

ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY ANNUAL CONFERENCE, MANCHESTER, 1977

A reminder that the Manchester Region IA Society will be host for the 1977 Conference to be held at Hulme Hall, University of Manchester from Friday to Sunday, 9 to 11 September.

The programme of talks and lectures will include:

Owen Ashmore on 'The Industrial Archaeology of the Manchester Region'

Richard Hills on 'Textile Mill Engines'

David Owen on 'The North West Museum of Inland Navigation'

The L T C Rolt Memorial Lecture will be given by Donald Cardwell, Professor of the History of Science and Technology at the University of Manchester Institute of Science and Technology. The subject will be 'The History of Technology, Today and in the Future'.

Choice of excursions on Saturday afternoon will be:

1. Bridgewater Canal: Castlefield Terminus in Manchester to Barton swing aqueduct, the Worsley terminus. It is hoped to include a boat journey from Barton to Worsley.
2. Cotton mills and mill engines in the Oldham and Rochdale area.
3. Cotton mill and community of eighteenth century origin at Quarry Bank, Styal, Wilmslow. Also a working corn mill with two water wheels at Nether Alderley.

There will be an opportunity to visit the North West Museum of Science and Technology and an optional visit on the Sunday afternoon to sites in central Manchester.

The local organizer is Professor Owen Ashmore, Department of Extra-Mural Studies, University of Manchester, Manchester M13 9PL (Telephone 061 273 3333). Detailed programmes and application forms are available from the Conference Secretary, Fred Brook, 15 Widecombe Avenue, Weeping Cross, Stafford.

EXCHANGE AND MART

Details have reached the Association recently of a number of items of i.a. interest, some of them of substantial dimensions, which will be destroyed unless any preservation society or museum can make arrangements to remove them for preservation elsewhere. In some cases they are offered as a gift, while other owners expected to be reimbursed with the scrap value. Anyone interested should make further enquiries direct at the address stated.

Steam machinery

At Burslem, Messrs Burgess and Leigh are about to retire a 100 hp horizontal compound engine by William Boulton of Burslem, built

in 1888 and having run continuously since then driving machinery for clay preparation. Enquiries to D B Leigh, Burgess and Leigh Ltd, Middleport Pottery, Burslem, Stoke on Trent ST6 3PE, Telephone 0782 87174. Purchase price negotiable.

Rochford Hospital in Essex will shortly be disposing of two steam generating sets at a nominal charge. These sets are two-cylinder vertical engines by S Allen and were manufactured immediately pre-war. At present they drive 300 kVA generators which are not available and the generating sets are about six feet long, eight feet wide and nine feet high. If any Museum or preservation organisation is interested in acquiring these items please contact: Mr Roberts at Witham 516515. Ext. 19.

Three Clayton steam generators which will work up to 135 psi evaporating 400 lbs of water an hour are available from A C Fincken & Co Ltd, of Imperial Way, Station Estate, Watford, WD2 4JP. These generators are oil fired and one of them recently had a new generating coil fitted. Together with the generators are a considerable number of new spare parts. They are available to any preservation organisation which is prepared to dismantle and remove them from site. For further information please contact Mr C Fincken at the above address.

Internal combustion engines

Madame Tussauds Ltd, who recently purchased the Tolgus Tin complex near Redruth, wish to dispose of two 200 hp Ruston diesel engines installed in 1921 to drive DC generators at Hawks Tor china clay pit on Bodmin Moor. The weight of each engine is thought to exceed twenty tons. Flywheel diameters are 9' and 8'-3" respectively. Their scrap valuation is thought to be about £1,500, and any new owner will also have to spend up to £2,000 or more on removing them from their present building, with additional expenses for transport and reassembly. Further details from A G Jackson, Madame Tussauds Ltd, Marylebone Road, London NW1 5LR, telephone 01-935 6861. Scrapping of these engines is imminent.

The Avon Flour Mill at Pershore was burnt down last year, but the Robey twin-cylinder horizontal diesel engine installed there about 1936 survived with only superficial fire damage and is still mechanically intact. There is thought to be only one other engine of this type left working. The bedplate measures approximately 15' x 10', and the 10' flywheel weighs about 5 tons. Total weight ca 22 tons. Further enquiries to Mr P E Partridge, Avon Flour Mills, Pershore, Worcs, telephone Pershore 2042.

