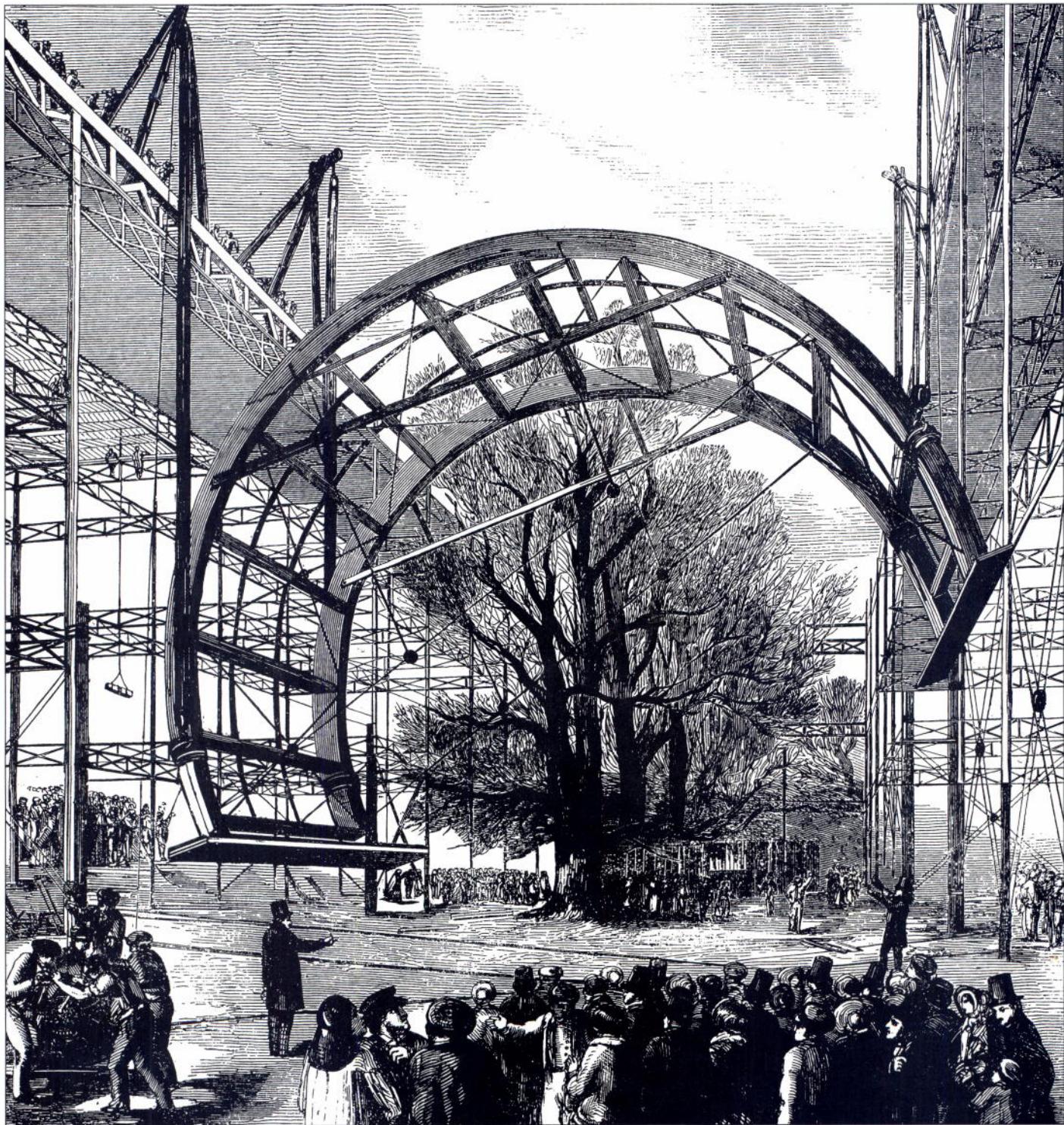


INDUSTRIAL ARCHAEOLOGY NEWS

118
AUTUMN
2001

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

£1.25 FREE TO MEMBERS OF AIA



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INDUSTRIAL ARCHAEOLOGY NEWS 118

Autumn 2001

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COVER PICTURE

Raising the ribs of the transept roof for the Crystal Palace, December 1850. A major conference is being held to mark the 150th anniversary of the opening of the Crystal Palace (see page 13)

Illustration: The Victorian Society

Achievements of Industrial Archaeology in the twentieth century: the Ironbridge Weekend, April 2001

This year's AIA Ironbridge gathering for affiliated societies took place over the weekend of 7-8 April and was held as usual at the Long Warehouse, Coalbrookdale. Contributions to the theme of the weekend included reviews of achievements and failings, for IA as a whole as well as the Association, the role of IA in museums and education, the professional expertise now established in the restoration sector, and the work of two contrasting groups of enthusiasts engaged in mill restoration and underground recording.

Mary Yoward

As usual, the weekend began with an informal gathering and meal at The Meadow, one of the local restaurants, where old friends and newcomers met and chatted on the Friday evening. Then the next morning, all met at the Long Warehouse in Coalbrookdale to start the formal proceedings.

The first lecture was given by Angus Buchanan, President Elect of the AIA, who looked back over the achievements of the last 40 years of Industrial Archaeology. The failure to retain the Euston Arch and the bridge at Sharpness was the spur to the preservation and conservation of much else. Adaptive re-use has saved many mills and other buildings, and interest in canals and railways has led to an increase in tourist sites. Re-creation of such places as Styal Mill shows the processes of industry and it is not only in this country that items such as steam cranes have been restored. The growth of ICOHTEC has resulted in international interest in the conservation of industrial remains, while in this country, places such as New Lanark and Saltaire help the tourist to acknowledge the importance of things past to the present day. At last, the importance of industrial landscapes has been realised and several have become World Heritage Sites, comparable with the pyramids, etc. English Heritage is continuing the work of the Royal Commission on Historical Monuments in recording industry.

IA has always been regarded as a research subject rather than one leading to a degree, but now its importance is being recognised and a degree course has been started at Leicester, with Marilyn Palmer as its professor. The present cultural shift towards environmentalism means more sensitivity towards conservation.

John Crompton began his talk by asking how many present had ever worked, paid or as a volunteer, in an Industrial Museum and the result was less than 50%, while over 70% had visited one during the past 12 months. There was a delayed response while the audience considered whether they regarded the Science Museum as an

Industrial one, but in the end, the response became positive. Since Industrial Museums grew out of IA and were a good and valuable addition to the service, it is a pity that many are now struggling, with a shortage of both visitors and volunteers and much competition. But on the whole, IA enthusiasts preferred other places 'not open to the general public' and rather resent the professional interpretation. The origin of the Museum Service was to educate the working man, showing him manufacturing processes and the raw materials which were used and from the beginning, were to be free. These still attract people, but the definition of a present day museum is 'an institution which collects, documents and safeguards artefacts and makes them accessible to the enquirer' and they have a duty to give best value. To do this, criteria must be adopted and information must be collected, not only exhibits. Museums must co-operate with others in their area and local museums must be given support.

After a break for coffee, David de Haan, the Acting Course Director of the Ironbridge Institute, spoke of its history from the time in 1973 when several of the present doyens of IA met at the Science Museum to sort out its industrial collection. Then in 1978, one end of the Long Warehouse at Ironbridge was repaired to house the Elton Collection and lectures began, mostly orientated towards railways. These led to short courses in 1981 and later, a formal teaching programme was followed, leading to a Diploma and, later, a Masters syllabus. David showed slides of the area, contrasting the old and the present and explained how the Long Warehouse had been restored in stages as the Institute grew. One of its strengths was that there were many visiting lecturers because it was in conjunction with Birmingham University. Now full-time courses are run in a modular format to suit as many as possible; these are on Industrial Heritage rather than Archaeology, and the management thereof. The Institute is self-financing and does much consultancy work to help raise money. This autumn, a new Masters degree is to be available, consisting of four modules, the result of combining the best parts of the existing course and ideas from students and others. These will cover Heritage Marketing, and Business Management; Finance, Interpretation and Conservation as well as Industrial Archaeology.

Geoff Wallis, one of the founders and now director of Dorothea Restoration, talked of the growth of the firm, from the time when he became an enthusiast while working at Crofton Engine House during his apprenticeship until the present when the firm re-gilded the Albert Memorial and ensured the continuing operation of the sculptural fountain near St Thomas' Hospital in London. Dorothea Restoration now

has resources, expertise and equipment to deal with almost all requirements and if not, the cross-fertilisation of ideas can usually provide the answer. A conservation policy statement was issued in 1987 and this has been adhered to, although the most modern techniques are used when applicable and do not compromise the result. Rivet busting and stitching cast iron are examples of this and the forging of cast iron has been perfected.

The proposed outing on Saturday afternoon was cancelled due to foot and mouth disease, but was replaced by a coach trip around Telford looking at the old industrial sites of the area, of which there is very little left! Then in the evening we all enjoyed the meal in the upper room of the New Inn at Blists Hill, followed by a light-hearted quiz and attempts at recognition of some 'Whateverisits?'

Sunday morning started with John Silman, chairman of the Hampshire Mills Group, showing some of the work done by the 'Heavy Gang' which consists of members of that organisation and of the Southampton University IA Group. They are involved in restoration where required and their achievements include saving farm pumps, removing engines from a sewage pumping station, cleaning out wheel or turbine pits to enable them to work again, restoring sluices and the production of flour from a derelict mill. They have had disappointments when, after helping to clear a mill, the owner has not restored it. They continue to monitor industrial buildings,

especially mills, in the area and do a good job of conservation.

Paul Sowan of Subterranea Britannica took us underground. The Group looks at any man made or used feature below the surface as well as advising on economic geology and the mines which result from mineral extraction in every county. They are in the fortunate position of having younger members coming to them from the caving clubs and helping in the recording of finds and mapping archaeologically. Paul made the point that photography is an essential tool as, when below, all one can see is in the light from the helmet lamp, but good photographs can reveal everything there. He showed slides of underground ammunition storage, the 1880 Channel Tunnel workings and holes found under many buildings!

There followed a wide ranging and most interesting discussion about both the achievements and the strategies which might be adopted in the future regarding membership and publicity, which occupied the greater part of the session set aside for members' contributions. It was good to hear comments from newcomers during this exchange of views. We also saw part of an excellent video, made to record the production of Thermos flasks before the factory closed. It was not commercially produced, so the occasional commentary just described the process when necessary and there was no distracting music – a very pleasant change.

David Alderton, who for many years has been

Secretary or Conference Secretary of the AIA and attended every annual Conference, then summed up the contribution the Association has made to the saving and conservation of industry. He began with listing the failures – the inability to attract younger members and the lack of consultative status. The fact that there were still only a handful of IA courses in the country seems to have resulted from the fact that it has always been regarded as a hobby rather than a profession. But on the good side, much has been achieved. Local planners are now much more aware of IA and PPG 15 and 16 have helped, ensuring that contents of listed buildings can be included and thus protected.

The Industrial Archaeology Review is of a good academic standard and gives world coverage, making academics aware of the subject as a serious one. The publication of *Industrial Archaeology: Working for the Future* encouraged people to consult the Association and the annual Seminar allows people to meet, give papers and discuss matters. The various Awards lead to good practice and with the IRIS programme have helped to make people aware of the need for conservation and recording. The Association now has members on several influential national bodies, which helps to make its voice heard. And having a secretary, even if part-time, has helped to draw it all together.

Those who were unable to attend this Weekend missed a most interesting and stimulating meeting.

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The Charles Burrell Museum, Thetford, Norfolk

Besides farming, perhaps it is surprising the depth and variety of industrial activity that could be found in the small, rural towns of nineteenth century England. Even the small market towns of Norfolk and Suffolk, counties with particularly strong agricultural links, could boast of many industries not always fully appreciated with such places. One of these was the engineering works of Charles Burrell, famous all over the country for the manufacture of traction engines. It is hoped that delegates to the AIA Cambridge Conference in August 2001 will visit the museum.

David Osborne

For much of the nineteenth century, a number of traditional industries that included brewing, malting, milling, paper making and tanning could be found in the market town of Thetford (pop. 4,074 in 1851), situated partly in the counties of Norfolk and Suffolk. Well before the last decade of the nineteenth century, however, a relatively new industry had come to dominate the local industrial scene and make a profound impact on the character of the town. This was the manufacture of traction engines, road locomotives and agricultural machinery at the St Nicholas Works of Charles Burrell (1817-1906).

The firm of Charles Burrell & Sons Ltd has its roots in the early 1740s when Benjamin Burrell (?1727-1793), the son of a carpenter, was apprenticed to Stephen Rowning a local whitesmith & blacksmith. It was certainly a humble beginning, for Benjamin's apprenticeship was arranged and paid by the Trustees of Sir Joseph Williamson's Charity for binding poor children of Thetford as apprentices.

