



## SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

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NEWSLETTER No. 23

JULY 1979

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### GENERAL S.I.A.S. NOTES AND NEWS

Sussex Industrial History. Accompanying this Newsletter is Issue No. 9 of the 'History'. The Society, and in particular the Editor, are very grateful to Mrs. Upton who has done all the requisite typing for Sussex Industrial History No.9 and to Mr. John Upton, who has painstakingly checked the typescript. It is intended that Issue No. 10 will revert to the April publication date; although the Editor has received some contributions he would be pleased to discuss with Members any further contributions they may be contemplating. In order to meet the publication date manuscripts, drawings and photographs in their final form should be in the Editor's hands by the beginning of December.

Chalk Pits Museum, Amberley. The Museum, fully described in Sussex Industrial History No. 9 was formally opened to the public on Saturday, 26th May. The weather was exceptionally bad which severely limited the attendance but this was made up for by an excellent attendance on the following day; it is hoped that the latter will continue throughout the summer and the succeeding months.

Bognor Regis Motor Gala. One of our Members, Clive Sayer of Barton Granary, Nyetimber, Bognor Regis, is the Rally Secretary. The event will be held at West Park, Bognor Regis on Sunday, 19th August from 11.30 a.m. to 6.00 p.m. Vintage and other motor cars, Commercial vehicles, Motor cycles, Stationary engines and other collectors items will be on view. Entry forms may be obtained from the Rally Secretary, entries closing on 30th July.

Portsmouth-Arundel Canal Society. A new Society has been set up to carry out restoration work on this canal, concentrating initially on the Birdham to Chichester section. A public meeting will be held in the Assembly Rooms, Chichester at 7.30 p.m. on 18th September. The Membership Secretary is Mr. W. T. Harmer, 5, Castle View Road, Porchester, Hants, and the subscription is £2.00.

Greater London Industrial Archaeology Society. We are glad to see that our sister society has published its first Journal 'London's Industrial Archaeology'. Copies of this, price 80p, may be obtained from Peter Skilton, 20, Commonwealth Way, Abbey Wood, London S.E.2.

The Brickmaking Survey. As few members had been able to do any work last winter owing to the bad weather, we decided not to hold a full meeting of the group in the spring. However, 11 members from the East Sussex area spent the morning of 31st March at the County Record Office in Lewes, where Mr. Andrew George, a member of the E.S.C.R.O. staff, first gave a short talk summarizing the types of documentary material which were available. He then conducted the party to the map room, where individual members were able to consult parish tithe maps and older editions of the Ordnance Survey as well as some estate papers, which Mr. George had singled out as being particularly relevant to brickmaking. Members found this visit extremely helpful and plans are in hand for a similar session to be held at the West Sussex County Record Office at Chichester.

Two members have supplied interesting articles on the history of brick-making in Sussex. Mr. M.J. Leppard, who is the Editor of the Bulletin of the East Grinstead Society, has sent a copy (No. 26) of the May 1979 number of the Bulletin, which contains an article by the late Mr. R.H. Wood entitled "Some notes on Hackenden Brickyard". This includes not only a description of brick-making processes at the yard but also maps, photographs and drawings of tools (copies 25p. from Mr. Leppard c/o Barclays Bank, East Grinstead). Mr. F.M. Avery has kindly allowed me to see an advance copy of his history of the Burgess Hill potteries and brickworks, which he is hoping to have published in the Sussex Genealogist and Local Historian in the near future.

Groups have visited two existing brickworks recently (see separate reports) and a meeting of all members concerned in the Survey will be held in the autumn. In view of the difficulties caused by the fuel shortage to members travelling from a distance, we are hoping to hold this meeting in the morning of the day chosen for the Society A.G.M. (notice in the next Newsletter).

In the meantime work is proceeding with the recording of brickmaking sites throughout Sussex. More helpers would be welcome in all areas, but especially around Billingshurst, Haywards Heath and Rye, as no work has been done in any of these districts so far. A sheet of notes has been prepared by Mr. O'Shea for the guidance of members involved in recording sites and copies are available from him or from Mrs. Beswick, Turners House, Turners Green, Heathfield, East Sussex.  
M.B.

The East Grinstead Society hopes to include an article on other brickworks in the East Grinstead area in their Bulletin No. 27 to be issued in September. Our Chairman receives copies of the Bulletin which he is pleased to loan on request.

#### FORTHCOMING VISIT

Warbleton Area Ironmaking Sites. At members request a repeat will be made of the 1970 visit to some of the ironmaking sites in the Warbleton area. This is to be on the afternoon of Saturday 15th September meeting at Turners House, Turners Green - TQ 635196 at 2.30 p.m. Gum boots are desirable if damp and, to avoid congestion in narrow approach lanes, members are invited to fill up as few cars as possible. Return to Turners House for tea about 5.00 p.m. at the kind invitation of Mr. & Mrs. Beswick.

Will members wishing to take part please return the enclosed VISIT SLIP to Mr. Beswick.