At the Coventry Works of the West Midlands Gas Board there is a large four cylinder Crossley Horizontal gas engine coupled to a 150 kW DC Generator. The machine is in fair condition and is on offer to any museum or preservation organisation that would be prepared to bear the cost of dismantling and transport. Further information from D W Davison, Demolition Engineer, West Midlands Gas, Wharf Lane, Solihull, West Midlands B91 2JP, Telephone 021-705-6888.

A 4 cylinder Ruston diesel engine dating from 1938 survives in a brickyard at Waddington south of Lincoln. Further details are available from: Mrs C M Wilson, Curator, Museum of Lincolnshire Life, Burton Road, Lincoln LN1 3LY, telephone 0522 26866.

Other Items

A paint manufacturer in Glasgow has for disposal a complete set of relatively early paint grinding mills together with lineshafting. Among the machines included are a pan mill, a four-roll steel roller mill and a triple granite roller mill. The complex was driven by a horizontal single-cylinder 21 hp, Tangye gas engine with 5' flywheel weighing approximately two tons, which has recently gone to a collector in Cheshire. A blacksmith's anvil and vice are also available. Enquiries to Mr J J Campbell, Clutha Paint and Oil Company Ltd, 33 Admiral Street, Glasgow, telephone 041 429 1794.

The bookbinding workshop at the House of Commons is disposing of its paper guillotine, manufactured in London about 1912 by Harrild and Company and thought to weigh about $\frac{1}{4}$ ton. Dimensions are approximately 5' x 4' x 3'-6" high. The machine will probably have to be partially dismantled inside to get it out. Further details from Mr Dewey, Binding Works, House of Commons, London SW1, telephone 01 219 3016.

Finally we quote verbatim a letter from Robert Cox of Maidenhead who is concerned about 3 early diesel engines at Rugby. The Fullager engine is particularly interesting as an early and ingenious opposed-piston diesel engine. Only a handful of this type of engine are thought to survive. The dismantling and removal of these engines would be likely to require substantial expenditure on craneage and haulage.

Dear Sir,

I am enclosing herewith, very brief specifications of three early diesel engines built at the Willans Works, Rugby, which have been placed in the grounds of these works since 1950. These works, although now part of the GEC were originally built by Willans and Robinson who moved from Thames Ditton, Surrey, in 1896 and were incorporated into the Dick Kerr organisation in 1916 to become the English Electric Co in 1919.

Diesel engines were built under licence from the Diesel Engine Co of London from 1904, to take the place with the building of steam turbines, of the central valve steam engine, demand for which was dropping off, as its place was being taken by high speed double acting engines and the steam turbine.

I am carrying out research work on Peter William Willans and Willans and Robinson, so I am in close contact with these works. I have been informed that these three engines are to be dismantled and scrapped unless a new home can be found for them.

I also understand that the GEC would not expect payment for these engines, but on the other hand, would not expect to be involved in their dismantling and transporting to the new site.

Would any of these engines be of interest to any of your members for preservation?

