Affiliated Society issue

The ASSOCIATION for INDUSTRIAL ARCHAEOLOGY

IA Bulletin

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Conservation and MSC schemes: A cautionary tale!

When the current recession began to bite and government sponsored MSC schemes seemed a convincing palliative to rising unemployment figures, local authority plans for using unwaged labour on conservation projects caused mild excitement in many preservation groups. On the face of it, if one could present a good case to the local planning office, backed by evidence of enthusiastic and regular site work, maybe an appropriate scheme could be devised and one's meagre workforce supplemented with an injection from Job Creation/YOP/Community Service/YTS or whatever the current MSC initiative was called.

But anyone attending national or regional IA conferences recently cannot fail to be aware of an increasing disquiet at the way some of these schemes have developed for, whilst there are museums, societies and preservation projects which have genuinely benefitted from MSC aid, an increasing number of industrial historians are becoming alarmed at the end products of many others.

At Saltford, mid-way between Bath and Bristol, the developing Bristol brass industry established a battery mill in the early 1720s. Battering brass involved subjecting it to constant hammering to form hollow-ware vessels. The metal work-hardened under this treatment and needed annealing or heating, at regular intervals to normalise the grain structure. An improved design of annealing furnace was developed by the Bristol Brass Company and four of these were erected at Saltford. One is still there, structurally quite sound having now been repaired, and with sufficient interior remains to make interpretation of working practices possible. Since 1964 one or two individuals have become aware of its importance and since then over £18,500 has been raised by this small group to ensure that a structure which metallurgically is quite important in a European non-ferrous metal context, remained intact for future generations of industrial historians. Firms such as **Rio-Tinto Zinc** and **McKechnie Brothers** in England, and **Stolberg Metallworke** in West Germany have shown a financial interest whilst visitors to the site in the last twelve months have included, for example, representatives from the **Deutsches Bergbau-Museum, Bochum** (the German National Mining Museum), the **Hindustan Zinc Company from Udapur,** India and the **Musée de Louvain-La-Neuve** in Belgium, where there is an impressive collection of medieval brass artifacts. In 1979 members of the Bristol Industrial Archaeological Society, including those with a special interest in the Saltford furnace, were approached by the Avon County Planning Department who suggested a joint venture, the setting up of the Avon Industrial Buildings Trust, ostensibly to carry out conservation work on industrial sites in the county but to concentrate in the first instance on the Saltford Brass Mill. It seemed a good idea and BIAS agreed to help, and raised money to pay legal fees involved in creating a trust able to receive public monies from the Department of the Environment and charitable organisations.

For the first few years, although the AIBT did nothing to help with the finances at Saltford but in fact depleted them to an extent with administrative costs, the BIAS labour force met regularly on the site, cleared vegetation, pointed walls and generally prepared for the time when the much vaunted MSC presence would assist in their long-term plan, to turn the site into a museum of the Bristol brass and copper industry.

They began to have doubts, particularly when an Avon Industrial Buildings Trust committee (by then infiltrated in a seemingly militant tendency manner by a majority of Avon Planning/MSC people) decided that '. . . ***as the Trust now wishes to pursue a more wide ranging restoration and conversion programme . . . scheduling by the Department of the Environment might, in the short term, prove to be an unnecessary encumbrance'.*** Soon afterwards, the AIBT produced plans to build holiday-flats within the site reducing the space available for a metallurgical museum to a minute proportion of the whole area and proposing architectural features completely out of sympathy with a Grade 2 listed building.

In January of this year the AIBT submitted their proposals to the Wansdyke District Council Planning Department who published the statutory notice required for Listed Building Consent and invited comments and/or objections. So far objections have been received from several individuals and:

The Association for Industrial Archaeology.
The Banwell Society for Archaeology.
The Centre for the History of Technology, Science and Society at the University of Bath.

The Saltford furnace is viewed by delegates to the 1985 Brass and Zinc conference. Second left: Dr Paul Craddock (British Museum), extreme right: Dr H W N Sommerlatte (Switzerland) and 2nd right: Lalit Gurjar (Hindustani Zinc Company).

Council for British Archaeology Group 13.
Historical Metallurgy Society.
The Mendip Society.
Society for the Protection of Ancient Buildings (Wind and Watermills Section).
Saltford Residents Association.
Keynsham and Saltford Local History Society
The Bristol Industrial Archaeology Society.

The Wansdyke Planning Committee meeting was arranged for March 12th but on Thursday February 27th English Heritage scheduled Saltford Mill as an Ancient Monument thus putting an entirely different complexion on any planning proposals.

The moral is two-fold. Firstly one should look at suggestions made by any 'official' organisations with a great deal of care and perhaps ponder whether the apparent advantages will be so very obvious in a few years time. Secondly it is worth emphasising yet again that there is absolutely no substitute for enthusiasm. Let your local CBA Group, the AIA, the Historic Buildings Record, English Heritage, the Royal Commission etc etc know of your work and interest. Apply for 'Listing' or 'Scheduling' where it is appropriate, and above all, measure, photograph and record. All these things were done at Saltford and have proved essential. The Saltford saga is not yet ended and everyone interested in preserving the site free from commercial adulteration is now alert to what could have happened. But the future is now more assured.

Baynards Station Restoration. The Surrey Industrial History Group has presented its 1985 award for restoration work carried out during the past 10 years at Baynards Station south of Cranleigh.

The station, which is on the former London Brighton and South Coast Railway line from Guildford to Horsham, closed in 1965 during its centenary year.

Ten years later it was acquired in a derelict state by Fraser Clayton and Linda Malings, who have devoted themselves to restoring the station-master's house and the associated waiting rooms, goods shed, platforms and gardens.

The photograph shows Linda and Fraser outside the station holding a plaque featuring the group's logo. This was presented to them by the group's chairman, Prof Alan Crocker, at a social evening held at the University of Surrey.

Following the presentation Fraser Clayton gave an illustrated talk on the restoration work.

Reproduced from the Surrey Advertiser.

Birmingham Railway Museum had the most successful operating season of its 15-year existence in 1985, clocking up 35,000 visitors during the year. Visitor Services Manager, Roger Crombleholme, commented 'Much of this 52% increase in public support must be attributed to the success of our GW150 Steam Events and in particular the 'Shakespeare Express' trains to Stratford in June. But the dismal summer weather undoubtedly led to the Museum being 'discovered' by many extra visitors in search of a day's steam entertainment'.

In 1986, the Museum is stepping-up its pattern of steam events and offering steam operation every Sunday and Bank Holiday from Easter until the end of September. Highlight of the operating season will again be the 'Shakespeare Express' package of trains which will run between Birmingham and Stratford on June 7th and 8th using both the Museum's flagship locomotives ***Clun Castle*** and ***Kolhapur.*** Passengers will travel in BR Mk 1 First Class stock and there will also be the option of riding in the GWR 12-wheeled Royal Saloon No 9001.

Mill Green Water Mill Appeal. Around £5000 is still required to finally restore the Mill Green Water Mill, near Hatfield, to working order.

The last stage of restoration involves the construction and installation of a new water wheel and associated machinery which will cost £35000, towards which the Mill Green Water Mill Restoration Trust have received grants from the Historic Buildings Commission and from Welwyn Hatfield District Council. It is the hope of the Trust that visitors to the Mill will see the wheel turn once again this year and a special appeal has been launched to raise the final amount.

The 17th century Mill, which last ground corn in 1911, stands on the River Lea and remained idle and neglected until 1979 when the Mill Green Water Mill Restoration Trust was formed with the aim of restoring and preserving the Mill as a building of architectural and historical interest to be open to the public.

Since then the Trust has raised in excess of £33000 to enable considerable work to be carried out to the machinery and framework of the Mill — paid for by grants and by donations from visitors to the site and to the adjoining Old Mill House Museum.

The latest phase of the restoration was carried out by Millwrights International, a specialist firm who in March 1985 restored the large oak timbered frame which supports the main machinery.

The Mill is open from Tuesday to Friday from 10 am to 5 pm and from 2 to 5 pm at weekends and bank holidays. It is hoped that by the summer visitors will be able to buy a bag of Mill Green flour freshly ground on the premises!

Further information about the Mill and how to make donations can be received from the Curator, Christine Johnstone, on Hatfield 713162. Donations can be sent direct to the Hon Treasurer, Mill Green Restoration Trust, c/o The Old Mill House Museum, Mill Green, Hatfield, Herts.

Gloucestershire Aero-Tech Collection. During recent months discussions have been held between various individuals interested in the formation of a collection of items associated with the aircraft industry, in particular items developed and produced within Gloucestershire. All concerned have been of the opinion that because of the long involvement of various firms in the County with aerospace and associated matters it would seem appropriate that a collection of items of historic interest should be established and located at a suitable place associated with the subject.

Background to the Proposal for an Aero-Tech Collection.

1 To give a focus for the considerable local interest in the design, manufacture and use of everything associated with aviation.
2 To honour the tremendous achievements of the area in this field.
3 To retain in the area historic and interesting objects that at present have no long term home.
4 To rescue for the future the work of today and succeeding years, which otherwise might be discarded because of the pace of development.
5 To form the basis of an industrial heritage collection with a potential for tourist and specialist interest.

An invitation has been sent to all the companies, clubs and individuals known to be concerned with the chief air stations. The local authorities whose areas have had some special connection have also been notified.

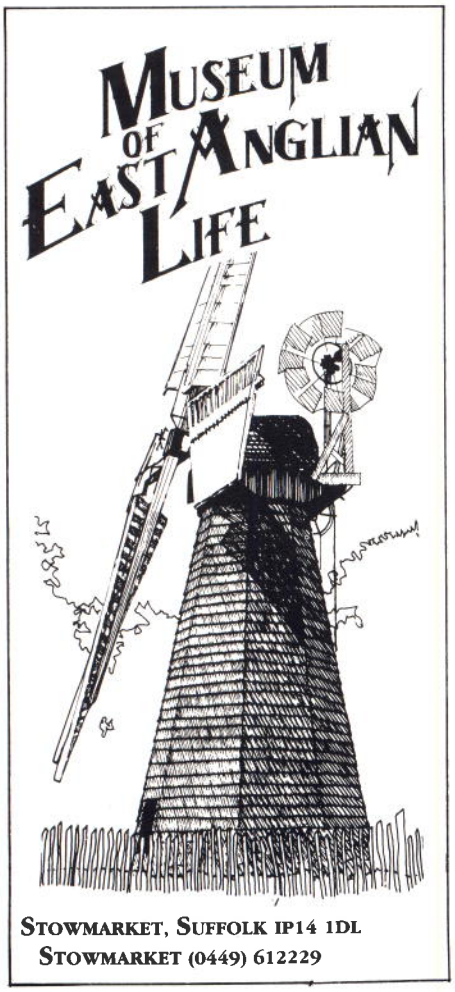
We hope that a small input from many sources will get the idea airborne!

