DAILY BREAD – THE HISTORY OF GRAIN

18 November 2024

Bob Price

Acorn Bank Watermill was acquired by The National Trust in 1950. By 1980 the mill itself was derelict; restoration began in 1990, but it wasn't until 2007 that Bob and two others began working on the project. Their first job was to replace the main shaft axle because they thought a fully working mill, producing flour, would create a more interesting visitor attraction. Covid–19 caused Acorn Bank to close in 2020 but, upon reopening, the Trust decided that the mill project should not be restarted. The volunteers, who had worked on its restoration, therefore formed Acorn Bank Watermill Trust. The National Trust agreed to lease this group the mill for five years, later extending this to seven years; the main income for the Watermill Trust comes from selling the wheat flour that it produces.

Bob explained how flour is produced; grains, the harvested seed of grasses like wheat, oats, rice, maize, rye and barley, provide humans with about 48% of their calories. Ancient Egyptians were growing wheat and barley for food by 8,000BC and from this they made bread, porridge and beer. By the Middle Bronze Age in Britain, cereals had become a staple food. A wheat grain consists of 3 distinct parts. Bran is the outer husk, the endosperm is the white starchy part, and the germ provides most of the vitamins. Wholemeal bread has everything included. The person who broke up the grain by crushing it, in what was called a quern in Egyptian society, was considered the lowest caste. Saddle querns (a shallow stone dish with a round stone to crush the grain) have been found in Britain dating back to Neolithic times. These were replaced by rotary querns: less labour-intensive and more efficient. Even so, a skilled operator could only produce 6lbs of flour a day.

When land-owners built mills powered by wind and water, they made using a quern illegal and charged local people to grind their corn or took a percentage in payment. The early waterwheels were horizontal, requiring a jet of water to hit the top of the wheel and drive the central shaft. On the floor above, the shaft turned a circular stone which sat on a static stone. Grain was then poured down a hole in the centre of the top stone where it was ground into flour. The disadvantage was that this system required a very strong jet of water. The vertical waterwheel was then invented which did not require this jet, the shaft turning the upper millstone through gearing. Acorn Bank Mill was probably rebuilt to this pattern around 1823 and was modified in 1850 to drive two pairs of stones. In modern times, flour is produced using a system of steel rollers and sieves, separating the grain into white flour, wheat germ, feed and bran.

Even after the restoration of Acorn Bank Mill the National Trust did not expect the mill to be operational, but the restorers did. Originally the stones had been mounted too close together and they had to be moved. Other challenges included heavy engineering,

woodwork, water management and pest control along with finding ways of doing the job without money. They had to learn to mill, which they did with the help of Nick Jones from Little Salkeld watermill. When the project was finished the renovators were presented with the Marsh Heritage Award for the best volunteer work in the National Trust. After ten years of working, the milling had become less efficient; this necessitated redressing the stones by removing them and deepening the groves which had been carved on the surface.

Bob then talked about bread in society. Roman bread was cooked by slotting the dough into an open oven with a fire on one side using a wooden 'peel', similar to the way pizzas are cooked today. There are sayings relating to bread – to 'know the colour of one's bread' means to know your place in society. Other sayings are: 'grind to a halt', 'fair to middlin' and 'run of the mill'. White flour was more expensive as it only contained 35% of the grain; bread has always been associated with social status and snobbery, between those who ate white and those who ate wholemeal. A baker who produced underweight loaves would be punished. Meals were often served on flat bread called a trencher. Sometimes this was eaten, sometimes given to the poor; the bottom was hard but the top half was 'the upper crust'. In 1709 a new act allowed magistrates to control the type, weight and price of loaves. The Corn Laws of 1815, meant to protect British farmers, blocked the importing of corn but bread prices rose sharply which in turn led to hardship. The Corn Laws were repealed in 1846 and wheat could then be imported from North America, bringing down the price of bread. By 1870 roller mills became viable which was the death-knell for wind and water mills.

Dr Thomas Richard Allinson (1858–1918) qualified as both a medical doctor and a miller. He believed in health through diet, exercise and fresh air. He was active in the wholemeal cause, setting up a flour mill and licensing bakers, but was a controversial figure, struck off in 1892 for his beliefs. His support for wholemeal flour was finally endorsed by the government in 1918. Wholemeal bread then became more popular and Allinson's flour is still made. John Figgins Morton produced a patented wholemeal product which he called 'Germ Flour'. He set a national competition to find a new name for this. The winning entry was a contraction of the Latin *Hominus Vis* meaning strength of man. Shortened to *Hovis* this has been a household name for 130 years.

At the start of WW2, Britain imported around 70% of its grain. German planes targeted both the ships bringing the grain and the large flour mills. On 16 September 1940 the Ranks and Spillers flour mills at London's Victoria Docks were both destroyed. Ground chalk was added to flour to increase the calcium content, and oats, rye and barley were used to bulk it out. Churchill favoured mixing in potato flour. For reasons of morale, bread was not rationed during the war but there was no white bread after 1942, only the National Loaf was available. After the war, bread was rationed between 1946 and 1948 because the wheat crop failed and white bread reintroduced in 1950. In the 1960s sliced bread became increasingly popular and TV adverts for *Homepride* flour and *Mothers Pride* bread were common. In 1973, the Hovis advert of a boy pushing his bread loaded bike up a steep hill was voted the best ever TV advert.

Bob ended by telling us that on 13 January 2023 Listed Building Consent was granted to restore the second waterwheel and carry out the associated works. He asked if any of us would be interested in volunteering with the project – more information is available from the Acorn Bank Watermill Trust website.

Tricia Jagger