

## The History behind Arundel Mill Pond

### The Rise of the Mill in the Stroud Valleys

At the end of the Fourteenth Century, most of the people who lived in Stroud were employed in farming. Tax records showed that there were only three non-farm linked workers at this time and these were 'tuckers' (**tucking/fulling** is a step in woollen clothmaking where the wool is cleaned and made thicker). However, because the Stroud Valleys was an ideal place for sheep farming, the wool trade grew quickly. By the beginning of the Seventeenth Century over half of the workforce were working in various branches of the cloth making industry. There were many different stages in cloth production and before the Industrial Revolution these took place in the workers' own cottages. The clothier (a person or company that makes or sells clothes or cloth) would give the spinners and weavers wool or yarn which they turned into cloth. The woven cloth would then be returned for dyeing and finishing at the clothier's mill where fulling stocks (large wooden hammers. See below), driven by a waterwheel, would shrink the cloth by up to a third. Teasel combs (from the teasel plant) would then be used to raise the nap (the rough surface of the cloth) and then 'shearman' would use huge shears to trim off the excess nap to create smooth cloth.



**Wild Teasel**  
*(Dipsacus fullonum)*



**Fuller's Teasel**  
*(Dipsacus sativus)*



**Fulling Stock at Dunkirk Mill**



**An iron frame from a teasel gig machine at Dunkirk Mill**

By the early Eighteenth Century, Stroud was famous for the quality of its woollen cloth, (particularly the red and blue cloth used in military uniforms. See the next section) and as a result was a very wealthy area. In the 1770's there were 18 cloth-mills and approximately 30 master clothiers in Stroud parish with the annual value of the cloth produced being an estimated £200,000 which would be approximately the same as £37.5 million in 2021! By 1831 90% of families in the parish were supported by trade rather than agriculture! This period also saw the stages in cloth making becoming increasingly carried out by machines. This marked the decline in homeworking, and many of the mills were rebuilt on a larger scale to house the new, large steam powered machinery. These were introduced to supplement the water mills which particularly struggled in the summer. It was also a time of frequent economic depressions, poverty and unrest among the workers and after the First World War many overseas countries, which had previously depended entirely on British cloth, started producing their own and then exported it back to Britain at a cheaper price. This marked the decline in the fortunes of the mills in the Stroud Valleys and by the end of the Nineteenth Century most of them had closed.

### **Arundel Mill Pond**

There were 14 mills, roughly every 300m, along the stretch of the Frome in Stroud. One of these was Arundel Mill named after the Arundel family who owned it from at least 1557 until 1813 (although it's believed that there was a mill on the site from the 14<sup>th</sup> Century). The Arundel family-owned large areas of land around Stroud, including Orpins Mill, a little further down the Frome, which they sold in 1654 to the Viner family who in turn sold it to the Capel family and which is now known as 'Capel's Mill'.



**All that remains of Capel's Mill today (formerly known as Orpin's Mill)**

Arundel Mill started off as Chapman's Mill (it didn't become known as Arundel Mill until around 1795). In the 17<sup>th</sup> Century both Orpins and Chapman's mills were described as fulling mills with a gig mill, dyehouse and grist mill carrying out cloth finishing work. It's believed that a millpond was built in the 1790's/1800's (there's no exact date. There was no pond on the canal map of 1790, but it was shown on the Stroud Parish Map of 1824/5). Previously **leats** had been used to supply the mill with water. Leats are [artificial waterways which supply water to water wheels](#). The force of the running water drives or pushes the blades of the water wheel which then turns or rotates an axle that drives any machinery to which it is attached. Changing the water supply from a leat to a pond would have provided a more regular flow of water and would have allowed water to be stored to ensure there was enough to keep the mill working through the day. Ponds were commonly called pounds or reservoirs at that time.

The Arundel family reached the peak of their fortunes in the 1770's but by the early Nineteenth Century the last of the Arundel's had died, leaving the Mill to relatives in Oxfordshire who leased the mill out. The tenants continued clothmaking there and in 1837 they installed four power looms. However, as steam machinery began to take over, smaller sites like Arundel Mill were not able to install the machinery as they didn't have enough room, so many became specialist dyehouses. In 1865, Arundel Mill was bought by the dyers, Charles Gyde & Son.

Before 1856 (when the first synthetic dyes were accidentally discovered by William Perkin), all dyes came from plant and animal sources. The famous Stroud scarlet cloth came from expensive Cochineal imported from South America and the blue dye for broad cloth used for naval uniforms came from Indigo imported from tropical countries in Asia and South America



**The Stroud scarlet cloth (above left) and the cloth used in a military dress jacket at Dunkirk Mill**



The Cochineal scale insect, *Dactylopius coccus*, (left) produces red, carminic acid to deter predators. They have been harvested for their dye for centuries, although today we mainly use them in more in cosmetics and food colouring. If you see labels with E120 or Natural Red 4 on them, then it's from Cochineal.

The dying business did well and continued working until the early 1930's. After that time, the buildings fell into disrepair and by 1971, the main mill buildings had all been demolished and the site was a coal yard. The mill house and cottages were restored in the 1990's by the Stroud Preservation Trust and now are private houses. All that is left of the original industrial site is the pond and sluice, both of which are reminders of its long history as a working mill.



**The sluice gate and spillway at Arundel Mill Pond today**