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KENT ARCHAEOLOGICAL REVIEW
NO. 33. — CHART & P MILLS AT
FAVERSHAM. THE FINAL PHASE
1973

KENT ARCHAEOLOGICAL REVIEW

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A Roman coin had been found in this area at 27 Stangrove Road (Arch. Cant. Vol. 76 (1961), p.202-4) and thus provoked local interest. In 1971 a local school teacher and some children conducted an excavation with the intention of establishing the area as a definite site. The results were not published, except in the local press, and rumours of the discoveries included a courtyard, wall, kiln and iron-smelting works. The trenches were left open and the teacher concerned has since gone abroad.

The 1973 excavation aimed at trying to salvage what information was left in the ground. Nothing relating to the rumoured structures was found. An area of sandstone rubble was, however, recorded and this may represent a farm-track running alongside the stream. It seems probable that this was laid down in the 18th or 19th centuries. Sometime after the middle of the 19th century a land-drain was laid east-west across the area and this cut through the rubble track to flow into the stream. A substantial stone-built culvert was then constructed to carry the water under the track and the track then repaired. Nothing of Roman date was found. The site was back-filled and restored.

CHART GUNPOWDER MILLS AT FAVERSHAM

The Final Phase

By Andrew H. Osborne, A.R.I.B.A.

At all seasons, in all weathers, a faithful band of volunteers has been continuing the work of restoring the Chart Gunpowder Mills at Faversham. The aim of the Faversham Society is not to make a static "museum piece," but to restore one mill to full working order.

When the 5-ton water-wheel begins to turn again, its bearings will be supported by massive brick walls that are now safe from collapse. These walls are 3ft. thick and 11ft. high and they each weigh 25-tons, but timbers built into them had almost completely rotted away, so that in places the walls were supported on soft mud. It appears that in the original construction the stone and brick channels were built first, founded on 4in. x 4in. iron-shod timber piles. (Some pile shoes have been retrieved). About 1ft. above the stone floor of the mill race the brick side walls were thickened from 1ft. 6in. to 3ft. to support the bearings of the wheel. It was at this point that two 1 in. pitch pine planks were introduced. The volunteers have shored up the walls, removed the mud and rotten timber and rammed dry concrete in its place.

A number of wheels and worn and damaged components in the mill have had to be replaced. A 4in. diameter axle weighing over 3½-cwt. has been made. Naves for the stone edge-runners have been fashioned from solid pieces of English elm 16in. square and over 3ft. long. Frames for the ingenious sliding bearings of the mill have been cast and machined, as well as eight bronze bearing linings weighing over 20lb. each. New oak drive brackets have been made and fitted to the crown wheel. The elm and oak crown wheel and axle have been restored, with new



sections fitted in place of rotten ones and new beech teeth pegged in place. Every wheel and shaft (including the 5-ton water-wheel) has been lifted from its bearings with jacks and slings and the bearings cleaned and re-levelled. All the parts are being reassembled by voluntary engineers under the direction of Mr. Norman Cotton.

The drenching tank with its operating gear is almost completely restored. It was designed to operate automatically if there was an explosion, discharging 35 gallons of water into the mill pan.

The next task is to construct a protective cover over the water-wheel. Originally the water-wheels were covered by a pitched roof of pine boarding between each pair of mill buildings, with oak and iron grills at front and back. As only one mill is to be fully restored the design has to be slightly amended. One side of the new wheel shed will be left open so that the wheel can be seen, but with bars to protect it against vandals. This structure will also support the gearing which operates the sluice that controls the amount of water falling on the wheel and therefore its running speed.

The foundations of the other three mills have been consolidated and in one of them the under floor drainage system has been restored. As the mill pond has been filled and developed as a housing estate, the Faversham Society has constructed a new brick flume and the Lower Medway Internal Drainage Board has

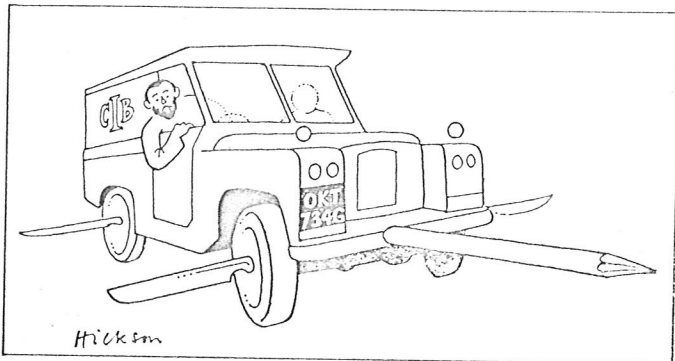
constructed a culvert diverting the main stream into the mill race of the second, unrestored, pair of mills. A sluice allows this water to be held back and diverted to work the water-wheel of the restored mill. Although the capacity of the feeder stream above the mill is much less than that of a mill pond, it is hoped that enough water can be held to run the mill for a few hours on high days and holidays.