Enquiries to Councillor Aimbury Dodwell c/o the Mayor's Parlour, Municipal Offices, Cheltenham GL50 1PP.

Museum of East Anglian Life: The AIA often objects to loss of industrial buildings, and is sometimes faced with the problem of assisting owners or local IA groups to find satisfactory future usese for redundant premises. One solution is to move the building lock stock and

Mill Green Trust Chairman Tom Edmondson and Curator Christine Johnstone with part of the mill machinery.

barrel and Museums such as the Museum of East Anglian life will sometimes provide a new home. This Museum is on part of the Abbots Hall Estate at Stowmarket in Suffolk, and re-erected the Alton Watermill which would otherwise have been lost under the waters of the Tattingstone Reservoir in the early 1970s. Now—with the help of a grant from the English Tourist Board — the Nineteenth Century workshop and warehouse from the Bury St Edmunds engineering works of Messrs Robert Boby have been saved and re-erected on the Museum site. The Eastbridge wind pump is another successful rescue story — this time in conjunction with the Suffolk Mills Group. The Museum is open from the beginning of April to the end of October, from 11 am to 5 pm on weekdays and Saturdays, and on Sundays from midday to 5 pm.



Endangered Sites Report:
AIA Council Meeting, February 22nd 1986

New Cases:

Saltford Brass Mills; application for renovation scheme with four flats inserted and small museum: objection lodged to this application, and the policy of Avon Industrial Buildings Trust.

Arc Works, Chelmsford: request from Chelmsford Industrial Museum for support in getting buildings listed.

Huddersfield Canal Lock No 1: restoration through Huddersfield Polytechnic site.

Hunslet Mills, Leeds: part demolition (but which part?) of 1838 Fairbairn mills, considered unsafe.

Hurstmonceux Windmill: removal of 'top wooden section' due to dangerous conditions.

Hanover Street, Liverpool: demolition of derelict warehouses for car park.

Spirella Building, Letchworth: demolition of timber buildings, addition of first floor extension.

Portabella Dock, London W10: construction of 4-storey office and car parking.

GLC Fire Station, Queens Road, Wimbledon: demolition.

Other notifications:

Warehouse, St Peters, Ipswich: demolition.
High Level Bridge, Gateshead (also Newcastle): further renewal of decking and drainage.
Freeman's Place, Durham: demolition of former carpet factory for redevelopment.
Legrams Mills, Bradford: part-demolition, nearly all non-listed additions.
Old Colwyn Bridge, N Wales: retrospective application for replacement of plates and parapet.
Old Brewery, Ovington, Tyne: part-demolition for housing.
Churston Mill, Brixham: alterations to 1780 mill.
Warehouse, Poole Quay: insertion of 3 doors in enlarged window openings.
Little Sutton Railway Station, Wirral: refurbishment for office use.
Princes Dock, Hull: removal of footbridge across entrance lock.
Dobsons Mill House, Sutton-in-Ashfield: alterations to guesthouse.
Woodvale Mill, Brighouse: demolition of fire-damaged section.

Historic Pumps Return to Pumphouse. The West Midlands County Council in conjunction with Sandwell District Council and British Waterways Board has carried out extensive improvements over the last few years at Galton Valley, Smethwick, creating a Canal Heritage Area.

Major refurbishment work on Smethwick New Pumping Station Brasshouse Lane, Smethwick has been carried out as part of the overall programme of environmental improvements.

Now the County Council has located a pair of locally built Tangye steam engines and pumps in a derelict dock in North Tyneside. Although larger than the original pumps, the equipment is of a similar design and construction. The County Council with Sandwell District Council have installed one of these pumps in Smethwick New Pumping Station and the other is to be displayed at Birmingham Museum of Science and Industry.

The engines are in urgent need of restoration, most of which is to be undertaken by Warley Technical College by a Manpower Services Commission Team under the supervision of the Principal Dr Longdon and Mr Davies, the Head of Mechanical Engineering.

In carrying out this unique operation, the County Council has not only saved these historic artefacts, but has added a vital element to the Galton Valley visitor centre.

New Life for Old Buildings. This is the title given by the Welsh Development Agency to its programme of encouraging the creation of new businesses on a small scale in redundant buildings. The Association has made enquiries from the Agency as to the number of industrial buildings which have been converted.

AIA Swapshop

A Post Windmill on Offer. Bolsover District Council are offering the frame of a post windmill free of charge to anyone who is prepared to re-erect and restore it.

The post windmill, which was first recorded in 1794 but is believed to date back to 1699, is a grade II building on the list of Buildings of Architectural or Historic Interest. It formerly stood at South Normanton, Derbyshire, but was dismantled by the Council in 1980 as it was becoming a danger to nearby properties. A drawing of the frame was made and the timbers numbered to enable re-erection.

The remains consist of the oak frame of the mill, most of which is intact, although a number of the timbers have deteriorated and would need to be replaced. When erected the top of the frame (the buck) reaches to 30 ft in height, and the legs have a spread in excess of 40 ft.

The District Council would like to see the windmill re-erected and restored, although the costs of renovation are likely to be high (at least £30,000).

If no one can be found to re-erect the windmill then the ancient timbers will be made available for use in the repair of other important buildings of a similar age.

For further details contact Graham Clarke, Deputy Planning Officer, Bolsover District Council, telephone Chesterfield 823861, extension 263.

Twyford Waterworks Trust are trying to obtain a condenser for a Hathorn Davey triple Expansion Engine. They would like a surface condensor with brass tubes arranged horizontally and free standing on its own supports, or capable of having supports fitted, to stand on a level floor.

The estimate of steam rate of 300 lb/hour and the cooling water approximately 50 gal/min. The condenser should be capable of these rates at least. A rough estimate of physical size would be — length between tube plates 4 ft to 6 ft, Shell diameter 2 ft to 3 ft.

The tubes assumed to be brass of about ¾in outside diameter with normal spacing.

Please contact Mrs Pam Moore,
51 Porteous Crescent, Chandlers Ford, Hampshire.

Items for sale by the Cromford Canal Society Ltd, Old Wharf, Mill Lane, Cromford, Matlock DE4 3RQ.

1. Locomotive type boiler built by Reeston & Hornsby in 1945. 150 psi and weighs 13½ tons. There are no firebars as it was oil-fired.
2. A typical Victorian gap bed lathe by Lee H Hunt with flat belt drive. Max length of work about 5 feet, overall length about 9 feet. Looks good but not very accurate.
3. Widhowson cast iron saw bench for flat belt drive.

The Ironbridge Lecture. A new annual lecture series is being inaugurated on Wednesday 14th May to mark the collaboration between the University of Birmingham and the Ironbridge Gorge Museum Trust. The first will be given by Professor Berrick Saul of the University of York in conjunction with Industry Year 1986 and will deal with an examination of the relevance of industrial history. There will be

no charge for admission, and details can be obtained from Dr Michael Stratton at Ironbridge.

Errata. In AIA Council News – September 1985 published with AIA ***Bulletin*** 13/1 there was an account by Paul Stephens of the moves being carried out to bring about closer relationships between the AIA and the Institute of Industrial Archaeology. Unfortunately he erroneously stated that the Director of the Institute is Dr Michael Stratton. We have been asked to correct this and are happy to record that affairs of the Institute of Industrial Archaeology are directed for IGMT by Stuart Smith and for the University of Birmingham, by Professor John Harris.

Industrial Heritage – Scotland. A project under this title has been established with joint funding from the Scottish Museums Council and Scottish Development Agency to identify and list existing industrial collections in Scotland, analyse gaps in collections, avoid duplication in new collections, publicise little known collections, encourage the care of particularly valuable collections, and stimulate research into existing collections. It is a two year project, and the Project Officer is Carol Whittaker, an AIA member. She can be contacted as the Project's Headquarters in Edinburgh – The Scottish Museums Council, County House, 20/22 Torphichen Street, Edinburgh EH3 8JB (telephone 031- 229 - 7465). The aim of the two year project will be to publish the results of the report in catalogue form, and also to hold the information on a computer database.

Pont Gelli-goch Causeway (SN 7286 9961). Machynlleth and District Civic Society are currently excavating a section of the 18c Machynlleth and Aberystwyth and have sent this report.

The site is a causeway on a section of the road from Welshpool to the River Llyfnant (the boundary between the old counties of Montgomery and Cardigan), the widening and repairing of which was authorised in the Act of Parliament of 1769 dealing with roads in Montgomery, Merioneth and Salop. A diversion of this section (to the line of the present A487 before the recent changes) was authorised in an Act of Parliament of 1834; it was therefore in use as a turnpike approximately between these dates, and it is now totally disused. The causeway is a continuation of the terraceway commencing at SH 7361 0019 identified by Mr J Rigg's fieldwork as a possibly Roman road ('Roman Britain 1983', **Britannia** XV, 1984, 267). A section through the causeway south of Pont Gelligoch has shown a sequence of road repairs and improvements.

Phase I. Layers 14 and 15. An earth core dug into the clay natural and overlaid by a gravel surface much iron stained. The earth contained a good deal of bracket possibly used as a binder. A radiocarbon determination is forthcoming.

Phase II, Layer 13. Probably that described by John Ogilby in his **Britannia** of 1675 ('St David's to Holywell', Plate 2). Here the road was **c** 9.5m wide with rubble metalling on a shale core. Road surface finds included an iron nail with large square head, an iron split pin and several horseshoe nails.

Phase III, Layers 9 and 7. Road level raised by **c** 0.6m by means of a gritty blue clay overlaid by one of sandy clay containing rubble, gravel, water rolled pebbles and pottery. The pottery is of 18th century date, is generally

AIA Diary

Birmingham Railway Museum in Steam
Sundays 20 and 27 April 1986

The BRM (670 Warwick Road, Tyseley, Birmingham 11) has steam days with free train rides, shunting demonstrations, workshop and Chuffs restaurant from 10 am to 5 pm.

