

MILL 364 - SOME EARLIER HISTORY

In the Foreword to my "Mill 364" (1) I underlined the mutability of history as more knowledge is revealed. This note takes the story of St Cuthbert's as a paper mill back another 50 years from 1786 when Joseph Coles was first identified as a tenant there of Mrs Kingston. I am grateful to Mischa Williams of Lower Wookey Grist Mill for bringing the Penruddock/Band papers (2) in the Wiltshire Record Office to my attention and to that office for permission to quote them. My thanks go also to Alan and Glenys Crocker for comments on technical matters and to Joan Hasler for the Band family data.

In "Mills and Watercourses of the Upper Axe" (3) Edward Band's arrival at Wookey Hole in 1736 is recorded. Also noted is the insurance policy (1742) for the Wookey Hole operation and for a millhouse and stock at "Lowere Wookey".

It is now known that on 29 Sep 1738 Edward Band took a lease for 19 1/2 years from Rev Robert Kingston, then curate of St Cuthbert's (the parish church of Wells) and later briefly vicar of Wookey, instituted in 1747 but dying in 1748. Band also borrowed £500 off Kingston, a very considerable sum. The lease was of "all those two paper mills, two dwelling houses, drying houses and outhouses with the orchards and five closes thereto belonging containing 20 acres at Wookey Hole in the parish of St Cuthbert late in the tenure of Joseph Mussock White now of Robert Kingston" together with the ways, waterleats, ponds, hatches and so forth. The rent was £40 a year plus £5 for every acre ploughed, although the orchards were not to be ploughed. Kingston seems to have been more concerned with the land than the mills for Band agreed to terms on manuring, damage to orchard trees and use of wood for maintenance of fences and, more to the present purpose, of the mills described in the schedules. Kingston however agreed to maintain the houses - dwelling and drying - and the roof (sic) of the two mills.

The two schedules are of particular interest, although the language is a little obscure even with, as above, punctuation inserted. The second schedule describes the western mill which has: "The wheel, shaft and shutt, two gudgeons, two hoopoes, the press with the cheek and button, two bolsters, fourteen hammers and slings, three mortars, three plates, the staples and groundsiles, the ffat and one sleeking engine". The eastern mill has the same equipment except that it has fifteen hammers and no sleeking engine. This is a description of two paper mills with independent power sources. Shoots feed two water wheels. Each wheel has two bearings and drives a shaft - it is highly unlikely that the wheel and shaft together had only two bearings. The shaft is, presumably, equipped with cogs to raise hammers operating in three troughs ("mortars") with some five hammers per trough. Each hammer has a "sling" - probably to disengage it. It will be noted that the number of hammers per trough is the usual number for Holland and Germany and the same as Huxham Mill in Devon (4) one of the few descriptions existing for England. From the last trough the stuff is taken for paper making in the "ffat" or vat, although it is surprising that no intermediate storage chest is mentioned. After making, the paper is pressed between the "bolsters" of the press - the "cheeks" of a press are its vertical frame and the "button" is here assumed to be the heavy knob on the end of the press lever. Paper was finished on a smoothing machine. The framework, for whose maintenance the tenant is responsible, is described in some detail - the groundsiles are foundation timbers, the staples are vertical posts and the plates major horizontal frame members.

Technical change in the form of the Hollander beater soon arrived. In 1746 an "engine for the better and more convenient carrying on of the

business of paper making" was installed. An agreement says that Kingston agreed to Band making alterations, to the cost of which Kingston contributed £20. Band's rent was to go up to £41 a year for the remainder of the term (one and a half years) and Kingston would own the plant after that. The description is as follows: "The water wheel, shaft and shutt, two gudgeons, two hoops, the engine and plate with the cogwheel, swimming wheel, trendle head, lanthorn, two presses with their cheeks and buttons, one ffat and iron pot, one chest, one mortar and five hammers and slings and the ladder in good repair". The cogwheel is probably the pitwheel and the swimming wheel the great spur wheel of a conventionally arranged water mill (5). Other parts mentioned - trendle head and lanthorn - are connected with turning drives through a right angle before bevel gears were invented, although the terms trendle and lantern are synonymous and a trendle head is thus presumably something different. Could it be the connection between the pitwheel and the vertical shaft for the swimming wheel? The drive to the beater would need a higher speed of rotation than the hammer cogs and this would be obtained by driving a lantern from the swimming wheel. Moreover, the site of the demolished troughs, presumably the site of the beater, lay parallel to the shaft and an additional right angle turn was thus required to serve the beater. The remaining hammers must have been still driven directly off the wheel shaft.