The brick-paved mill walk has been repaired and a matching area of brick laid behind the mill. (Bricks were used for these paths by the original builders to reduce the risk of sparks being struck from metal and causing an explosion). The remaining iron railings have been collected together and restored, with missing parts replaced. They have been erected along the mill walk by the tail race. A prominent feature of the mill walk is the old gas-lamp standard which stood a few yards away on the carriage drive to St. Ann's House (demolished eight years ago). It has been converted to electricity and is now connected to the street lighting circuit of the housing estate.

The cast iron water-wheel had to be cleared of a thick layer of hard-water scale built up over the many years it was in use. Volunteers used pneumatic chisels, scalers and wire brushes. It is almost ready to receive the 64 new iron vanes, weighing together over a ton. They will be fixed to 192 shaped oak pegs tenoned into slots in the iron wheel and held in place by 384 specially forged bolts.

The Explosives Research and Development Establishment at Waltham Abbey has devised and provided a quantity of gunpowder simulant. It looks exactly like the "green charge" of powder that was incorporated (mixed under pressure) at Chart Mills. But it is chemically inert, and when used in the restored mill it is guaranteed not to explode!

The portion of the mills not dedicated to the Borough Council by the developers has been bought by the Society and presented to the town. The purchase price agreed with the developers was £750 but they claimed an additional £220 in respect of a storm water sewer that had to be constructed across part of the



"I said it's the Kent Archaeological Rescue Unit, Constable!"

site. This sewer has nothing to do with the mills but serves a portion of the M2 motorway, but the Society reluctantly decided to meet this claim. This was a considerable setback and means that money is still needed to complete the scheme. However, the Department of the Environment has made an *ex gratia* payment of £100, mainly due to the good offices of Mr. Roger Moate, M.P. for Faversham.

The Society estimates that when restoration is complete work valued at £16,000 will have been carried out for a cost of about £3,500, thanks to the help of volunteer labour and assistance with materials from many local and national firms. Their names are to be recorded in the brochure to mark the formal opening of the mills.

Finally a tree planting and landscape scheme has been prepared by a landscape architect. The Society hopes that before long the heavy work will be completed, the planting carried out, and the site left to mature for the enjoyment of future generations, undisturbed but for the sound of running water and the occasional rumbling of the mill.

LETTERS TO THE EDITOR

Dear Madam,

The statistical examination of the origin of Carbon deposits is of interest on many Kent sites and can provide extensive knowledge of the local flora in ancient times.

I am in possession of 28 photographs of various carbons from all the trees common to the County until very recent years, and this has greatly assisted researches in several fields.

I shall be pleased to offer copies of these photographs at a price of 25p per set of 28 and any profit made will be donated to the Council for Kentish Archaeology. This offer is open to any archaeologist or historian in Kent or further afield. Cheques, etc., should be made payable to 'Council for Kentish Archaeology' and orders sent to P. S. Bethell, A.I.B., Edgefield, Green Street Green Road, Dartford, Kent.

Yours sincerely,
PHILLIP S. BETHELL.

Dear Madam,

Tudor Blockhouse at Gravesend

The article "Tudor Blockhouse at Gravesend" in K.A.R. No. 30 (1972) announced a search for a "Lost" Tudor defensive site at the side of the river Thames at Gravesend. With the kind permission of the Gravesend Corporation, a short reconnaissance excavation was carried out during January and February of this year which resulted in the discovery of substantial chalk foundations and building debris. Further work will be carried out at weekends through October, November and December to complete identification and recover more of the plan. Anyone who is interested in helping at this pleasantly situated riverside site will be welcome. All those interested please write to me at Flat 2, 29 Harmer Street, Gravesend, Kent for details and map showing location of site.

Yours faithfully,
VICTOR T. C. SMITH.
Gravesend, Kent.