Castlefield Heritage Park
25-27 April 1986

A weekend introduction to the recently established Heritage Park in Manchester. Lectures, guided walks and a barge trip on the Bridgewater canal. Cost Friday evening through to Sunday afternoon £49 residential. Contact Dept of Extra Mural Studies, University of Manchester M13 9PL, telephone 061-273 3333, ext 3079.

Mines of the Peak District
25-27 April 1986

One of the popular Losehill Hall Peak National Park Centre courses with lectures on mining geology, visits to Goodluck and Magpie Mines and all meals, transport and full residential facilities. Cost £52 and bookings to Peter Townsend, Losehill Hall, Castleton, Derbyshire S30 2WB. Telephone 0433-20373.

Canals of the Midlands
9-11 May and 11-13 July 1986

Weekends in the grand manner based on the Moorside Hotel, Higher Disley near Stockport (Friday evening til Sunday tea-time) and led by BBC Tv industrial historian, Anthony Burton. Features include a horse drawn canal-boat trip along the Caldon Canal and 'legging' through Froghall tunnel. Visits to the National Waterways Museum at Ellesmere Port, the Canal Museum at Llangollen and Pontcysyllte aqueduct. Optional extras include a video film of the weekend. Cost £110.75 and bookings to Piers Plowman Tours, 23 Halfkey Road, Malvern, Worcestershire WR14 1UL. Telephone 0886-32487.

Bridges of the Borderland
9-11 May 1986

A weekend devoted to the bridges of the Shropshire border which vary from medieval stone to modern reinforced and prestressed concrete. Lectures and visits cover the engineering history and development. Based at the Preston Montford Field Centre near Shrewsbury. Details from the Warden. Telephone 0743-850380.

EMIAC 31
10 May 1986

Dealing with coal, cotton, iron and stone, this one day conference will be held at the West Notts College, Mansfield. Cost £6.00 and information from Ron Hodges, 44 Wadham Road, Woodthorpe, Nottingham NG3 4JB.

The Cradle of Steam
16-18 May, 25-27 July and 19-21 September 1986

Further Piers Plowman weekends based on the Kings Head Hotel, Darlington and visiting Gromont and Whitby (by steam train) Saltburn, Yarm and the Darlington Museum and Darlington Railway Preservation Society site. Video film available, and cost for weekend £97. Booking as above.

Real Ales in the Black-Country
23-25 May 1986

This Black-Country Heritage weekend visits three local breweries, with the opportunity to meet the brewers and visit such renowned pubs as the ***Crooked House,*** the ***Bull and Bladder*** and the ***Swan*** in Netherton. Accommodation is at the ***Station Hotel,*** Dudley, details below, and the fully inclusive price £59.50. This event will coincide with the Dudley Beer Festival and will be repeated (without the beer festival) on 21-23 November 1986.

Canals Around the Peak District
26-30 May 1986 (short course)
26 May - 1 June 1986 (longer course)

Based on Losehill Hall (details above) these courses deal in detail with the Bridgewater, Trent and Mersey, Peak Forest canals, and (longer course only) Macclesfield canal with lectures and waterborne field trips. Costs £95 for five days or £129 for seven days. Both fully inclusive.

Geology, Transport and Industry in East Cumbria
27 - 31 May 1986

A short (Tuesday to Friday) residential course at the Haweswater Hotel and taking in visits to Kendal, Askam, Lowther, Appleby, Keswick, Threkeld, Haweswater Dam and Head, Mardale etc etc. Course fee £12.00 (treated also as a non-returnable deposit) and accommodation; bed, breakfast, packed lunch and dinner each day, including VAT, £69. A booking form is now available from Derek Brumhead, 3 Falcon Close, New Mills, via Stockport, SK12 4JQ.

Man and Water — The Industrial Heritage
29 May - 1 June 1986

A four-day conference based at the Palace Hotel, Zandvoort, near Amsterdam, Holland and discussing the pioneering land reclamation schemes in the area of the Zuiderzee. There will also be discussions on canals and pumping stations in Britain, industrial uses of water in West Germany and lift locks and canals in Belgium. Enquiries to Elisabeth Spits, Huis de Pinto, Sint Antoniesbreestraat 69, 1011 HB Amsterdam, Netherlands. Telephone 010-31 (international code) 20-27 77 06. The total cost will be in the region of 470 Dfl.

Black-Country Industrial Heritage
30 May - 1 June 1986

A Heritage weekend organised by the Leisure Services of Dudley Metropolitan Borough, 5 Ednam Road, Dudley, West Midlands, telephone 0384-55433 (ext 5511). It deals with coal, limestone, clay, canals and the small industrial communities which grew up during the industrial revolution. Travel will be by a restored Midland Red single-decker bus, there will be special demonstrations including chain-making, and accommodation with full English breakfast and evening meals and lunches will be at the Station Hotel, Dudley. Cost exclusive of everything except single room supplement, £59.50 Friday evening until Sunday lunch. Bookings to the Station Hotel, Castle Hill, Dudley DY1 4RA, telephone 0384-53418.

Recording the Industrial Past
30 May - 2 June 1986

Essential facets of the all important recording aspect of IA, using camera, tape measure and sketchbook in glorious scenery (the course is based at the Drapers' Field Centre, Rhyd-y-coed, Betws-y-coed, North Wales). Details from the Warden, telephone 069-02-494.

The Industrial History of Cumbria
31 May 1986

A one-day conference to be held in Keswick and chaired by Dr John Marshall of Lancaster University Speakers will include Stafford Linsley, Jeff Clegg and Bill Thompson. After lunch there will be field trips led by Michael Davies-Shiel and John Crompton. Cost, to include coffee, luncheon, tea car-parking and lectures etc is £7.00 and should be sent with an application to attend to Chris Irwin, The Book House, Ravenstonedale, Kirkby Stephen, Cumbria CA17 4NQ before 30 April.

Hampshire Mills Group
7-8 June 1986

Saturday 7th June is lecture day with talks on mill and milling whilst Sunday will be crammed with five separate mill visits. Cost (one day) £5.00 or (two days) £8.00. Details from Mrs Pam Moore, 51 Porteous Crescent, Chandlers Ford, Hampshire.

Vale of Neath Industrial Heritage weekends
27-29 June and 4-6 July 1986

Organised by the National Trust and the Vale of Neath Tourist Association, these two weekends will visit the Aberdulais Falls, Cefn Coed, the Dinas silica mines, the gunpowder works. Neath Valley ironworks, Neath and Tennant canals, Briton Ferry docks and the Vale of Neath railway. Accommodation includes Friday and Saturday nights bed and breakfast, lunches, entrance fees, transport, lectures and tour notes. The total cost is £39.50 per person and bookings and/or enquiries made to The Tourist Information Centre,

abraded and probably originates from the same source as the water rolled material. The road surface is rutted and worn.

Phase IV, Layers 5 and 4. Phase III surface levelled with gritty blue clay and resurfaced with a brown sandy clay with shale. Causeway now dry stone rivetted. Road surface deeply rutted.

Phase V, Layer 2. Road resurfaced with a macadam of blue clay and small angular metalling to an overall thickness of 0.25m. Little sign of any surface wear.

Bryn Siriol — Rhiwlas Hall Alignment (SN 7270 9946). Section III. The road here is cut through outcropping rocks and displays three distinct phases of use.

Phase I. A narrow rock surface road **c** 3m wide with rock cut drain.

Phase II. Road widened to 6.7 m and a high level rock cut path and gutter added — rock surface metalled — Layer 6. Deeply rutted layer 5 repaired with layers 4 and 3. Final surface, layer 2, a mix of a sandy brown clay and rubble more reminiscent of a farm track.

Phase III. With the creation of the Machynlleth Derwenlas diversion proposed in the Act of 1834, the old road passed out of use as a turnpike but appears to have continued to give access to Gelli-goch, Hafod-y-Garreg and Rhiwlas hall. An eight pier cartshed was built across its line near Rhiwlas Hall, 14 metres SW of Section III and it seems likely that this was when the high level path and gutter was metalled creating vehicular access to Rhiwlas Hall.

James Barfoot
Machynlleth and District Civic Society

John Fletcher, Vicar of Madeley during the Industrial Revolution. This is the title of a guide published by the Ironbridge Gorge Museum Trust. It gives details of the attitudes and work of John Fletcher, who was Vicar of Madeley between 1760 and 1785, a period when the Shropshire coalfield experienced the full impact of the industrial revolution. The iron bridge was constructed between 1777 and 1781, and the Coalbrookdale ironworks were attracting worldwide attention through the period. He was one of the evangelical revival's most powerful thinkers, and in his ministry at Madeley he sought to confront the most urgent spiritual and social problems of his time, not those of straightforward poverty, but those which arose from industrialisation, a force which had the power to make society wealthier, but also to dehumanise its members. The guide gives details of his work, but through it all comes Fletcher's awareness of the conditions which his parishioners lived and worked. Of the coal miners he wrote:

'They take their leave of the light of the sun, and suspended by a rope are let down many fathoms perpendicularly towards the centre of the globe; they traverse the rocks through which they have dug their horizontal ways. The murderers cell is a palace in comparison of the black spot to which they repair; the vagrant's posture in the stocks is preferable to that in which they labour'.

And of the ironworkers he commented ***'A sultry air and clouds of smoke and dust are the elements in which they labour . . . Of all men these have the best reason to remember the just sentence of an offended God, 'In the sweat of thy face, thou shalt eat thy bread all the days of thy life'.'***

Aberdulais, Neath telephone 0639-53531 or the National Trust, Aberdulais Falls, Neath telephone 0639-56674.

Glassmaking in the Black-Country
27-29 June 1986

The third of the Black-Country Heritage weekends based on the Station Hotel (booking as before) and visiting the Stourbridge Crystal glass factories with the opportunity to take part in glassblowing, sandblasting, wheel and stipple engraving under expert guidance. Exclusive cost including glass blanks etc £62.50.

Looking at Canals
5-12 July 1986

Led by Lewis Braithwaite, this course will meander around the Birmingham Canal Navigations and waterways in Warwickshire and Worcestershire. Sometimes on foot, sometimes by boat and occasionally by coach, returning for food and rest to Avoncroft College, Stoke Heath, near Bromsgrove. Full details from Avoncroft College, Stoke Heath, Bromsgrove telephone 0527-31331.

International Seminar on Wrought Iron
14-17 July 1986

To be held at Ironbridge and backed by ICCIH (International Committee for the Conservation of the Industrial Heritage) and the AIA, this meeting is being organised by Dr Barrie Trinder and will include a demonstration of puddling and shingling at the Blists Hill site. Full details from Barrie Trinder at the Institute for Industrial Archaeology, Ironbridge Gorge Museum, Ironbridge, Telford, Shropshire TF8 7AW.

