

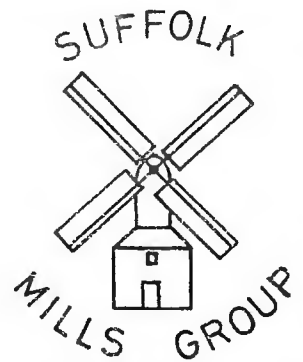
SUFFOLK MILLS GROUP

Newsletter Number 12

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Since the last Newsletter we have successfully completed our week's work at Bardwell and Stanton, and both mills are now weathertight. During the week we received quite a bit of publicity - as well as featuring on television for several minutes (during which time Chris Hullcoop gave an interview!) we also made the front page of the local newspaper. That the work all ran so smoothly and was completed on time is a tribute to the considerable amount of time S.M.G. Chairman Chris Hullcoop has put into the project, and for this he deserves the wholehearted thanks of all our Members.

Just as the last Newsletter went to press our Secretary, Peter Dolman, had the misfortune to meet one of the 'Blunders' on the road just a few yards from his home. Peter was thrown off his motorcycle and suffered a broken leg, which has, of course, prevented him from participating in S.M.G.'s recent work. However, he's now making good progress and should be mobile again very soon; we wish him a full recovery.

Mark Barnard

'WORK-IN' AT BARDWELL AND STANTON

CHRIS HULLCOOP

Early this year we decided that rather than concentrate on one mill we would make urgent repairs to several before it was too late. There are few windmills now left in Suffolk where the potential for full restoration still remains and over half of these are in the District of St. Edmundsbury. Stanton post mill had been on our minds for some time and we were prompted to take action by a letter from Mr. R.N. Gilbey of Essex. He had visited the mill and been impressed by its complete and very interesting machinery and sound buck frame. He could see that water getting into the mill through the right hand side of the buck roof was a serious threat and offered to contribute towards the cost of materials for urgent repairs. Thus we decided we ought to help Stanton mill this year, and as the tower mill at Bardwell was only a couple of miles away we were soon wondering if we could help this mill as well. A tower mill maintains restoration potential for longer than a post mill as the main bulk of the structure is brickwork and not timber framing. The cap roof at Bardwell had completely gone and it was difficult at first to decide how we could make an effective roof in just nine days. Our first thoughts were of a shallow pitched roof, but this would have needed a 'toothache' bulge for the brakewheel, head and tail gables, a separate petticoat and nothing could have been made beforehand. After a few preliminary drawings it became clear that a beehive shape similar to the original had everything in its favour, even for a holding operation. It would have no gables, no separate petticoat as it would be vertical at curb level, and the sixteen ribs and acorn finial could all be made in advance.

The design of a holding operation cap roof sharpened our knowledge of how and why

the mills were built as they were. At first sight the semicircular dome seems to be the most economical, but suffers from a flat top. In the nineteenth century virtually the only covering used was boards - either vertical or horizontal weather boards as at Bardwell. This boarding is very difficult to keep watertight on the steep sides of a smock mill, and where the angle becomes shallower the problem increases drastically. Windblown rain can drive under and up between vertical weather boards and at 45° it can pour in. As in all structures the most vulnerable points are at joints and there are about 16 vertical joints in the boarding over the cap ribs on an average tower mill. Like the board joints over the cant posts in smock mills, they always gave trouble and almost everything was tried (and still is) to waterproof them. The traditional and probably the best solution was white lead painted canvas (which in some cases covered all of the boarding) fitted with thousands of tacks (often copper). This is extremely costly in materials, time and maintenance. The beehive shaped cap avoids the flat top by using an arc of much larger radius than that of the same sized dome and also strengthens and cuts down the length of the cap ribs. At curb level it is not as good as the dome, as here the petticoat needs to be vertical. This problem was solved at most tower mills including Bardwell by having a separate vertical petticoat with vertical boarding. This would not work well where the whole of the cap roof including the petticoat is boarded in the same way, as in the Lincolnshire vertically boarded caps. Here the onion shape solves all the problems with a style that is not only magnificent to look at but is completely logical and practical. The vertical petticoat change of direction problem is solved by a curve which follows the best mean line as in a graph, with the maximum cap diameter well above the base. Where the roof looks like becoming too shallow at the top the cap ribs reverse their direction and socket into a finial which continues this line almost to the vertical over about six feet, topping it off with a ball. It is puzzling that having evolved this beautiful and thoroughly practical cap roof shape the Lincolnshire millwrights still managed to protrude the vulnerable weather beam and sheer tree ends through the roof and into all the weather. Doubtless with the extremely heavy cross they wanted to get the support of the neck bearing as close to the sails as possible. William Bear, the Sudbury millwright, overcame this problem very well in his tower mills, of which Bardwell may have been one. He used a tightly curved weather beam with extra longitudinal short beams to provide bracing and strength under the neck, and did not go to the other extreme (as in Cambridgeshire) of breaking the line of the sheer trees.

