SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

NEWSLETTER No. 19 JULY 1978

CHIEF CONTENTS

GENERAL S.I.A.S. NEWS AND NOTICES

Bodiam Mill The owners of Bodiam Mill are anxious to restore the derelict water-wheel and our Society has given advice on this. The wheel, the only part of the mill still remaining, is breast-shot c.15'6" diameter and 6'3" wide, with wooden shaft, iron spiders, wooden spokes and rims and sheet-iron paddles. The spiders and the bearings are the only parts that can be saved; all the woodwork is rotten and would have to be replaced as well as the sheet-iron paddles which could be replaced by fibre-glass. The cost of restoration would be very high and, unless water could be brought to the wheel to keep it turning and in good condition, the tail-race would need to be drained to prevent the wheel from deteriorating again.

Gift of Metal Turning Lathe A large metal turning lathe which was used during the first world war for ordnance manufacture but later adapted for wood turning as well, has been given to the Society by Messrs Green Bros (Geebro) Ltd., of Hailsham where it had been used in their rope works for many years. The parts are in store at Exceat.

Blackstone Oil Engine Moved The Blackstone oil engine which was given to the Society some years ago by the Brighton Technical College, has been moved from the Engineerium at Goldstone to storage at the private Engine Museum of Mr. D. Baker at Milwards Farm, Laughton.

Jack and Jill Windmills, Clayton The maintenance of these windmills is the responsibility of the Mid-Sussex District Council and a recent survey has shown Jill to be in a somewhat parlous state. Timber has, however, been obtained for a new corner post, side girt and sheer beam and is at present seasoning ready for a Spring 1979 replacement.

It is hoped to form a Preservation Society to raise funds for further work and a public meeting will be held at Windmill School, Hassocks, on Friday September 29th at 7.30 p.m. to discuss this possibility.

Some members of the Society working in co-operation with Mid-Sussex Council officials have inspected the mill and it would seem feasible that with sufficient funds and a mixture of professional and amateur labour Jill could, over a number of years be restored with the ultimate aim of grinding once more.

Any members who would be interested in assisting with this work please get in touch with Mr. John Blackwell, the Central Sussex Secretary. Details of a forthcoming visit to the mills are given below.

FORTHCOMING VISITS

Jack and Jill Windmills, Clayton (TQ 304134) Saturday 9th September at 2.30p.m.

Members will be able to see the considerable tasks that the restoration team, referred to above, face with Jill, which still contains a lot of her internal machinery. Jack is unfortunately devoid of such machinery but magnificent views can be obtained from the fan-tail staging.

Our guide for this visit is one of the country's leading millwrights, Mr. E. Hole of Burgess Hill, who has kindly agreed that if an interesting project is under way in his workshops we will, after visiting the windmills, be able to view this.

Numbers are unlimited, and friends would be most welcome, but members wishing to come on the visit are asked to fill in the accompanying slip and return to Mr. Blackwell by August 31st

Pitsham Brickworks, near Midhurst. (SU 878198) Wednesday 20th September at 3p.m.

This works gives a fascinating glimpse into the past as a few men continue to make bricks entirely by hand, including clay digging. At about the time of this visit the annual firing of the clamp takes place in the open and the problems of brick burning without a kiln can be seen first hand.

To reach the site turn west off A286 1 mile south of Midhurst by an electric sub-station and go under a disused railway bridge.

Will members wishing to go on the visit please send the accompanying slip to Mr. J.C.V. Mitchell.

Langley Tile Musuem, Lambeth, and London Brick Co. Ltd. Works, Stewartby, Nr, Bedford. Thursday 28th September 1978.

Due to the wide area that the Society covers and the fact that a number of the members will have concession travel tickets of some kind, bulk travel arrangements are not practicable and shared car arrangements can also create problems in and out of London to ensure arriving at our destinations together.