Once again Kingston seems more concerned with the land. A note is appended "signed and sealed it being first agreed that if said Edward Band carry off any hay he shall bring on two loads of dung for every one of hay taken".

It is not clear whether the description of 1746 is of the complete instalation or of one of the mills only. If, see later, it is correct to place this operation at the St Cuthbert's site it may be significant that Coles' earliest recorded number of vats was one in 1803. Perhaps Band installed the beater experimentally in one mill, leaving the other unchanged, but why did two presses appear in the changed one? Was the single trough retained to break the rags before the beater or was Band uncertain of the beater's effectiveness? The latter seems unlikely if one mill only remained as successive troughs were needed to do successive parts of the process and beaters were well proven by this date. The beater increased output markedly - a report in 1725 (4) says that one day's work from a beater equalled eight troughs in eight days - so one beater would more than account for the two mills' output of stuff - but only one, or perhaps two, vats, remained. Perhaps we have here at this time a half-converted mill? There is not enough information to decide.

A receipt of Mrs Kingston's, dated 1758, confirms Band's occupation at least until then.

The location of this operation must now be considered. Two mills under one roof mean a single site must be sought. Wookey Hole did have two wheels and two mills under one roof but belonged to Wells Old Almshouses until the mid 19th century. Stocks mill at Wookey Hole is the next candidate, but this was Taylor land, bought by the Band family in 1795 with a demolished mill on it. There is no room for an east/west mill layout at the steeply sloping site at Glencot and James Coles was probably there by 1758. Lower Wookey Grist Mill was until at least 1775 part of the Rodney Stoke, Carnarvon, estate. Given the insurance evidence with its reference to Lower Wookey and the continued association of the Kingston name with the St Cuthbert's site, this latter is the most likely site. Indeed, although the earliest map known is 1838, it does show two parallel watercourses on the approach to the mill to the north. One has previously been assumed to be a head pond. Perhaps it was the remains of a second head race to a second wheel? If the conclusion is correct great care must be taken in identifying paper

with a Band watermark as necessarily originating at Wookey Hole. It is likely that Band had left this Lower Wookey site by 1770 as the insurance evidence of that year refers only to the Wookey Hole operation.

What was Band information doing in the Penruddock papers? Edward Band became a wealthy and locally powerful man, dying in 1784. No children survived beyond infancy from his first marriage but he had two children by his second wife: John, to whom by a lease for £100 a year he transferred the management of his trade from Wookey Hole mill in 1782, and Martha who also died in infancy. John's elder daughter was also Martha and she married Charles Penruddock in 1797. This involved a settlement from the Band side of £3000 and on the other £4000. To finance this the Band estates were put in trust, the trustees engaging to pay the income from £3000 for Martha's life and the capital to her heirs.

And who was Joseph Mussock White? Does this name as a papermaker ring any bell? Or was the Band operation the first on this site? And who, if anybody, was papermaking at the Kingston/St Cuthbert's site between about 1770 and 1786?

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July 1995

- 1 B G Luker, "Mill 364 - Paper Making at St Cuthbert's", St Cuthbert's Paper Mill, 1991
- 2 WRO 332/239 to 241
- 3 B G Luker, "Mills and Watercourses of the Upper Axe - from Wookey Hole to Bleadney", Wookey Local History Group, 1991
- 4 R L Hills, "Papermaking in Britain, 1488 - 1988", Athlone Press, 1988
- 5 Glenys Crocker, "Swimming Wheels and Swinging Wheels", SPAB Wind and Watermill Section Newsletter, 64. July 1995