Benjamin's three sons, Joseph (1759-1831), William (1766-1822) and James (1770-1837), continued as general 'smiths', carrying out a wide variety of metal work in and around Thetford. It is probable that soon after Benjamin's death in



The Charles Burrell Museum in the former Paint Shop, a barn-like structure of c1890-1900. Little is known of the origins of this building and the Museum would be interested to hear of any ideas. One clue is the name BELFAST stamped into one of the roof supports. This view shows the opening day of the museum on 25 March 1991

Photo: Friends of the Charles Burrell Museum

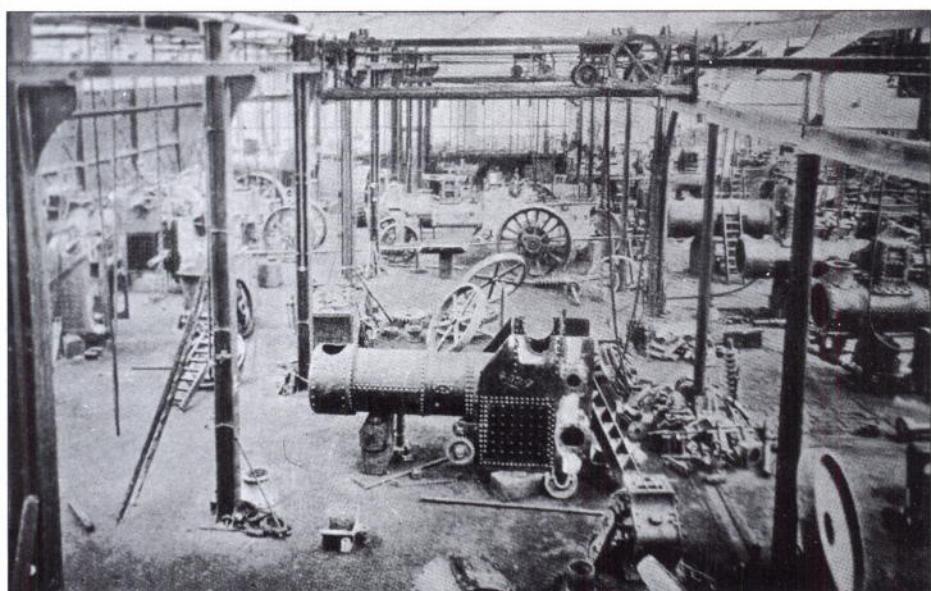
1793, that Joseph began in earnest to develop and manufacture agricultural implements. The earliest evidence, however, of Joseph Burrell manufacturing implements is in 1801 when he advertised from his King Street foundry:

'CHAFF ENGINES, DRESSING ENGINES, DRILL ROLLS, and DRILL MACHINES, on improved plans by J. BURRELL. Those gentleman and others that were disappointed last year of being served with the above articles, are respectively informed, they may now be supplied at his Manufactory and Foundry [sic], at Thetford.'

All three brothers, Joseph, William and James, had formed some kind of business partnership by 1805 when the following advert was published in a local newspaper:

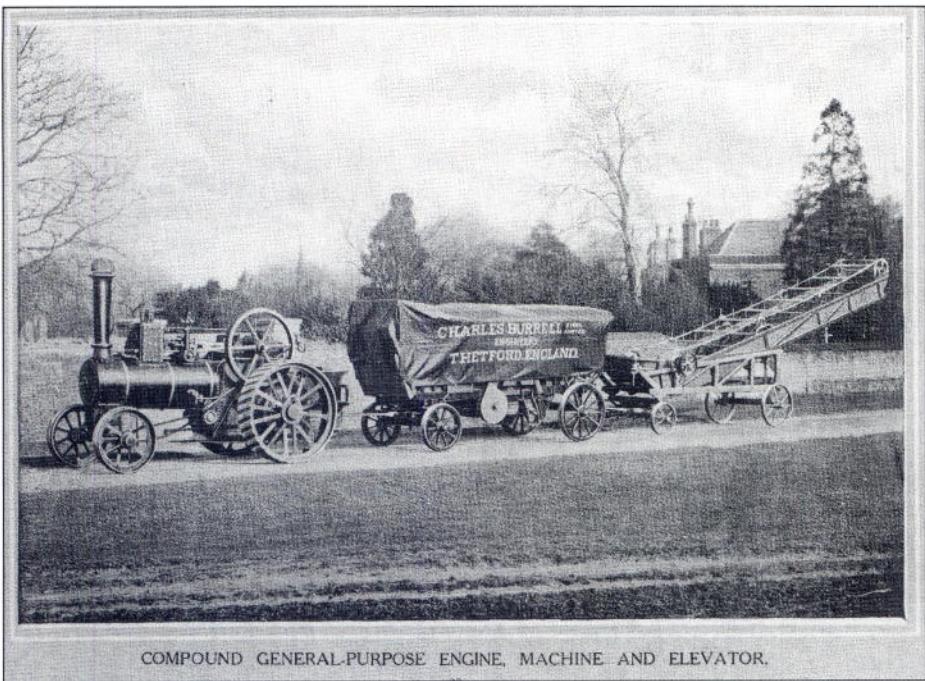
'BURRELLS Patent Threshing Machines. Joseph, James and Wm. Burrell, beg leave to inform the public that they are now making THRESHING MACHINES upon a larger plan than before, calculated to do a large quantity particularly clean, and are allowed to go easier, and take less labour than any other. The great utility of these machines is to thresh clean; the principle of this is such, that all the corn is regularly threshed twice at one process, without any additional labour, the advantage of which is great; and in mildew'd, hard and tough wheat, their superiority is evident, as they are allowed to thresh cleaner than any other. The proprietors can refer to a number of gentlemen in different parts of Norfolk, Suffolk and Essex, who have been using them, on a smaller plan, for two or three years. Thetford, March 4, 1805'

In 1820 the Burrells advertised 'Chaff Engines from £6 to £10, Drill machines, oil-cake machines, seed machines etc, at the lowest prices, at the Foundry Thetford' but very little else is known of the machinery produced by the Burrells from this period until the late 1840s. By then, all three brothers had died and the St Nicholas workshops and foundry was in the hands of Charles Burrell (1817-1906) who inherited the business on the death of his father James in 1837. In 1846, Charles Burrell married Elizabeth the daughter of Robert Cowen, of the Beck Works, Nottingham. It was about this time that Robert Cowen began producing portable steam engines at his works. Charles Burrell returned to Thetford with his new wife and the following year, advertised that he was the Thetford agent for his father-in-law's portable engines. In 1848, Charles Burrell produced his own portable engine, and a combined threshing and dressing machine. Over the next four decades, Charles Burrell's St Nicholas Works expanded significantly.



The erecting shop c1910. There were numerous departments, including a large woodworking shop where threshing machines and straw elevators were manufactured

Photo: Friends of the Charles Burrell Museum



COMPOUND GENERAL-PURPOSE ENGINE, MACHINE AND ELEVATOR.

A general-purpose engine with threshing machine and straw elevator can be seen in the museum. While about 4,000 engines were made at the St Nicholas Works, it is not known how many threshing machines or straw elevators were produced there

Photo: Friends of the Charles Burrell Museum

In 1851 Charles Burrell was one of 13 manufacturers who exhibited a portable steam engine at the Great Exhibition. That same year 52 men and nine boys were employed at the St Nicholas Works. Most were local craftsmen using traditional hand-skills. Occupations noted at that time included: agricultural machine maker, agricultural machinist, blacksmith, carpenter, iron and brass founder, machine painter, practical engineer, sawyer and wheelwright. About this time a new range of precision machine tools were introduced into the St Nicholas Works: drills, planers, lathes and slotters, all powered by steam. By 1861 new, specialist occupations are found at the 'works': boiler maker, engineer and mechanical draughtsman, engine fitter, machinist and turner. These employees were either recruited by Charles Burrell or drifted into the town from such places as Derbyshire, Nottinghamshire, London, Suffolk, Worcestershire and Yorkshire.

The workforce had increased to 136 men and 24 boys, still a modest number compared with some manufacturers of agricultural machinery. Nonetheless, the works continued to grow through the nineteenth century, probably employing about 300 men and boys at its peak in the 1880/90s.

Some writers might have us believe that the Burrell workforce was loyal, contented and long serving. In reality, however, it is probably far from the truth. Although some craftsmen worked at the St Nicholas Works for much of their working life, an analysis of the Censuses clearly show that many more could only have worked there for a short duration; undoubtedly leaving for all sorts of reasons. Moreover, there is evidence of industrial disputes and conflict amongst employees at the St Nicholas Works in the nineteenth and twentieth centuries.

Certainly by today's standards, the Victorian

workplace was often a dangerous and unpleasant environment. The St Nicholas Works was no exception. There are newspaper reports of fatal accidents and of employees badly injured by molten metal, working machinery and falling objects.

While the social history surrounding the St Nicholas Works is of great interest, it is the quality of the steam engines produced there that bestowed fame and prosperity upon the Burrell family. The engines were sent to many parts of the world such as Africa, Australia, France, Germany, Italy, New Zealand, Russia, Sweden and South America. They include a range of portable engines, that helped to transform agricultural practices from the 1840s; road locomotives that Charles Burrell became involved with at the infancy of their development in the mid-1850s; general-purpose traction engines that continued the work initiated by portable engines, on farms and elsewhere; road rollers that helped to improve the surface of roads, smoothing the way for the motor car; stationary engines used in a variety of industries to power all sorts of machines, including pump machinery at Thetford's Water Works. Engines were also manufactured to power such things as fair ground rides, trams and water craft.

After the St Nicholas Works closed in 1928, the site soon became fragmented as parts of it were used for a number of different industrial processes: canning fruit and vegetables, processing rabbit skins, cleaning feathers for the bedding industry, body works for motor vehicles and army supplies during the 1939-45 war. In the 1980s much of the site was cleared away for a supermarket development and there was little to remind us of all this past industrial activity until 1991, when the Charles Burrell Museum opened in one of the few buildings to survive, the former Burrell's Paint Shop, Minstergate, Thetford. Exhibits of engines, machines, a wealth of photographs and other displays now tell something of the story that made the name of Charles Burrell famous and the small town of Thetford known in many parts of the world.

AIA 2001 CAMBRIDGE CONFERENCE

WHERE? Fitzwilliam College, Cambridge

WHEN? Pre-conference seminar Friday 17 August

Main Conference Friday 17 August to Sunday 19 August

Post-conference programme Sunday 19 August to Friday 24 August

Lectures and visits will cover a variety of themes, but in particular the drainage of the Fens and the forms of power used. Also planned are the industries of the larger towns of Cambridge and Peterborough, rural industries such as the use of wind power and local extractive industries and their products, such as bricks, lime and cement making. Industries distinctive to the area include coprolite mining, horse racing stables at Newmarket, airships and aircraft restoration.

Details are available from:

The AIA Liaison Officer, School of Archaeological Studies, University of Leicester, Leicester LE1 7RH

0116 252 5337, Fax: 0116 252 5005, e-mail: AIA@le.ac.uk

The Foxfield Railway and Colliery project

The Foxfield Light Railway Society has been awarded a large Lottery grant to restore Foxfield Colliery pithead at Dilhorne in North Staffordshire. This article describes the work of the Society since its formation in 1967 and the plans to restore the mineral railway to the colliery site.

Andrew Mcleish

On 14 February 2001 the Foxfield Steam Railway revealed that it had been awarded £446,500 by the Heritage Lottery Fund as part of a £693,710 project to both extend the railway and restore part of the former Foxfield Colliery purchased last year. The ¾ mile extension will see regular passenger trains running to the former Foxfield Colliery at Dilhorne, where a mining visitor centre is to be created around the two sets of colliery headgear.

The Foxfield Railway has been in preservation for 34 years and is now one amongst a considerable number of preserved railways throughout the United Kingdom. However, it is amongst but a few former industrial railways preserved for tourism and heritage, and it is unique and pre-eminent in being connected to a rural colliery site on which the headgear and some of the original colliery buildings still exist.

The Foxfield Railway was built in 1893 to transport coal from the Foxfield Colliery at Dilhorne in North Staffordshire to the main North Stafford Railway at Blythe Bridge, a distance of 3½ miles. One unique feature of the line was a steep incline known as Foxfield Bank, which is the steepest adhesion worked standard gauge piece of railway line remaining in the UK.

Two years after the closure of the colliery in 1965, the Foxfield Light Railway Society was formed to purchase, preserve, restore and operate the Foxfield Railway as a passenger carrying



Foxfield Colliery showing the downcast headgear (left) and upcast headgear (right). In the foreground are the powerhouse (left) and downcast winding house (right)

Photo: Chris Thomas

heritage railway, and to establish a museum for the exhibition and preservation of industrial steam and other railway engines, rolling stock and machinery and equipment of historical interest. Since formation the Society has partly achieved these aims and successfully runs trains over 2½ miles of the railway from an operating centre built on a green field site near Blythe Bridge. The railway is entirely volunteer run with a membership of around 400, of whom 25% actively work on the railway. Opening at weekends only, the railway is an important local attraction with around 20,000 visitors per year.