For our new cap roof we had to reconcile low cost and speed of construction with good appearance and also be well aware that any maintenance will rely on chance. We chose galvanised steel sheet as a strong durable covering and were very fortunate indeed to be given some 8 ft. x 4 ft. x 0.045 in. sheets. For speed of construction the roof and petticoat had to be combined as in a Lincolnshire cap, but keeping the petticoat vertical as we felt it would be wrong to give Bardwell mill a 'Lincolnshire look'. So in order to avoid an ugly dog-leg shape and keep the ribs reasonably short we compromised by using an arc of 10 ft. radius. This gave a good shape with

good fall right up to the finial. However, the ribs still had to be 14 ft. 6 ins. long and we needed sixteen of them, so early in the year we started hunting for materials at the site of the old Ipswich Malting Company near Ipswich docks. It is sad to see these huge and noble buildings being demolished, but I suppose it is inevitable when they occupy a valuable dockside commercial site. The Ipswich maltings proved difficult, the first contractor demolishing all the 'easy' bits and leaving the rest. A Norwich firm finished the job and they were certainly tough men. We were lucky in being allowed to spend a day 'grubbing out' some timber, and although we enjoyed ourselves and even began to pick up the language (!), it was long enough to give us a little insight into the dangers and difficulties of the work.

Our next problem was where to make the ribs as the average suburban back garden and garage is not nearly large enough. Here we were very lucky in having the use for the summer of a large double garage at St. Marys Lodge, Trimley, the home of Miss Posford. It was a splendid place to work, surrounded by a beautiful garden. We took tea (provided by Miss Posford) on shady lawns and the sound of our hammering and sawing was muted by the trees and old walls. The ribs were made from 18 in. lengths of 1" x 5", two thicknesses per rib, with joints staggered and all glued and nailed together. The outer curve was marked out from a very accurate template and when thoroughly dry the ribs were planed up. Meanwhile Cliff Lovett was making the acorn finial from a 12 ins. diameter by three feet long piece of timber. The lathe was very close to its limit and at one point the whole shed where he was working started to shake! As our starting date approached we assembled all the materials and equipment at both mills. Apart from some thoughts on 'fighting a war on two fronts' and a poor weather forecast we were ready to start.

The Stanton team were soon removing what was left of the old sheeting, working from a scaffold platform just below the right hand side of the buck roof which had been erected beforehand. At Bardwell the first job was to mount the finial centrally about three feet above the brake wheel on a little platform set on the sprattle beam. The first four cap ribs at right angles to each other were the most difficult to fit as from these we had to find the best compromise central position for the finial. Once this had been done the tops of the other ribs had to socket into the finial and their bases line up with marks on the curb. The first panel to be fitted was the most difficult as this had the windshaft passing through it. This was soon finished and by Tuesday we were ready to panel at several points but the weather thought otherwise by way of the gale which caused the Fastnet yacht race disaster. That day the B.B.C. came to shoot some film for their local news programme. We decided to try to fit a steel sheet and all went well until the wind drew it away from the tower and it took off like a kite and threatened to be a flying guillotine. We were lucky to get it down without damage or injury. This was duly recorded and broadcast that evening complete with the odd curse and a sound like Rolf Harris and his digeree-doo!

There were no such problems at Stanton as the right side of the roof was exactly in the lee of the gale and sheets could still be hoisted. At Bardwell we divided into two teams, one measuring, cutting and drilling the sheets and the other fitting



BARDWELL WORK-IN

Top Left: the first ribs going in

Left: a sheet being hauled up

Above: Don Porter & Chris Hullcoop fixing one of the lower sheets

Below: Don Porter measuring up for the next sheet (Photo.: Mr. Robbins)

Below, Left: the mill on the morning of Wednesday August 15th.

(All photos. by Mark Barnard except where otherwise stated)



them to the cap. All the ribs were identical and had been pre-marked at six inch intervals. It was then easy to measure across at these points and then measure and cut out the sheets on the ground with a large hand guillotine. We fitted most of the large lower sheets first, leaving the smaller upper sheets until last in case another gale blew up. As we worked around the cap we flashed over the joints with bitumen-backed flashband. We sometimes had to leave a joint without flashing because of light rain or dampness (when the flashing won't stick) and these we had to finish by lowering ourselves mountaineer style from the finial. By now the roof at Stanton was finished and there had been sufficient time to give three coats of paint before removing the scaffold platform. There is no doubt that scaffolding can be a great help in much though not all repair work to mills. The only way we could have used it at Bardwell would have been from the ground and we just did not have sufficient poles, boards and clips to do this.

Doors and hatches in caps usually leak and at Bardwell we tried to prevent this by setting the little tail door in a vertical sub-frame with a good drip board over the top. The finial itself was sealed with flashing and before covering the very top we set in place a new 1979 penny. This was one of the last jobs and, as at all our 'work ins', we had just about finished by nightfall on the last day!

Local reaction to the work was good with people helping (especially at Stanton), lending equipment such as ladders and giving hospitality by way of good 'digs'. At Bardwell the facilities of the school just opposite the mill were invaluable to our campers.

What have we achieved? In the short term urgent weatherproofing, but as with everything else we do only the hindsight of years will tell us how worthwhile it was. We did not set out to restore either mill, only to improve their chances of survival - hence the title 'holding operation'. Mill restoration is one of those terms which means different things to different people and must be qualified and put into context. At its very best it means working order and subsequent production and trade. Mills like Over, Wrawby, Leverton and Alford set a standard which is rarely matched. It's of little use though having an 'all or nothing' attitude and it is always worth conserving what is there even if the chances of full restoration are slight. A tower or buck with machinery but no sails and not turning to wind is still a very interesting mill in its own right and there is always the possibility of engine drive and the production of a little stone ground flour for the village. Whatever the future, Stanton and Bardwell mills will now be there with a better chance.