Industry and the Camera. The aim of this book — published by HMSO — is to trace the development of British Industry from Prehistoric flint mines to modern power plants — taking in quarries, collieries, glassworks, maltings, bell foundries, blastfurnaces, mills, printing works, gasworks, waterworks and bridges along the way. More than 60 industrial monuments of all kinds are illustrated, and are accompanied by detailed captions. In paperback this volume of 96 pages is available at £5.95.

Workers Houses in West Yorkshire 1750-1920. Another book by HMSO, this time of 150 pages, and costing £10.00 in paperback. The investigations of Lucy Caffyn cover two centuries of great change and development in working patterns and social conditions. The buildings are recorded with detailed plans and photographs — and were purpose built for industries ranging from farming and mining to transport.

Living History; Reconstructing the Past with Children. The Education Service of English Heritage has produced this practical handbook for teachers, written by John Fairclough and Patrick Redsall. It aims to illustrate how to put children into a living reconstruction of the past from which they can learn a totally different way of life and at the same time acquire a greater interest in the historical heritage. £1.50 including p&p from English Heritage, ES 06/85, PO Box 43, Ruislip, Middlesex HA4 0XW.

Sussex Industrial Archaeology: A Field Guide, edited by B Austen, D Cox and J Upton, ***Phillimore, £3.95.*** This is a most attractive publication, which is recommended to any IA enthusiast living or holidaying in this part of the country. It was put together from information supplied by the Sussex Industrial Archaeology Society, and is well illustrated, well designed and complete with map and select bibliography. It includes only the 'most significant' industrial monuments, so will be free from criticisms regarding things 'left out'. It is most refreshing to see a book on industrial archaeology return to a (very) reasonable price after some of the excesses of the past few years, and hopefully more volumes will follow if sales are good.

Industrial Archaeology Trail of Dawlish published by Exeter Industrial Archaeology Group at 15p and written by Ann Brightmore-Armour is a model of the sort of guide that every town should have. With a clear map and some simple drawings it gives a general introduction to the town, and a circular walk covering such places of interest (all with six figure grid references) as the Pumphouse surviving for the ill-fated Brunel South Devon Atmospheric Railway Scheme of the 1840s,

Woughton Marina Competition Won Jointly by British Waterways Board and the Erostin Group. The winning of a major design and construction competition by Waterside Development (Woughton) Limited for the construction of a marina development at Milton Keynes alongside the Grand Union Canal, marks the first leisure related joint venture to be undertaken by British Waterways Board in partnership with the private sector.

The Company was formed jointly by the Board and the Erostin Group of Companies to enter the competition and involves a £6 million mixed commercial development which has been designed to blend into the canalside environment.

The winning scheme, which was negotiated with Milton Keynes Development Corporation, is centred on a marina planned to provide moorings for 100 private boats and for the operation of a 25 boat holiday hire fleet. This aspect of the development will include car parking facilities, slipway, workshop, offices and marine chandlery. In addition, the marina will provide a home base for two boats specially equipped for use by physically handicapped people.

The development round the marina of low-rise buildings is designed to take advantage of the panorama offered by the water-space. 33 private homes are to be built together with a 40 bed hotel and a public house & restaurant, each with parking facilities. A prestigious office block is also included, which will become the headquarters of the Erostin Group of Companies.

The architectural and landscaping design of the full 7 acre complex was prepared in close co-operation with the Board's specialist staff in order to provide a cohesive development, which is both sensitive to the canal environment and practical in construction and use.

When the development is complete the marina will be owned by the Board, who will seek a private sector partner for operation of the hire fleet, mooring facilities and associated activities.

In welcoming the award of the development to the joint company, the Chairman of British Waterways Board, Sir Leslie Young CBE DL, said 'I am pleased that the Board's first joint venture with the private sector in the field of leisure related development has won this major competition by the submission of an imaginative and attractive design. This commercial development will provide marina space much needed in Milton Keynes and lead to employment and the provision of canal-based recreational opportunities in the area. It clearly demonstrates the Board's resolve to pursue the objectives agreed with government to the best advantage. I am confident that the Woughton Marina development will be the first of a number of similar leisure related joint venture schemes in other parts of the inland waterway network'.

The Erostin Group Chairman and Chief Executive, Mr John Upson said 'This wonderful contract is the result of two years' hard work by my whole team and is tremendously satisfying. In conjunction with the British Waterways Board, we have been engaged since day one in the planning of the scheme and, having planned it, have now successfully won the competition for the development. It is a marvellous way to start 1986, and is a pointer to the continued rapid expansion of our Groups' activity.'

AIA Library Facilities. At a recent Council meeting, it was agreed that the library facilities at the Ironbridge Gorge Museum be made available to all AIA members, and that John Powell, AIA Council member and librarian at Ironbridge, be invited to become Honorary Librarian to the AIA, a request to which he subsequently agreed. This represents a significant step forward for the AIA, since it will now be able to advertise to members and potential members the sort of reference and back-up information services enjoyed by most older-established organisations of a similar nature.

The Library at Ironbridge contains a fine collection of books and journals relevant to all the subjects which one finds represented at the Museum itself. Hence there is very strong coverage of the history of the iron and steel industry, civil engineering, coalmining, brick and tile manufacture, and the numerous crafts and

1 Interior of the Library on the top floor of the Long Warehouse, Coalbrookdale. The warehouse was originally used for storage of castings and erection of the celebrated Coalbrookdale kitchen ranges. The cast iron study benches and bookshelf ends were custom-made from warehouse shelving from Oxford.

industries to be found at the Blists Hill site. In addition, the extensive collection built up by the late Sir Arthur Elton, which is now deposited at the Museum, extends coverage to the whole of the history of technology, being particularly strong in such diverse fields as early railway history, the Great Exhibition of 1851 and industrial biographies. As one of the true pioneers of industrial archaeology, Sir Arthur would have been delighted to know that the collection built up so painstakingly over a lifetime was being made available to a wider audience of interested people. There is also a special collection devoted to the life and works of Thomas Telford deposited at Ironbridge, since the Museum falls just within the boundary of the new town named after this great engineer. This contains numerous unique items, such as the draft manuscript (2 versions) of Telford's own autobiography, as indeed does the Elton Collection and the main part of the Library – the world's finest collection of Coalbrookdale Company catalogues for example. An important and growing part of the Library's holdings consists of original research work carried out by students at the adjacent Institute of Industrial Archaeology, and some significant archive material from several Shropshire firms – notably the Lilleshall Company of Oakengates – is also held.

It is hoped that the link between the AIA and the Ironbridge Library might become a two-way one, and that any member of the Association wishing to dispose of IA material to a sympathetic home might consider contacting Ironbridge. At present, an effort is being made – slowly but surely – to build up complete holdings of the journals of provincial industrial archaeology societies. Some early issues, particularly those of now-defunct societies, are hard to come by, so please do not throw away any such material without first ensuring that copies are held at Ironbridge.

The Library is located in the Long Warehouse, a refurbished 1880s Coalbrookdale Company warehouse adjacent to the Museum of Iron in Coalbrookdale. It is open Monday to Friday, but since seating is limited, potential users are requested to make an appointment a few days prior to any intended visit. This can be done by contacting the Librarian, John Powell, c/o Ironbridge Gorge Museum Trust, Ironbridge, Telford, Shropshire TF8 7AW. Telephone number is Ironbridge (095245) 2751, ext 27. For those living some distance away, written enquiries are also dealt with, and photocopying facilities are available.

More Spinning at Styal Mill. A central chapter in the history of the cotton textile industry was recently unveiled at the award winning textile museum housed in the National Trust's Quarry Bank Mill, at Styal, Cheshire.

A pair of 90 foot spinning mules, each with 700 spindles, is now on display as a full scale working exhibit in its authentic mill setting, capturing the splendours and miseries of cotton mill life.

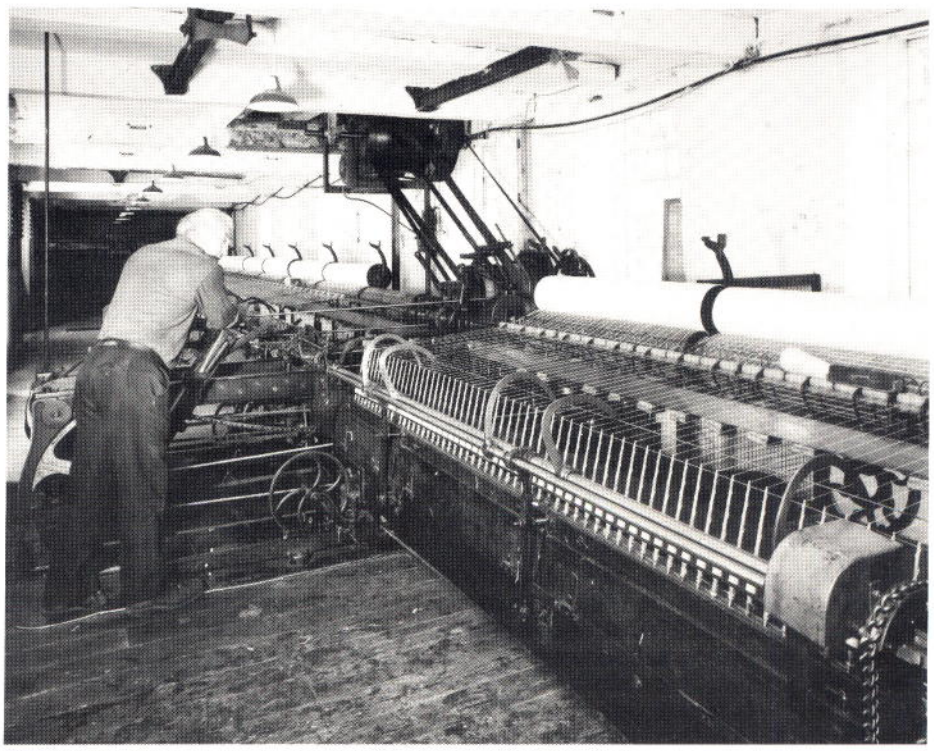
The mule is the one machine that epitomised the revolution from cottage production to factory production in the North West's cotton industry. The scale and the mechanical sophistication which made Britain's industry the world leader throughout the 19th Century is illustrated in this full scale working room, which also illustrates the working conditions typical of the time where the spinner and his 'piecers' worked to the incessant rhythm of the machine.