At Dilhorne part of the former Foxfield Colliery site is still in private ownership with many of the original buildings and structures in existence. Recently the Society learned of the threat to demolish the colliery headgear. These pioneering 1930-built early concrete structures are thought to be the oldest concrete headgear in existence. These and the former 1893 engine shed have now been purchased by the Society to preserve them for future generations. The engine shed has been dismantled due to its dangerous condition and is to be re-built using as much of the original fabric as possible. It is of brick construction with a tiled roof, and was originally used by narrow gauge locomotives before the building of the standard gauge line to Blythe Bridge in 1893. The building is probably the only remaining engine shed of its type in the country, and will be rebuilt to its 1893 condition. Relaying of track into the shed will be required for locomotive and operation.

A scheme to restore part of the colliery and the railway and develop a mining visitor centre has been produced. The aim is the restoration of an additional section of a rural mineral railway and the preservation and restoration of existing buildings and the two sets of headgear of a former small colliery set in open countryside on

the outskirts of the village of Dilhorne. The cost of the scheme is estimated to be £693,710 of which the Foxfield Railway Society is to provide £247,210 from its own resources along with a further £446,500 award from the Heritage Lottery fund.

On completion of the project visitor numbers could potentially increase to 65,000 per year within ten years, with an expansion of 42,000 within five years. The railway, museum and visitor centre would become an outstanding tourist attraction, a local industrial heritage site and be an important education resource for local schools, demonstrating a once major industry that has disappeared from the North Staffordshire region.

The restoration of this section of the railway between Dilhorne Park and the former colliery will enable the public to travel over the unique



Headgear and remains of the screens viewed from the trackbed. Foundations for water tanks in the foreground.

Photo: Chris Thomas



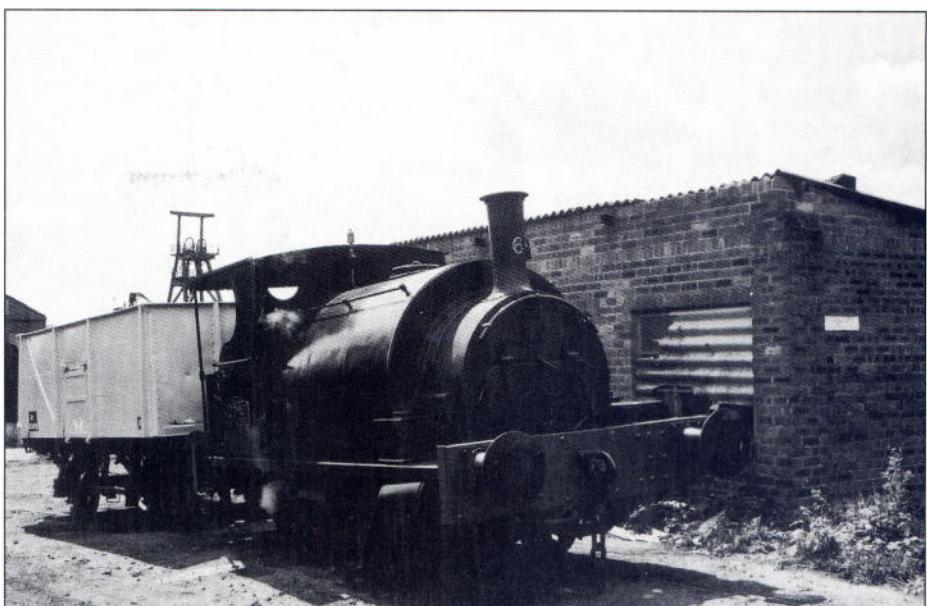
The downcast headgear at Foxfield Colliery. The building beneath is to become a visitor centre

Photo: Chris Thomas

and well known Foxfield Bank and further the full length of the Foxfield Railway which still exists, together with preservation of the former colliery site.

Historically, this type and size of colliery typically employed around 500 men and produced some 200,000 tons of coal per annum. These collieries existed in many parts of the country until the 1960s and upon closure their sites would normally be cleared. Remarkably, many of the Foxfield Colliery buildings, together with the headgear, remain *in situ* 36 years after the closure of the mine. These were under threat of demolition and the Society was anxious to secure the long term preservation of the last remaining such site in the country, which uniquely is still connected with a railway.

In order that the railway may present a more complete view of its heritage, the Society considers the preservation of, and extension of running services to, the former colliery as an important step in its expansion. The colliery preservation will be complementary to the principal activity of the Society, which is to restore and operate the former mineral railway, and it is NOT intended to create a drift mine or underground experience as part of the project. The Society is well aware of the financial disasters that have beset some of the full-scale mining museums in the country, and will ensure that



Robert Heath No. 6 (*Biddulph Ironworks 1886*) poses with a 1940s MOT coal wagon outside the former paint store, which will become the main visitor reception
Photo: Chris Thomas

development and operation of the mining centre will have tight financial control.

In support of the above the Society is running an appeal fund, with contributions now standing above £13,000. The appeal has been low key to date; however, the Society is hoping to reach the

£25,000 mark over the next few months. Further details, together with a range of benefits are available from Jon Beardmore, 33 Sandpiper Road, Aldermans Green, Coventry, CV2, ITU. ☎ 024 76687088.

LETTERS

The Editor welcomes correspondence on all matters of interest to our readers

Etruria Industrial Museum

Further to my article on the recovery of a ball mill for the Etruria Industrial Museum (*IA News 117*), arrangements are now in hand for re-assembling the ball mill and its drive in the museum's forge building, the first task being the installation of concrete foundations. Meanwhile the opening of Shirley's mill, the main feature of the museum, has been delayed as more structural problems have been found. The restoration of as steam engine at Middleton Pottery continues.

The museum has also recovered some equipment from a former colour grinding mill, Adderley Mill near Cheadle in Staffordshire. However at present it does not look as if the museum will re-open to the public this year.

Chris Bradley
8 Dorset Close, Congleton
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Cinema ventilation systems

I was most interested to read Shaun Richardson and Anne Upson's article regarding the Embassy Cinema, Braintree, Essex, in the May edition of

Industrial Archaeology Review, Vol. XXII No.1, May 2001.

Whilst studying for a Master's Degree in Industrial Archaeology at the Ironbridge Institute (1995-96) I completed a paper comparing the former, 1920s, Empire Cinema, Shrewsbury, with the modern UCI multi-screen complex in Telford. During a visit to the Empire I was introduced to its long disused, original, ventilation plant. An installation closely resembling that employed at the Embassy. I was informed that it was a plenum forced air ventilation system. Apparently in cold weather the system drew in air, heated it with oil-fired burners, then blew it around the building via fans and ducting. In warm weather air was drawn in and cooled by passing it through a fine mist of water, thence distributing it via the aforementioned fans, etc. Viewed from outside the cinema building, the presence of such a system seems to be indicated by the positioning of a louvred opening in the outer wall of the plenum room. This tends to be sited toward the rear of the building.

Following the identification of Legionnaire's Disease in 1976, plenum-type ventilation systems

appear to have been implicated in the transmission of the bacteria responsible for this pneumonia-like ailment. Consequently, cinema plenum ventilation systems, such as those described above, were abandoned in favour of safer alternatives.

Paul H. Vigor
Flat 6, Elmscourt, Bratton Road
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Salt Horn W.M.C.

I have recently acquired a copper uniface token of 20mm diameter with the inscription 'SALT HORN W.M.C.' around 1/2 D. My interest lies in the location and business conducted at Salt Horn. 'W.M.C.' would seem to mean Working Men's Club and this might well suggest mining, as would 'Salt Horn' in the title. I would be most obliged if any reader could give me a lead in this quest.

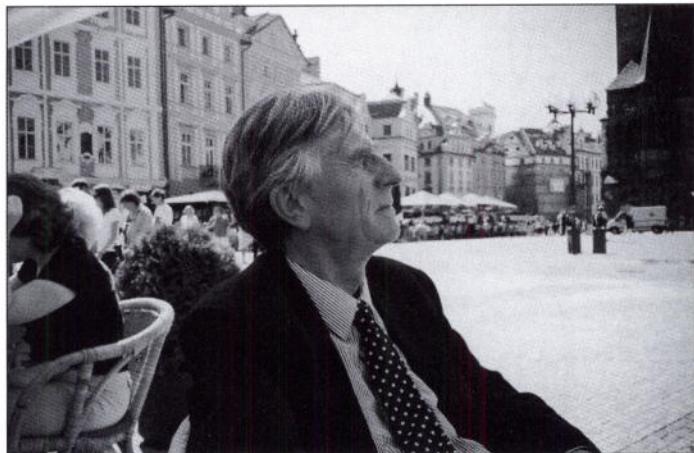
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Edgware, Middlesex HA8 7RL

A new Honorary President for the AIA

We are delighted to announce that Professor R. Angus Buchanan has accepted the invitation from the AIA Council of Management to become the Association's first Honorary President. Angus is well known in industrial archaeological circles and has been involved with the AIA since its formation in 1974, when he was Vice-President and later President. Ten years before he had established the Centre for the Study of Technology at the University of Bath in 1964, which housed the National Record of Industrial Monuments. He was a Commissioner with responsibility for industrial archaeology at the RCHME for 14 years from January 1979. He was the Secretary General of ICOHTEC in 1981-93, and President in 1993-97.

The President's Award 2000

On 6 May, I presented the AIA President's Award 2000 to the Ellenroad Engine House Trust, Rochdale. This award was made for the most outstanding contribution to industrial archaeology seen on a visit during the Annual Conference of the AIA in September 2000. The conference was held in Manchester and Ellenroad was one of the sites visited. Three other sites were also considered: Quarry Bank Mill, Styal; the Museum of Science and Industry, Manchester; and the Canal



AIA Honorary President, Professor Angus Buchanan, relaxing after the 27th ICOHTEC Symposium in Prague, August 2000
Photo: Brenda Buchanan

Museum at Ashton-under-Lyne. However, despite the excellence of these sites, the award was given to Ellenroad. The decision was based on a number of criteria, which are as follows:

1. The site represents an important, preserved, part of the textile industry in the North West. The main engine, the electric generator, boilers and important ancillary equipment are in their original position. The artefacts are not 'over preserved' and give the impression of a real working engine house.
2. Whilst the emphasis is on preserving the original engines and buildings, space has been allocated to display other important artefacts, such as the Whitelees beam engine.
3. Explanation and interpretation boards are well designed, with simple terminology and information useful to all levels of understanding. The commitment to providing an interesting experience to schoolchildren and young people is very impressive.
4. Access for the disabled is well planned with a chair lift to take people from ground floor level to the engine hall. This is a very unusual, though welcome development at what would otherwise be an inaccessible industrial site.
5. Important historical documents relating to Ellenroad are kept in the Rochdale archives and are available to *bona fide* researchers.
6. The survival and development of Ellenroad is in the hands of a dedicated band of volunteers; there are about 15 active volunteers and no paid staff. They are led by Bernard Halliwell, Chairman, and Thelma Wright,

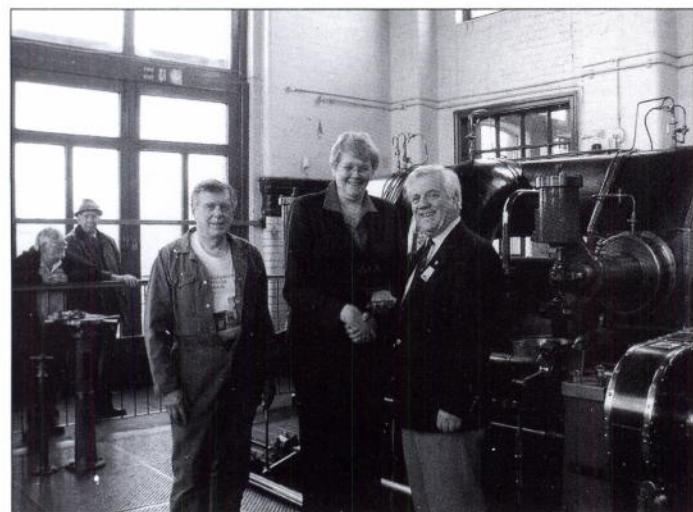
Vice-Chairman. It is of great credit that so few people can maintain and run this significant site.

The Ellenroad Engine House is an important piece of industrial heritage and its survival is a great credit to the hard work of the volunteers and the foresight of the Trustees.

