



SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

NEWSLETTER No. 16

OCTOBER 1977.

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ANNUAL GENERAL MEETING

The Eleventh Annual General Meeting of the Society will be held on Saturday 19th November 1977 at 3.00 p.m. at the Brighton Polytechnic, Lewes Road, Brighton. A formal notice of the meeting is enclosed.

FUTURE ACTIVITIES OF THE SOCIETY

Below is an important letter from the Chairman addressed to all Members of the Society. Will you please pay particular attention to the penultimate paragraph.

Dear Member,

With a full programme of site restoration work continuing into the next few years, your committee is concerned to maintain and improve the other main side of our work, namely recording and publishing the results of research activity.

The resources available to the Society are twofold, first and perhaps most important is the active participation of members in matters which suit their interests and abilities. Second, there is the annual income from subscriptions. We are able to print the newsletter and journal (Sussex Industrial History) only to the extent that this income allows. Since restoration work is only undertaken on a basis which does not draw, except to a very limited extent, on the Society's fund it can be said that most of our income is spent on the printed word.

There is a third activity in which members are taking an increasing interest and this is participation in local meetings. Here it should perhaps be kept in mind that industrial archaeology merges very much into straight archaeology and into local history. There are therefore very good grounds for seeking opportunities across the County for joint meetings with local history and town preservation societies. Again and again such meetings have been particularly fruitful in generating local interest and bringing new information to light.

Will you please help your Committee to do some forward planning by answering some or all of the questions on the attached questionnaire, and returning it within the next week or ten days.

The simple fact remains, that, with rising printing costs, we shall not be able to travel much further without an increase in the annual subscription from its 1974 level and it therefore becomes vital to have the widest response to these questions before suggesting the future budget and programme of activities.

Yours sincerely,

W. R. BESWICK.

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

Exceat Farm On 6th and 7th August a small working party (3 in number) completely cleaned out the old cow-shed at Exceat Farm, made and fitted doors and shutters and fitted bolts and locks to secure our storage and work-shop accommodation. An iron bench and a small sawing stool have been installed there, but a fitters vice is needed; if any member knows where to lay hands on such an item please let the General Secretary know. Cable and most fittings are available for installing light and power circuits but 4 industrial lighting fittings are needed. To save cost it is desirable to use old or second-hand units and if any member thinks he would be able to obtain such items the General Secretary would be very glad to hear about it.

C.B.A. Record Cards Members are reminded that one of the important activities of the Society is the compilation of the Council of British Archaeology Record Cards. The Council takes part in the National Survey of Industrial Monuments to record surviving evidence of industrial development, this being based on the Cards which are subsequently classified at the Bath University of Technology; the procedure and a specimen card are given in Newsletter No. 7 (July 1975) and lists of cards for West and East Sussex are given in Newsletters 5 and 6 respectively. Members are urged to keep these records up-to-date by submission of cards to the General Secretary from whom a supply of cards may be obtained and to whom any queries may be addressed.

Durford Abbey Farm Waterwheel At Durford Abbey Farm on the Sussex Hants border (SU 778233) a water wheel was installed about 1840 using water diverted from the Rother to drive machinery in a fine old timber-framed barn built about 1785. The problem was to transmit the power from the wheel to the barn which was 150ft away and on higher ground. A 2" dia. rotating shaft was used laid below ground and with universal joints to accomodate the changes in level. The undershot wheel, about 10 ft. dia., has a cast-iron frame and sheet-iron paddles. It drove the shaft through a 5 to 1 step-up gear and at the barn end there is a cast-iron pulley. This drove shafting at the tie-beam level in the barn by means of a belt.

Will anyone who knows of a similar installation please communicate with the West Sussex Secretary, Chichester 86044.

The site is in private hands and visits are not possible; however, the owners hope eventually to restore the installation and it should be possible to collect sufficient water to work it for demonstration purposes.

