



Whitworth Historical Society

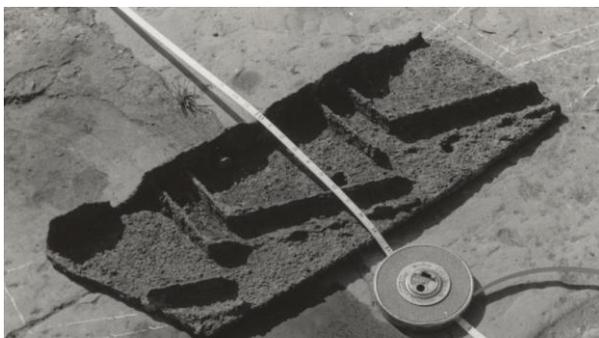
(Registered Charity: 517660)

APRIL 2020 NEWSLETTER

Since many of us are confined to our homes for the next few weeks it seems a good idea to make the Society's membership aware of a couple of research projects which have taken place within the organisation. With the gradual but nevertheless increasing appeal of Whitworth and its surrounding areas as a place for recreational walking, we seem to be receiving more and more requests for information about local stories and, in some cases, myths, but also there is clear interest in some of the many industrial remains that can still be seen when out walking. Although a little off the beaten track, the remains of the Dules Mouth stone polishing, rubbing or scrubbing mill at Cowm is one such case.

Dules Mouth stone rubbing mill what remains of this former industrial site sits a little lower down the valley than the area known as Dules Mouth and the quarry which shares its name. Today this is a tranquil spot where there is little to disturb the peaceful sounds of Cowm Brook and the occasional sheep munching the rather poor quality grass which surrounds the now overgrown site. How very different it would have looked and sounded around 200 years earlier when fully operational. It has been suggested that the mill itself dates from around the late 18th century although much of what is there now is probably later. About 1801 the mill was owned by Dr James Taylor, son of the most famous of the Whitworth Doctors, John Taylor. When functional the mill would have been reliant on a constant source of water for both motive power and as a process medium. Both were satisfied by the adjacent Cowm Brook which, even today, is reasonably powerful when in full flood.

Although now dry, above the mill ruins is clear evidence of a mill pond or reservoir which may have provided water for driving the (water) wheel and for stone processing. The position of this pond suggests that the wheel was either overshot or high breast shot in its operation. Whilst nothing remains to suggest just how the flow was regulated, it has to be assumed that some form of head race fed water from the pond into the wheel buckets to provide a means of rotation. In 1985 a thorough investigation of the site was made by Mr W G Taylor from Bacup Natural History Society and he was fortunate in finding fragments of the water wheel. By calculation Mr Taylor was able determine that the wheel was around 20' in diameter and had been cast in several sections. The cast iron spokes, each of which was some 3" in thickness, had been bolted to the rim sections. Cast into the rim plate were sockets designed to take the timbers of the wheel's buckets of which



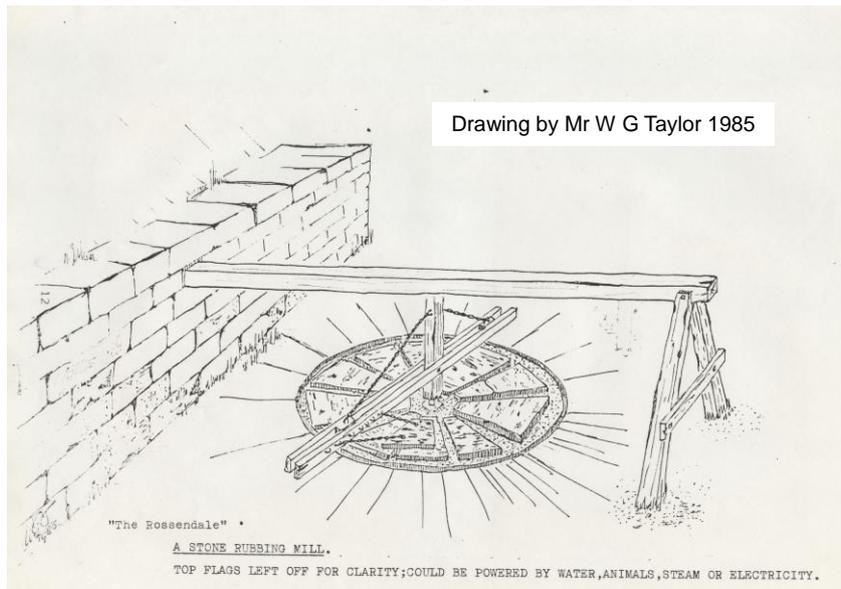
Pictured in 1985 is a section of the wheel shroud or rim from the Dules Mouth water wheel. The present whereabouts of these rim fragments is not known.