Michael Harrison, AIA Chairman

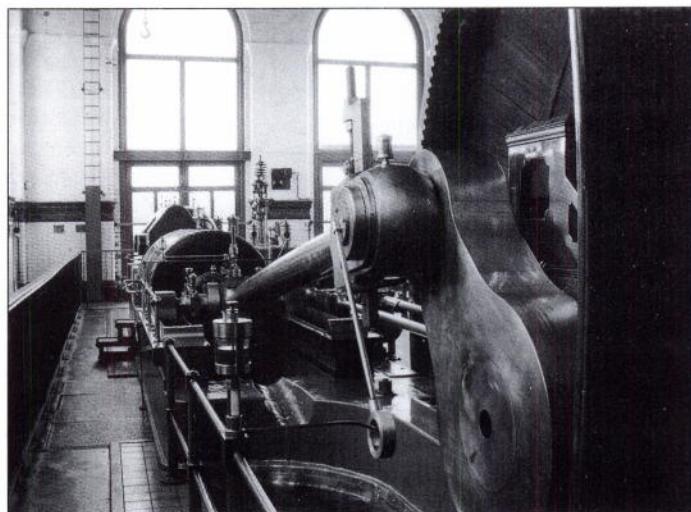
Initiative Award

With the last *IA News* we sent out details of the Conference Bursary, aimed at regular attendees at Conference who may have difficulty meeting the growing cost of attendance. If you missed this, please get in touch with David Alderton (01986 872343) and he will let you have details. The same generous donor has also offered to fund an award to be made at each Conference. Like the President's Award, this will go to one of the places visited in the course of the Conference. However, whereas the President's Award goes to the site which best demonstrates good practice and explains itself well to the public, the new award will go to the site which is judged to show most initiative, promise and perhaps courage, even – or especially – if its supporters have a plethora of good ideas and lots of enthusiasm, but very inadequate resources. Normally it is expected to be a volunteer-run site, though this is not a requirement. Like the President's Award, there will be a tangible trophy, but also a cash grant.



AIA Chairman Michael Harrison presents the President's Award to Councillor Mrs Irene Davidson, Chairman of the Ellenroad Engine House Trustees and Mayor of Rochdale. On the left is Bernard Halliwell, Chairman of the Volunteers.

Photo: Ann Harrison



The Ellenroad mill engine, winner of the AIA President's Award 2000

Photo: Michael Harrison

Tondu Park – an ironworks brought to life

An ivy-covered lift tower ... overgrown stone built coke ovens ... collapsing walls of an old blowing engine house, open to the skies ... a derelict ironworks only just visible through the encroaching trees ... This is what welcomed Ken Shaw, Executive Director of Groundwork Bridgend in 1995 when he went to explore the former ironworks at Tondu near Bridgend, South Wales. A study commissioned from the Oxford Archaeological Unit made it clear that the potential for this magical site was immense, and two years later Groundwork had successfully secured funding from the Millennium Commission, and the hard work began to redevelop the neglected site.

The project is part of a programme being undertaken by Groundwork, the UK's leading environmental regeneration organisation, which will transform 21 derelict sites around the country into new community assets. This 'Changing Places' programme, supported by the Millennium Commission through national lottery funds, is worth over £50m nationally and aims to address the social and environmental problems caused by derelict land and neglected buildings. Additional funding for the project was provided by the European Regional Development Fund, the Welsh Development Agency and Corus. Tondu Park is a prime example of the ethos behind Groundwork's Changing Places scheme, developing the site in an ecologically-informed way,



Rob Kinchin-Smith explains the coke ovens to a party of guests at the Tondu ironworks in April 2001
Photo: Peter Stanier

enhancing its self-regeneration and sensitive to its historical context.

Tondu Ironworks was established c1838 by Sir Robert Price MP, who invested in new mines, worker housing, brickworks and tramroads. Later, John Brogden created a fully integrated company town, brought two furnaces into operation, and built valley branch railways linked to Porthcawl docks. However, as the demand for iron rails decreased, and steel came to supplant wrought iron, Brogden went into receivership and Tondu ironworks finally ceased production in 1895-6. During the twentieth century the site was used as the administrative and engineering centre for North's coal-mining empire, a role it also fulfilled for the NCB until 1986.

Tondu Park can be regarded as a very rich and valuable social and educational resource, lying at the

heart of what is arguably one of the finest examples of a small ironworking company town in Wales. The Oxford Archaeological Unit is acting as consultants to the Trust for Tondu Park, and has been excavating and interpreting the archaeological remains for the past four years. Rob Kinchin-Smith of the OAU believes that the site 'is, without doubt, the most complete Victorian ironworks in Wales.' The unique nature of its collection of ironmaking structures is reflected by it having been Scheduled as an Ancient Monument by Cadw. These include beehive coking ovens, calcining kilns, a lift tower and the former blowing engine house. The first phase of archaeological recording, consolidation and refurbishment works is nearly complete. Recent archaeological excavations have revealed the bases of two blast furnaces and hot blast stoves, and the entrances to later phase coal mining operations.

The primary aim of the Groundwork project is to develop Tondu Park as a major cultural-heritage resource and visitor attraction in the County Borough of Bridgend. Due to its excellent location, ten minutes' drive from the M4 and lying at the crossroads of the Bridgend Community Route network and the Celtic Trail cycle route across South Wales, Tondu will play an important role in the development of countryside access and cycling.

On 18 April, invited guests (including your editor) toured the site under the guidance of Rob



Revealed: the excavated base and casting floor of the Tondu blast furnace
Photo: Peter Stanier

Kinchin-Smith of the OAU and representatives of the Groundwork project team. Highlights included the banks of 'beehive' coking ovens, the calcining kilns, the lift tower, the blowing engine house which is being sensitively converted to office accommodation, and an impressive view over the nearly-complete excavations of the main blast furnace base. When covered over in the next phase, different coloured flooring will mark out the plans of the blast furnaces and casting floors.

Groundwork Bridgend & Oxford Archaeological Unit

Industrial heritage as a force in the democratic society

Sweden held the presidency of the EU for the first six months of 2001 and one of the main events organised as part of this was a pan-European conference on the preservation and management of the industrial heritage. The seriousness with which Sweden takes its industrial heritage is illustrated by the fact that the conference was opened by the Minister of Culture, while one of the speeches at dinner on the first night was given by the Speaker of the Swedish Parliament. The base for the conference was Örebro in Bergslagen, the heartland of the Swedish mining industry but now, as elsewhere in Europe, a post-industrial area trying to come to terms with drastic changes to its previous industrial economy. This was the theme of the conference.

Three major sessions were organised around the key words of Identity, Democracy and Force, each introduced by a speaker on the first day. Thereafter, the three groups each heard six papers from different international speakers and debated the significance of the industrial heritage to their particular theme. I gave a paper called 'Volunteering: the British experience of industrial heritage conservation' in the Democracy session while Annika Alzén from the University of Linköping described the 'dig where you stand' movement in Sweden which encouraged the study of local history. Nicholas Falk from URBED described community involvement in industrial heritage conservation projects, taking as an example the rehabilitation of the Liberty silk and



The engine sheds and turntable at Nora, scene of a memorable dinner during the conference
Photo: Marilyn Palmer

bleach works in the Wandle Valley. The Chairman of the National Heritage Board of Estonia argued that the present government of Estonia was born out of the heritage movement in Estonia which followed freedom from Russian domination, while a Swedish-financed project to help rebuild decayed communities in Poland (the Halland Model) was also presented as an example of co-operation between the highly democratic state of Sweden and the previously hierarchic country of Poland. My group concluded that industrial heritage conservation did indeed contribute to democracy, as it was the heritage of working people that was being conserved, often following community pressure for the rehabilitation of derelict industrial areas. The other two groups followed a similar pattern: the only problem with the structure of the conference was the lack of communication between the three groups until the final session, since questions of identity and democracy

were difficult to separate, while 'force' was actually quite difficult to define in terms of the cultural heritage. However, Henry Cleere, who chaired this session, concluded with a model of the processes of industrial heritage conservation that most of us were very ready to accept.

The conference organisers took advantage of the location of the conference in Bergslagen to hold daily sessions in different areas experiencing problems of rehabilitation. Degefors, the location for day two of the conference, had a huge steel industry until the 1940s, now represented by a stainless steel plant operated by Avesta-Polarit and employing far fewer people. The conference was held in various parts of the workers' village and the plant itself, and included a tour of the operating steel works. The setting for day three of the conference was Nora, a pleasant town with lots of old wooden houses but also the scene of a once large coal mining industry. The first standard gauge

railway in Sweden was built here and the steam trains which still run on it are operated by a volunteer group: the line takes visitors to Pershyttan, where there is a large charcoal blast furnace similar in many ways to Backbarrow in the Lake District, and also to Gyttorp, where an area of twentieth century housing built for one of Alfred Nobel's factories has been declared part of the Swedish cultural heritage and undergone restoration. The visit following the conference took in not only Falun, which produced the majority of Swedish copper from the 17th century onwards and is now nominated for World Heritage status, but also Grängesberg, where a huge iron mine has recently closed and its community is seeking a new existence, and Borlänge, with its industrial suburbs of wooden houses.

This was an extraordinary conference in the true sense of the word. Two of the dinners were arranged in old industrial plants, the first in one of the rolling mills of Avesta-Polarit where the billet rolling plant re-commenced once dinner was over. The second was held in one of the engine sheds at Nora. Seating and feeding 150 people in these conditions was no mean feat: they had actually laid areas of grass in the rolling mill, and organised an art exhibition at the same time, while the dinner at Nora was followed by a symbolic burning of a wood and straw sculpture, the significance of which escaped many of the delegates (except that the last firing of the furnace at Pershyttan had been on Walpurgis night?). The splendid food (including nettle soup and roast elk) was organised by the Department of

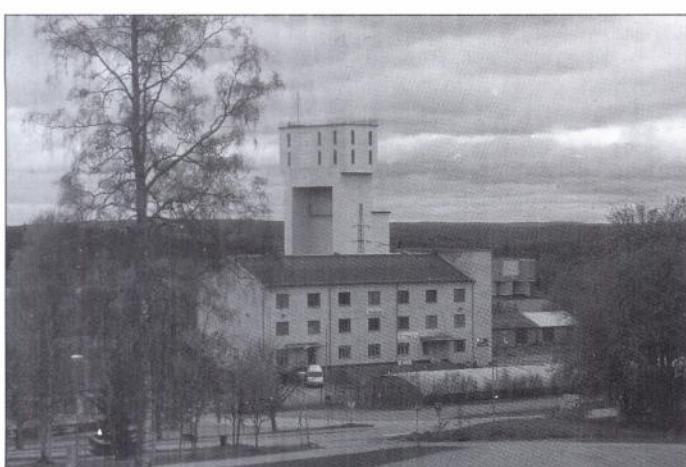
Restaurant and Culinary Art at Örebro University and the Dinner Society of Örebro County. All in all, it was a splendid celebration of the Swedish presidency of the EU and an object lesson in the seriousness with which industrial heritage preservation is taken in the Scandinavian and Baltic states.

Marilyn Palmer

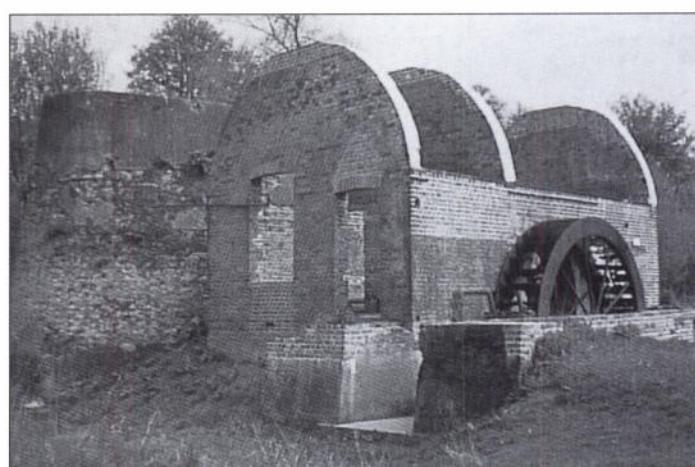
Royal Gunpowder Mills opens after 300 years

After a six-week delay due to the foot and mouth epidemic, the Royal Gunpowder Mills in Waltham Abbey, Essex, opened its doors to the general public for the first time in its 300 year history. The site, described by English Heritage as 'the most important to the history of explosives in Europe', was opened officially on 16 May by HRH the Duke of Gloucester KG GCVO. The Director, Robert Taylor, said 'I am delighted that the Royal Gunpowder Mills is finally open and will be able to play a role in the community at Waltham Abbey. With the torrential rain and floods of the autumn and then the problems caused by the foot and mouth outbreak the contractors and staff have worked tirelessly to complete this important project.'