BARDWELL TOWER MILL: SOME NOTES PETER DOLMAN

The exact date of erection of the tower mill at Bardwell (Grid ref.: TL941737) is difficult to state with any certainty, for despite the boldly carved date '1823' on the sprattle beam, documentary evidence sheds doubt on this as a building date. What is fairly certain, however, is that the mill was built to replace an older mill outside the village at TL948730. This is shown on Hodkinson's survey of c.1780 and also on Greenwood's map (1823-4), Bryant's map (1825) and the Enclosure Award map of 1831. It



BARDWELL

Above: Chris Baker drilling the metal sheets by the mill

Above, Right: the mill being 'topped out' on the final day

STANTON

Right: Alan Wallis at work on the roof (Photo.: Mr. Robbins)

Below, Right: painting the roof

Below: the work completed

(All photos. by Mark Barnard except where otherwise stated)



had gone by 1835-7 (O.S. map). John Addison was the last occupier and he was also the first miller at the tower mill.

The tower mill is also shown on the Enclosure Award map of 1831 but not by Greenwood or Bryant. This is at variance with the date of 1823 in the mill. Further evidence that this date is false comes from the diary of Thomas King of Thelnetham, which records "new stock to Bardwell mill Nov. 28th." (1826); the singular reference suggests that the existing old mill (probably a post mill) was the mill referred to.

We therefore have a building date of between 1826 and 1831 for the tower mill; I would suggest nearer the latter date, as both mills were standing in 1831 and I doubt whether the overlap would be very long. If an old mill was of any use it would be taken down very quickly and parts dispersed to other mills in the area; this was, after all, the high point both for building new mills and for rebuilding older mills.

We are still left with the date 1823 however. This is very prominent, right in the middle of the sprattle beam (which is of pine) and deeply carved. It is upside-down, and the beam shows signs of being turned around, there being blind mortises and bolt holes in 'useless' positions. It would seem, then, that the present sprattle beam does not belong to the mill as built (which has an oak cap frame) and for some reason (perhaps the date?) the sprattle beam has been replaced with that from another mill.

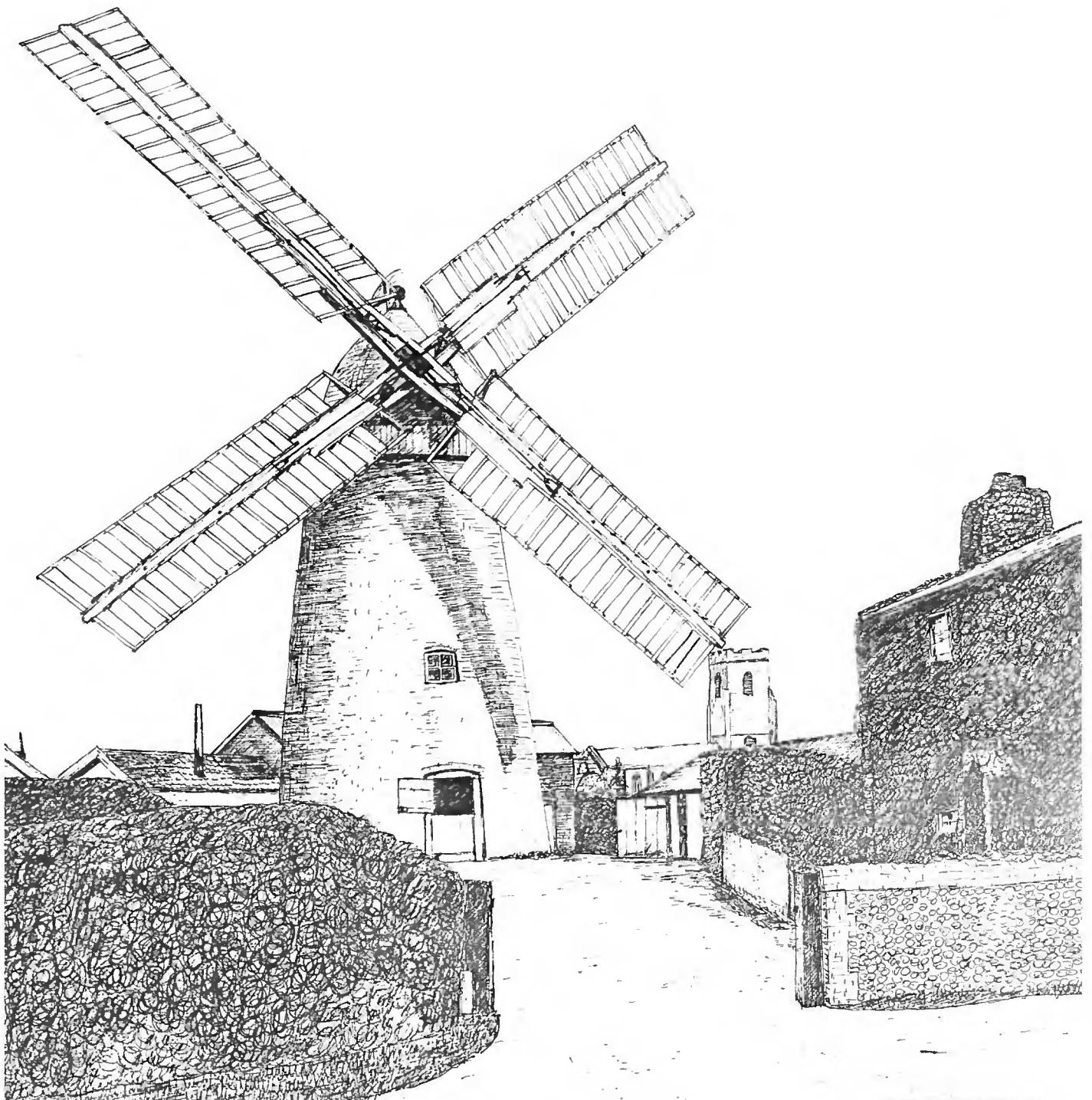
In 1838 the mill was worked by John Addison, although the site was owned by James Nunn. John Addison was still there in 1853 but by 1855 Henry Cattermole was miller. By 1883 Charles Harrison was in occupation and he continued until the turn of the century after which his widow continued in his place. The last miller was Charles Alderton who ran the mill into the 1930's. Steam is listed as an auxiliary power in 1888 and an oil engine was there in 1910. The sails were taken down about 1925 and the oil engine was used alone as power source. The illustration on page 8 is taken from a photograph by H. Jarman of Bury St. Edmunds, who took many pictures of local windmills between about 1870 and the 1920's. (His plates are now in the West Suffolk record office, Bury St. Edmunds, from where prints may be ordered.) This view was probably taken in the 1890's and amongst other noticeable features, the stack of a portable steam engine can be seen poking through the roof of an outbuilding.