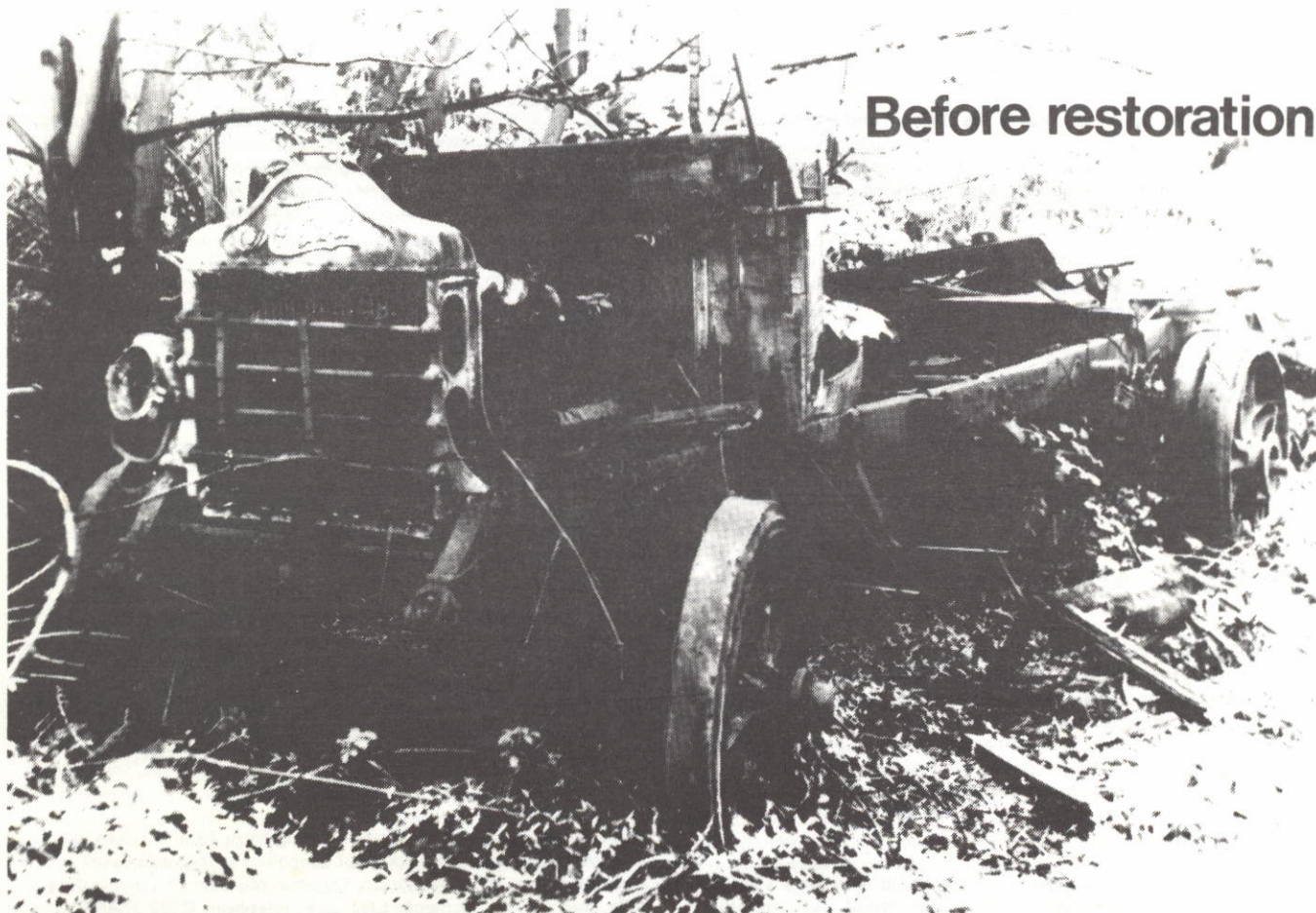
If you are interested, I would suggest you contact Mr D I Bebb, Publicity Liaison Officer, Large Steam Turbine Division, GEC Turbine Generators Ltd, Willans Works, Newbold Road, Rugby, Warwickshire, CV21 2NH, Telephone No Rugby 2100, or let me know.

Yours faithfully,
(ROBERT COX)

72 Moorbridge Road
Maidenhead
Berkshire SL6 8BW

1. Willans and Robinson, oil engine type 3E 450 bhp, at 187 rpm, weight 67 tons, built 1907, flywheel ca 12' diameter. Base ca 18' x 9'. Height ca 15'
2. Willans and Robinson, oil engine type 4C, 500 bhp at 200 rpm, weight 59 tons, built 1917. Dimensions similar to 3C type, but flywheel ca 9' diameter.
3. The first Fullager type engine, weight 66 tons, rating 750 bhp at rpm, built 1922. Flywheel ca 7'6" diameter.

Before restoration



TRAVEL BACK (THE OFFICIAL JOURNAL OF THE TRANSPORT TRUST)

This magazine is obtainable price 40p from the Transport Trust at 18 Ramillies Place, London. W1V 2BA, or free to members. Published quarterly, the bulletin contains many articles of transport interest and the winter edition has an article on restored steam railways in Britain with overseas connections and also a fascinating article on the clothes designed for early motorists. There is general news and notes on transport projects up and down the country including the SS *Great Britain* and the *Invicta* railway project at Canterbury. The bulletin is essential for all those with transport interests.

