



SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

NEWSLETTER NO. 40

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ANNUAL GENERAL MEETING

THIS IS TO GIVE NOTICE THAT THE SEVENTEENTH ANNUAL GENERAL MEETING OF THE SOCIETY WILL BE HELD IN THE VILLAGE HALL, DITCHLING ON ~~SUNDAY~~ 5th NOVEMBER 1983, COMMENCING AT 2.30p.m. **SAT.**

The Agenda and nomination form for officers and committee members is attached to this Newsletter. (Members of the Society only.)

Following the business meeting and a tea interval, our Chairman, Air Marshall Sir Frederick Sowrey, will address the meeting on the subject of "The Birth of the Motor Car and its Association with Sussex".

BRICK STUDY GROUP

The Brick Study Group of the Society will hold its A.G.M. in the Lower Hall of the Village Hall. Ditchling on the same day (Saturday, 5th November, 1983), commencing at 11 a.m.

All members of the Society and other interested persons are welcome to attend. More active participants are needed in this Group as there are several areas of the County still to be covered. A knowledge of bricks or brickmaking is not essential as the research mainly involves working on maps, directories and other forms of research.

PLEASE NOTE THAT THE LATEST DATE FOR ACCEPTANCE
OF COPY FOR THE JANUARY NEWSLETTER IS
WEDNESDAY 14th DECEMBER

A.I.A. CONFERENCE AT LINCOLN

The 1983 Conference of the Association for Industrial Archaeology was held in Lincoln over the weekend of 9th to 11th September. We were staying in the Bishop Grosseteste College in Lincoln - and I never did find out how to pronounce that! There were also other supplementary events centred on Boston during the preceding week.

The high spot of the Conference was the Rolt Memorial Lecture delivered this year by Dr. M. J. T. Lewis on the subject of "Our Debt to Roman Engineering - the Water Supply of Lincoln to the Present day". This was a fascinating and scholarly talk on the problems and solutions evolved by successive water engineers. The enigma of the surviving Roman aqueduct was presented and various theories postulated as to how they supplied water to a level higher than the point of entry.

There were various business meetings held during the Conference, many useful contacts were made with other Societies. Help was requested by various officers of the A.I.A. in connection with Listing of industrial buildings and of the re-use of redundant buildings.

During the course of the week we visited many places and buildings and travelled over quite an area of South Lincolnshire. My impression is of a dead flat landscape with limitless horizons, criss-crossed with roads and water courses running dead straight (even the rivers) and with sudden changes in direction. Water is the obsession of the Fens. The drainage is so complex as to defy simple explanation. There are two independent systems - catchment drains around the periphery of the Fens trap the water flowing off the surrounding higher ground and this flows direct to the sea via drains. Water falling onto the Fens themselves is collected into another system which is independently taken into the outfall drain. The water courses also fulfill three functions - drainage, irrigation and navigation and the combination of all these factors make for confusion. Occasionally two systems cross each other and there is a syphon with one category of water passing underneath another and the whole area abounds in sluices and locks.

To handle the water and transfer it from one level to another, numerous pumping stations were built and we saw several. At Amber Hill there is a drainage engine which may have originally been wind driven. The Pinchbeck Marsh Pumping Station still retains its 1833 A-frame beam engine and scoop wheel but this is no longer working. At Dogdyke, an 1855 beam engine and scoop wheel is still in position and working although the chimney was removed due to its proximity to R.A.F. Coningsby. Also preserved and working is the 1940 diesel engine which replaced the steam engine and is also preserved.

Of corn windmills we saw one at Moulton, nine stories high and one of the tallest in Britain, alas without sails but still with most of the internal machinery and still occupied by a miller. We saw mills with four sails, (Ellis's Mill at Lincoln c1840 and restored to working order), with five sails, (Maud Foster's Mill in Boston dated 1819), with six sails, (Sibsey Trader Mill built in 1877) and with eight sails (Heckington Mill - unique in Britain - built in 1830 but with cap and sails transferred from Tuxford's Mill in Boston in 1892).