Inventory of the mill (based on a survey by Adrian Colman of c.1972)

The tower is of red brick, with a slight convex batter, and stands 32' 9" high to the curb. Internal diameters at the base and curb are 17' 6" and 11' 6" respectively and the walls are two bricks (19") thick. The curb is timber with an iron rack with upward facing teeth (similar to that at Pakenham mill).

The cap was a typical 'beehive' of 14' 6" diameter and was 11' 3" high above the curb. The 12" square sheers had been spliced and overlaid. The weatherbeam is curved and is 21" by 10" at the centre. The cap runs on 11 rollers, with seven centering wheels. The iron two piece windshaft ran on a wooden neck bearing and is 11" diameter at the neck.

The clasp arm brakewheel is of 8' diameter, with 85 cogs; a few of these could be removed to allow engine drive to be used to run the upright shaft. The brake is of wood and was operated by the usual brake lever with catch. The wallower is iron, 35"



diameter, with 35 cogs. It is mounted on a wooden upright shaft, 12" square with chamfered corners. The main bridgetree curves under the great spur wheel, which is clasp arm, of 6' diameter. The original wooden cogs have been partly sawn off and an iron ring bolted on to increase the diameter. There are 102 cogs. An iron bevel ring under the wheel serves no useful purpose; possibly it is a remnant of an earlier auxiliary drive.

There were two pairs of French stones, 3' 10" and 4' 4" diameter, on the first floor, overdriven by 15" diameter mortice stone nuts with 22 cogs, on iron quants. The tuns were octagonal, with conventional hoppers fed from the bin floor above. The stone spindles rested on wooden bridge trees, which were connected directly to the two governors' steelyards. The dresser was suspended below the stone floor, driven from above by belt. The bin for this machine was on the stone floor and contained a strange stirring device. This was driven by belt and shafts from a pulley

formed on the base of the upright shaft and assisted the meal to flow down into the dresser.

The sack hoist was driven from a solid disc-type crown wheel on the bin floor of 4' diameter with 58 cogs. The pinion, of wood, has 18 cogs and its spindle has a two-belt pulley mounted on it. One belt drove the sack hoist bollard on the dust floor above by the usual slack belt, drive being engaged by lifting one end of the bollard. The other belt drove a layshaft under the stone floor, and from this layshaft the dresser was driven.

Engine drive was provided by an upright shaft with iron pinion meshing with the spur wheel; at its lower end are a pair of bevel wheels and a horizontal shaft runs underground to the adjacent engine shed. The mill had four 'typical' eight bay patent sails, double-shuttered with anti-clockwise motion. Striking was by a four-spoked wooden rimmed chain wheel and the spindle was pushed forwards to cloth the sails. An eight bladed fly was provided and drove onto the curb at the rear of the cap.

Before ceasing work, efforts had been made to maintain the life of the mill. The tower was rendered in places to cover eroded brickwork and the whole tower was tarred (this has been done since 1910). The cap was given a covering of painted canvas over the original weatherboarding. After ceasing work the mill remained virtually complete (apart from one missing quant) until the mid 1970's, when the previous tenant of the house started smashing up the floors and fittings for firewood. This vandalism was aided by the weather, which blew off the remains of the roof in 1976. Last year, unfortunately, one pair of stones, the remaining quant, the tenting gear and the remains of the dresser were all removed from the mill on the initiative of a mill owner from Norfolk who is restoring his own tower mill. Since then, of course, the fortunes of the mill have finally taken a turn for the better.

The tower is not too bad at present; the weather side is somewhat eroded and there are a couple of fallen arches, but with our new roof the mill is good for many years and, who knows, it may find a sympathetic owner in due course who will continue the work S.M.G. have started.

NEW BOOKS

Reviewed by PETER DOLMAN and MARK BARNARD

'A SOURCE BOOK OF WINDMILLS AND WATERMILLS' by Rex Wailes. Published by Ward Lock Ltd.; 1979. Price £2.95. 128 pages; hardback.

