## The Mills Research Group Conference 2014

November 2014 - continued from Newsletter 107

## John Brandrick

The group then visited a converted corn mill within about 300 yards of the saw mill. (SO0102093719). This like many is an outstanding conversion carried out by a grandson several times removed from the founder. The mill was visited by DHJ in 1967 and recorded in his paper on the Watermills of Montgomeryshire. It had two waterwheels operating in tandem each driving its own pit wheel. Only one wheel remains at this time and this drives the pit wheel and wallower mounted on to the wooden upright shaft driving a spur wheel and stone nuts set below the mill stones. Both sets use a lighter staff for tentering. A crown wheel is set above them which drove the small machines. Most of gearing is cast iron although the stone nuts are wood. The sack hoist was of the slack belt type but unusual as it was weighted to hold the hoist on with a catch to hold it off. It was controlled by two cords.

Adjacent to the house is a 2 story structure that housed the kiln, which has been removed. The mill pond has been dredged and cleaned and (after rebuilding some of its retaining walls) is fed by an underground pipeline that supplies an ornamental fountain operating purely under gravity from a distant stream.



Rear view of the Corn Mill and Millers House - Conversion for accommodation



Front view of Corn Mill, Pond and Kiln Building - taken from the road

The next mill the group visited was **Rhydlydan Mill**, (SO0583593174), stands by the B4568 Newtown - Llanwnog Road. It is a detached building, not now associated with the nearby house and farm buildings. The mill building is mainly of stone, with brick used at the corners and around openings. It has four storeys (including the attic) but nearly all of the second floor is occupied by bins. The kiln is attached to one end of the building, with access from the mill on both floors.

A stable was built against the end of the mill but is derelict. The mill is in poor condition mainly from a defective roof and previously timber clad gables. One part of the kiln has collapsed due to being undermined by badgers.

A previous owner excavated the bank behind the mill and destroyed the mill pond The mill has a new owner who is preparing to start a renovation programme.

The large overshot waterwheel is placed within the building, and drove three pairs of stones by spurwheel gear.

This plant is most unusual, in that the stones are overdriven and most carry a double row of staggered cogs. The smaller machines were driven by two pinions engaging the spurwheel, and one engaging a bevel tooth ring on the spurwheel arms.

Apart from the waterwheel and the pitwheel, nearly all the plant is wooden. There are two flour dressers; being a wire machine and a bolter. The oatmeal machine was an open-fan type, under the meal bin. A late 19th century American smutter stands on the first floor, but not in its working position. The slack-belt sack hoist is in the attic and has the local 'latch-off' mechanism, as at Pontdolgoch.



## Rhydlydan Mill

The kiln is a 'funnel' type, with a central brick stove about 4' high with a castellated top capped with stone to provide four openings one on each face at the top for the smoke to escape within the funnel. Apart from the high quality of structure and millwork, this mill is most interesting as an example of the adaption of a 'foreign' tradition to local conditions. All its main design features derive from another region. The internal waterwheel, the great headroom on all floors, the very well- developed bin floor - all this would be commonplace in East Anglia, or Kent, but quite out of place in Mid Wales. Even the overdrive is not unknown in eastern England, but elsewhere it is very rare. Each pair of stones has a loading platform by its hopper, with a ladder to it, for grinding small parcels of grain.

See www.milldrawings.com/html/rhydlydan.html



The next mill was **Llifior near Garthmyl**, (SO1832998714), an eighteenth century waterpowered corn mill. It has two storeys plus an attic floor, with walls of red brick under a slate roof. The mill retains most of its machinery including an all-iron overshot waterwheel, probably dating from a rebuild following a fire in the nineteenth century, mounted on a (now removed) wooden axle. Inside, a lay shaft drove two pairs of stones from below by bevel gears; there was a wire machine. A timber-framed seventeenth century mill house is adjacent on the east side and a later cross wing has been added to the east of the house, incorporating the grain drying kiln.

Water was supplied to the mill in a leat from a weir and sluice some 360m to the west on the Llifior Brook; the tail race to the brook was some 55 metres long. There was no pond, but the leat widened towards its eastern end near the mill. See www.milldrawings.com/html/llifior.html



Lilifior Mill and Mill House



The final mill visited **Pontysgawrhyd** (SJ1943715520) was originally built as two mills, the left side is believed to have been a mirror image of the right. And probably built by the famous millwright William Hazeldine as many of the components reflect his style, but the layout of the attic is uncertain. A brick barn was added to the mill which housed a Thresher and possibly other farm machinery and was present when DHJ visited in 1967.

The crown wheel still has an auxiliary shaft which drove it before the building became derelict due to a defective roof . There are signs of two other shafts that drove the sack hoist and a flour grader. At some point the left mill was destroyed but doorways and fire places for both mills still exist on the dividing wall. The mill became virtually derelict and generally unsafe until about 10 years ago but is now being carefully restored as time and funds permit. See www.milldrawings.com/html/pontysgawrhyd.html

...and so ended a most enjoyable weekend . The owners of all the mills we visited made us so welcome. The weather was fine. The company was great.

## Photographs by Ros



Pontysgawrhyd Mill