A spinner at Styal is recorded as having walked on average 9½ miles a day following the carriage as it moved to and fro. Another mill document shows how a young girl working as a piecer was fatally injured when sweeping up underneath the working machinery.

Mules, invented by Samuel Crompton in 1779, were so called because they were a cross between a spinning jenny and an Arkwright water frame. This pair, made in 1920 by Taylor Lang, were donated by Vantona plc, and came from Ilex Mill, Rawtenstall, where they spun waste cotton. Mules have become almost entirely obsolete in the industry.

Yarn spun on the Quarry Bank Mill mule is woven in the Museum's weaving shed, another working display rich in typical cotton mill atmosphere.

To augment these two working rooms, the Museum has also recently opened a permanent exhibit entitled 'Mill Workers World'. Here, the living conditions and working lives of the mill workers at rural factory colonies like Styal are compared with the conditions for working in



Picture by Ilford.

Jack Arnold operates a Quarry Bank Mill mule.

the growing industrial towns.

The Mill is open, Tuesday to Sunday from 11am to 4pm until March (Easter Bank Holidays included).

Christmas holiday period: Closed Christmas Eve, Christmas Day and Boxing Day. Open daily from 27 December to 5 January inclusive.

For further information: contact David Sekers or Anne Roscoe at Quarry Bank Mill, Styal, Cheshire SK9 4LA. Telephone (0625) 427468.

Information please. In a recent edition of 'Swap-shop' a set of mill machinery was offered to anyone giving it a good home. The machinery came from Wimpole Mill, just south-west of Cambridge, and was supplied, according to an inscription on an iron plate on the hurst frame, by **T Course & Son, Millwrights, Biggleswade,** Does anyone have any further knowledge of the firm which would, for example, help to date the assembly? It has, incidentally, been acquired for re-use not far away from Wimpole Hall.
Owen Ward, 77 Hansford Square, Combe Down, Bath BA2 7AY.

Canal Bridge Withstands 200 Ton Load. Destructive testing carried out recently by the Transport and Road Research Laboratory on an ordinary bridge over an 18th century English canal has revealed that such structures may be very much stronger than we imagine. The TRRL seeks out masonry arch bridges on which to experiment with controlled collapses and improve our understanding of how such structures behave when loaded to the ultimate. A bridge suitable for such tests was identified at Preston-upon-the-Wealdmoors at a crossing over the abandoned Shrewsbury Canal. On the basis of calculations, axle loadings had been restricted to 27 tons per axle, or 23 tons for twin axles, on heavy goods vehicles crossing the bridge over the dried-up canal bed. Like many canal bridges of the period, this one had brick springings and cut stone voussoirs, with a span a little over 15 feet. An hydraulic test rig was assembled on the road deck so that the loading on the arch could be increased in 20 ton increments. One side of the parapet was wallpapered and the other whitewashed so that developing cracks could be observed more easily. The TRRL observers were surprised to note that a load no less than 215 tons was required to induce ultimate failure of the arch. The humble navvies who built this canal between 1793 and 1796 to carry coal from Donnington to Shrewsbury would have been proud to know of this structure's performance. Such findings may lead to increases in the permissible axle loadings on 18th and 19th century masonry arches, although results obtained with a staionary test rig on a comparatively little-used bridge should not be assumed to replicate the regular poundings and vibration from heavy vehicles which historic structures elsewhere on our road system have to sustain.

This controlled collapse was the third in a series of ten planned by the TRRL. The remaining tests will be carried out over the next five years, and about half of the bridges selected will be in Scotland.
***(With acknowledgement of* New Civil Engineer).**

IA in the USA. The Society for Industrial Archaeology (USA) probably produces one of the most news-worthy bulletins for any national society, edited by Robert M Frame III from Room 420, National Museum of American History, Smithsonian Institution, Washington, DC 20560. Volume 14, No 2 includes details of the destruction of the soap factory in London Ontario, and new ideas for raising funds for IA There are details of local chapters (which we would call local societies), notes and queries, publications of interest, details of current research and a mass of detailed and fascinating information. Annual membership is **$**20 and budding editors interested in brevity would do well to subscribe.

Feel like a good dig? Geological site clearance, an important part of the work of the Geology Branch of the Nature Conservancy Council, is intended to maintain and improve Britain's stock of geological exposures. It usually involves the manual or mechanical excavation of geological sections which have become buried beneath vegetation, talus and downwashed soil. To date over 200 individual exposures have been cleared in this way, many of them in disused quarries and railway cuttings.

Geological sections are sometimes cleared to facilitate research but more usually to provide outcrops for educational fieldwork. Traditionally, fieldwork has been concentrated upon groups of well-known 'classical' localities, the majority of which are Sites of Special Scientific Interest. Increasing educational pressures over the last twenty years have led to the deterioration of many of these localities and so the Nature Conservancy Council decided to clear alternative exposures showing, where possible, the same or similar interests to sensitive or over-used sites of Special Scientific Interest.

Work of this kind was first carried out in Mortimer Forest near Ludlow in 1976. Mortimer Forest is of international importance as the type area for the Silurian Ludlow Series and receives heavy educational uses. Thirteen small quarries along Wigmore Road were cleared to provide the alternative localities for fieldwork and form the basis of an educational trail across the whole of the Ludlow Series.

A similar but more widespread project was completed in 1984 in the East Mendips. Here 40 localities, some of them comprising groups of exposures, have been described in a field guide covering all aspects of Mendip geology. Twenty new exposures were cleared specifically for inclusion in the guide.

The Nature Conservancy Council is currently promoting a scheme to encourage groups of volunteers from schools, colleges and universities, geological societies etc. to take an active role in many aspects of practical geological conservation work. Three main levels of involvement are suggested and outlined below. It must be emphasised that the landowner's consent should be obtained before any clearance work, at whatever level, is carried out.

1 **Maintenance of Geological Exposures Cleared by the Nature Conservancy Council.** In a recent survey into the condition of exposures cleared between 1976 and 1981, it was found that many had become partially obscured by vegetation growth and accumulations of talus and downwashed soil. The majority of exposures affected in this way could be readily and adequately restored using simple garden tools. The help of voluntary groups is sought here, as the Nature Conservancy Council do not have sufficient staff or resources to undertake this type of work. We hope that groups will take responsibility for selected sites in their own areas — making regular inspections, carrying out routine maintenance tasks and submitting an annual status report to the Nature Conservancy Council. A list of suitable sites is available from the Geology Branch at the address given below.

2 **Encouragement of Field Parties to Undertake Small Scale Maintenance Work when on Site.** The problems of maintaining geological exposures particularly cleared exposures, could largely be resolved if each field party, when visiting a locality, could clear some loose debris and scrub vegetation (such as nettles and brambles) from the rock face. If all members of a party carried out this work each 'geological gardening' exercise need only take a few minutes and would help to ensure the long-term survival of the locality.

3 **Improvement Through Hand Clearance of New Alternative Sites for Educational Use.** There is a constant demand for new geological teaching sites in the British Isles. Again, the Nature Conservancy Council do not have the resources to meet this demand in full. With a view to easing this problem we suggest that groups of volunteers should carry out hand clearance work to provide new alternative sites for educational use. This would enable the Nature Conservancy Council to allocate more time and funds to larger scale machine clearance projects. Groups will be encouraged to produce a detailed site description for each exposure cleared. Where a series of exposures have been cleared in a limited area, it may be possible to combine these descriptions to form a geological guide which would be of value to visiting parties.

For further information, advice and offers of help, please contact: The Geology Branch, Nature Conservancy Council, Foxhold House, Thornford Road, Crookham Common, Newbury, Berkshire RG15 8EL.

The Nature Conservancy Council is the government body which promotes nature conservation in Great Britain. It gives advice on nature conservation to government and all those whose activities affect our wildlife and wild places. It also selects, establishes and manages a series of National Nature Reserves. This work is based on detailed ecological research and survey.

This is one of a range of publications produced by the NCC. A catalogue listing current titles is available from Dept GC, Nature Conservancy Council, Attingham Park, Shrewsbury

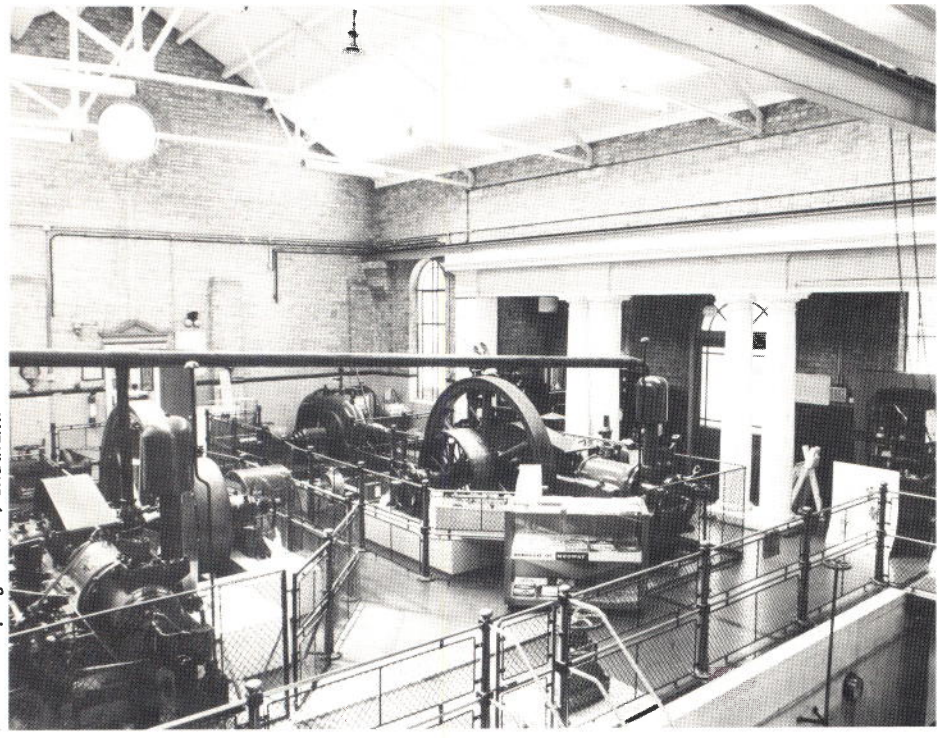
Subterranea Britannica go Sub-Aqueous! Chaldon - Merstham Quarries Survey Now Being Continued Under Water! Subterranea Britannica's survey of the subterranean stone quarries at Chaldon and Merstham (Surrey) is nearing completion. With over 16000 metres of galleries already surveyed at 1:500, perhaps not surprisingly, there is now little left to do except some very tight and uncomfortable crawls over backfill or through particularly wet and muddy areas, and under water.