This little book (only 6½" by 4¾") is one of the latest in the recent spate of 'general' mill books to appear, and coming as it does from the author of 'The English Windmill' - surely the best windmill book ever - its quality is assured. The text provides a concise guide to the history and technology of wind and watermills, both for corn milling and industrial use. The largest part of the book is taken up by an excellent selection of photographs, mostly from the author's own collection. There must be well over 100 (too many for me to count!), each of which has a lengthy informative caption.

One criticism would be that as many of the pictures were taken a long time ago, the captions ought to say what state the mill is in now, for in some cases where this has not been done the reader without prior knowledge could be led to expect to find a

demolished mill still in working order. I was also surprised to see no mention of our own Drinkstone mill when post mills without side girts were being discussed. These are trivial points though, and I would expect the book to sell well. It is attractively set out, with colour dust jacket showing Bourn post mill and Foster Beck watermill, and while the old photographs will undoubtedly appeal to the seasoned molinophile, the text is easy to read and ought to have a wide appeal as an introduction to the subject - in fact I would suggest that the book would make an excellent gift to a nephew or son of an established mill enthusiast, whereas one of the larger books may be off-putting.

Suffolk Mills Group has obtained a limited supply of this book from the publisher and is prepared to offer the book to Members at a reduced price of £2.50 if collected direct from the Secretary, or £2.85 if sent by post. Write now while stocks last!

'ENGLAND'S VANISHING WINDMILLS' by A.E.P. Shillingford. Published by Godfrey Cave Associates Ltd., London; 1979. Price £7.95. 157 pages; hardback.

This book is evidently aimed at the general public with little or no knowledge of mills, for although superficially attractive there is little to recommend it to the serious enthusiast. The first part of the book is, predictably, taken up by describing the different types of mill, their historical context and the technical aspects of the subject. This is quite good, although the diagrams could have been presented much better - why a 'rough sketch' of the passage of grain through the stones, and where's the diagonal bracing on the post mill drawing, which itself inconveniently occupies a double page spread.

However, where the book really falls down is in the innumerable small mistakes when referring to individual mills. Collectively, these cannot help but show that the author either doesn't really know his subject or has been rather careless. For example, the photograph of Rye smock mill, dated 1920, clearly shows it after the 1932 rebuild; Sprowston post mill caught fire in the thirties, not the 'fifties'; Wymondham mill in Norfolk has been confused with Wymondham in Leicestershire; the information and captions on Wimbledon mill are misleading; the Madingley removal was completed in 1936 not 1953; Pocklington and Skidby are in Yorkshire, not Lincolnshire, and so on. In many instances the information is also alarmingly out-of-date - the Danzey Green rebuild is described as 'without machinery at present', and there's no mention of the repair work at Burwell, Ramsey, Friston, Thorpeness or Quainton, to name just five. This is surely inexcusable, as some of these were started in the early 1970's!

Many of the longer descriptions of individual mills are obviously culled from guide leaflets, and of course perpetuate any inaccuracies contained in these. As far as Suffolk is concerned, the author describes all eight post mills plus the remains at Eye; tower mills at Bardwell, Pakenham, Woodbridge (Buttrum's), Walberswick and Thelnetham (the last named under Blo Norton, Norfolk) and Herringfleet and St. Olaves smock drainage mills. The surviving Stanton mill has been confused with the long-demolished Stanton Chare post mill; thus the present mill is inaccurately described as having had a roof fan (he even manages to find 'evidence' of it!) and an enclosed

porch. He also blandly states that Drinkstone post mill was built in 1685 - in actual fact it's dated 1689. Visitors to Herringfleet are discouraged: 'It is difficult however to reach this mill except by boat'. Rubbish.

Some of the old photographs, mostly of Kentish mills (undue bias here) are interesting and in general the monochrome plates have reproduced well. In contrast the 16 full-page colour photographs are disappointing (too blue) and not really very well chosen, which is a pity.

There would appear to be a surfeit of 'general' mill books around at present; given this fact it would be difficult to recommend this one on any count, especially as it is so out-of-date. (M.B.)

We had hoped to publish a review of Brian Flint's new book, 'The Suffolk Windmill', but printers being what they are, the book has been delayed. It should, however, be available very soon. It is apparently a 'lavish' production and deals with the county's windmills and windpumps in fairly general terms, with plenty of historical information and chapters on millers and millwrights and restorations amongst others. A gazetteer of some 700-odd mills is included, as are some measured drawings in reduced form. There are about 200 pages and around 70 photographs. Published by The Boydell Press, it costs £15.00 and will be available through good bookshops.

Mill Models

Following our review of the cut-out model of Holton mill (Newsletter 7). S.M.G. Member Len Ball has told us about three more models.

The first is a very simple cut-out of Cromer post mill, Hertfordshire, at about 1:72 scale, which requires colouring. It's available from Stevenage Museum, price 15p.

The Avoncroft Museum of Buildings, Stoke Prior, Worcestershire, publish a slightly more detailed model, this time of Danzey Green post mill. About 1:55 scale; colour yourself; price 40p.

The third model is a rather more detailed one of Lacey Green smock mill, Bucks., constructed from balsa wood, card and some white metal castings. It is 1:72 scale and costs £2.95 from Marlow Models, 1, Squirrel Rise, Marlow Bottom, Marlow, Bucks..

Please note all the above prices exclude postage.