OLD MOTOR

The journal for antique vehicle collectors and historians is published at £7.50 for 6 issues and is obtainable from Old Motor at 17 Air Street, London, W1. This magazine is not associated with any particular branch of transport history nor any society but its editorial quality is sufficient to make it of great interest to those with even a passing interest in history of transport.

BRITAIN'S PLANNING HERITAGE

The Royal Town Planning Institute published as a contribution to European Architectural Heritage Year 1975 a volume entitled 'Britain's Planning Heritage'. This volume is an illustrated regional guide to Town and Country Planning in Britain with examples ranging from pre-historic sites to a modern New Town and shopping centre. It is compiled and written by professional planners and describes the physical expressions of autocratic planning systems from early defensive sites and the strategic Roman Road System to the gracious urban architecture of the 17th and 18th Centuries and the impact on our towns of the Industrial Revolution. The volume is extremely easy to use and is very well illustrated and set out. For those touring Britain who wish to see all that is best in planning the book will be of considerable benefit. The Royal Town Planning Institute are willing to make available these books at a

special discount price to AIA Members of £4.00 compared to the normal retail price of £5.75. Those Members who wish to avail themselves of this offer please send cash with order to The Royal Town Planning Institute, 26 Portland Place, London W1N 4BE.

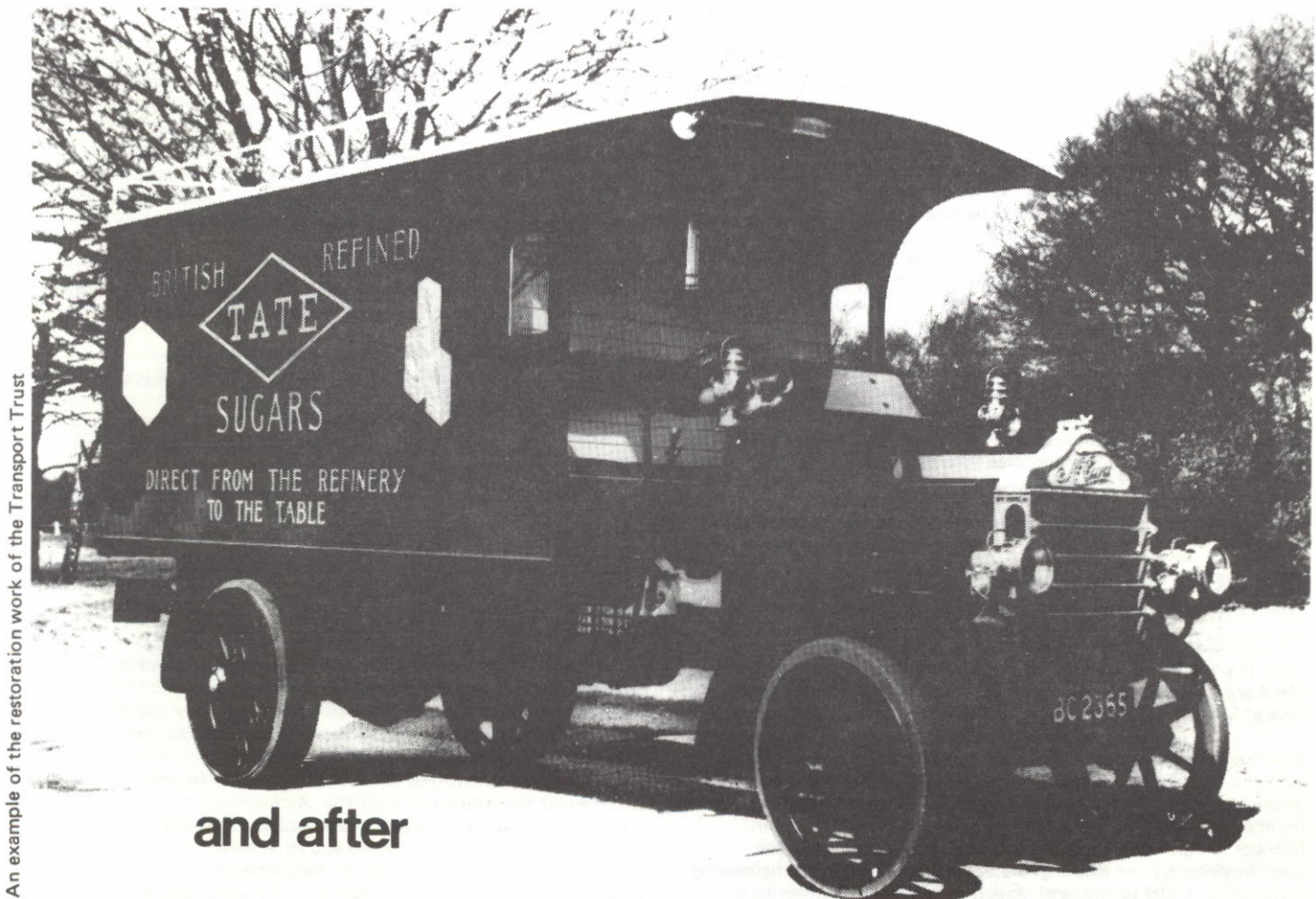
WANTED — A STEAM CRANE

The Leicestershire Museum of Technology is not dead, despite recent reports! It is very much alive, and pursuing an active though very selective collecting policy. A major item on the shopping list is a rail-mounted steam crane. Three Leicestershire firms were active in this field:—

1. J Jessop and Sons (later Jessop and Appleby); Leicester.
Built cranes from 1866 to the early years of this century.
2. Taylor and Hubbard, Leicester
Set up in the 1890s by two ex Jessop and Appleby apprentices, this firm built its last steam crane as late as 1963.
3. Herbert Morris Ltd., Loughborough
A major crane manufacturer today, this firm was started in a small way in 1884 in London, as an import-export business. It began manufacturing in Sheffield in 1884, and moved to Loughborough in 1897. Rail-mounted steam cranes appeared to have formed only a small part of the total production, during the 1920s and 30s.