Attention is currently focussed on Jolliffe & Banks' quarries at Merstham. The driving of a drainage adit, 1807-9, enabled quarrying below the normal water-table for some years, although within 10 years or so the adit had become blocked and the qurrries flooded again. Whereas the adit outfall has been located, it is not yet known exactly whereabouts in the quarries it terminated. Two (possibly formerly coextensive) areas of underground workings immediately to the east of the London-Brighton railway lines are currently being investigated, as they contain galleries now flooded to quarry ceiling level (the rock dips at up to 11 degrees). In both sets of workings

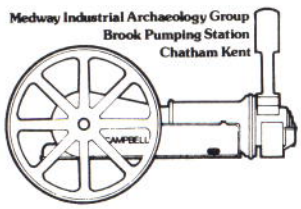
there is little open gallery as there have been numerous major roof-falls, and there has been much back-filling with rejected rock. Up-dip working was resorted to, presumably as a result of floodwater limiting access down-dip, but soon encountered poor stone as the cambered outcrop of the Upper Greensand was approached. Floorstone was removed (the only example of this known in the Surrey quarries), presumably for similar reasons.

Sub-aqua club diving during the past 10 years has indicated open passages under water down-dip, and these are now being systematically explored and surveyed by members of Unit 2 caving club. All four flooded galleries in the more westerly of the two workings have now been found to interconnect with a network of roomy galleries almost certainly worked by Jolliffe & Banks between 1807 and 1832; it is possible that a further flooded connection may be found with the single flooded section in the more easterly quarry working. Altogether, several hundred metres of gallery are being surveyed additional to the known accessible 'dry' tunnels. Interesting preliminary observations are that there is no evidence, to date, for subterranean plateways, although rope-grooves on pillar-corners very similar to those found in the Godstone Hill quarries are reported. One working face of impressive dimensions contains a part-removed slab of stone of impressive dimensions, being at least 1.5 metres x 0.5 metres (thickness not yet established).

Paul W Sowan



Brook Pumping Station, Chatham.



Medway Industrial Archaeology Group. The foundation of the group in 1982 lay principally in the need for an organisation to run and maintain the Brook Pumping Station in the centre of Chatham, which had recently become redundant. The Station opened in 1929 being built as part of the Rochester & Chatham main drainage scheme of 1923; apart from a variety of electric centrifugal pumps it houses two Campbell 56hp single cylinder horizontal oil engines. Closure occurred in 1980 and efforts were made by the inevitable small bunch of enthusiasts to retain the station intact and in working order. The City of Rochester upon Medway Council obtained the property from the Southern Water Authority and employed contractors to undertake the bulk of the renovation and redecoration which would enable the site to be opened to the public. The majority of the work on overhauling the Campbell engines and other mechanical equipment was conducted by MIAG members.

MIAG intend to continue development of the site as a working industrial museum, unfortunately for the present within the confines of the limited resources available, and to establish a collection of items relating to local and Kentish industries — especially where such items can no longer remain in their original environment. Acquisitions to date include a Columbia printing press of c1818 which has been restored to working order; an Ashworth-Parker vertical duplex steam engine c1914 from a Maidstone paper mill; and a Hayward-Tyler hot air engine of 1898 originally used to pump water at a brewery in Wateringbury, near Maidstone. The station is at present open on Tuesday evenings from 19.00 to 21.00 and on Saturdays 09.30 to 13.00, the engines being run on the hour. Openings at other times can be made by prior arrangement.

On the academic front MIAG organise a series of Winter lectures, dubbed the 'Brook Overcoat Lectures' — come along and you'll find out why, on the second Tuesday of each month from September to May with the exception of January. Evening and one day recording visits are also conducted whilst excavation of sites is undertaken where necessary. Members receive a bi-monthly newsletter and a Journal is in the pipeline. Recording and research activities are presently centred on the Medway Towns & Valley although urgently needed extra members would allow us to encompass the rest of the County. Sites are recorded on our own A5 record cards together with a key-word system for cross-indexing by computer. A guide to the museum and introduction to local industrial history is now available and we hope that a gazetteer of local sites together with monographs of important Kentish industries such as cement, brewing, paper, coal mining etc will be available later in the year.

The county of Kent has been badly neglected by IA activity to date, MIAG would like to feel that the Group's efforts will help to alleviate the matter. If you live in Kent or are interested in the wealth of industrial history in the County then please do not hesitate to contact either of the below mentioned or come down to the Brook.

Ian Biscoe,
11 Broomshaw Road,
Maidstone,
Kent ME16 9HS.

Tel: (0622) 674192

Mike Peevers,
269 London Road,
Rainham Mark,
Gillingham,
Kent.
Tel: (0634) 362847

AIA Society Spot

Local Societies' Spot. You may remember that a year ago the AIA was asked by the British Library to complete its forms concerning current research in the humanities. If you are doing any research, either as an individual or a society, and have not yet completed a form to record details of your work, you can obtain a form from me to fill in and return to the Library.

Here is another organisation to add to your Panel of Lecturers list. The Talyllyn Railway Preservation Society has members in most parts of the country who can give talks on the railway itself, the slate industry which it served, or the world's first railway preservation society. Talks are normally illustrated with slides and/or 16mm sound films; some of the films are available on video. Lecturers are prepared to stay overnight if accommodation is provided, and, though a fee is not normally expected, donations are encouraged. If you wish to book a speaker, contact Mr I P Evans, Secretary to the TRPS Marketing Committee, 23 Orchard Drive, Theydon Bois, Essex CM16 7DH.

If your own Lecturers' details are now out-of-date, send the new ones and we will either publish in this column or, if there are enough to warrant it overall, issue an updated list.

The Surrey Industrial History Group has sent details of places to visit in their area if other Societies are thinking of visiting Surrey, and they offer to host two half-day visits (Chilworth gunpowder site and roller corn mill; Brooklands) and five full-day visits (the Basingstoke, and Wey and Avon Canals; Godalming water turbine; Westcott stationary engine museum; Outwood windmill; Painshill Park). Contact the Secretaries, Mr and Mrs D Taylor, Orchard Cottage, Alfold Crossway, Alfold, Cranleigh, Surrey AV6 8JE. A booklet on the gunpowder mills is available: see ***Books Notified.*** section.

We don't normally provide free advertising for commercial firms, but material has been sent to me recently which is worth notifying to members, and on the basis of fair shares for all, I pass on the essential information; if you want more details of all the lists available, contact

the firms directly. Two are suppliers of antiquarian books: Chris Irwin, an AIA member, at The Book House, Grey Garth, Ravenstonedale, Kirkby Stephen, Cumbria CA17 4NG who has just issued Catalogue No 112, and Richard Byrom, a newcomer to our field, specialising in books on textiles and the textile industry, at 3 Hawkshaw Lane, Bury, Lancs BL8 4JZ. The third is a publisher, Alex den Ouden, whose current booklist can be obtained from De Archaeologische Pers, Zeelsterstraat 147, NL-5652 EE Eindhoven, Nederland.

In the normal ***Bulletin*** we cover conferences and other meetings, local publications and general news. But many societies are involved with practical work, and other perhaps are thinking about it, so here are some details culled from the material regularly sent to me by affiliated societies. I have not included here societies whose purpose is the restoration and maintenance of single types of movement or object, and whose work has been covered in the profiles in the Society Spot (such as the Crystal Palace, Thames Barge and Northern Mill Engines societies); rather I have noted smaller scale projects undertaken as a normal part of Society activities.

Sussex IAS has done restoration work at Pyntz Bridge, Coultershaw Water Pump, the Jack and Jill Mills at Clayton and Ifield Mill. Their Brick Study Group is surveying Berwick Brickworks.

Staffs IAS is undertaking a County Water Mill Survey, and restoring farm machinery at Shugborough Park Farm Museum.

Suffolk IAS is helping to prepare maps for the Suffolk Institute of Archaeology and History, illustrating these aspects of Suffolk's heritage.

Somerset IAS is involved with research on turnpike routes and trusts; clearing and conserving a bandage cutting machine, and limekiln excavations.

NWSIAH has a range of survey and recording work in the Liverpool docks area, and specific projects such as the restoration of a Bedford lorry.

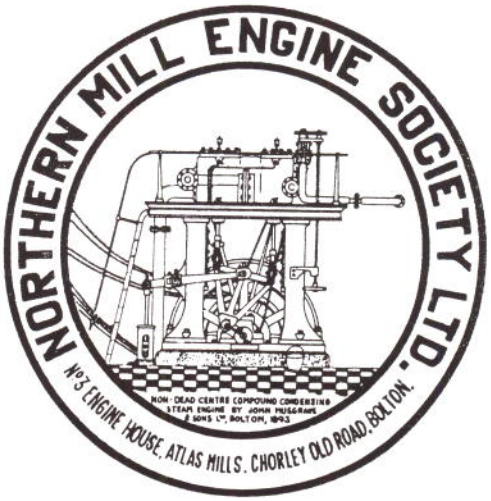
Leicestershire IHS also supports a range of work but in one aspect shows how a local society can influence public policy. Over 15 years ago the founder members recognised the value of the Moira Furnace site, and at different times the society undertook work there and campaigned for its preservation. Eventually, two years ago, the local council accepted the case for its retention and provided facilities for its proper excavation and recording; it now attracts visitors both from home and abroad. The moral of this tale, for other societies, is: don't give up if you know you have something of significance in your area!

The Northern Mill Engine Society. Background. The development of the stationary steam engine was of fundamental importance in the growth of the Industrial Revolution, particularly in the textile industry throughout the North of England. Many thousands of engines were built during the period 1800 to 1920 by a host of different manufacturers to provide the power to the mills and factories throughout the region.

By the early 1950s this had left the Lancashire and Yorkshire area with a unique heritage of steam engine technology, unrivalled anywhere else in the world. Many engines were still at work, some with as much as 70 years of continuous operation behind them, but the rapid decline in the textile industry began to put this at risk as the industry contracted and the engines and machinery were cut up for scrap.