RECENT VISITS

Milne Musuem, Tonbridge A group of Members assembled at the Museum in the morning of 3rd September and were met by the very knowledgeable and enthusiastic Curator, Mr. Robert Gordon. The museum was established by Seeboard in 1975 in what used to be the Tonbridge Generating station in Slade Street. Although not regularly open to the public the Curator is very willing to arrange visits for parties or individuals at any time. The 2000 or more exhibits have naturally come largely, but not exclusively, from the South Eastern area and range from machines and transformers to measuring instruments, lighting and domestic equipment. A particularly valuable section, especially to anyone making a study of the electrical supply industry, is the library which contains, in addition to a selection of relevant books, numerous documents and photographs relating to the various supply companies that used to operate in the area - there is, for instance, a complete 65-page specification for

Tunbridge Wells Power Station written in impeccable longhand and also, of topical interest, some instructions dating from the economic crisis of 1931/32 and stating by how much salaries and wages of employees would be reduced in order to meet the crisis! Mr. Gordon is particularly interested in encouraging children's interest in electrical engineering and is devoting a room to items, many involving working models, that are likely to interest and instruct the coming generation. E.O.T.

Brasted Water Pump In the afternoon of the above visit the party was met Mr. A.F. Tullett of the Wildernesse School, Sevenoaks and taken to the site of the 19th century water pump described briefly in Newsletter No. 14 (April 1977). Pupils from the school, two of whom assisted Mr. Tullett in showing our party the details, have made an excellent job of clearing the pump pit, recovering various parts of the equipment in the process, and it is hoped they will be equally successful in clearing the wheel pit. Restoring the plant to working order would be a laborious and expensive task but, at least, it will be possible to prepare and preserve a detailed record of the installation. E.O.T.

CURRENT PROJECTS

Burton Mill A start has been made on repairs to the turbine house and on 17th September we had a Naval party from H.M.S. Daedalus working for a week dismantling the turbine (1929) to prepare it for running. They will be followed by a second party for another week. The County Council have been asked to defray the cost of the materials for the turbine house repairs. A.G.A.

Coultershaw Planning permission for the building to be erected over the pump has been applied for. We are now turning our attention to obtaining funds for its erection. Work on the pump and water-wheel is proceeding.

More volunteers are required because all the timbers from the dismantled barn need to be de-nailed, treated with preservative and stored for the winter. The present party is fully occupied on the wheel, pump and repairs to the lower building.

Working Sundays: 9th, 23rd October; 6th, 20th November;
4th, 18th December, and fortnightly.

A.G.A.

LECTURES, COURSES AND CONFERENCES

W.E.A. Course on Industrial Archaeology A course of 20 lectures (including some visits) will be given by R.C. Riley, B.Sc., Ph.D. of Portsmouth Polytechnic at the Bishop Otter College, Chichester, starting on 16th January, 1978 at 7.30 p.m. Fee £7.50. Further details may be obtained from the West Sussex Secretary, S.I.A.S., or the W.E.A. Secretary, 11 East Pallant, Chichester. Applications should be made to the W.E.A. Secretary.

PRESTON BREWERY, BRIGHTON

JOHN BLACKWELL

The kiln of a small malthouse can be seen on the north side of South Road, (TQ 302064), off Preston Road, in Preston Village, Brighton. It is some fifteen feet square by ten feet high surmounted by a pyramidal tiled roof some twenty feet to the apex built in brick and flint with brick quoins. It would have connected with a single-storey malting floor now demolished.

The earliest reference traced concerns a sale in 1801 when the utensils were described as "A Mash Vat and Under Back, three squares or tuns with brass cocks, and leather pipe to convey beer to the casks, large enough for

brewing from five to eight quarters of malt. Also one Jigger Pump with brass screws and leather pipe to pump from Under Back to copper worked by horse or hand. Also several Casks containing from five to eight hogsheads in good condition. There was also one dray and a cart for carrying coal or corn and the utensils were said to be worth the attention of any person operating a small brewhouse or "any Gentleman or Publican desirous of brewing his own beer the whole of which could be seen and purchased by applying to Mr. Smithers of Preston near Brighton." (1) (Smithers was presumably the brewer and could possibly be related to the Smithers of Smithers Brewery 1839-1928 in North Street, Brighton).

In 1855 the site was occupied by "J & C Brook and Ingold, brewers, dairymen and farmers". By 1866 Preston Brewery had been added to the trades description. It was taken over by William Chandler, brewer, Preston Brewery, in 1886. The 1895 and 1899 Directories show "Wm. Chandler, dairy, Preston Road, Preston Village," but he is not listed in the trades directory under brewer in either of these years. The 1905 directory shows the occupier as Corall and Co, coal merchants who remained until the present occupiers, T J. Braybon & Sons, Ltd., took over in 1976. (2) It would therefore appear that brewing ceased between 1886 and 1895.