All these mills are brick built tower mills and seem to be strangely tall and slim, to my eyes often with increasing batter towards the ground.

Of the many interesting places we saw I will pick out the following:

Dunston Pillar - now sadly truncated due to the R.A.F. was built in 1751 as a land lighthouse to guide travellers across Lincoln Heath.

Crawford's Agricultural Engineering works yielded a cornucopia of old cars, engines, traction and portable steam engines, tractors and farm machinery as Mr. Crawford throughout his life never threw anything away. The prize for me was a Marshall portable engine, built in 1917 for export to Russia and never delivered, bought by Mr. Crawford in the 1930's, reassembled and has since only been used for shows.

In Boston we visited a fine example of an old grain warehouse which has been sympathetically restored and converted into the Sam Newson Music Centre and used by the Music Department of Boston College Further Education as offices, rehearsal and practice rooms and a recital hall to seat 200.

This has proved to be a thoroughly memorable week, excellently organised by the Society for Lincolnshire History and Archaeology and Neil Wright in particular to whom our grateful thanks are due. Next year's Conference is to be held at Aberystwyth from 14th to 18th September, 1984 and I would strongly recommend all members to attend who can manage it.

R. G. Martin.

SERIAC 1984

Following the very successful first SERIAC (South East Regional Industrial Archaeology Conference) held in April this year, our Society has offered to host the next Conference. This is to be held on Saturday, 7th April, 1984, in the University of Sussex on the subject of "The Development of Transport". Dr. Neil Cossons, O.B.E., recently retired as Director of the Ironbridge Gorge Museum Trust and recently appointed as Director of the Maritime Museum at Greenwich has agreed to take the chair and we are assembling speakers on the many aspects of Transport in the South-East, including Roads, Railways, Coastal Traffic, Canals and Air. It is hoped that the application forms for this event can be enclosed with this Newsletter, but if this does not prove possible then they will be sent with the January issue or they may be obtained from the General Secretary.

ANNUAL COMBINED MEETING WITH CHICHESTER MUSEUM SOCIETY - 14th February, 1984.

This will be a lecture by Dr. Marie Clough entitled "Mains and Drains". Dr. Clough will outline the controversy that divided Chichester, and the difficulties encountered in providing the city with water supply and main drainage in the late 19th century.

The meeting will be held in the District Council Chamber at 8 North Pallant, Chichester (Grid Ref. SU 862047) commencing at 7.30 p.m. Don't be late, the doors have to be closed at 7.30 when the meeting starts.

CURRENT PROJECTS

Coultershaw Water Pump

During the closed season work will proceed on finishing off the building, overhauling the pump, and improving the rural water supply display. Unfortunately we also have to fabricate and install a new sluice gate to replace one of the three which control the main river, although this is not part of the pump installation. Next year we shall be forced to tackle the other two.

Work will continue on the first and third Sundays of each month and any member who can give regular or intermittent help on any aspect mentioned above will be very welcome.

But for help from non-members during the summer we would have been hard pressed to man the mill properly for opening to the public and we are very grateful to Edna Carter, Fred Jay and Gerry Nutbeam.

Poyntz Bridge

Further to the report in Newsletter No.37 1983, a start is being made on the restoration of this 1820 cast-iron hand operated canal swing bridge so that it can be resited on an identical foundation at South Bank, Chichester (Grid Ref.SU 859038). At present it is on the E bank of the canal in the Boys High School playing field Kingsham Road.

A detailed survey has been made and drawings are being prepared so that spliced joints may be designed for the two broken inner longitudinal beams. An appeal will be made to Industry for help with loan of grit blasting equipment, supply of friction grip bolts, paint, etc.

In due course a detailed description of the bridge and its restoration will be prepared for Sussex Industrial History, with comparisons of swing bridge design on the Portsmouth - Arundel, Wey - Arun and Kennet - Avon canals.

Anyone able to help either on or off site or with the approach to Industry please ring Alan Allnutt, Chichester 786044.