S.P.A.B. LINCOLNSHIRE TOUR MARK BARNARD

At about nine o'clock on a beautiful sunny September morning, Brian Flint, Chris Hullcoop and myself set off to join the S.P.A.B. Wind and Watermill Section's annual weekend mill tour, which this year was based at Lindsey College of Agriculture, just north of Lincoln. We took full advantage of the journey, stopping off at both the mills at Soham in Cambridgeshire, and also at Moulton tower mill which, at 80 feet to the curb and 90 feet to the top of the roof (as measured by Peter Dolman) really is the tallest in the country. Much of the wind-driven gear still remains inside the gigantic tower, and it is still used as milling premises. After meeting up with the S.P.A.B. at the excellent Museum of Lincolnshire Life at Lincoln, we visited Ellis mill close by. In 1977 this was a burnt out shell threatened with demolition, but since then it has

been acquired by Lincoln Civic Trust and restored with the help of machinery from two derelict mills and workers from the Department of Employment's Job Creation Programme. It now awaits its four sails and fan to complete the project. Several of us were dubious about the merits of taking gear from other mills, even if they are derelict, but in this case the location of Ellis mill next to the museum and its secure ownership were important factors.

After settling into our comfortable accommodation our evening's entertainment comprised an excellent run-down on Lincolnshire watermills by Dr. Harper Smith who himself owns the watermill at Tetford.

The following day we visited Wragby and Alford windmills (the first an unscheduled stop due to the coach breaking down!), Thompson's millwrights yard at Alford, and Alvingham and Tealby Thorpe watermills (both were working). Alford mill was a superb sight, with new cap and tarred tower gleaming in the sunlight. There was just enough wind to grind with one pair of stones, although Mr. Banks, the former owner, told me he'd had all four pairs running, but nobody else there to witness it!

After dinner Mr. Barry Hudson told us about his research into Lincolnshire paper mills, and gave a demonstration of do-it-yourself paper making which proved very popular. Following on from this there was a most interesting talk on the industrial archaeology of the county, of which mills are just a part.

On Saturday the itinerary took us first to Kirkby Green watermill, which was interesting on account of its fine wooden gearing. It was sad to see the whole complex of mill, house and outbuildings all derelict and starting to decay rapidly. We proceeded to Heckington, home of England's last eight-sailed windmill, where within a few seconds the cap was thronging with the most enthusiastic (or fittest?) members - something which was to be repeated three more times that day! The next stop was Boston, where we clambered round the Maud Foster five sailer. From the top of the mill we could just make out Sibsey mill, which we visited next. This magnificent six sailer, which worked until the mid 1950's, has been beautifully restored by the Department of the Environment and could easily work again if only a tenant could be found - all the shutters and the fantail are in storage ready to be re-instated. The day's last call was at Burgh le Marsh tower mill which, like Heckington and Alford, is now owned by the County Council.

On Sunday we journeyed north, along Ermine Street, through Brigg to Wrawby, home of Lincolnshire's last post mill, completely restored - in fact virtually renewed - in the 1960's. The white lead paint on the mill has now weathered to a silver grey, making it an attractive sight with sails turning gently against the green fields. The last mill on the tour was the sailless tower mill at Kirton in Lindsey, which although built as late as 1875 contains some earlier machinery, probably from a previous post mill on the site. We were also able to look round the owner's extensive railway museum, which is packed full of every kind of railway relic imaginable, though he apologised that his *pièce de résistance* - a full-sized steam locomotive - had been delayed and hadn't yet arrived!

On the car journey back to Ipswich we made a special point of seeing the derelict tower mill at Lutton Gowts, near Long Sutton. This mill, octagonal in shape and dated 1779, is in a terrible state. Chris Hullcoop and I made a hazardous climb to the top to photograph the wooden windshaft (tail bearing in mid air!) and trundle wallower (only one tooth left!). The machinery also includes an all-wood spur wheel and mortice stone nut with a wooden quant - is the latter now unique? It's tragic that there's insufficient interest locally to save this early tower mill from the pending internal collapse.

This was the first S.P.A.B. weekend tour I'd been on and I found it thoroughly enjoyable. On behalf of all the S.M.G. Members present I would like to thank the organisers and especially Cathy Wilson of the Museum of Lincolnshire Life who accompanied us throughout and who proved a mine of information on everything from Roman salt workings to twentieth century airfields!

NEWS

'SAFETY FIRST' AS SAXTEAD RE-OPENS

Saxtead Green mill re-opened to the public just before August Bank Holiday, exactly four months after the fatal accident in the mill (see Newsletter 10). The Department of the Environment have completely reviewed the question of safety at the mill, and there is now complete protection from all the moving machinery in the buck. The two pairs of stones and their drive in the head of the mill are now 'exhibited' behind perspex screens which stretch from floor to ceiling (see photograph below, left), while on the bin floor above the brakewheel is screened by a coarse wire grill, with a door for access through to the storm hatch (below, right). The lower portion of the windshaft on the stone floor is similarly protected. Other measures include guards



at the top of steps, the covering of all other voids with perspex, new steps in the buck and roundhouse with anti-slip surface and guards on the fan carriage wheels (the last two measures have apparently been in for some time).