This process continued unabated until by 1966 it has been estimated that the number of engines had been reduced from a total in excess of 6000 to less than 100. In an attempt to try and save at least some of these remaining engines from destruction, a small group of enthusiasts decided to form the **Northern Mill Engine Society.** This was to be an entirely volunteer organisation and the scale of the undertaking was daunting, especially since Industrial Archaeology was only in its infancy and the general attitude was strongly against preservation of any kind. Major museums had largely ignored industrial artifacts and the Society was one of the first organisations in the field to carry out practical rescue work.

The Early Years. It soon became apparent that in-situ preservation was not possible for most of the engines and our efforts in the early years concentrated on dismantling and transporting the parts into temporary storage until a suitable permanent site could be found for their eventual re-erection. There were of course many difficulties and at least one project had to be abandoned when it became clear that there was no hope of completing the removal within the timescale imposed by the owners.



It was during this period that the Society came to the notice of the BBC who were filming for the 1970 ***Chronicle*** Industrial Archaeology Award. Our activities clearly caught the imagination of the judges and, in competition with six other short-listed entries, the Society was eventually awarded the first prize.

The need for a permanent home was by now becoming critical and the Society was fortunate to be offered accommodation in a disused engine-house at the Atlas Mills in Bolton. This quickly became the Society's base and work began to convert the building into an exhibition-hall where the engines could be restored, rebuilt and run in steam again for the benefit of the public. Entirely through the volunteer efforts of our members and largely without the benefit of any external financial assistance, this work continued for nearly 12 years until at Easter 1983 the museum was officially opened by the Mayor of Bolton.

The Society became a Company limited by guarantee in 1974 and was granted full charitable status the following year.

Development of the Museum. The engine-house at Atlas Mills originally contained a very large vertical steam engine, but this had been removed before the Society moved in. The main floor area was sufficient to accommodate four of the engines collected from other mills and these have now been rebuilt and restored to run in steam again. A further three engines have been assembled but have not yet been connected to the steam supply.

In addition to the actual rebuilding of the engines, it is often necessary to manufacture new parts to replace those which are either missing or worn out. In order to support this work, a small workshop equipped with a range of basic machine tools has been set up and is now available to support our future activities.

A 100 ft public viewing balcony has been constructed around the walls of the engine-house, a completely new suspended floor laid over the whole area and power and lighting installed. All this has utilised second-hand or salvaged material.

The museum is now open to the public every Sunday for static viewing but most emphasis is placed on our Steaming Days which are held four or five times a year. Our policy is to display as many different types of engine as we can, working in steam wherever possible, and to provide one of the most comprehensive displays showing the development of the steam engine to be found anywhere in the country.

Education is also a primary objective and we are developing this aspect of our work in conjunction with local Education Authorities to arrange for visits from school parties and study groups. In addition to the engines themselves we also have a substantial collection of other archive material including: makers plates, models, books, photographs and steam engineering instruments.

Other Activities. In addition to the work at Bolton, the Society has also been actively involved in the preservation and restoration of a number of other engines in the North-West, especially the larger ones which remain in situ. We worked closely with Messrs Courtaulds at the Dee Mill at Shaw to run their 1500 hp engine in steam during regular Open Days and this became a popular attraction in the area. It is perhaps an indication of the growing importance of industrial heritage sites that the Department of the Environment chose to apply a Scheduling Order to prevent destruction of this engine when the mill was sold.

More recently, the Society was invited by Wigan Metropolitan Borough Council to advise on the renovation of the even larger 2500 hp engine at the Trencherfield Mill in Wigan. Members of the Society spent many hundreds of hours carrying out much of the restoration work and the engine was successfully recommissioned as part of the 'Wigan Pier' development scheme in April 1984 and is now to be run regularly.

Future Development. The work to date at Bolton is only regarded as the first phase of the museum and the Society has plans to develop another engine-house on the site, together with part of the adjacent mill building, into additional exhibition areas. The task of rescuing engines has continued and we now have 20 engines of various types in our collection, a large number unfortunately still in storage.

As explained above, the Society operates on an entirely volunteer basis without any full-time or paid staff and, with the exception of a grant for the re-roofing of the Exhibition Hall, we have funded all the work to date from our own resources (members subscriptions, donations,

fund-raising etc). The majority of our working members are experienced, practical engineers and we are generally able to provide the expertise and manpower to carry out most tasks, given the supply of suitable materials. It is however now recognised that if the second phase of development is to be undertaken within a reasonable timescale, some form of external financial assistance will be required to enable contractors to be used for certain parts of the project and to purchase appropriate materials when required.

Northern Mill Engine Society
The Engine House
Atlas No 3 Mill,
Chorley Old Road, Bolton.

New from GLIAS. GLIAS now operate a growing and active bookshop and details of their publications can be obtained from the Greater London Industrial Archaeology Society, c/o Tom Smith, 76 Lord Warwick St, Woolwich, London SE18 5QD. Two recent publications at 10p each are: ***IA Walks along the Regents Canal, No 6 covering Little Venice to Camden*** and ***No 7 covering Camden to Kings Cross.*** The August ***Newsletter*** of GLIAS also includes an exhaustive programme and details of visits including the possibility of an airship trip over Central London during the Summer of 1986. The ***Newsletter*** as always is full of exciting information and any AIA members in the London area are encouraged to join.

Norfolk Industrial Archaeology Society. ***Newsletter*** September 1985 of NIAS includes details of the Gunton Park Timber Mill Restoration Project and Letheringsett Water Mill restored. There is also an appeal for members to join the AIA which other affiliated societies could do well to copy. There are also details of a mystery object found near Fakenham which is possibly the shaft of a horse gin and reports of recent trips to Bath and Bristol and 12 years of AIA Conferences by David Alderton. Further details of the Society are obtainable from the Newsletter Editor, B Funnell, 215 Wroxham Road, Norwich.

Rochdale Canal Society. This Society is dedicated to re-opening the Rochdale Canal between Manchester and West Yorkshire. Their recent information sheet includes details of staggering progress being made throughout the whole length of the canal together with details of future events. Further details from Hon Secretary Brian E Holden, 24 Passmonds Crescent, Rochdale, Lancs OL11 5AW.

Historic Farm Buildings Group. This Association which has now produced its second Newsletter, is headed by Roy Brigden of the Museum of English Rural Life, University of Reading, PO Box 229, Whiteknights, Reading RG6 2AG. They have arranged an annual conference on the weekend 3/5 October in Norwich when they will discuss the development, recording and conservation of old farm buildings in East Anglia and visit farmsteads on the famous Holkham Estate. The recent Newsletter is full of information about the activities of the group and those interested in this subject area are urged to contact the secretary.

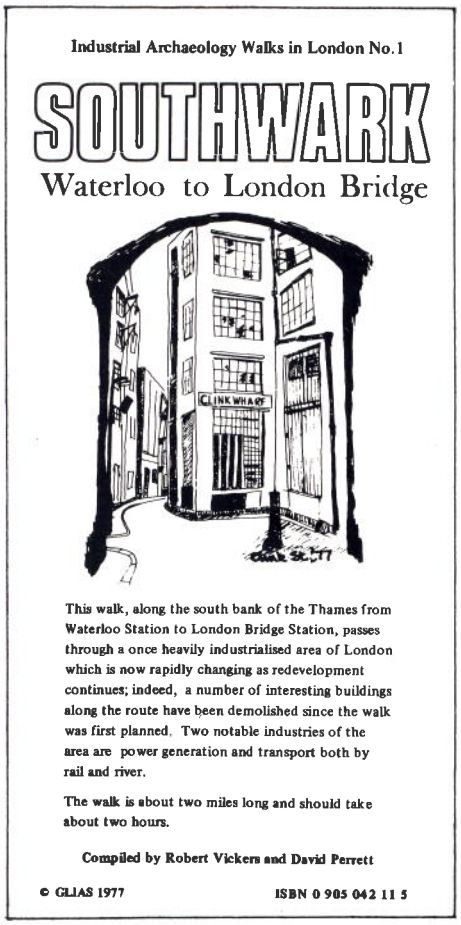
Nottinghamshire Industrial Archaeology Society – Volume II part 1 of the NIAS Journal recently published, continues the recent work on the Nottingham Lace market and has an extensive article on an industrial trail around Basford. The Chairman's report is extremely stimulating and further details of the society can be obtained from the secretary, Ron Hodges, 44 Wadham Road, Woodthorpe, Notts NG5 4JB.

Thwaite Mills Society; After 8 years of restoration work, employing over 500 people on an MSC scheme, Thwaite Mills will open as a major industrial museum in March 1986. Situated in Stourton, Leeds, the Mills were involved in the pottery trade and produced flint, china stone and putty; the present buildings date from 1824. Recently the Mills were visited by the Lord Mayor of Leeds, since the WYMCC has been a mainstay of the Society and has administered the MSC scheme during the restoration. As well as the restored machinery there will be an exhibition of drawings by Hazel Mathews showing the life and work of the Mills. Further details from ***Nancy Cooper, Thwaite Mills Society, c/o 307 Spen Lane, Leeds LS16 5BD.***

Trail Guides. Some details are already to hand on the subject of trail guides, and at this stage it may be helpful to Affiliated Societies thinking of producing their own for the first time to have some comparative facts and figures. **BIAS** and **GLIAS** provided these analyses. Both use A4 sheets folded in three; this seems to be a handy, pocket-size format suitable for use on windy days.

GLIAS has 7 leaflets in print, using A4, 80gm sheets, folded. Their most recent costings (July 1985) were: typesetting £40.00, printing £120.00, for 4000 each of leaflets 6 and 7. At a total cost of £160, this works out at about 2p each, and their suggested retail price is 10p. However, some of their outlets sell them at 15p. GLIAS offers 35% discount on bulk orders.

Their typesetting costs, on a trail leaflets containing about 1500 words, are about £14 per 1000 strokes.


Industrial Archaeology Walks in London No.1

SOUTHWARK

Waterloo to London Bridge

This walk, along the south bank of the Thames from Waterloo Station to London Bridge Station, passes through a once heavily industrialised area of London which is now rapidly changing as redevelopment continues; indeed, a number of interesting buildings along the route have been demolished since the walk was first planned. Two notable industries of the area are power generation and transport both by rail and river.

The walk is about two miles long and should take about two hours.