Wind and Water Mill Mystery Tour On June 2nd 1979 about 25 members and friends participated in this trip starting at Park Mill at Batemans, Rudyard Kipling's Home at Burwash, TQ 671236. This water mill contains 3 pairs of stones and was beautifully restored to working order by the National Trust and members of our Society a few years ago. Of particular interest was the water turbine which, when working, is arranged to drive a dynamo to light a battery of carbon filament lamps.

The party then proceeded to Brightling Sawmill TQ 686201 which, in contrast to Park Mill, is in a state of neglect. The cast iron wheel was manufactured by Neve Bros., the Heathfield Millwrights in 1891 and drove a saw bench through a system of belts. Major repairs are needed to the roof which are being put in hand by the newly formed Sussex Heritage Trust with the help of a grant from Rother District Council. It would then be possible for members of our Society to restore the water-wheel and saw-bench to working order. Like all projects of this nature it is difficult to envisage the use to which the restored building could be put, particularly as it is situated on a private estate and without mains services.

After a break for lunch the party proceeded to Punnetts Town Windmill at Heathfield TQ 627208. This smock mill was a shell until the 1950's but has now been restored to working order by its owner Archie Dalloway (whose family have been millers here since 1800) using a second-hand wind shaft and agricultural machinery - a unique example of what can be achieved. Cross-in-Hand Post Mill TQ 557218 was next on the itinerary and considering she was working until 1970 it is now in a sorry state, minus its sweeps and with a severe head tilt. Inside the machinery is all intact and one can still feel the atmosphere of a working windmill. This fine example of a local millwright's skill, Medhurst of Lewes, will hopefully be restored soon by the owner and the local council.

The final mill on the tour was Nutley Post Mill TQ 451291 superbly restored and maintained by the Uckfield and District Preservation Society. Although not capable of grinding, we saw the sweeps turning, one pair having common or cloth covered sails and the other spring shutters. A fitting climax to a thoroughly enjoyable tour.

Thanks are due to our guide, Frank Gregory, who played such a leading part in the restoration of Nutley Mill, and who, with his vast knowledge of mills, answered our many queries, as well as organising an excellent lunch stop.

J.S.F.B.

#### RECENT VISITS

Hastings Brickworks. On Wednesday, 9th May a party of about 10 visited the brickworks, formerly called the Guestling Brickworks, situated in Fourteen Acre Lane between Three Oaks and Doleham. 30,000 hand-made bricks are produced each week by a workforce of 15, the cost being about 30 per cent more, but the quality and appearance better, than for machine-made bricks. Although sometimes used for private dwellings most of the output goes for public buildings, a notable example being the recent extension to the Stables Theatre, Hastings.

High quality Fairlight clay is available on site and contains virtually no stones so that only simple crushing and consolidation to remove air is required before passing to the actual brickmaker who adds a coating of sand or tinted sawdust to control the colour. The bricks are then dried in oil-heated chambers and finally passed to one of two similar coal-fired beehive kilns. Each kiln holds 30,000 bricks which remain in it for about 10 days.

E.O.T.

Freshfield Lane Brickworks, Danehill (TQ 385262) On Saturday 30th June by kind permission of the owners, a visit was made to these works by 25 Members under the guidance initially of Mr. John Upton followed by a full technical explanation of the process by the Manager Mr. G.B. Page.

This privately owned brickworks makes about ten million clamp fired building bricks and specials each year and is sited on an exposure of the Tunbridge Wells Sand formation of the Hastings beds. In fact the works also use the Grinstead Clay which is a subordinate bed of this formation and sometimes the blue Wadhurst that intrudes into the strata from below. A massive strata of sand-rock is discarded at the pits.

Immediately the party were impressed by the functional simplicity of the works layout and the evidence of the very good housekeeping that was apparent on all sides. Although in principle, the sequence of operations was naturally much the same as members will have noted during earlier visits to other works using the same process, nevertheless, this opportunity of witnessing the pitch of efficiency which clamp firing can be brought to, was invaluable to those of us who are at present making a study of the industry.

Briefly, the process proceeds as follows: Clay from the adjacent pits is brought by dumper truck to the "weathering" stockpile where strata strains are relieved in the material over a period of time. At a manual charging grid, "Coalite" breeze is added to watered clay sufficient to provide a self burning aggregate of say 10% combustibles. This mixture is fed into an edge runner grinding mill which has provision for more water admission and is fitted with a grid base ensuring that any rock is reduced to at least 3/8ths inch grading. The ground mixture falls into a bladed pug mill which extrudes the plastic material into wooden moulds having metal frogs and which are pre-sanded. Pressure is automatically applied to fill out any corner voids and the mould positioned for manual release of the green bricks onto a metal pallet and via a second operator from a transfer table to a drying oven trolley. The triple brick mould is then sanded again for re-cycling. There are three such moulding stations and they feed green bricks into the drying chambers at the total rate of 43,000 bricks each working day. The transit time through the chambers or ovens is 2½ days. There are three ovens and they are propane gas fired to 220 degs F with a fully saturated outlet temperature of 100 degs F. During this time moisture is reduced from about 20% to 2%.