Members should assemble at the arrival barrier at London Bridge Station at 10.30 a.m. and we will walk in company to the showrooms of Langley London Ltd. only five minutes away. Langley's are a very old established firm of roofing specialists. Whilst the museum is quite small it covers a very wide range of tiling and other roof coverings from the earliest times.

Questions on historical and technical matters will be welcomed.

After this visit members will cross London by underground to St. Pancras station catching a train at approximately 1 p.m. and arriving at Bedford at 2p.m. where arrangements will be made for transfer to Stewartby. Lunch will be taken on the train and members would be advised to bring a packed lunch.

Stewartby is the largest and most modern brickworks in the world. The visit will start with a view of the geological exhibits, followed by a talk about the Company's activities and technical methods covering such fields as farming, quarrying, manufacture, marketing and rehabilitation back to farming.

This will be followed by a tour of the works, and hopefully we may see some of the older kilns on our way back to the station in the late afternoon.

The visit will make a stark but realistic comparison with the hand-made methods which will have been seen at the Midhurst brickworks the previous week.

Confirmation of details will be sent to those who register their wish to attend on the accompanying slip which should be returned AT THE VERY EARLIEST DATE, PLEASE to Mr. O'Shea.

RECENT VISITS

Harvey's Brewery, Lewes A party of 24 members enjoyed a most interesting and instructive visit to Harvey's brewery on the 27th May. The party was met by Mr. A.A. Jenner the head brewer who traced the history of the brewery from its foundation in 1790. The present Brew House was built and equipped by the Victorian brewery architect Bradford for the sum of £7,000 in 1880.

The brewing process was then seen in action by touring the brewery. The storage rooms for hops (to give the brew bitterness) and malted barley (to give the brew strength and flavour) were viewed. The malt is then ground and mixed with water (always referred to by brewers as liquour and obtained from a well sunk in 1820) in a vessel known as a mash tun. Hops and sugar are then added and the brew boiled in a copper; this was originally an open vessel, the steam escaping through roof louvres, but it is now covered and vented. After cooling, the brew is pumped to the fermenting room, a 28 h.p. side-valve steam engine being originally used for this purpose and for pumping the well water; the engine remains in situ but is no longer used. All the above equipment was supplied by Pontifex and Wood, brewing engineers, in 1880 although it is doubtful if they were the manufacturers of the engine. The Georgian fermenting room, where the yeast is added to the brew was then inspected. Some fermenting vessels installed in 1911 were manufactured by A.P.V. of Crawley and were the first welded aluminium vessels installed in a brewery in this country replacing earlier wooded vats, an example of which remains.

After the visit we were invited to sample the products of a "real ale" brewery. Our thanks are extended to Mr. Jenner who made our visit so entertaining by his enthusiastic account of the art of brewing. J.S.B.

Site of Bishopstone Tide Mills About 30 members and friends assembled for a visit on June 10th. The party was met by our guide, Mr. Stan Tubb, who was born at and lived in Tidemills village.

Standing on the present-day bridge over the creek it is hard to visualise that at the height of the Tidemill's prosperity, in the 1840's, an area on the west stretching almost as far as Newhaven Harbour, was a 16-acre mill pond whilst the eastern mill pond of 7 acres stretched to the Buckle. The landward embankments of limestone and clay are still visible and the present coast road was not yet built, supplies to the Buckle Inn being delivered by water. Below the bridge would have been fifteen feet of tidal water, now almost completely silted up, and above it, the three-storey mill building. The positions of the undershot water wheels were then examined. There were five wheel arches on the western side still marked after nearly 200 years by their monel-metal grids which prevented debris reaching the wheels, but on the eastern side there were only three openings still visible, a peculiar arrangement. The method of operation was then explained; the flood tide was impounded in the two mill ponds the eastern one first emptying and

driving the wheels, the water in the western pond was then transferred by sluices and a culvert to the eastern pond and here also turned the wheels. By this method it was possible to keep the wheels turning some 16 hours per day. Barges of grain were punted up Tidemills creek from Newhaven and passed underneath the granary building for unloading. This was accomplished after 1853 by a windmill driving an endless bucket chain. This windmill, built in 1853 on the roof of the granary, was blown down in a storm in 1883.