Compiled by Robert Vickers and David Perrett

 ISBN 0 905 042 11 5

BIAS first published theirs in 1977, producing 2000 copies of each leaflet, at a cost of £120 (3p each). The leaflet sold at 10p, later increased to 15p (the paper quality of A4 115gm is higher than that of the GLIAS leaflet, and uses a colour printed title). Though at first they had difficulty finding sales outlets, these are now handled by the City authorities; BIAS purchases its leaflets now at about 5½p each, selling them to outlets at 10p. If sold this way BIAS makes 4½p each, the Museum 5p. If sold direct on evening walks, BIAS makes 9½p per leaflet, and they find that the sales have regularly contributed £150-£200 to their funds annually.

Both societies would encourage others to provide trail guides; and both they and others who have sent details comment on it as a worthwhile exercise. But they and others do note the care needed in planning a trail, in working out and timing routes, and in writing the text as clearly and concisely as possible.

Thanks to David Perrett and Roy Day for the details quoted here.

Does your Society use a Computer? Our Treasurer, Mike Messenger, has written a paragraph or so on the Data Protection Act:

If your Society uses a computer, even a simple home one, for Society business such as storing membership details, then you are affected by the Data Protection Act 1984. Even if you do not have to register under the Act you will still have to take some action.

Registration packs are available from Crown Post Offices and the Registrar has started to produce a series of booklets on the workings of the Act. These can be obtained from The Data Protection Registrar, Springfield House, Water Lane, Wilmslow, Cheshire SK9 5AX.

Like most modern legislation the amount of paper being produced is enormous, but it cannot be ignored. The Treasurer, Michael Messenger, has had to look into the requirements of the AIA and will gladly offer advice. Contact him at 7 Cefn Carnau Road, Heath, Cardiff CF4 4LZ.

Books Notified

Crocker, Glenys: ***A Guide to the Chilworth Gunpowder Mills.*** Surrey Ind Hist Group, 1985. 16pp, maps, line drawings by Rowena Oliver. ISBN 0 9509697 2 9. 60p + 20p p&p.

Haveron, Francis: ***A Guide to the IA of the Waverley Area.*** Surrey Ind Hist Group, 1985. 52pp, illus. ISBN 0 9509697 1 0. £1.50 + 25p p&p.

Set of postcards illustrating transport history in Suffolk: 6 black and white postcards, 75p from Salient Press, Suffolk County Libraries.

Bristow, C R: ***A Directory of Nineteenth and Twentieth Century Suffolk Breweries,*** Salient Press, Suffolk County Libraries, £3.50.

Madge R: ***Somerset Railways*** from Weston Zoyland Engine Trust, Rose Cottage, Lower Durston, Taunton, £8.95.

Buchanan, C A: ***The Bridgwater and Taunton Canal.*** £1.20 + p&p from the author, 2 Blake Green, Ashcott, Bridgwater.

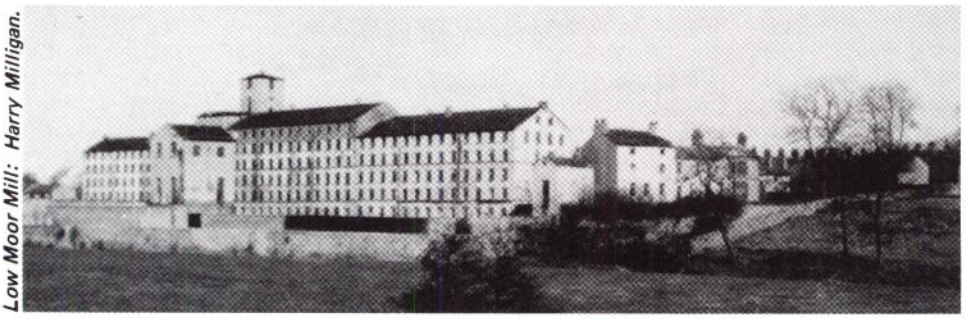
Stanton, W I & Clarke A G: ***Cornish Miners at Charterhouse-on-Mendip,*** £1.25 from Alan Clarke, 8 Cogshall Road, Stockwood, Bristol BS14 8NP.

L Popplewell: **A Gazetteer of the Railway Contractors and Engineers of Northern England, 1830-1914.** ***Melledgen Press, £3.40 inc. p&p.***

Sussex IAS: **Sussex Industrial Archaeology: A Field Guide.** ***Phillimore, 1985, £3.95.***

Sussex IA Society have published Issue 15 of ***Sussex Industrial History*** at £1.50; articles on Sussex Harbours: Offham Chalkpit Tramway; Ashburnham Limeworks; Uppark Water Supply: Iron Ore Trade. Orders with remittance to R G Martin, 42 Falmer Avenue, Saltdean, Brighton BN2 8FG. + 30p p&p.

Janet Spavold



Low Moor Mill: Harry Milligan.

Obituary. ***Most of our members will be familiar with the name of Rex Wailes as a pioneer of industrial archaeology. The obituary notice below is reproduced by kind permission of Times Newspapers. It appeared on 15 January 1986.***

Mr Rex Wailes OBE, who died on January 7 at the age of 84, was the most distinguished man of his time in the study of windmills and watermills, both nationally and internationally.

Born in 1901, he was educated at Oundle and served an engineering apprenticeship with Robeys of Lincoln before joining the family engineering firm of George Wailes & Co in 1924.

He was one of that rare breed of engineers who take an intense interest in the history of their profession, and he found a very congenial intellectual home amongst fellow-members of the Newcomen Society for the History of Engineering and Technology, which he joined in 1925. He served on the council of the society for many years, becoming president in 1953-55, and delivering a long series of over two dozen authoritative papers on milling.

He also joined the Society for the Protection of Ancient Buildings in 1929, and took a leading part in the development of its wind and watermill section. In 1965, he represented Britain at the first International Symposium of Molinology in Portugal. His best-known book, ***The English Windmill,*** was first published in 1954.

Towards the end of his career, when he was no longer practising as a mechanical engineer, Rex Wailes was employed by the Ministry of Works as it then was, as a consultant on industrial archaeology when this subject had just begun to attract national attention in the late 1950s and early 1960s.

From 1963 to 1971 he performed this role as the officer to the newly established Industrial Monuments Survey administered by the Council for British Archaeology, fulfilling a remarkable programme of pioneering activities.

He travelled over much of the country identifying industrial monuments requiring protection, laying the basis for the recording of such monuments, and undertaking countless lectures as a result of which many local societies and conservation trusts were formed, inspired by his crusading spirit. National bodies like the Royal Commission on Historical Buildings in England and the National Trust also have cause to be grateful to him for his advice.

He was made the OBE in 1971 in recognition of these services.

Harry Milligan. One of the grand old men of Industrial Archaeology, Harry Milligan, died on Sunday 19th January 1986. His interest in the subject stretched back many years and in the second number of the first volume of the original ***Journal of Industrial Archaeology,*** published by the Lambarde Press in 1964, he contributed an article, 'The Photographic Aspect of Industrial Archaeology' (pp 94-8) illustrated with a couple of his own photographs. This was the subject of the thesis he submitted later to the Royal Photographic Society for a fellowship.

At the time of this article, Harry was helping to plan the exhibition at the Manchester Museum which was to launch the Manchester Region Industrial Archaeology Society in 1965.

I began to get to know Harry Milligan through the MRIAS and later through the firm of Beyer, Peacock who announced the closure of its Gorton Foundry. Harry, at that time, was the Photographer at the Central Library and rescued the photographic archives from Gorton. He worked in the confines of the negative store, climbing up ladders, to take out 15in x 12in glass plate negatives from their racks fifteen feet high. His knowledge of the history of photography soon told him that we were on to an important 'find' in that field as well as in railway history. Imagine his excitement when we found negatives dating back to 1855 which included early examples of paper, wet and dry plates. Boxes of negatives, weighing 30 lbs apiece and weighing over 1½ tons altogether, filled four vans and were transported to a temporary home in the Central Library. Harry and I wrote a joint article about this rescue operation which again was published in ***Industrial Archaeology,*** (Vol 4, No 1, Feb 1967, pp 8-18).

Harry organised a complete photographic record of Gorton Foundry in its final days, and partly at Harry's insistence similar records were made of important industrial features of Manchester such as the canals and railways. The National Coal Board also gave permission to survey some of the areas' last steam winding engines, and the resulting photographs are now available for consultation in the Local History Department of the Central Library and are an important contribution to historical studies.

He could not remain at the Central Library when he reached retiring age, but luckily this coincided with the establishment of the Manchester Museum of Science and Technology at 97 Grosvenor Street. Harry appeared offering his help.

At Grosvenor Street we were able to give Harry a minute basement room where he produced superb work on equipment that should have been on display upstairs. With the Bayer, Peacock negatives from the Central Library he was able to provide a service of copying negatives for railway enthusiasts all over the world. At Gorton Foundry, Harry had coveted a horizontal copying camera and enlarger built by Barron and Crowther of Preston. It was constructed of mahogany with a set of brass rails on which the camera moved and was used for photographing large general arrangement drawings of locomotives. It went for scrap because there were no storage facilities at the time, but Harry was delighted to find another at the Pin Mill Brow works of the Calico Printers' Association. This is still in use at the photographic department of the Greater Manchester Museum of Science and Industry.

His knowledge of the history of photography in Manchester enabled him to collect significant examples of locally built cameras such as Chapman, Bilcliffe, Thornton & Pickard, etc and wrote a guide to the collection which was published as one of the Museum's series.

But it was his work on the photographic pioneer, J B Dancer, that was really important. With his advice, we were able to expand our holdings of Dancer apparatus, such as microscopes, as well as photographic exhibits. He recognised the significance of some of the exhibits in the Chapman and Flatters and Garnett collections and so revealed more about Dancer's important contributions to microphotography and other pioneering aspects of photography in Manchester. When the first photograph of a street in Manchester, taken of course by JBD, came on the market, the money was somehow found to purchase and we were able to stop it leaving the country and Harry was delighted.

He was always willing to help in the Museum, answering questions, sitting in a gallery when staff were ill, or just manning the office telephone.

In later years, while his mind was exceptionally clear and active, his legs became very weak so he relied extensively on his moped and was lost when it was stolen.

Kind, helpful, courteous, generous: few recognise how much the world of industrial preservation owes to that grand old man, Harry Milligan.

Richard L. Hills

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Is edited by Roy Day from 3 Oakfield Road, Keynsham, Bristol BS18 1JQ and is published by the Association for Industrial Archaeology. The AIA was established in September 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to assist and support regional and specialist survey and research groups and bodies involved in the preservation of industrial monuments, to represent the interest of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. Further details may be obtained from the Membership Secretary, Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Shropshire, TF8 7AW, England. Telephone 095-245-3522.