

## Mills in Orkney

**Ruth Andrews**

Photos by Keith and Ruth Andrews

In June we spent a cold and windy fortnight driving to and from Orkney. Very fortunately, in the week we were there the weather improved considerably and we were able to visit the major archaeological site at Ness of Brodgar, where a series of monumental neolithic buildings are being excavated. Although this was the main purpose of our visit, we are always aware that we need to photograph and write about any mills that we see. We were pleased to spot several sites which seemed to have very little written about them, but we also revisited several better-known examples.

**Barony Mill** in the north of Orkney Mainland was built in 1873. It is now the only working meal mill on Orkney, and chiefly produces bere meal, an old form of barley which was grown all over Orkney. All Orkney mills need a large kiln to dry the grain and at Barony this is particularly noticeable. The mill's website [barony.com](http://barony.com) describes the operation:

*"Grain received on the ground floor is hoisted to the top floor for drying in the kiln—about a tonne at a time. The drying takes between 4-6 hours. A unique wooden shovel powered by the hoist aids in removing the grain from the kiln floor. There are three pairs of stones on the first floor. Grain is sent to the first pair, the 'shilling stones', to crack the husk, thus freeing the kernel. From here the grain and husk drops to a 'fanner'—a wind machine that blows away the husks (locally called 'scrubs')—which are burnt to heat the kiln. An elevator lifts the grain to a second fanner, after which the grain is delivered to a pair of French burr stones to be ground into a coarse meal (locally, 'grap') which is bagged, hoisted, and re-ground by the beremeal stones made from millstone grit."*



The overshoot waterwheel, about 4.1m diameter, turns at some 12rpm. The water comes from the nearby Boardhouse Loch.

As a complete contrast I have included the horizontal **Click Mill** near Dounby, which is a unique survivor on Orkney of a much earlier type of mill, even though it was built in the early 1820s to replace an older mill which had become ruinous. It was repaired by the Orkney Archaeological Society and handed to the Office of Works in 1932, since when it has been a guardianship monument. It is described as a click mill because a peg on the millstone catches on the bottom of the shoe making a clicking sound so that miller can judge the speed of the stone; it also shakes the hopper to vibrate the grain down the shoe into the eye of the stone. The mill is tucked away beside a stream and is well hidden in the local landscape. This may be intentional: particularly in the Western Isles, mills were sometimes deliberately hidden to avoid payment to landlords.





Now for the less well-known examples.

On a day trip to Shapinsay island, we noticed a 'Mill Dam' which is a well-publicised bird reserve. We now know that this was installed in in the 1880s to provide a controllable source of water for **Elwick Mill**, which is now residential, with a rebuilt waterwheel and an extremely skeletal windpump.



Built in 1883, we assume it was part of the Balfour estate: David Balfour made his fortune in India and inherited the Sound estate in the 1840s which included all of Shapinsay. He built Balfour Castle and its accompanying farm, gas works, and so on. The mill was once the largest water-powered grinding mill in Orkney and it replaced several small mills to become the meal mill serving the whole of Shapinsay.





The only remaining structure of the gasworks is the gas holder built in mock defensive style. The gas was used to light Balfour Castle and the village from 1860 to the 1920s, when the gas works was demolished.

Returning to Mainland, we passed **Kirbister Mill** which was visited by the Scottish IA Survey in 1981. It is now derelict and for sale.



It is described by Canmore (the online catalogue to Scotland's archaeology, buildings, industrial and maritime heritage) thus:

*"This is a random rubble (flag) built mill complex incorporating two three-storey kilns and grain mill and a two-storey threshing mill and byre with hay loft. The enclosed waterwheel operating the now gone three (probably) millstones was on the west side of the building. It was an overshot type with a maximum diameter of 4.6m and a maximum width of 1.25m. The now filled-in pit of a second enclosed wheel is situated between the grain milling area on the west and the threshing mill area on the east of the complex. This waterwheel, of the undershot type, probably drove the threshing machinery and measured 3.6m in diameter and 1.4m in width.*

*The kilns were housed in the south range, the southernmost being an addition (indicated by differences in the masonry). The framework for the now gone kiln plates is still in place indicating that they were 0.3m square. There is a date stone in the floor of the grain milling area (first floor) bearing initials and the date 1889."*

**Mill o' Rango** is actually marked on the OS map and it is an unmissable roadside building. Again it is 19th century and its most striking feature is a large pyramidal roofed kiln. It is now a very desirable residence.





On the island of Rousay, there was definitely a waterwheel at **Nousty**, but we don't know its name, and it may have been a farm power unit rather than a mill.. Again it is derelict.



**Sourin Mill** is also on Rousay and announces its presence with a 2-storey luccam and rather rusty scaffolding. It has datestones of 1777, 1861, 1880, and 1937. Planning notices on the door explain that it was purchased for restoration in 2020, but progress seems to have stalled. The original kiln at the mill became too small, and in 1861 a larger kiln was built. This was slightly wider than the mill and slightly higher.



The overshot waterwheel was 14 feet in diameter, and 4 feet across with 48 buckets.

Returning again to Mainland, we photographed **Tankerness Mill**. It has been much more thoroughly recorded but is now on the Buildings at Risk Register. Historic Environment Scotland's report says:

*"2-storey, 5-bay T-plan asymmetrical mill with slightly raised kiln at east end and undershot water wheel at west. Harl-pointed rubble. Long and short quoins to kiln. The tall blocked arches mark the position of the original wheel before it was placed on the outside of the end wall. 3 pairs of stones were driven by a high-breastshot wheel about 4.3m in diameter and, in order that the movement of the wheel did not startle horses passing over the adjacent bridge, it was shielded by a screen wall."*

Or was it to shield it from the strong winds as it was in a rather exposed position?

We were puzzled by an iron bracket on one of the blocked-up arches. The report says that the mill had a flat pulley system allowing a drive from a tractor to power a hammer mill, which was probably used to bruise grain, so maybe that explains it.





Finally we looked at the outside of **Tormiston Mill**, which was the visitor centre for Maes Howe neolithic tomb until 2017. This has now been relocated to Stenness village; ticket holders take a minibus to the mill and are then escorted across the road to the tomb. The mill is empty and unused despite still having most of its machinery.



Historic Environment Scotland's description says

*"1884–85: Built by Colonel Balfour of Shapinsay for the convenience of the surrounding estate tenants and crofters/farmers from the neighbouring parishes as a mill for preparing animal feed. The mill is typical of the large water-powered meal mills built in the late 19th and early 20th centuries in Orkney and Caithness, with ironwork from the Thurso Foundry. It is Category B listed as a building of regional importance. The mill is a pattern-book example of its period: plain rectangular plan; three storeys, twin-vented kiln, three pairs of stones, large cast-iron overshot wheel and flagstone built lade. Unusually, the lade is carried on a beautifully built stone aqueduct. The building's 1972 conversion won a European Architectural Heritage Award in 1975."*

Background information variously from [baronymill.com](http://baronymill.com), Historic Environment Scotland, Canmore, [rousayremembered.com](http://rousayremembered.com), and [orkney.com](http://orkney.com).