tucking' hence alternative name of a 'tuck mill', pounding newly-woven cloth to dislodge

dirt and then to felt it, or to pulp fibre for paper-making.

In mills, a powered shaft turned cams which raised and dropped wooden beams or hammers.

A precursor of the 'stamp' mills used to crush ore at mines.

Paper making - fibres, either raw or reclaimed from rag, separated and then rolled using water-powered machinery, then laid on wire frames and felts to dry and bond into

sheets of paper.

Other tasks and industries:

Churning butter - a tedious task by hand, sometimes automated by use of wind- or water-power.

Iron works - water power can be used to operate bellows and drive power hammers - heavier versions of the fulling hammers.

And finally, water power can be used to turn a carousel or churn ice cream.



Ballasalla Abbey Mill

(iMuseum)

Down the miles and the centuries

G lion Cam: A small farm waterwheel affixed to an outbuilding to churn butter, little remains.

Grenaby: A substantial corn mill, which in 1511 also held a brewing licence. The mill building has almost completely gone, but the Miller's house remains.

Mullin y Kelly: "Mullin" / "Mwyllyn" is Manx for a mill, so "Kelly's Mill". First mentioned in 1511 Manorial Roll, exact location now lost.

Mullin y Carty: Built 1739 as a Fulling mill; later used for Carding wool; only low walls remain.

Creg Mill (Silverdale): The upper of Rushen Abbey's two corn mills on the Silverburn. Has evolved, and when Manx Ices started production there in 2015, some of their ice-cream making equipment used sustainable power from the waterwheel.

Silverburn Flax Fulling Mill / Ochre and Umber Mill: Est 1767 as a fulling mill for processing flax by John Quayle, and later owned by George Quayle of Bridge House in Castletown. Around 1833 the mill was converted for grinding ochre and umber earth pigments dug at Billown and elsewhere (exported through the "Umber House" in Castletown); later they also ground polishing powders from 'rottenstone' quarried under what is now the Cringle plantation. The Mill closed in 1898 and was converted into a dwelling.

Abbey Mill / Ballasalla Mill: The lower of Rushen Abbey's two mills on the Silverburn, just opposite Rushen Abbey; it is unusual (in Manx terms) in having a fully-enclosed wheel case; it also included a grain kiln with a 'fan vault of immense slate beams'. The accounts from 1540 for the Dissolution of Rushen Abbey record a Monastic mill in the Ballasalla area, tenanted at the time - this may have been the same, or yet another mill on the Silverburn.

Ballasalla Bark Mill: Location uncertain - possibly at one of the former Abbey mills.

Iron Mill: A 'Tilting Mill / Plating Forge' was established here about 1760 by John Stole and was probably used to make spade blades. The most likely building is now wheel-less.

Ballasalla Cotton Mill / 'The Factory': Abraham DeLaPryme and his partner, the appropriately named Francis Wheelhouse, operated a water-powered cotton mill from about 1782, including the first 'Spinning Jenny' in the island; much of the output was exported via Liverpool.

Unfortunately 10 years later they fell foul of the Customs there who decided to start charging duty because the raw material had come from the Colonies.

This was eventually overruled, but too late for the business. After cotton-spinning ceased, under new owners it produced coarser thread for locally used fishing nets; by 1818 it was described as a flax mill, latterly also used as a threshing mill. Now derelict.

Paper Mill: Operated by McDaniel, the first Manx papermaker; but - allegedly due to duties payable - failed within a year, around the time of the Revestment.

(Golden) Meadow Mill / 'Castle Mill': A major Castletown landmark, possibly the 'Castletown Mill' referred to in the 1511 Manorial Roll.

Latterly a very substantial complex with drying kiln and separate threshing and corn mills, each with their own waterwheel. Milling continued using electrical power until 1981.

Some of the main buildings survive, and have benefitted from significant conservation work by the current owners.

Castle Rushen Mill: constructed within the Castle buildings, under the gatehouse. There are two suggested power sources for the Castle mill; most likely is that it was powered by the Silverburn via the race leading from Golden Meadow Mill to the Castle; although it has also been suggested it was powered by tidal ebb and flow, in the same way as the modern Rance tidal power station near St. Malo, and the proposed Severn Barrage.

The Castle Mill was probably just to supply the daily needs of the inhabitants and garrison; however, as flour couldn't be stockpiled but grain could be, it has been suggested it was also a valuable anti-siege precaution - but all the attackers would have to do is divert or block the water before it reached the defended castle, so a water-powered mill would be of questionable value in a siege.