Photo: Bacup Natural History Society.

there would have been about 68. Each bucket could hold around 25 kilos of water giving the five tonne wheel a significant turning force!

Many will be familiar with the visual appearance of the water wheel since several still exist in this country and in northern Europe. Less well known is the process of scrubbing, rubbing or polishing; all three of these terms essentially meaning the same thing. In Rossendale at least, the polishing bed was circular and could be anything up to thirty feet in diameter. At its centre was a vertical shaft which was driven by a series of gears from the water wheel. Atop of the shaft was a large timber or timber frame which was rotated by the turning motion of the shaft. Essentially, two

stones, one fixed the other mobile, were rubbed against each other using sharp sand and water as a cutting agent and lubricant respectively. After many hours of processing both stones would be flat, the degree of polish being determined by the intended use to which the product would be put.



A simplified version of a stone rubbing mill showing the principle of the process. The vertical shaft in the centre of the circular rubbing table is powered via a series of gears from the drive cellar below.

Because of the inevitable pollution of Cowm Brook, building of the reservoir at Cowm brought the end of stone polishing at Dules Mouth around 1870.

On completion of his investigations of the site, Mr Taylor compiled a comprehensive report of his

findings and interpretation of the remains at Dules Mouth Mill. Thanks to the generosity of Bacup Natural History Society a copy of the report in its entirety can be seen at Whitworth Museum.

2nd Lt. Harold Pierce Stuttard RFC

Many Whitworth residents will associate the family name of Stuttard with Bridge Mill shed and textile processing in the form of warp sizing. Indeed, Stuttard's, as a company, was one of the last Whitworth textile mills in operation when they went into liquidation around 2003.

Like many young men of his generation Harold Pierce Stuttard served his country during the 1914 - 18 conflict we now refer to as World War 1. Unlike most, Harold, at the age of just 20 years, joined the Royal Flying Corps as a pilot. After training and with just 35 hours 50 minutes of solo flying experience, Harold gained his 'wings' on 18th October 1917. Most of his solo flying had been undertaken on the Airco DH4, a biplane intended for use as a light bomber but also used for general duties and for advanced training. Designed by Geoffery de Havilland the DH4 had been introduced to squadron service in March 1917.



Airco DH4

On 30th October 1917 Harold, in company with a second aircraft took off from the airfield at Catterick. After about 20 minutes flying, the two aircraft entered cloud emerging into clear skies 3 minutes later. On emerging, the pilot of the second aircraft reported seeing Lt. Stuttard's aeroplane spinning downwards, continuing to do so until impact with the ground. Lt. Stuttard was killed on impact.

The inquiry rather unkindly suggested that the pilot had been disorientated by the cloud and, in error, had induced his aircraft to spin. They appear to have glossed over the fact that a securing pin had sheared causing the starboard aileron and also the port elevator to fall off! The body of Harold Pierce Stuttard was returned to Whitworth and he was buried in the Stuttard family vault at Facit a few days later. Sadly, his elder brother Frank had been killed 2 years earlier whilst serving with the RFC in Basra.



The commemorative plaque adorning the Stuttard family vault at Facit.