Home to the production of gunpowder and later the development of other explosives since the 1660s, this unique 175 acre site not only boasts 21 buildings of historic importance, but also a large area of woodland which contains a deer herd and the largest herony in Essex. Its history encompasses gunpowder production and Congreve's rockets in 1804 to the production of cordite



The headgear and office buildings of the Grängesberg iron mine, closed in 1990, with no planned re-use as yet
Photo: Marilyn Palmer



Waltham Abbey: the remains of a gunpowder press house and waterwheel dating from 1885
Photo: Royal Gunpowder Mills



*Part of the network of canals still on the Royal Gunpowder Mills site, Waltham Abbey
Photo: Dave Cox*

for the Great War and the RDX explosives for the bouncing bomb used in the Second World War.

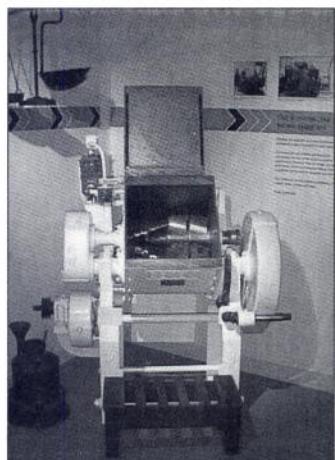
The site was secured with an initial funding package of private and public sector resources. With the support of the Ministry of Defence, the site and collections were transferred to a charitable trust set up to restore and open up the site to visitors. After a major restoration and interpretation project funded by the Heritage Lottery Fund and the Ministry of Defence, one third of the Royal Gunpowder Mills is now open for visitors to explore freely. This includes many of the restored historic buildings, and some of the many canals and waterways which served the site.

A major introductory exhibition explains the history of manufacture of explosives and the vital role of the Waltham Abbey explosives factories. This features many of the objects and images from the photographic collections built up over the years of operation. The role and experiences of the workforce in this specialised industry are explored using both documentary materials and the oral history archive being developed by the Royal Gunpowder Mills. The transport systems are represented by a powder boat which plied the internal canal network and a diesel locomotive typical of the narrow gauge railway system which took over during the last century. During the Great War, women made up over half the workforce of over 6000, and their role is celebrated in a photographic exhibition 'The Munitionettes.'

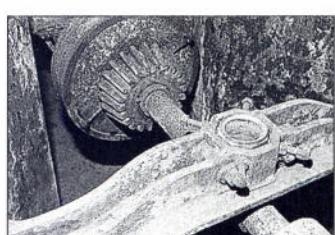
The remaining two thirds of the site, including the heronry, has been designated as a Site of Special

Scientific Interest. It contains many of the important and unusual structures connected with the manufacture of chemical explosives like guncotton and nitro-glycerine, which can be seen by regular guided tours.

There is a comprehensive education programme for all ages and an extensive events programme, which featured an Archaeological Weekend in July and also includes re-enactment weekends and children's events throughout the season.



*An incorporating machine on display inside the main building
Photo: Royal Gunpowder Mills*



*Some of the under-floor workings are still in existence in the Grade 1 listed Incorporating Mill of 1861
Photo: Royal Gunpowder Mills*

For information contact the Royal Gunpowder Mills, Powdermill Lane, Waltham Abbey, Essex EN9 1BN, **T** 01992 707340, **F** 01992 710341.
www.royalgunpowdermills.com

Of cloth and shoes: Cumbria conference report

About 50 members attended the Cumbria Conference last April at the Charlotte Mason College, Ambleside. After the initial introduction by Geoff Brambles, the first speaker Mike Davies-Shiel spoke on the subject of early clothing Statutes which arose from the effect of the Black Death in the 1340s. The scarcity of servants after the Black Death caused some of them to attempt to obtain higher wages. The masters applied to the king who set Statutes which controlled the wages each skilled person could obtain for a given job. However, as usual people found the loophole in the Statutes and a whole series were required to keep the working class subdued.

Not only were the wages that could be paid controlled by Statute, but also the clothes that could be worn by different classes of people. It stipulated both the quality of cloth and also the style of clothing that had to be worn by each class. Over time the upwardly mobile people started to flout these Statutes and altered their dress beyond what had been laid down.

Margaret Robinson spoke on the provision of domestic linen in Cumbria from 1600, using two sources: the Probate inventories and the account books of wealthy families. A large number of people grew flax for their own use, processed by their own labourers and then spun up by the women of the house. The spun linen was then woven locally and the cloth returned to be made up into the required garment or piece of house linen.

Another source of higher quality linen was bought from peddlers who sold Scotch linen or imported material. The gentry used imported cloth for their own use but local cloth for their servants. By the 1660s there is evidence that some people were starting to turn the domestic production of material into an industry, using both imported and locally produced flax. Lord Lonsdale built a large mill at Lowther, but the

industry was short lived due to competition from the imported cotton industry and the developments of mechanisation. The spinning of flax was very difficult to mechanise and this did not occur until the nineteenth century. This kept linen at the top end of the market.

Dennis Perriam spoke on the development of the textile industry in Carlisle. At one time Carlisle was the fourth largest textile producer in England, but there has been very little research on the subject. The majority of the textile industry in Carlisle centred on the River Caldew and the two mill races associated with it. The original mill was the Abbey Fulling mill on the Corporation mill race. This finished the cloth, which was produced by weavers working at home (Dixons once employed 8000 weavers as out workers). In the 1790s the first spinning mill was built and the number of mills increased rapidly. Most were on the Denton Holme mill race which still exists in the city.

In 1760 Bernard Barton opened a stampery where a pattern was stamped onto the finished cloth by a series of wooden blocks.

Finally, Robert Somervell spoke on shoe making in Kendal. A directory for 1841 showed 30 boot and shoemakers and five tan yards Kendal, but in the following year Robert Miller Somervell arrived aged 21 with his widowed mother and set up in business as a leather merchant. He was joined by his brother John in 1848, and they acquired the Netherfield site in the town. By 1862 they were the largest employer in Kendal and had started producing shoes themselves.

In 1865 they started to put a 'K' on the soles that they were sending out to their out workers to stop them substituting lower quality products. The speaker outlined the history of the factory and the company in Kendal up to the amalgamation with Clarke Shoes of Street in Somerset.

This brought another successful April conference to a conclusion.

Graham Brooks

Forest of Dean mining records preserved

The County Record Office in Gloucester has received an important collection of records of the Forest of Dean mining company,

Henry Crawshay & Co Ltd of Cinderford. The records date from the formation of the company in 1889 until 1947 when the mines were nationalised along with the rest of the British coal industry. They contain information about the performance of the company's collieries which included Lightmoor, Eastern and Northern United and Shakemantle. Accidents are also recorded.

The first two minute books cover the period when the company still owned iron mines, and contain much information about the decision to wind them down. Minutes from the 1930s reveal difficulties with water in Lightmoor Colliery, losses at Northern United and with labour relations. There are also occasional glimpses of the power and influence which the Crawshay family had in the Forest. The company made annual donations to charities and the Gloucester Royal Infirmary, but in 1905 William Crawshay was opposed to the building of a secondary school in Cinderford.

Crawshay's was an important part of the Forest economy for over 50 years and the archive has been passed to the Record Office by local historian David Bick, who is well known for his research on the county's industrial past. It is believed they were previously in the hands of a former director of the company, Frank G. Washbourn. Other records from the company were dispersed in the late 1980s and the Record Office would be very pleased to hear from anyone who knows their whereabouts. For further information, contact Kate Maisey, Senior Cataloguer, Gloucestershire Record Office (01452 425294), Nick Kingsley, County Archivist (01452 425299), or David Bick (01531 820650).

Alexandra Palace under threat?

At Alexandra Palace in North London are two studios from which the world's first regular high-definition television broadcasts were made (there is a blue plaque to this effect on the outside of the building). These studios are the EMI studio A and the 1936/7 Baird studio B. They are currently under threat as the interior of the south-east wing of the building which contains them

is unlisted and a danger has arisen that the wing could be gutted and used for something like a bingo hall or wine bar as it has been proposed to lease the Palace to a developer. A major monument to our technological heritage might be lost. A campaign and petition to save the studios is being organised by John Thompson. If you care contact him for further information at 5 Prospect Place, London N17 8AT, 020 8808 0692, or e-mail thompson.john@btinternet.com.

Robert Carr

Sir Neil tightens a nut

On Tuesday 29 May a milestone event was held at the Crossness Pumping Station in south east London, to commemorate the completion of the mechanical restoration of 'Prince Consort', one of the four great beam engines housed there. Sir Neil Cossons, Chairman of English Heritage was there to tighten the last nut. Also Peter Bazalgette, great, great grandson of the MBW Chief Engineer and Trust Chairman, along with Lucinda Lambton, who is Vice President, John Ridley and Jennie Page, who are both Trustees, and many volunteers and friends. The Mayor of Bexley and representatives of Thames Water were present, making a total of around 115 people. The engine was then turned over by using the original hand barring engine, driven by geared electric motor, to drive the flywheel.

After this successful event, we now look forward to the next stage which will be to get the engine in steam. Progress towards this is well under way. To view progress, advance bookings can be made by contacting Crossness, 020 8311 3711 any Tuesday or Sunday between 9.00am and 4.00pm.

D. I. Dawson

Standedge tunnel re-opened

Britain's longest and deepest canal tunnel was re-opened on 25 May after extensive restoration work. The 3½ mile tunnel on the Huddersfield Narrow Canal was completed in 1811 after 16 years' work, but was closed in 1944. The major scheme to restore the canal, funded by the Millennium Commission and English Partnerships, has also involved the restoration of locks, and the building of new locks, bridges and tunnels. A

£2m visitor centre has been opened at Marsden.

Ironbridge Library Resource

The Ironbridge Gorge Museum Trust's Library has a growing collection of academic papers completed by students of the Ironbridge Institute. Comprising original research papers on Industrial Archaeology, Industrial Heritage and Heritage Management, this sizeable archive represents a valuable, and not generally known, research resource. Access can be arranged through the IGMT's Librarian, John Powell.

Mersey ferry on the Thames

MV *Royal Iris* was built in 1951 and for a Mersey ferry is large – 1,234 tons gross – about twice the tonnage of the other ferries. Unlike them she has a very streamlined appearance and was used for dining and cruising. Something of an oddball vessel she is now on the Thames in London near the Thames Barrier (see photograph). Many older Liverpudlians probably have fond memories of her from their younger days.

With diesel-electric twin-screw propulsion she had a speed of 13 knots and is 159 feet long with a beam of 50 feet. At present her condition is poor with peeling blue paint. It is hoped shortly to repaint her in silver. There are hopes she might be restored for use on the Thames for party and nightclub purposes. Her present owner, Mr

James Jegede, would like to hear from anyone interested in her restoration; write to him c/o M V Royal Iris, Barrier Gardens Pier, Unity Way, London SE18 5NL, 078 1865 6201 or e-mail jegs@vodafone.net.

Robert Carr

F & M stops Irish mines visit

The National Association of Mining History Organisation's Irish field meet has been cancelled because of foot and mouth disease. This, and the restrictions in the British countryside have made a self-contained conference a necessity. 'Mining History and Beyond' has been organised at short notice, and is listed on the Diary page.

Trevithick road loco climbs Camborne Hill

Members of the Trevithick Society have completed their replica steam road locomotive in time to celebrate the 200th anniversary of Richard Trevithick's famous drive up Camborne Hill, but not without disappointment and frustration. The hard efforts and skills of all those involved in building this replica were dashed at the very last minute, when officialdom and fears of speeding (!!) banned the steam vehicle from leading the annual Trevithick Day parade through the town on Saturday 28 April. However, after long negotiations with officials and the police, the frustrated team was at last allowed to take their machine out and go for the summit on the following day.

Gala Day at Hereford water museum

The Waterworks Museum at Hereford held a successful Gala Day on 24 June, opened by the Mayor of Hereford who arrived in a Rolls Royce Silver Ghost, heading a cavalcade of 30 vintage cars from the Town Hall. The museum has had a good year with record grant aid, visitor numbers, membership and school visits. New engines and displays have been commissioned and substantial funding has come from the Fulford Foundation in the Netherlands for redisplaying the museum. The small Tenbury Wells steam pumping engine is now operational and future projects include the rescue and erection of a



A stern view of the MV Royal Iris on the Thames

Photo: R. J. M. Carr

wind-powered turbine for water pumping, standing at Bridge Sollars. The Waterworks Museum is at an historic turning point and with local support and its hard-working volunteers is set to become one of the premier heritage attractions of the region.

When opened in 1975, the site was described as the first waterworks museum in Europe. For details of opening times, please contact Dr Noel Meeke, Llancraugh Cottage, Marstow, Ross-on-Wye, Herefordshire HR9 6EH. E-mail: hwm@marstow.demon.co.uk

All change at King's Cross and St Pancras

Redevelopment around the new terminus for the Channel Tunnel Rail Link costing £5 billion over the next 14 years is set to change the face of King's Cross and St Pancras. Industrial archaeologists should visit these areas and see for themselves what is going on before, as in the case of King's Cross, all is swept away after the main work started at the beginning of July. At any rate take a last look at some of the famous and worthwhile sites before they disappear for good – tempus fugit. By the end of the decade the King's Cross area will probably resemble Broadgate or even Canary Wharf.