The "Ordnance Atlas of Brighton", 1882, shows that the brewery consisted of buildings grouped around the north, south and west sides of a large yard extending from South Road to Middle Road behind the buildings fronting the Preston Road; stabling and the kiln in the south wing are all that remains (the malting floor would have been in the west wing).

The 'Preston Brewery Tap' public house was erected in 1888 on the site of a barn-like building occupied by Geo. Duncomber, House Furnisher. (3) By 1899 the "landlord" was "Miss Ellen Read, beer retailer". By virtue of its name this Public House was presumably supplied with beer for a few years by the Preston Brewery but whether there were any other retail outlets for its products is unknown.

Such is the fragmentary story of the Preston Brewery and any other information known to members would be appreciated to add to its story.

Acknowledgements The writer would like to thank Messrs. T J Braybon & Sons Ltd, for allowing him to inspect the site.

References (1) Quoted by Simmons "Brighton Breweries" 1969. A 15 page typescript in Brighton Reference Library, no original source given.

(2) Various local directories.

(3) A photograph in Brighton Reference Library.

SOME INDUSTRIAL ARCHAEOLOGY IN THE WEST COUNTRY

A.J. HASELFOOT

At the beginning of July I attended the fifth week-end annual Conference organised by the Institution of Electrical Engineers on the History of Electrical Engineering. This was held at Traherne Hall, Cardiff, part of the University of Wales Institute of Science & Technology.

On the Friday evening a reception was held at the new Welsh Industrial & Maritime Museum in Bute Street, which houses a fine collection of steam and internal combustion engines, mainly from South Wales. The oldest of these were an 1851 Cornish beam engine used for water pumping at Cardiff until 1921 and an 1870 steam haulage engine used at Park Colliery in the Rhondda Valley and made locally. The star exhibit was a 500HP triple-expansion horizontal steam engine which drove a large ventilator fan at the Navigation Colliery, Crumlin and was installed in 1911. A B.T.H. turbo-

alternator, of 1500kW, from a Yorkshire coalmine was also on view and a number of smaller steam, gas and oil engines used for pumping, air-compressing, mine ventilation and general power supplies. The Museum is open on weekdays from 10.00 - 6.00 (10.00 - 5.00 in winter) and on Sundays from 2.30 - 5.00; it is well worth a visit.

A number of interesting papers were presented at the Conference; Marconi's early Radio Trials in the Severn Estuary off Cardiff, the History of Picture Transmission by Radio, the Electrolytic Gas Engine, the Newport Transporter Bridge and many other subjects.

On the Saturday visits were made to the Newport Transporter Bridge and the Brittonia Colliery, Pengam. The Newport Bridge over the R. Usk was built in 1906, one of three built in Britain about the turn of the century. The Runcorn one was demolished about 20 years ago but those at Middlesbrough and Newport are still operating, though the Newport one was temporarily out of operation when we saw it. The open lattice type towers are 242ft high and 645ft apart and the main girders, hung from the towers by suspension cables, give a clear headway of 177ft at high tide (the tidal range at springs is c.50ft). The car is slung by steel ropes below the crab which has 15 wheels on each of 4 rails mounted below the main girders; the crab is driven by an endless steel rope from the engine house which is on a bridge over the roadway on the east bank. Two 35HP D.C. motors supply the power. Control is normally from the car itself, the 2 drum-type controllers carrying the full motor current via trolley wires on the main girders. There is provision for emergency control from a third drum-type controller in the engine house. As the bridge was temporarily out of operation the energetic members of the party were allowed to climb the west tower (no lift) and walk across the girders to the east tower and so down to ground again. This not only enabled one to make a close study of the constructional and suspension details but afforded some splendid views of the Usk and the Severn Estuary.

At the Brittonia Colliery the principal point of interest was the winding motors and the Ward-Leonard-Elgner motor-generator sets supplying them. Each of the 2 shafts (between 600 and 750 yards deep) has a conical winding drum driven by 2 D.C. motors, each rated at 1300HP. Each pair of motors is supplied at 600 volts from 2 generators on a Ward-Leonard-Elgner set which is driven by an 11,000 volt, 1600kVA induction motor. The 6ft diameter flywheel weighs 35 tons and is used for storage and subsequent return of energy during the winding cycle. We were allowed to go into the control cabin of one of the winders and watch the complete cycle of lowering and raising a cage.