The East Grinstead Society - New Town Trail

To mark its fifteenth anniversary earlier this year the East Grinstead Society has brought out a second town trail covering the area built up between the coming of the railway in 1855 and the outbreak of the Second World War in 1939.

Printed to A3 size (folded to A5) this guide gives an excellent short description of the architecture of note in this built up area of the town, vantage points are noted and an easy to follow map is included. Of special interest to I. A. Members is the brick railway viaduct built in 1882 of ten spans and some 300 feet long. A show piece for students of brickwork and railway architecture - its future is uncertain. Bow Bells milestone No. 22 is also noted.

Copies are available from the Town Museum, East Court, price 20p, or may be obtained by post from M.J.Leppard, 20 St George's Court, East Grinstead, for 35p post free.

PENFOLDS OF ARUNDEL - Agricultural Engineers from 1833
150th Anniversary Celebration

The celebration was a splendid occasion organised by James Penfold & Co., mainly for their farming community customers. A lot of effort had gone into collecting and presenting material illustrating the history and development of the firm; and a number of people with historical and I.A. interests were fortunate enough to be invited.

This was obviously largely due to the wide interests of the Managing Director, Mr. Frank Penfold. He is well known in the County not only for the Agricultural Engineering business, but also as the Chairman of the Sussex Trust for Nature Conservation, and for his knowledge of local history. To all these activities he takes infectious enthusiasm. For 50 years he has served the firm and the sight of the Penfold water cart at Amberley once reminded him that, when he started as a boy, one of his jobs was to climb inside the cylindrical tank and hold the 'dolly' for the rivetter.

To many it was therefore not surprising that the proud history of the firm was presented in such an impressive and thorough manner. Each guest received a handbook setting out a chronological history of the firm and also containing a catalogue of an exhibition of copies of documents, maps and photographs; 120 striking illustrations of the way the firm kept pace with change. Last century an important activity was iron founding but this dwindled as steam gave way to the internal combustion engine. Thus an early photograph showed iron railings cast for the 1724 Arundel bridge replaced in 1935. The last photograph of steam was a Wallace and Stevens compound 8 ton road roller sold in 1963.

One of the speakers said that in the 1830's, the decade when mechanisation was just starting, a man could scythe $\frac{1}{2}$ to 1 acre per day and the yield was 10 cwt. per acre. Now one man combines 45 acres per day and the yield is 4 tons per acre.

The exhibition is of such social and industrial significance that it should be kept together as a permanent display for the public. It is hoped that room can be found to do this at the Chalk Pits Museum, Amberley.

A. Allnutt

The Chalk Pits Chronicle No. 21, Summer 1983, contains the chronological history of the firm reprinted from the handbook mentioned above.

Information Required

J. J. E. Mayall, who lived at the "Stork's Nest", Lancing, is credited with 'starting' brick-making in the Brighton area c1874 (Obituary-Brighton Gazette, 1901).

He was Mayor of Brighton 1877 - 8 and is most famed as an early photographer. I have details of his photographic activities and I am preparing an article on "The Mayall Story" for the History of Photography magazine. I would appreciate any further information on Mayall.

Arthur T. Gill, 229, Kings Drive, Eastbourne. East Sussex. BN21 2UP
Tel: Eastbourne 53313

THE BRIGHTON & SHOREHAM TRAMWAY

The coastal plain between Brighton and Shoreham had been served by the railway since 1840, this section of line preceded the opening of the main line by 16 months, when in 1882 the Brighton and District Tramways Act authorised a line from the Aldrington boundary with Hove to Swiss Cottage, Shoreham, a well known pleasure gardens.

The line ran from the top of Westbourne Villas along New Church Road to Station Road, Portslade where it turned down to the Lower Shoreham Road and ran through Southwick and Kingston before turning into Ham Road to the Burrel Arms public house opposite Shoreham Station. A very sharp right hand turn was then made into Western Road, continuing through Southdown Road to Swiss Cottage (now a much altered public house, with a boating lake remaining). The single track line of 3'6" gauge with passing loops was opened on July 3rd 1884.