What will shortly happen at King's Cross will be traumatic indeed although during the major rebuilding works we are promised that normal services will be more or less maintained. However, when it is all done by about 2007 it is claimed Brussels will be only two hours away and Ebbsfleet a mere 15 minutes.

The latest news is that the work of demolishing the unlisted c1886 St Pancras gasholders started on



*The 'Forest of Iron' gasholders at St Pancras
Photo: R. J. M. Carr*

Wednesday 6 June 2001 and work is progressing quickly. The accompanying photograph shows the famous listed 'Siamese triplet' which has been likened to a 'Forest of Iron'. These gasholders which date from a rebuilding in 1880-81 are to be dismantled with a view to re-erection.

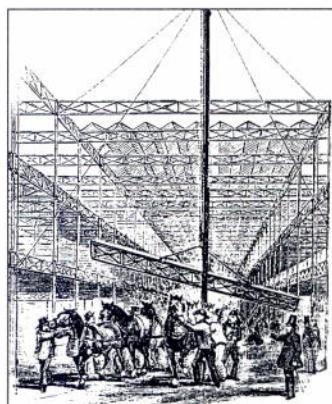
Robert Carr

Dunkirk Mill

The Stroudwater Textile Trust is near to an agreement to open a small part of Dunkirk Mill near Nailsworth, Gloucestershire. There is a working waterwheel of 1855 and there are plans to attach shafting to run the Yorkshire teasel gig that the Trust restored last year. There is also room for a small fulling mill and display about the mill. This is the Trust's first permanent site, although there are limits to opening.

Crystal Palace conference

An important one-day conference 'Iron & Glass: The Crystal Palace and its influence', is being held on 17 October 2001 to commemorate the 150th anniversary of the construction of the Crystal Palace in Hyde Park. The conference has been organised by the Institution of Civil



Building the Crystal Palace

Engineers Archives Panel, the Institution of Structural Engineers History Study Group and the Victorian Society. The Crystal Palace was celebrated at the time of its completion as an heroic achievement, just as important as the exhibition it housed, and ever since it has been regarded as an icon of Victorian industrialisation. While many other aspects of the Victorian age have been reappraised, its reputation has gone unquestioned.

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Southern Works: Riverside Business Park, St Annes Road, St. Annes Park, Bristol, BS4 4ED. Contact: Geoff Wallis Tel: (0117) 9715337 Fax: (0117) 9771677

The conference will consider the design and construction of the Crystal Palace, its dismantling and re-erecting at Sydenham, and its subsequent history. It will re-appraise the role played in its development by figures such as Joseph Paxton, I.K. Brunel, Owen Jones and Fox & Henderson. In addition it will survey the influence of the Crystal Palace on subsequent exhibition buildings in Munich, New York, Paris and elsewhere, and its overall place in the history of structural design.

For details and booking forms, send SAE to The Victorian Society, 1 Priory Gardens London W4 1TT.

Se-Tech 2001

Steam Energy Technology 2001 is an international symposium on steam, organised by the Trevithick Society and believed to be the first of its kind, to be held on 21-23 September at Falmouth, Cornwall. It aims to establish the contribution made by Trevithick to the development of industrialisation. Speakers will reveal how his tenacious work of 200 years ago still forms the basis

for the latest positive research in transport, refrigeration and waste to energy processes. Much of today's very positive work is quite unknown in the UK.

Speakers from Switzerland will explain how the latest application of high-efficiency, low emission steam has replaced diesel on its railway lines to Austria. Other international speakers will explain the very latest applications of high pressure steam in maritime, industrial, waste to energy, aeronautical and space technology. Se-tech will also share the current work on Trevithick's CFC-free air cycle refrigeration principle which is due to be come the future ecologically acceptable alternative coolant.

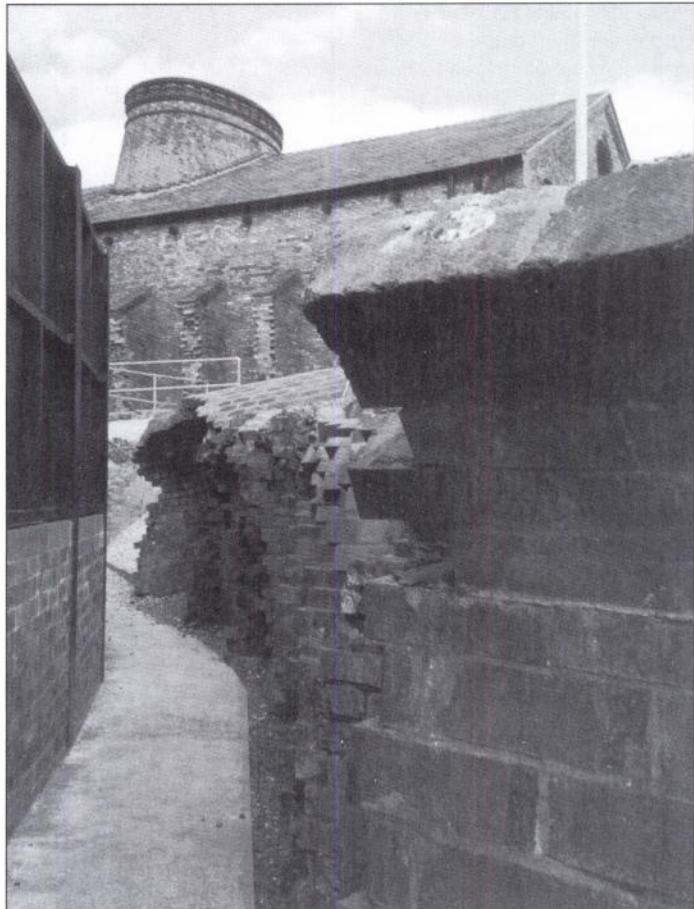
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North West England

I would like to draw your attention to the Liverpool Engineers' Photographic Archive, which had been described to me by Roy Forshaw, a very active member of the Merseyside Industrial History Society, as the new research tool. The archive is presently being re-catalogued for easy public access. Useful for both archaeologists and historians, the archive is held in the Liverpool Records Office and contains 168,000 photographs dating back to the late nineteenth century. Filmed in sequence as works progressed, the photographs record bridge building and alteration, road building and widening, and the building of Speke Airport. For the tram enthusiast there are collections of photographs taken of routes as they were closed, and every street tram line has been recorded. In addition there are some unusual photographic records of a day in the life of a bus service, and old refuse collection carts and vehicles for example. Often there are background details which have proved to be the only known photographic record of a building or structure. There are masses of superb prints here and, although copying with a camera is allowed, you must not use flash, so a tripod and close focusing lens are necessary. At the moment the Record Office is hoping to transfer some of these photographs onto CDs for sale to the general public; we look forward to this development.

I may have mentioned in a previous report the name of Joseph Williamson, also known as 'The Mad Mole', a millionaire tycoon who saved more than 200 soldiers from poverty after their return from the Napoleonic Wars. Rather than just giving them money, he set them to work carving out an underground village beneath the soft sandstone of Edge Hill, Liverpool. Until his death in 1840, he paid for this army of former soldiers to build tunnels, halls and even a mansion below ground, keeping alive traditional masonry skills. It is said that the rail engineer Robert Stephenson was so impressed with their work that he hired some of the ex-soldiers for his own workforce. Now after over 160 years the tunnels, which had been filled with rubbish and forgotten, have been rediscovered by amateur historian Gabriel Muies. Following a



Number 9 Tank House at St Helens glassworks, with tunnels in the foreground

Photo: E. Alcock

fund-raising campaign the tunnels are to be restored and opened to the public.

The Manchester Region IA Society reports that the Ancoats Building Preservation Trust has been successful in securing a grant from the Heritage Lottery Fund for the restoration of St Peter's Church and Murray's Mills. £5 million has been allotted with an initial grant of £278,000 to allow the Trust to work out proposals for the Grade II* listed mill complex and the church. Internationally important, the Murray brothers were part of the development that linked steam engines to power spinning machines. Part of the mill complex dates from the end of the eighteenth century, and includes the oldest mills left standing in Manchester. The Trust hopes to repair the buildings and bring them back to life.

Textile mill demolitions continue in Greater Manchester, with a further nine lost in the year 2000, including the Victoria Mill in Stockport which was damaged by fire in November and now awaits demolition.

Hard-working members of the

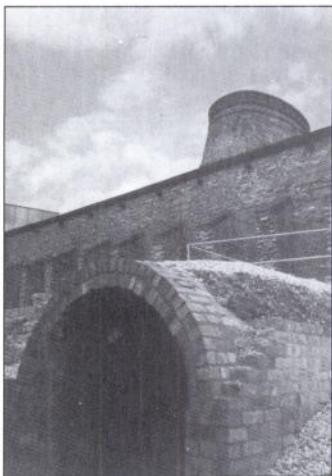
Sankey Canal Restoration Society never seem to pause for breath. They no sooner finish one project than they head off for another; sometimes they don't even wait for one to finish. It seems that the infilled Hey Lock breaks up perhaps the most scenic section of the Sankey Canal – wooded land to the east and the Sankey Brook and open farmland to the west. Restoring this lock would provide an excellent stretch of water for running regular trips, increasing interest in opening up further navigable stretches. A £20,000 grant from the European development Fund for its restoration could well cover the cost of making and installing the lock gates, leaving the clearance and refurbishment for SCARS. Samples have been taken to test the infill material and show how best to dispose of it under current regulations. Although not yet a SCARS site, I have a feeling it will be. The Society still found time in their hectic schedule for the annual Mersey Basin clean-up weekend at Newton Common Lock and Penkford Bridge. Where do they get their energy?

The Lion Salt Works in Northwich has been invited to

become an anchor point in the European Route of Industrial Heritage. The ERIH seek to promote the product of 'industrial tourism' as they would a city break, offering information to interested parties for both national and international destinations. The project is being developed by co-ordinators in the UK, Germany, Holland and Belgium. Trustees as the Lion Salt Works are currently assembling a Stage 1 bid to the heritage Lottery Fund for the potentially large cost of conserving the very important salt works.

In St Helens on Merseyside, the town built on glass, coal and Beechams Pills, a new visitor attraction has opened: 'The World of Glass'. Built on the site of an early Pilkington glass works, it tells the story of glass through a well set-up exhibition and an audio visual show. The highlight for those interested in industrial archaeology are the underground tunnels under the Number 9 Tank House, a nineteenth-century continuous regenerative glass tank furnace. The tunnels had been filled in and forgotten until recently, after production ceased on the Jubilee site in 1922. The tunnels are monster fuel and exhaust pipes which carried the hot exhaust gases from the furnace to the chimney, passing beneath the furnace through the underfloor chambers which were made even hotter but, because cheap coal was used in the furnace, tar condensed and left black deposits in the flues. These deposits had to be removed by setting fire to the flues every Saturday night, not a healthy operation for the local residents.

Edwina Alcock



An exterior tunnel for Number 9 Tank House at St Helens glassworks

Photo: E. Alcock

Home Counties

It is 25 years since the Vale of White Horse IA Group was formed, originally as Wantage IA Group. Like many other such creations of the 1970s, it resulted from an Adult Education Course. During its quarter century the group has undertaken several recording and conservation projects, most notably its restoration (in its final stages) of Charney Bassett Watermill, and more recently work on artefacts and archives relating to Morland's Brewery, Abingdon, which was closed shortly after Greene King's take-over.

Like many IA groups, the majority of the membership is well into middle age, and it finds difficulty in recruiting younger members. However, to celebrate its silver jubilee, 30 or so members (including many who joined at the group's first meeting) celebrated with an evening tour of the Great Western Society's Centre at Didcot,

followed by an excellent buffet supper in the preserved 'Ocean Saloons'.

The Great Western Society was set up in Southall in 1962 with the aim of preserving what they could of the GWR. In 1963 a 0-4-2T (1466) was acquired, and in 1967 a much enlarged Society took over the 1930s locomotive shed (one of the last built by the GWR) on the north side of Didcot Station. Over the past 30 years the Society has gone from strength to strength, increasing its collection of locomotives (including Wantage Tramway No.5 Shannon – on loan from the National Collection) and assorted rolling stock. It has realised its dream of running steam locomotives within its own compound between the Didcot-Oxford tracks and the Didcot avoiding lines. It has re-erected rescued items of GWR infrastructure and laid broad gauge track, ready for the 2-2-2 replica Firefly currently nearing completion. Recently, the



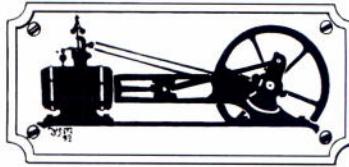
Stotfold Mill before the fire (see page 16)

Photo: Stotfold Mill Preservation Trust



Clearing up debris after the fire at Stotfold Mill

Photo: Stotfold Mill Preservation Trust



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A national journal established in 1974 by J. Keavey (assisted and encouraged by Arthur Raistrick and Bill Mitchell – and ably supported by many enthusiasts over the years) dedicated to recording and publishing research on the fast disappearing remains of our industrial past.