Mr. Tubb then showed us some of his very fine oil paintings depicting the mill when fully operational and also after demolition to the foundations in 1901. These enabled us to visualise how the buildings appeared and were accompanied by photographs produced from negatives kindly loaned by the Newhaven and Seaford Historical Society which were displayed at various points on the site showing the buildings as they were in 1880.

This history of the Tidemills from their establishment in 1761 until grinding ceased in 1883 has been traced by Sue Farrant, SAC Vol113 (1975), but the method of operation in modern accounts (last 50 years) seems to have been derived from reminiscences of former Tidemills inhabitants who were born after grinding ceased. I would pose the following questions. How with the above method of operation could the mill be working 16 hours a day allowing for the fact that it did not work when the tide was rising nor until the water in the tail race fell sufficiently to enable the undershot wheels to turn? How could the barges be unloaded by a bucket chain on a rising and falling tide? An article in "The Engineer" (1901) would appear to describe the mill working oppositely with waste water being discharged "into lagoons near the shore". It also states that "on the Newhaven side are two large arches the wheel being visible inside". Mr. Tubb explained these arches as being the entrance and exit points for barges underneath the granary and windmill. Why have no contemporary records of the method of operation and milling machinery of a huge enterprise, that, according to a letter from a descendant of William Catt, printed in the "Times" in 1950, made a quarter of a million pounds of profit in 50 years (a fortune by todays standards) not come into light? Why, with the importation of cheap grain and the setting up of steam flour mills, was the mill not converted to steam power, the coal being obtained by rail? The answers to these questions would solve a major "Sussex Query".

My thanks to Mr. Tubb for his fascinating account of Tidemills Village at the turn of the century and to John Upton who produced such excellent photographs. J.S.B.

CURRENT PROJECTS

Coultershaw Pumping Station The wheel has now been completely re-timbered and work is concentrating on the pump. The Water Authority has dredged the river to relieve flooding and there is now a channel leading to the old lock of the Midhurst Navigation.

A number of the original volunteers are no longer able to help in the work and more 'hands' are badly needed. Will any Members willing to assist please get in touch with Mr. A.G. Allnutt, the West Sussex Secretary.

A.G.A.

Burton Mill Work on preparing the ground floor for installation of the stones is proceeding. A.G.A.

Buckhurst Park Water Pump Restoration. It has now been agreed to go ahead with the restoration of the 1876 water-wheel driven pumping plant at Buckhurst Park, Withyham. Wealden District Council have generously made a grant which should enable the fabric of the building to be repaired during this year. Volunteers willing to give working days, please advise the General Secretary now. W.R.B.

PUBLICATIONS

Industrial Past The Summer 1978 Issue of 'Industrial Past' is now available and copies can be obtained from the General Secretary, price 30p. There are interesting articles on the Wanlockhead Museum Trust, where the whole village is a record of the Scottish lead mining industry; the railways of the Skinningrove district, an early iron mining area of Cleveland; the site of Leighton Furnace, an 18th century blast furnace on the Lancashire/Cumbria border, together with notes on the early steam boats of the West Coast of Scotland (the Puffers), the proposed restoration of a mid-19th century steam launch on Coniston Water, the Watercress Line from Alton to Winchester in Hampshire and a lead mining display at Crich, Derbyshire. Also many other items of interest from all over the country.

Illustrations for Articles Authors of articles for Sussex Industrial History are sometimes uncertain whether to include illustrations. These always add to the value of an article and it is thought that a few hints on how to prepare these may be of use.

Illustrations are usually of three kinds, photographs, sketches, and maps, plans and measured drawings. Photographs should be black-and-white, glossy, not less than 8" x 6", unmounted and preferably without a white margin.