The decision to use steam traction was taken only two months before the opening; each locomotive was of the standard 'enclosed' type used for tramways fitted with both steam and hand brakes and equipped with condensing apparatus and a system which consumed their own smoke. Each locomotive weighed between 8 - 9cwt, and pulled a double-deck car 27'6" long, 6' wide and 13'6" high; seats inside and out were made of perforated wood and a roof described as a "wooden verandah" gave some sort of protection to the passengers from the elements and fumes. (A photograph of the locomotive and car can be seen at Marlpins Museum in High Street, Shoreham.)

On opening day steam was used as far as the Burrel Arms and then three horses to the Swiss Cottage as the Act stipulated that steam could only be used on this section if the line was doubled. This difficult section of line with the very sharp right hand turn was only in use a short time. Steam traction was found to be so unsatisfactory being replaced by horses. The service connected with a horse bus service to the centre of Brighton. In 1898 the Brighton & Shoreham Tramway Co. who owned the line sold out to British Electric Traction who intended to electrify the line using overhead wires. At the time of the sale the issued capital of the Company was £9,170 in £10 shares with the balance sheet showing a capital expenditure of £10,000. The route miles were 4.16 being 3.52 single and .63 double, and stock of eleven horse drawn cars of which three were single-deck one horse and eight open top double-deck drawn by two horses. The stud consisted of forty horses.

Competition with buses which by now ran direct from Brighton to Worthing closed the line on the 23rd May, 1908, but because of Parliamentary Bills concerned with connecting the line to proposed Worthing tramway systems, traffic resumed on June 10th 1910 and worked spasmodically until final abandonment in October 1912.

John S. F. Blackwell

CORRESPONDENCE

Ashburnham Blast Furnace

Following the article in Newsletter No. 39, July 1983, giving a definitive date for the closure of Ashburnham Blast Furnace, we have received the following letter from Mr. Brian A. French of Hove.

Some years ago when I lived at Old Stonesdown Farmhouse, Brightling, I did a certain amount of research on the Ashburnham Furnace as a result of which I acquired a fireback from Great Sprays Farm which is possibly the very last fireback cast at the works. It has on it the Ashburnham Coronet with the initial "A" and what makes it very interesting two other initials on either side of the fireback "W" and "R" being the name of William Rumins who was the man who cast the iron in the sand moulds. It is dated 1813. In the Sussex Archaeological Society Library at Lewes there is a newspaper article on William Hobday in which his recollections of the furnace are recorded and it was from this source that I obtained the information regarding William Rumins and the technique used to cast the firebacks.

Brian A. French

The Sussex Brick and Estate Company

Following my note in Newsletter 38 on bricks in East Grinstead Town Museum, Mr. G. Coomber of the Horsham Museum Society has kindly written to say that the Sussex Brick and Estate Co. operated at Warnham and Southwater, later changing the name to The Sussex Brick Co. and then, after amalgamating with the Dorking Brick Co., to The Sussex and Dorking Brick Co. Ltd. After the last war they were taken over by Redlands who still operate the Warnham works but have closed the Southwater premises.

M. J. Leppard

Bishopstone Tide Mills

We have received the following letter from the Southampton University Industrial Archaeology Group.

On page 5, in the article about Bishopstone Tide Mills, states that Woodbridge is the only tide mill still operating in Britain (para 5). This is not correct - an example exists on our own doorstep. Eling Tide Mill is a fine example, restored several years ago, and now open to the public, and producing flour. It originally had two sets of stones and machinery working, now one set work, the other are retained as a static exhibit. I would recommend it most strongly to Sussex I. A. Society. It is situated near Southampton, grid reference SU 365125.

Pamela Moore (Secretary)

PUBLICATIONS (Correction)

History of East Grinstead

In the notice of the East Grinstead Society's Bulletin 34 in Newsletter 38 the name of the author of The History of East Grinstead, W. H. Hills, is erroneously given as W. H. Miles.

M. J. Leppard