For the purist, of course, this work has destroyed what little atmosphere there was inside this largely rebuilt mill, but considering the very large numbers of visitors the mill attracts, and the cramped conditions, perhaps it's only surprising the gear was left unguarded for so long. If a mill has to be made 'safe' in this manner, then Saxtead is the obvious choice, but it would be terrible if all mills capable of turning were given similar treatment. Also, one wonders how long it will be before the perspex is defaced by graffiti artists - perhaps it would have been better to have used a wire grill screen on the stone floor as well. M.B.

TROUBLE AT PAKENHAM WINDMILL

A few months ago a partly rotten whip was discovered on one sail, and owner Mike Bryant was searching for timber to effect repairs. Before anything could be done, though, on September 3rd. the stock broke beyond the clamps, and just where the whip had rotted. The resultant droopy sail was hurriedly removed together with its opposite number and the stock by millwright John Lawn. On investigation, the stock was found to wander into sapwood at the point where the break occurred and the resultant rot trap explains the stock's short life (it had only been up seven years). A replacement in steel is being considered due to cost and availability problems with timber. Until sufficient money can be found, however, the mill will have only two sails.

CLARE WATERMILL DESTROYED

A fire which broke out in the early hours of Wednesday September 19th. has completely destroyed the attractive watermill at Clare in the Stour valley. The Victorian brick steam mill which adjoined the watermill was also badly damaged, being reduced to a shell (see photographs opposite). Six fire engines attended the blaze but the building was well alight by the time they arrived. The cause of the fire is unknown. Both mills had been stripped of all gear long ago, only the wooden wheelshaft of the watermill surviving, and they were standing empty at the time of the fire. The property, including the large Mill House, has recently been on the market but hasn't yet been sold.

REPAIRS TO HERRINGFLEET MILL

These are still in progress and we therefore had to cancel our open day planned for August 26th.. So far one new cant post has been fitted and another spliced, and four sides of the tower have been re-framed as necessary (see photograph opposite). The brakewheel has also been re-wedged and some new cogs fitted in the wallower. Jameson Marshall Ltd. have now obtained the timber needed to complete the repairs and are pressing ahead to finish the job before the winter (and who can blame them). We hope to run the mill round about New Year, but more details of this in our next Newsletter.



MILLS IN THE NEWS

Above: East Bridge mill (September 1st.)

Above, Right: Herringfleet under repair on September 12th.

Right: Chris Hullcoop at work on weather-proofing Drinkstone smock mill (see 'Events')

Below: Clare watermill after the fire. The shell of the steam mill still stands but the watermill building has been destroyed.

(Photos. by Mark Barnard)



PROGRESS AT ABBOT'S HALL MUSEUM, STOWMARKET

The windpump continues to grow upwards; the tower is finished, the machinery installed and the cap frame and fantail are in place (the 'lift' was on August 7th.). Minor adjustments and finishing off must wait until the sails are fixed and running. The national shortage of long timber has led to a delay in procuring stocks but these are shortly to be made, timber having been located in Liverpool. It is hoped to have a formal opening ceremony when the project is finished featuring a local personality, but as the museum closes down over the winter the mill is unlikely to be open to the public until next year.

Construction of the new mill pond for Alton watermill has come to a halt for the present. The museum, disappointed with the slow progress of the project, have decided to have the work done professionally. Perhaps now the job will be finished sooner rather than later so next year, who knows, the mill could be working.

PROGRESS AT DALHAM

Work continues apace at Dalham mill; Frank Farrow, the owner, tells me that the millwrights are building the cap frame and fanstage, which is almost complete, and the curb is installed and cogged with its beech teeth on the inside face. The work is progressing well at present and I hope the cap can be installed before the bad weather sets in again. P.D.

WATERMILLS FOR SALE

Two more Suffolk watermills are on the market: Holbrook and Campsea Ashe. Holbrook is mostly empty of gear and was used as a tea room in recent years. There's a large mill house, two bungalows and 10 acres. It will be auctioned by Fenn Wright Garrod Turner, Ipswich, on October 16th. Campsea Ashe mill is complete with gear, and stands together with a fine modernised medieval house and mill cottages adjoining the mill. There are magnificent and extensive grounds. The agents for the private treaty sale are Strutt and Parker.

EVENTS

VISIT TO PAKENHAM WINDMILL: SUNDAY 14th. OCTOBER 1979 from 11 a.m.

By kind permission of Mike Bryant we will be visiting this fine tower mill once again. Although minus two sails at present (see above) wind permitting the mill will be grinding for us. We also hope to decorate the sails with bunting to mark the S.P.A.B. Windmill Section's fiftieth anniversary. Let's hope for a good turnout of Members, who will have an excellent chance to inspect a working tower mill.

S.M.G. WORK ON DRINKSTONE SMOCK MILL: WEEK-ENDS IN OCTOBER (see below)

Preparation for and recovery from the work-in at Bardwell and Stanton has meant little time this summer for Drinkstone mills. This October will see us there on several week-ends when we hope to finish cladding the worst quarters of the smock with second-hand polythene sheet. In good condition and some 0.025" thick, put on double it should hold the weather out for several years. The most vulnerable part of the tower is where the eight-sided smock tower joins the 16-

sided horse mill building. Although it has been leaking for many years now it is still in good condition but must be put right soon or there will be serious damage. We have finished flashing and painting the cap roof including repairs to the finial which needed some rot cutting out and new wood letting in.