The dried green bricks go straight to the three firing clamps the trolleys being conveyed by fork lift trucks which in turn also are used to stock the finished products. The firing clamps are hand built ("crowded") each clamp being under a permanent housing and when finished holding 1,200,000 bricks. To ensure stability the cross section is given a saucer shape and the bricks are slightly spaced so that 10 occupy the space for 12. A grid of already burnt bricks are first laid to give air admission and to provide a foundation. Next comes an 8 inch thick layer of coke breeze, the top 2 inches of which is finer grade to serve as a support for the first layer of green bricks. 30 layers complete the height of the clamp after which a double external cladding of already burnt brick is provided. An ignition oven is formed at one end of the clamp and filled with 3ft timber logs. As the wood is consumed so coke breeze is rammed in until the clamp is alight across its full width. The full operating temperature is 950 to 1,000 degs centigrade and this hot zone once established, moves along the length of the clamp slowly but automatically. In fact it is possible to construct the new clamp quicker than it burns and one end is ignited before the other end is built.

Later a second ignited oven is started at that other end. A clamp of this size takes ten weeks to burn through. Although some oxidising zones are present in the clamp, much burning takes place under reducing conditions thus leading to varying colour in the finished brick according to whether the iron content has gone to ferric or ferrous oxide.

In all there about 40 workers and the process yields a high proportion of first quality bricks which are despatched by road haulage. Some have been exported.

W.R.B.

#### SHIPLEY WINDMILL CENTENARY

The largest working smock mill in the county located at TQ 143219 celebrated her one hundredth birthday on June 3rd. Viewing her immaculate condition one thinks of the changes she has seen during her lifetime. Built for Mr. F. Marten for £2,500 by a Horsham millwright rejoicing in the appropriate name of Grist she worked until 1926.

During the mill's activelife there were several other nearby mills due to the dependance of the local farmer on the miller, and the limited range of horse-drawn wagons. After the First World War the supply of electricity to farms enabled them to do their own grinding or, alternatively, with the introduction of the internal combustion engine the corn could be transported to the larger power-driven roller mills. Coupled with rising wages and idle days due to lack of wind (although Shipley did not suffer in this respect due to a stand-by steam engine), the fortunes of wind mills rapidly declined and many were demolished or allowed to fall into decay as did Shipley.

During the 1950's a Friends of Shipley Mill Society was formed and with the help of the West Sussex County Council the mill was fully restored, being opened in 1958 as a memorial to Hillaire Belloc, the last owner of the mill.

The Friends of Shipley are to be congratulated in having organised a very successful Centenary Celebration as, besides the viewing of the mill, there was a 'Country Fayre'. I understand that the local parson prayed for wind but his plea was unheard, there not being a breath of wind all day. Touring the mill and seeing her three pairs of stones one realises just how large this mill is and the force of wind that is needed to turn her patent shuttered sweeps. Millers of a century ago were only too willing to decorate their mills with bunting at the slightest excuse, for example jubilees and coronations, a fact that is attested by old photographs. It is a pity that Shipley was not dressed overall for her Birthday. May she continue in good health for the next one hundred years.

#### CURRENT PROJECTS

Coultershaw Water Pump. Technical work on the pump is proceeding well but more help would be welcome for auxiliary work such as painting, pointing, etc. Will any volunteers please contact Mr. A.G. Allnutt, West Sussex Secretary, (Chichester 786044).

Ifield Mill. The last phase of restoration of the building, the repair and replacement of the window-frames, is now in hand and should be finished before the end of the year when it will then be possible to open the mill to the public. As well as displaying the mill machinery various other displays of local history will be presented in the Museum and are now being prepared. The restoration of the launder and sluice gate is complete, work on the water wheel is about half completed and will be finished next summer. An application has been made for a grant under the Shell Waterways Award Scheme.

## PUBLICATIONS

Industrial Past. The summer number is now available and copies, price 40p, may be obtained from A.J. Haselfoot, Albion House, Cobourg Place, Hastings. As well as the regular features on Canals, Mills, Industrial Matters and Book Reviews, there are articles on the canals and railways between Liskeard and Looe that served the copper mines on Caradon Hill, Cornwall; the early motor car industry in Manchester with well-known names like Belsize, Crossley and Rolls Royce; the works of Thomas Crampton, civil engineer of Broadstairs, who lived between 1816 and 1888 and, amongst other achievements, laid the first telegraph cable from Dover to Calais in 1851. There is also an excellent description of an I.A. trail through Exeter, including the Maritime Museum there which is well worth a separate visit. Again an excellent number.

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## NEW AND CHANGED ADDRESSES

### Brighton Area

Change: FRENCH, B.A., to Stonesdown House, 16, Farm Road, Hove, BN3 1FB.  
HOLTHAM, P.J. & Mrs. to 11, Lark Hill, Hove, BN3 8PB.

### West Sussex

Add: BRYAN, C. "Marmanet", Salthill Road, Fishbourne, Chichester, PO19 3PZ.

### Resident Outside County

Change: NUNN, Mrs. C.H. to 9, Rowan Drive, Cheadle Hulme, Stockport,  
Greater Manchester.

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