The journal has vainly struggled on into its 27th volume, has almost folded several times through lack of national support, but was revived and revamped in 2000 under new publishers Hudson History of Settle. Since the tragic death of founder Editor John Keavey last year the IH journal is now edited by Phil Hudson.

We are now looking for more support and input from researchers, writers and IH enthusiasts everywhere and making a plea for new subscribers.

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Society has been given a further boost by the release by Railtrack of further sidings, earmarked for additional museum space and improved visitor facilities.

In a previous report I described how the Arbery Trust was hoping to retain the character of a listed drapery and haberdashery in Wantage. The Trust failed to get the necessary Lottery funding and the site has been since reopened by a private developer as an antique shop, etc.

Stotfold lies almost on the Bedfordshire and Hertfordshire border, close to Letchworth Garden City. In the mid-nineteenth century it was an agricultural and straw plait village. The 1086 Domesday Survey listed four mills, and one mill on the Ivel was taken over in 1888 by the Randalls just after steam power was added to augment the water wheel. The Randalls milled until 1966. In 1992 there was a bad fire but most of the milling machinery was found to be repairable, justifying a 1987 County Court judgement that 'the mill and its machinery are of national importance', which prevented demolition for redevelopment.

The mill has since been acquired by the Stotfold Mill Preservation Trust who intend to restore it to

working order. It has a large wheel, 7ft diameter and 14ft wide, installed in 1897 by Whitmore and Bunyon. Restoration work is progressing well, advised by Sam Randall, the last miller, and Ron Roper who helped restore Bromham Mill near Bedford. Further details may be obtained from The Secretary, Stotfold Mill Preservation Trust, Mill House, Mill Lane, Stotfold, Hitchin, Herts SG5 4NU, (01462 835244).

Lastly, Berkshire IA Group, like their Wantage neighbours, have also experienced problems with recruiting new members, but managed to organise a full programme of talks from January to May 2001. BIAG meets at the Museum of English Rural Life (MERL), University of Reading, Whiteknights, Reading. Details of the Group can be obtained from Dennis Johnson, 20 Aclum Close, Burghfield Common, RG7 3DY.

Phil Morris

Northern England

The foot and mouth epidemic led to the closure of most of the countryside in the northern counties, and of most of the sites of archaeological interest. Hadrian's Wall, the best part of which is two miles north of my home, was closed in its entire length. Field visits for

most societies became urban visits, and in the case of our own village society it led to a very rewarding visit to Whitehaven on the Cumbrian coast.

Whitehaven is one of the first British post-medieval planned towns. Once a small fishing settlement in the lands of St Bees Priory, it was developed by the Lowther family into a thriving port serving a vigorous coal trade with Ireland. The first of its piers was built in 1643 and adits were driven into the nearby hills to extract coal. The settlement prospered. Its population, which was 250 in 1640, reached 2000 by 1706. A handsome town was constructed, laid out in a grid pattern which is still evident today.

The Irish coal trade, especially to Dublin, was the basis of its prosperity, but an additional trade across the Atlantic was to develop. Coal ships, which lay idle during the summer months, were sent westwards by their owners to bring back high value cargoes such as rum, tobacco, sugar, spices and exotic timbers. Thus Whitehaven became an international port, re-exporting much of this produce to Europe.

The middle years of the eighteenth century were

Whitehaven's heyday, a thriving port with a shipbuilding industry and a prosperous hinterland of coal mines and ironworks. In the nineteenth century it lost out to the newer deep water ports of Liverpool and Glasgow which were able to handle the bigger merchant vessels. Nonetheless, Whitehaven's trades and industries continued well into the twentieth century, its last deep coal mine, Haigh Colliery, closing in 1986. Like many other northern industrial communities it was cruelly hurt in the depression of the 1920s and 1930s, a time when much of its Georgian and Victorian structures became slums.

New industries, not least chemicals and nuclear energy and fuel processing, have halted a long decline. An enlightened programme of restoration and preservation has revealed a great concentration of Georgian architecture, and the harbour now presents itself with style and flair.

The town's history is explained and interpreted in the excellent harbourside Beacon Building. The 'Rum Story' is found in the original eighteenth century shop and bonded warehouses of the Jefferson family. But perhaps best of all for industrial archaeology enthusiasts is Haigh Colliery Museum, situated on a hilltop on the south side of Whitehaven in the village of Kells. There is much work to be done at this site, and there is a growing team of enthusiasts to do it. There are two steam winding engines, one of which has been restored to working order, and you can get to drive it. There is still much restoration to do on the second engine and on the building which contains it, and a growing collection of mining artefacts.

Included in the site is Salthom Pit, sunk in 1792 on the seashore below Salthom cliffs by the engineer Carlisle Spedding, and the first English colliery to work under the sea. The scramble down the cliff path to its old engine houses is well worth every gasp on the scramble back. Bonuses at Haigh Colliery are distant views northwards across the Solway to Dumfries and Galloway, westwards across the Irish Sea to the Isle of Man, and inland to the high fells of the Lake District. I warmly commend Whitehaven to our readers.

Fred Brook

REGIONAL CORRESPONDENTS

Please support your Regional Correspondent by sending relevant material which may be of interest to our readers.

Region 1: SCOTLAND

Dr Miles Oglethorpe, Royal Commission on the Ancient and Historical Monuments of Scotland, John Sinclair House, 16 Bernard Terrace, Edinburgh EH8 9NX

Region 2: IRELAND

Michael Coulter, Department of Environment, Historic Monuments and Buildings, 5-33 Hill Street, Belfast 1

Region 3: NORTHERN ENGLAND

Cumbria, Northumberland, Tyne and Wear, Durham and Cleveland
Fred Brook, Hartland, Redburn, Hexham, Northumberland NE47 7EA

Region 4: YORKSHIRE AND HUMBERSIDE

North, South and West Yorkshire and Humberside
Derek Bayliss, 30 Muskoka Avenue, Bents Green, Sheffield S11 7RL

Region 5: NORTH WEST ENGLAND

Lancashire, Merseyside, Greater Manchester and Cheshire
Mrs Edwina Alcock, 1 Elsworth Close, Formby, Merseyside L37 2YS

Region 6: WALES

Stephen Greuter, 16 Ffordd Trem-y-Foel, Parc Bryn Coch, Mold, Clwyd CH7 1NG

Region 7: WEST MIDLANDS

Shropshire, Staffordshire, West Midlands, Warwickshire, Hereford and Worcester

John Powell, Ironbridge Gorge Museum Trust, The Wharfage, Ironbridge, Telford, Shropshire TF8 7AW

Region 8: EAST MIDLANDS

Derbyshire, Nottinghamshire, Lincolnshire, Leicestershire and Northamptonshire

David Lyne, 10 Somerville Road, Leicester LE3 2ET

Region 9: EAST ANGLIA

Cambridgeshire, Norfolk, Suffolk and Essex

David Alderton, 48 Quay Street, Halesworth, Suffolk IP19 8EY

Region 10: GREATER LONDON

Dr R.J.M. Carr, 127 Queen's Drive, London N4 2BB

Region 11: HOME COUNTIES

Oxfordshire, Bedfordshire, Berkshire, Buckinghamshire and Hertfordshire
Phil Morris, 71 Van Diemens Road, Stanford in the Vale, Oxon, SN7 8HW

Region 12: SOUTH EAST ENGLAND

Hampshire and Isle of Wight, Surrey, Sussex and Kent

Chris Sheppard, Rose Cottage, 22 Ridgeway Hill Road, Farnham, Surrey GU9 8LS

Region 13: WEST OF ENGLAND

Somerset, Avon, Gloucestershire, Wiltshire and Dorset

Mike Bone, Sunnyside, Avon Close, Keynsham, Bristol BS18 1LQ

Region 14: SOUTH WEST ENGLAND

Devon and Cornwall

VACANT

Conservation of Industrial Heritage at the University of Brighton

Students from traditional engineering disciplines may not always see a future in industrial-heritage conservation, even though millions of pounds are being committed by the Heritage Lottery Fund, English Heritage and other grant-making bodies. Nor do they readily accept that conservation work can have academic merit. However, now that traditional apprenticeships are long-gone, perpetuating the knowledge of the declining band of 'old timers' is vital to the long-term survival of many artefacts.

In collaboration with the British Engineerium, the University of Brighton offers an innovative cross-disciplinary MSc in the Conservation of Industrial Heritage, taken either as a single-year taught course or spread as individual modules over a maximum of four years. This allows participants from a variety of backgrounds - arts or sciences, practical or academic - to learn skills that are rapidly disappearing at their own pace.

Engineering undergraduates rarely use techniques traditionally associated with the arts, whereas those from arts backgrounds are often scared away by scientific theory. Yet the restoration of a historic object requires the most particular physical skills, and can be as

intellectually demanding as an arcane fine-art project.

Information about the Conservation of Industrial Heritage MSc can be obtained from the Course Leader, John Walter, at the School of Engineering, University of Brighton, Cockcroft Building, Lewes Road, Brighton BN2 4GJ, **T** 01273 642306/642300, e-mail: j.d.walter@brighton.ac.uk

Industrial archaeology at Leicester University

IA is included at all levels of the undergraduate archaeology course and a specialist third year option is taught by Professor Marilyn Palmer. The admissions tutor for archaeology is Dr Sarah Tarlow, School of Archaeology & Ancient History, University of Leicester LE1 7RH. E-mail: SAT@le.ac.uk. There are also Distance Learning Courses. The two-year MA in Archaeology and Heritage has four modules - Landscape Archaeology, Planning and Management of Archaeological projects, the Archaeology of Standing Buildings (which includes much IA) and Interpretation and Management of the Archaeological heritage. Each of these can be taken separately as a Postgraduate Certificate. In addition there are new Distance Learning Certificates in Archaeology, intended for people

with an interest in archaeology with no prior qualifications. Module 6 is on Post-medieval and Industrial Archaeology, and will be available in the summer of 2002. The Co-ordinator for all Distance Learning courses is Dr Alan McWhirr, E-mail: ADM3@le.ac.uk

EVENING COURSES

City University, London

Industrial Archaeology evening courses at City University, London, start in October 2001 and run until August 2002; Lecturer Dr Robert Carr. For 2001/2002 the principal evening for lectures and walks will be Tuesday (note change of day). Write to Courses for Adults, Department of Continuing Education, City University, Northampton Square, London EC1V OHB, **T** 020 7477 8268 for details.

University of Surrey, Guildford

The 26th series of 11 fortnightly Surrey Industrial History Group Lectures on Industrial Archaeology starts at 7.30pm on Tuesday 2 October. Topics for the first part of the 2001-2002 season include the engineering history of 'Rocket', the restoration of the Wellington Arch, the Royal Mint, hydraulic power and aerial photography. Enrolment and details available from John Wakely (SIHG Lectures), 11a Briar Way, Burpham, Guildford, Surrey GU4 7JY.