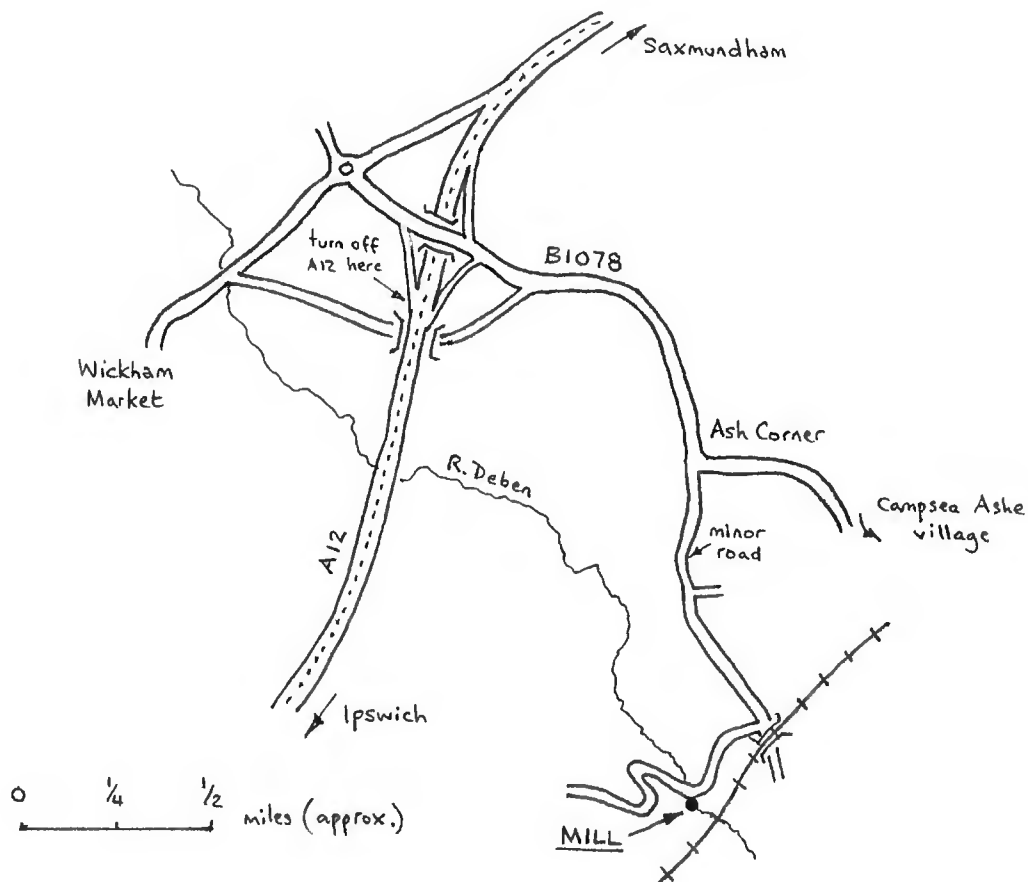
Earlier this year we re-nailed all the roof boards on the post mill and replaced what had already fallen off. We measured the whole mill and produced a great wad of rough sketches from which Peter Dolman is making a fine set of measured drawings.

We must use the good autumn weather while it lasts; if anyone would like to help with this work please give Chris Hullcoop a ring on Ipswich 76911 during office hours.

VISIT TO ASH ABBEY MILL, CAMPSEA ASHE: SUNDAY NOVEMBER 11th. from 2 p.m.

By kind permission of Mr. and Mrs. Gascoigne, S.M.G. has arranged a visit to this fine watermill. The timber-framed mill was originally built in the fifteenth century for Ash Abbey and worked until 1961, since when it has been preserved intact. There is an iron and wood wheel and three pairs of stones. This is one of the oldest and finest watermills in the county so let's hope Members will take this opportunity for a leisurely visit.

To find the mill from Ipswich, take the A12 to the junction at the north end of the Wickham Market by-pass, then leave the dual carriageway and follow signs to Orford (B1078). At Ash Corner branch right onto a minor road, and follow this (under the pylons) down to a railway bridge. Just before this bridge turn sharp right and the mill will be $\frac{1}{4}$ mile further on.



S.P.A.B. ANNUAL WATERMILL MEETING: SATURDAY NOVEMBER 24th. 1979

This will be held at the Holborn Library, Theobalds Road, London WC1.. For further details contact the S.P.A.B. office (01-405-2646). On the morning following this meeting there will be a Wind and Watermill Section Committee - local mills groups liason meeting at 55, Great Ormond Street, London.

New S.M.G. Members since Newsletter 11

BAKER, Chris (F)
18, Long Ashton Road, Long Ashton, Bristol
Tel.: Long Ashton 2204

(General interest in mills)

BROADWATER, M.J. (F)
Alandale, Cotton Lane, Bury St. Edmunds, Suffolk IP33 1XP

(General interest)

BUDGEY, Colin (F)
Mill Lodge, Cooksmill Green, Writtle, Chelmsford, Essex CM1 3SR

(General interest)

LEE, Roger S. (F)
Green Hedges, Chare Road, Stanton, Bury St. Edmunds, Suffolk IP31 2DX

(Stanton mill)

TAYLOR, Ian (F)
Dunlap House, Quaker Lane, Bardwell, Bury St. Edmunds, Suffolk
Tel.: Honington 330

(Bardwell mill)

WEST, Jenny (Mrs.) (F)
5, Glenwood Road, Stoneleigh, Epsom, Surrey KT17 2LZ
Tel.: 01-393-5523

(General interest)

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