Sketches, plans and drawings should be in black indian ink on good quality white paper, using lines that are not too fine so that they will reproduce properly when reduced in size - most sketches and drawings should be 1½ to 2½ times the final published size in their linear dimensions. Remember also that any lettering must be easily legible when reduced in size; 1/16" or 1.5mm is a size that can be read comfortably by the normal person. On sketches lettering can be freehand if neatly done but on plans and drawings it is best to use stencils or Letraset or similar transfers.

For plans or measured drawings it is essential to include a drawn scale, preferably in both imperial and metric units; a simple statement of scale, such as 1/100 or 1 inch ≙ 1 foot, is useless as the drawing will not be reproduced at the same scale. Use bold main lines and finer secondary lines but remember that these must be thick enough to reproduce properly when reduced in size. All lines should be drawn with a ruler or French Curve. Avoid shading, except for perspective drawings, and keep hatching to a minimum. On plans a North point should always be shown, and the title, date and name or initials of the draughtsman should also be added.

Finally, each illustration should be on a separate sheet and kept separate from the typescript of the article; all illustrations should be numbered consecutively, the number being marked lightly in pencil on the back, and at least one reference to each numbered illustration should be given in the text. A list of captions for all numbered illustrations should be prepared on a separate sheet - captions should NOT be put on the illustrations themselves. A.J.H./E.O.T.

COURSES ETC.

W.E.A. Course on Industrial Archaeology. At the Bishop Otter College, Chichester. Starting Monday 25th September at 7.30 p.m., and comprising 10 lectures and visits. Lecturers: Dr Ray Riley and Dr Edwin Course.

Winston Churchill Memorial Trust The Trust was established as a living tribute to Sir Winston at the time of his death in 1965. It is unique in that it allows men and women who might otherwise never have the chance to visit countries overseas to acquire knowledge and experience which will enable them to be more effective in their work and in the community, and to gain a better insight into the lives and work of people in other countries.

Churchill Fellowships are available to all UK citizens and may be for a period of two or three months. A Churchill Fellow can be any age and in any occupation. Everyone has an equal chance. No educational or professional qualifications are needed but candidates must be able to show that they can make effective use of the opportunity and of the information they gain.

Awards are offered in different categories each year, one of the categories being 'Archaeology and Local History'. Applicants propose a study project related to their trade, profession or interests under an appropriate category, and if selected, they are expected to make their own plans and arrangements within the scope of the grant. The grants cover all Fellowship expenses for up to three months and are not normally given for academic studies. The final selection is made by interview in London in January 1979 and successful candidates are expected to start their travels during that year.

To apply, send you name and address only on a postcard to the Winston Churchill Memorial Trust, 15, Queen's Gate Terrace, London SW7 5PR. You will receive an explanatory leaflet and a form to complete which must reach the Trust Office by 1st November 1978. These leaflets and forms will not, however, be available before the end of August.

MORE LIGHT ON THE 1866 BRIDGE AT NEWHAVEN

by John H. Farrant

John Haselfoot is to be congratulated on his recent article describing the construction and operation of the bridge built over the river Ouse at Newhaven in 1866 and demolished 110 years later.(1) I am pleased to be able to add a few more details of its early history.

In December 1847 the London, Brighton & South Coast Railway Company opened its branch line from near Lewes to Newhaven, and from 1849 paddle steamers were running to Dieppe from the company's wharf on the east bank of the river. Already in 1853 the steamers accounted for over two-thirds of the shipping movements by tonnage and generated a major part of the income accruing to the Trustees of Newhaven Harbour and Ouse Lower Navigation. But there were constant complaints about the mud which accumulated in front of the railway wharf and which was liable to damage the steamers if they were grounded and to restrict sailing and berthing. To keep the wharf clear of mud was one of the trustees' motives in adopting a programme for improving the harbour. This programme of 1857 included cutting a new channel from the north part of Lock Reach to Pennants Eye, but the first part to be put in hand was extensive dredging, for which the Admiralty contributed £5000 in 1859.(2)