Before leaving Cardiff I took the opportunity to visit the Welsh Folk Museum at St. Fagans where, among many interesting buildings, there is a working water-driven woollen mill, dating from c.1760, and a complete 18th century tannery.

On the way home I stopped at Bristol to see the 'SS Great Britain', now being restored in the Great Western Dock where she was built. The first ocean-going, screw-driven steam ship, she was more than twice the size of Brunel's first Atlantic liner, the 'Great Western'. Launched in 1843, exactly 4 years after her keel was laid, she had a long working life and was ultimately abandoned in the Falkland Isles in 1886. She was brought home in 1970 and entered the dock in which she was built on 19th July, exactly 127 years after she was launched.

It was possible to go all over the ship, both inside and out, and see the progress that has been made in the restoration, which is quite considerable, the outside being now cleaned and repaired and the bows completed with new figure-head and bowsprit. It is intended that the external appearance shall be fully restored and a certain amount of the interior - the dining saloon, part of the promenade deck, a set of cabins, the crew's quarters and the engine room. There is also a small museum on the dock-side showing various relics of the ship and giving many interesting details of her history and recovery.

A visit to the 'Great Britain' is a 'must' for any industrial archaeologist visiting the West Country.

Association for Industrial Archaeology

A.J. Haselfoot.

The annual conference of the A.I.A. held at Manchester University this year and attended by over 150 members, was a most rewarding experience. The Manchester region is particularly rich in industrial remains, being the birthplace of the cotton industry in Lancashire, the site of the first commercial canal and the centre of the heavy mechanical industry in the North West.

The L.T.C. Rolt Memorial Lecture, on the History of Technology, set the standard for the Conference and in further papers we were given a wide-ranging review of the I.A. of the Manchester region, almost a surfeit of good things, and a fascinating history of Textile Mill Engines with excellent slides of large horizontal cross-compound steam engines up to 3500HP. Regretably only a few of the large number that once existed are preserved, some on site and others at the North Western Museum of Science & Industry.

On the Saturday afternoon several excursions were available; the Bridgewater Canal connecting Manchester with the Duke of Bridgewater's coal mines at Worsley with their 46 miles of underground canal - we saw the Barton Swing Aquaduct, taking the canal over the Manchester Ship Canal, opened to let a large ship pass and had a boat trip on the canal; water-powered industrial and corn mills, including Nether Alderley Corn Mill and Quarry Bank Textile Mill at Styal, both of which have been restored by the National Trust; Textile Mills and Mill engines still preserved on site.

On Sunday we heard an excellent account of the North Western Museum of Inland Navigation, popularly known as the Boat Museum, at Ellesmere Port, and had an opportunity to follow a railway trail or a canal trail through central Manchester.

During my visit to the North West I was able to see the newly opened Steam Boat Museum at Bowness on Windermere, and also Muncaster Mill in Eskdale, Cumbria, which has an unusual arrangement with the drive through layshafts fitted with clutches for disconnecting the stones and the auxiliary machinery.

INDUSTRIAL PAST

The General Secretary has a number of copies of the Autumn Issue of this Journal, price 25p. There are articles on the Steam Tug "Charlotte Dundas", Lead Smelting Mills in Swaledale and many other interesting items. Please send S.A.E.

CHANGES TO ADDRESS LIST

East Sussex

Add: O' BRIEN, Mrs. N.A.M., 29, Mount Street, Battle.

North East Sussex

Add: PALMER, R.J., 'Forge Cottage', Maresfield, Uckfield.

Delete: LITTLEWOOD, S.
O' BRIEN, Mrs. N.A.M.

Brighton Area

Add: HALL, P., First Floor Flat, 38, Dyke Road, Brighton, BN1 3JB.
REYNOLDS, Mrs. S., 27, West Hill Street, Brighton, BN1 3RR.

North Sussex

Add: EZRA, Sir Derek, Brook House, Bashurst Copse, Nr. Itchingfield.

Worthing Area

Add: HORSFIELD, T.J., 10, Hawley Road, Rustington.

West Sussex

Add: HASLING, A.C., 'Stari Dom', Pook Lane, Lavant, Chichester.

Outside County

Add: LITTLEWOOD, S., 71, Highbury Hill, London N.5.
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