Any information on surviving steam cranes by these firms will be welcomed. There must be some around! As far as a specimen for the Museum is concerned old age is not regarded as a special virtue; a more modern example in reasonable condition is to be preferred as it is intended to have it in working order if possible.

Start looking now, and send details of anything you find to James Wood, Keeper of Technology, Leicestershire Museum of Technology, Corporation Road, Leicester LE4 5PX (telephone Leicester 61330).



An example of the restoration work of the Transport Trust

SKEW BRIDGE LOST

Work began recently on the removal of a cast-iron overbridge spanning the main railway line from Chesterfield to Sheffield at Dronfield, about midway between these two places. The bridge was one of only 2 skew bridges built to that particular design by the Midland Railway Company, and was erected in the late 1860's. The bridge had 4 cast iron ribs, skewed at approximately 45 degrees to the railway line over which they carried the thoroughfare known as Soapes Lane. Demolition was necessitated, not by any failure on the part of the cast iron work (the parapets were made up of a number of modular cast iron panels) but by a slight relapse in the masonry abutments, permitting the crown of the cast iron arches to settle marginally. The alignment of the track at that point has been found to induce a swaying motion in trains travelling at high speed, and major works were necessary to remove the threat to the roofs of railway carriages passing beneath. But in preference to lowering the track, it was decided to remove the overbridge with its distinctive pierced spandrels and replace it with a workaday concrete structure in the modern idiom.

MONUMENTS UNDER PRESSURE

A working party was convened early in 1975 to consider urgently the problem of safeguarding those ancient monuments known to exist on Forestry Commission land within the Dartmoor National Park. Threats to these monuments (many of which had only been sketchily recorded) included disturbance by machinery involved in forestry operations, overgrowth by vegetation, and erosion and interference by visitors such as is usually generated when specific sites of interest are pinpointed in 'managed' recreation areas.

The Working Party met eight times within 12 months and visited more than 100 individual sites and remains on Forestry Commission land on Dartmoor. Among its findings was the observation that the Dartmoor National Park contains one of the richest collections of ancient monuments and antiquities in Europe, and that there are few places other than Dartmoor where such remains can be readily seen in a variety of settings, some of which must be similar to the time when they were inhabited.