In 1862 the old bridge of 1784 was on the trustees' agenda because they considered that enclosing of the piles was obstructing the river's flow and impeding the passage of barges. They agreed to approach the L.B.S.C.R.

and the Admiralty on the need for a replacement. At this juncture, Robert Jacomb Hood, the railway's engineer, offered to prepare drawings, etc., for both improvements to the harbour and for a new bridge. The reason for this initiative was that the L.B.S.C.R. had just been empowered to operate steamers from Newhaven on its own account, and was intent on introducing new vessels and better service. So the 1857 proposal for a new channel was revived, and that necessarily required a new bridge because the old one would lead only to the island lying between the old river course and the new channel.(3)

The trustees obtained parliamentary authority for the work in July 1863. The Act allowed the L.B.S.C.R. to contribute up to £10,000, confirmed the purchase of the old bridge, and transferred the bridge trustees's powers to the harbour trustees.(4) Hood was to superintend the works for four per cent of the sum expended on engineering works. Tenders were received in early 1865, and were accepted:
from Tredwell and Barnes for the 'new works' (i.e., the channel), at £20,000, plus, if required, the dam across the old river at a figure to be agreed; and from the Regents Canal Iron Works Co. for the bridge, at £10,480, plus £200 for working and maintenance and £704 for contingencies.
If the girders came from the Phoenix Iron Works, Lewes, (5) the firm was presumably a sub-contractor. Mr. Grissell is sometimes referred to in the records as the contractor for the bridge, and must have been the proprietor or employee of the Regents Canal Co. responsible for the project. There was some argument over the final bill for the bridge: Grissell claimed that Tredwell broke his contract by opening the cut before he was sufficiently forward with the bridge, so putting Grissell to extra expense. The amount paid was between £12,000 and £13,000.

Although construction of a tramway was included in the 1863 Act, it seems not to have been laid until 1878-80 as part of the preliminaries for the western breakwater.(6)

Ownership of the bridge passed in 1878 to the Newhaven Harbour Co., to to the Southern Railway in 1926, and to the British Railways Board in 1947.

REFERENCES

1. A.J. Haselfoot, 'The Old Bridges at Newhaven', Sussex Industrial History, 8 (1978), 5-10.
2. J.H. Farrant, The Harbours of Sussex 1700-1914 (Brighton 1976),24-25,37.
3. This and the following paragraphs are based, except as stated, on the minutes of the trustees and of its committee of management, at East Sussex Record Office, LH 1,2,5 and 6. For plans of the works under the 1863 Act, see E.S.R.O., QDP 313, and [F.D.Bannister], The modern history and future prospects of Newhaven Harbour, Sussex (1884), pl.3.
4. 26 & 27 Vic., c. clxxxiv.
5. Haselfoot, 5.
6. Bannister, 18.

THE BRICKMAKING SURVEY

by M. Beswick.

Although the impetus for the Brickmaking Survey began in East Sussex, it is in West Sussex that research and fieldwork are now producing tangible results. A very useful list of sites in Clapham, Washington, Steyning and Lancing has been compiled by Dr. Hudson, together with historical notes which throw light on some of the brickmaking families. He is now working on Worthing for the "Victoria County History" and has promised to pass on details of brickworks in that area too. To Midhurst goes the distinction

of forming the first brickmaking study group, which is investigating sites within about a 10 mile radius of the town and meeting weekly to compare notes. As Mr. Mitchell, the organiser, says, they should have a most comprehensive record by the autumn. A visit has been arranged to Pitsham brickworks in September (see separate notice for details).

As a result of Mr. O'Shea's note in the Spring Newsletter, we have had two offers of documents which may be consulted in connection with the Survey. Mr. Kingsley, a member from Etchingham, has a collection of Sussex maps which he is very happy to allow any member to refer to, and Mr. Hassell, of the East Sussex Library Service, has drawn our attention to an album of photographs of the Southdown Tileries at Polegate near Eastbourne, which has recently been acquired. Detailed information about brickmaking in the Chailey area has come to light as a result of enquiries made by Mr. Fayle and a visit paid by Mr. Plummer to a surviving member of the family of E. & R. Norman, who operated the Chailey Potteries and the associated brickworks for close on 200 years.

The following members have agreed to be responsible for co-ordinating records within their areas:

Midhurst:	Mr. Mitchell, Midleton Lodge, Easebourne Lane, Midhurst.
Horsham:	Mrs. Holt, Cuckfield Park, Cuckfield.
Brighton:	Mr. Blackwell, 21, Hythe Grove, Brighton.
Lewes:	Mr. O'Shea, 14, Pelham Terrace, Lewes.
Heathfield:	Mrs. Beswick, Turners House, Turners Green, Heathfield.
Hastings:	Mr. Haselfoot, Albion House, Cobourg Place, Hastings.

Will any member who has information to contribute or is willing to help in any way please get in touch with one of the above, or with me. We are particularly anxious to hear from members who are willing to be responsible for the furthest flung parts of the county i.e. Rye, Crawley and Chichester, and also for the Burgess Hill district, which is probably the most important brickmaking area in Sussex.

Lastly, a word to anyone setting out, armed with map references, to search for abandoned brickworks: wear scratch-proof clothing and preferably take a walking stick and seccateurs! Many sites have, of course, been levelled for housing developments or the land returned to agriculture. However, a good many country sites have merely been deserted, and, when located, usually turn out to be large, bramble-filled pits, often at the edge of a wood. There is generally a pond and closer inspection may reveal the remains of a kiln. Kilns in our part of the Weald were usually of the open-topped 'Scotch' variety, built into the side of a bank and so only a small amount of masonry is visible above ground. In time even this may become covered with earth but the tell-tale hump remains. We found one on a modern housing estate in Mayfield. The developers had left a little gully between two houses, and at the top of it stood the mound of the old kiln, with an 80 year old tree growing out of the top!

THE STREET FURNITURE TREASURE HUNT

by J.S.F. Blackwell

This note was prompted by the removal of the last wooden traditional police box in Brighton. This served to remind me that our small street artifacts are slowly vanishing and in some cases completely unrecorded. For instance where have all the horse troughs gone? Anyone can participate in the Treasure Hunt; all you need is a sharp pair of eyes, a pocket book and pencil; or better still a camera. What to look for? Wells, pumps,

drinking fountains, public conveniences, lamposts, pillar boxes, timepieces, milestones, sign posts, bollards, railings, street name plates, seats, gratings and covers, foot scrapers, wall advertisements, etc., make up a useful starting list.

Keep a record of anything you see of interest in your locality (town, street names, manufacturer, date if known, etc., are details required) for a period of say three months and then send to me but don't forget to start and then list. Hopefully, with your co-operation, I should be able to produce a list for a future Newsletter or an article for Sussex Industrial History of the more interesting items.

To start the hunt here are a few items in the Brighton area, a First National Standard Pillar Box in Montpelier Road; the ornately cast-iron base of a Corporation Tramways trolley wire and lampost opposite the Dyke Inn, Dyke Road, 1901. The rustic style tramway shelters, two in Ditchling Road, one in Dyke Road. Nineteenth century clock tower in most Brighton Parks and of course "The Clock Tower" in North Street on the top of which is a rod up which a metal ball was slowly raised each hour and tell the hour with a resounding on the hour, the apparatus being designed by Magnus Volk of Volks Electric Railway fame. The sad, Victorian undertakers wall painting advertisement in Bute Street. Delightful cast-iron coal hole covers in Hove. Good hunting everyone.

Further reading: Vanishing Street Furniture by Geoffrey Warren.
David & Charles. 7.50.
Sussex Industrial History:
No. 4 1972, A Field Guide.
No. 5 1972/3 and No. 7 1976,
East Sussex Milestones by
Brian Austen and John Upton.
Sussex History Vol.1 No.1 1976,
E. Morris and Sons, - Partners in Eastbourne's
Development by Richard Gilbert.