The Working Party's report although specific to the Dartmoor National Park, provides a useful summary of the types of threat likely to overtake archaeological sites with changes in land-use. Deep ploughing may be undertaken to improve drainage, but such operations can irretrievably spoil archaeological evidence. Grazing by cattle and sheep will help to keep down vegetation and maintain the accessibility of such sites but sheep particularly require extensive fencing if they are to be kept out of forestry plantations, where they are likely to kill new growth. But if areas around monuments are kept clear of bracken and other moorland vegetation, cattle will favour those areas particularly for grazing, and the ground will become puddled by the concentration of stock, again to the detriment of the site's archaeological interest.

Those concerned with the management of industrial archaeological sites, particularly those in rural areas, could learn much from experience embodied in reports such as this one; for the problems of controlling visitor access and minimising disturbance to archaeological remains while while providing for new land uses are common whether the remains date from prehistoric times or from the nineteenth century. The report is entitled 'Conservation of Industrial Monuments. (perhaps a more specific reference to the Dartmoor National Park would have been advisable) and is available from the Dartmoor National Park Authority, County Hall, Exeter, price 25p plus 10 p postage.

THE NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING & TECHNOLOGY

which was formed in 1920 takes its name from Thomas Newcomen (1663-1729), father of the steam engine. Membership is open to all persons approved by the Council who have at heart the furtherance of the Society's objects.

The *Transactions* published annually contain original and authoritative papers on aspects of the history of engineering and technology and on the lives and works of the men who laid the foundations of our industries. Meetings are held monthly from October to April or May in London and Birmingham, and are open to visitors; joint meetings are occasionally held with engineering institutions. Visits to sites and objects of historical engineering are

arranged, and the Society's Summer Meeting this year (20-25 August) is based on Stirling.

Particulars of membership are obtainable from the Executive Secretary, The Newcomen Society, Science Museum, London SW7 2DD telephone 01-589-1793.

THE HISTORY OF ELECTRICAL ENGINEERING

During July 1976 the Institute of Electrical Engineers held a weekend meeting at Durham on the History of Electrical Engineering. The papers presented included discussion on the Early Electrical Engineering Supply Industry of the North of England and The Industrial Archaeology of Electricity in the Tyne and Wear Area. Specific subjects discussed were the contribution of certain individuals to electrical engineering such as Armstrong and Joseph Swan. The proceedings of this weekend meeting have been published in a cheap though attractive form and inquiries for this 81 page booklet should be made to The Secretary, SEM Division, Institution of Electrical Engineers, Savoy Place, London WC2R 0BL.

ELLESMERE PORT

The Boat Museum at Ellesmere Port continues to grow in strength. Their most recent Newsletter contains a great deal of information about the restoration of the Port itself and also the many boats which they are working on. The enthusiasm with which they go about restoration works, raising funds and producing interesting newsletters would be of interest to many other Volunteer Groups. Further information from The Membership Secretary, North Western Museum of Inland Navigation, c/o Manchester Museum, The University, Manchester M13 9PL.

SITUATION VACANT

A CURATOR for WEST SIDE MUSEUM later to be known as THE NATIONAL TRACTOR & FARM MACHINERY MUSEUM

A challenging appointment for an enthusiastic person to take responsibility and organize this large collection of vintage farm equipment. The applicant must have a sound engineering background and preferably knowledge of agricultural development since the Industrial Revolution.

Also to perform a wide range of duties including cataloguing display, acquisition, as well as directing and helping with restoration.

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Excellent centrally-heated 3 bed roomed bungalow available
Salary negotiable

Apply: J E Moffitt, CBE
Peepy Farm
Stocksfield (2279)
Newcastle upon Tyne

AIA Bulletin is published six times a year by the Association for Industrial Archaeology. The Association was established in September 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, publication and conservation. 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 a national level, to hold conferences and seminars and to publish the results of research. Further details of the Association and its activities may be obtained from the Secretary, Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Salop. TF8 7AW England (095-245 3522). ISSN 0309-0051