A reward for hard work: Ellenroad volunteers on duty on the day of the presentation of the AIA President's Award, 2000 (see page 8)

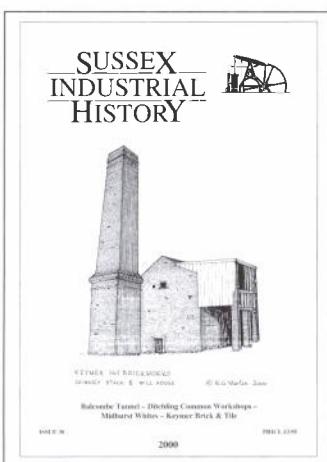
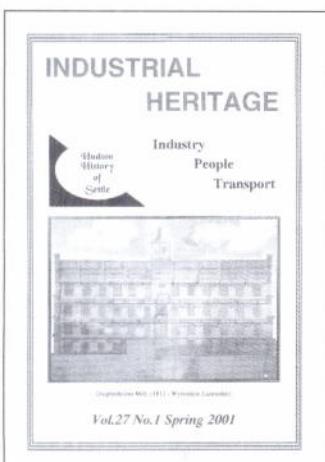
Photo: Ann Harrison

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

- BW Monthly**, December 2000, January to May 2001
BIAGscope, 46, 47 & 48, Summer, Autumn & Winter 2000
BIAS Bulletin, 100, Spring/Summer 2000
Bath History, VIII, 2000
Brewery History, 102, Winter 2000
Brewery History Society Newsletter, 21, Spring 2001
Cumbria Industrial History Society Bulletin, 46-48, April, August & Dec 2000
Cumbrian Industrialist, Three, 2000
Focus on Industrial Archaeology (SUIAG), 55, December 2000
Friends of St. Aidan's BE1150 Dragline Newsletter, 19 & 20, October 2000 & January 2001
Friends of the Charles Burrell Museum Newsletter, Spring 2001
GLIAS Newsletter, 188-194, June 2000 – June 2001
Greenwich Industrial History, 4/1, 2 & 3, January, March & May 2001
Gunpowder & Explosives History Group Newsletter, 1, November 2000
Images of England, 5, 2001
Industrial Heritage, 26/3 & 4, Autumn & Winter 2000, 27/1, Spring 2001
Inland Waterways Hydrology Group, Second Newsletter, June 2001
International Stationary Steam Engine Society Bulletin, vol.22, no.3, Autumn 2000
Lancashire History Quarterly, 4/4, December 2000, 5/1 & 5/2, March & June 2001
Leicestershire Inds Hist Soc Newsletter, Nos.22 & 23, Autumn 2000 & Spring 2001
Manchester Region Industrial Archaeology Society Newsletter, 94 & 95, February & May 2001
The Mundling Stick, 6/3 Autumn 2000 & 7/1, Spring 2001
National Trust Annual Archaeological Review, 8, 1999-2000
Nottinghamshire Industrial Archaeology Society Journal, 26/1, March 2001.
PHEW Newsletter, 88, December 2000 & 89, March 2001
Patrimoine de l'industrie, 4, 2000



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- PIERS, Journal of the National Piers Society**, 58, Winter 2000/01
SAVE Britain's Heritage Newsletter, October 2000
Scottish Industrial Heritage Society Bulletin, 16, March 2001
Society for Industrial Archeology Newsletter (USA), 30/1, Winter 2001.
Somerset Industrial Archaeological Society Bulletin, 85 & 86, December 2000 & April 2001
Surrey Industrial History Group Newsletter, 115, 117-121, May 2000-May 2001
Sussex Industrial Archaeology Society Newsletter, 109 & 110, January & April 2001
Sussex Industrial History, 30, 2000
TICCIH Bulletins, 10 & 11, Summer 2000, Winter 2000-01
Triple News (Kempton Great Engines Trust), No.16, Winter 2000-01
Wind and Water Mills, 20, 2001
Yorkshire Archaeological Society, Industrial History Section Newsletter, 51, 52 & 53, Spring & Autumn 2000, Spring 2001
Yorkshire History Quarterly, 6/3 & 6/4, February & May 2001

Books Received

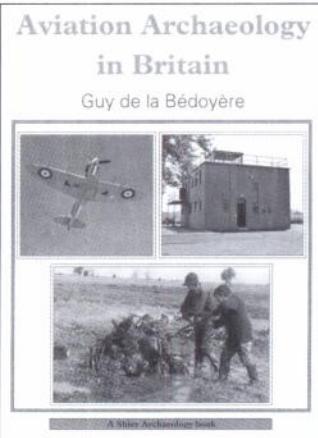
The following books have been received for review in *Industrial Archaeology Review*.

A Historical Gazetteer and Bibliography of By-Product Coking Plants in the United Kingdom, by David G Edwards (Cardiff: Merton Priory Press, 2001), 80 pp, 18 illus. ISBN 1 898937 40 0. £12.50.

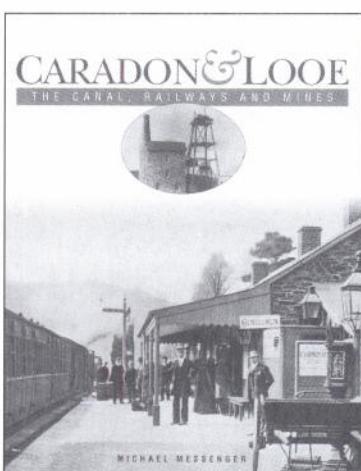
This is the first major work on the history of coke-making in the UK to be published since 1936, provides a record of an industry for which little or no archaeological evidence survives, and will form a basic reference for future studies of individual enterprises or coke-making in general.

Aviation Archaeology in Britain,
by Guy de la Bédoyère (Princes Risborough: Shire Publications, 2001), 64 pp, 54 illus. ISBN 0 7478 0490 7. £4.99.

The remains of crashed aircraft provide a fascinating opportunity for archaeological and historical study – during WW2 an average of five aircraft crashed every day in the British Isles. This book, in the Shire Archaeology series, is a wide-ranging introduction to the aircraft and airfields, documentary record and memorials to the personnel involved.



Caradon and Looe, by Michael Messenger (Truro: Twelveheads Press, 2001), 168 pp, 222 illus. ISBN 0 906294 46 0 hardback £26.00.

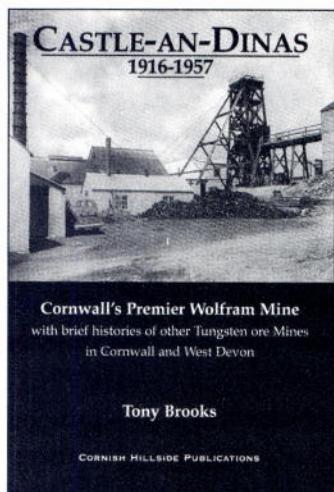


Rich tin and copper mines, granite quarries, a rare Cornish canal and a railway uniquely engineered to convey minerals by gravity combine to make a fascinating story. A unique transport system which served the bonanza of Caradon copper for 50 years has left a picturesque railway line to Looe harbour. It is a story of ingenuity and capability, of independence and interdependence, of hope and despair. It could only have happened in Victorian Britain. An extremely well produced and illustrated book with many previously unpublished photographs.

PUBLICATIONS

Castle-an-Dinas 1916-1957, by Tony Brooks (St Austell: Cornish Hillside Publications, 2001), 146 pp, 63 illus. ISBN 1 900147 15 7 paperback. £11.99. ISBN 1 900147 16 5 hardback. £15.99.

An account of Cornwall's premier wolfram mine with brief histories of other tungsten ore mines in Cornwall and West Devon. A wholly twentieth-century mine which was worked by hand-borers for much of its life, and had the last Cornish pump and steam winder installed in the county. Good illustrations include underground and surface scenes, with a chapter on the industrial archaeology of the site today.



Children's Employment Commission: The Evidence, Cumberland Coalfield, ed. by Ian Winstanley (Ashton in Makerfield: Picks Publishing, 2000), 17 pp. £3.50 plus p/p from Haig Colliery Mining Museum, Solway Road, Kells, Whitehaven, Cumbria CA28 9NG.

This booklet reproduces the report and evidence gathered by J.C. Symons on his visit to coal mines in West Cumbria in 1841 on behalf of the Children's Employment Commission.

Cleethorpes Pier and Promenade, by Tim Mickleburgh (Grimsby: North East Lincs. CC, 2000), 32 pp, 32 illus. ISBN 0 9534395. £4 incl P+P from T. Mickleburgh, 33 Littlefield Lane, Grimsby NE Lincolnshire DN31 2AZ.

This booklet describes the pier at Cleethorpes which was built to entertain the increased visitor traffic following the opening of the Manchester, Sheffield and Lincolnshire Railway in 1863. The pier remains, now only a third of its original length.

Lakeland's Mining Heritage: the last 100 years, ed. by Alastair Cameron & Mike Mitchell (Alston: Cumbria Amenity Trust Mining History Society, 2000), 215 pp, illus. ISBN 0 9539477 0 X. £15.99 plus £3.30 p/p from The Rise, Alston, Cumbria CA9 3DB.

This near A4 format hardback book has eight chapters by various authors, each dealing with different minerals. It is illustrated by excellent archive and contemporary photographs, of surface and underground scenes in both black and white and colour. A glossary, bibliography and index are also included.

Staith to Conveyor: an illustrated history of coal shipping machinery, by Terry Powell (Houghton-le-Spring: Chilton Ironworks, 2000), 132 pp, c200 illus. ISBN 0 9523672 5 4. £16.50 inc. p/p from Chilton Ironworks, 23 Atherton Drive, Chilton Moor, Houghton-le-Spring, Tyne & Wear DH4 6TA.

This book provides a comprehensive coverage of coal-handling equipment in British ports from the early eighteenth century onwards with particular reference to the period 1790 to 1914. Specific installations are discussed and illustrated relating to seven areas, the east coast ports, the North East, Scotland, Cumberland, Lancashire & the Mersey, South Wales and the Forest of Dean.

Structural Iron and Steel, 1850-1900, ed. by Robert Thorne (Aldershot: Ashgate, 2001), 410 pp, 190 illus. ISBN 0 86078 759 1. £85.00.

This is the tenth book in the series Studies in the History of Civil Engineering under the general editorship of Joyce Brown. It consists of 15 reprints of articles from a variety of British, American and French publications together with a 19-page introductory editorial. Subjects covered include the Crystal Palace, the Sheerness boat store and various bridges as well as general iron and steel construction themes.

The Slate Railways of Wales, by Alun John Richards (Llanrwst: 2001), 212 pp, 45 illus. ISBN 0 86381 689 4. £5.95.

Starting with the Penrhyn Railway of 1801, this book traces the chronology of slate-related railways and tramways throughout Wales. Amounting to nearly 300 route miles, these lines enabled a great industry to prosper and brought the benefits of rail connection to some of the remotest parts of the country.

The Toll-houses of Cornwall, by Patrick Taylor (Penryn: Federation of Old Cornwall Societies, 2001), 80 pp, illus. ISBN 0 902660 29 2. £7.95.

This book describes the origins and development of the turnpike road system in Cornwall. There is an illustrated 50 page gazetteer and useful bibliography included.

Tiger Tales and Ales: A Directory of Leicestershire Brewers, 1400-1999, by Mike Brown (Longfield, Kent: Brewery History Society, 1999), 192 pp, illus. ISBN 1 873966 07 5.

This A4-sized book has a brief introduction to the development of brewing but the main section provides notes of varying length on breweries and brewers that are arranged alphabetically by place and by name for the county, including Rutland. Illustrations of some premises are included and a name index is provided.

Short Notices

The Making of the South Yorkshire Landscape, by Melvyn Jones (Wharncliffe Books, 2000), 128 pp, over 100 illus. ISBN 1 871647 75 4. £9.95 inc. p+p for signed copies (cheque to M. Jones) from Melvyn Jones, Kirkstead Abbey Grange, 4 Kirkstead Abbey Mews, Thorpe Hesley, Rotherham S61 2UZ.

A copiously illustrated book guides the reader to an understanding of how this complex landscape – both rural and urban – has evolved. It is a multi-layered landscape created by the endeavours of people using its resources over thousands of years. Of special interest to industrial archaeologists are the final chapters, on the impact of industry on the landscape, and townscapes and cityscapes.

Water Mills and Furnaces on the Yorkshire Dearne and its Tributaries, by Tom Umpleby (Wakefield Historical Publications, 2000), 260 pp, illus. ISBN 0 901869 42 2. £35 plus £4.90 p+p from Wakefield Historical Publications, 19 Pinder's Grove, Wakefield, Yorkshire WF1 4AH.

The definitive account of the mills and furnaces which once existed along the Yorkshire Dearne and its tributary dikes and becks, from Domesday to the present time. It is well illustrated with maps, photographs and tables, with a comprehensive index.

Anne Jones Booksearch Service

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DIARY

4-11 AUGUST 2001

PRACTICAL INDUSTRIAL ARCHAEOLOGY

at Plas Tan y Bwlch, Snowdonia, a long-established course run jointly with Hull University, recording slate quarries at Dorothea and others in Dyffryn Nantlle. For details contact Plas Tan y Bwlch, Maentwrog, Blaenau Ffestiniog, Gwynedd LL41 3YU, 01766 590274, e-mail: plas@eyri-npa.gov.uk

17-24 AUGUST 2001
AIA CONFERENCE,
CAMBRIDGE

at Fitzwilliam College, Cambridge. Please note the date has been brought forward to August. Details from the AIA Office, School of Archaeological Studies, University of Leicester, Leicester LE1 7RH 0116 252 5337, Fax: 0116 252 5005, e-mail: AIA@le.ac.uk

19-25 AUGUST 2001
LITTLE TRAINS IN SNOWDONIA

at Plas Tan y Bwlch, a course on the narrow gauge railways in and around Snowdonia National Park.

For details contact Plas Tan y Bwlch, Maentwrog, Blaenau Ffestiniog, Gwynedd LL41 3YU, 01766 590274, e-mail: plas@eyri-npa.gov.uk

15-16 SEPTEMBER 2001
MINING HISTORY AND BEYOND

at the Novotel, Bradford, concentrating on aspects of mining which have so far received little attention, and a look to the future. Details from Mike Gill, 38 Main Street, Sutton in Craven, Keighley, Yorkshire BD20 7HD, 01535 635388, e-mail: martgill@legend.co.uk

21-23 SEPTEMBER 2001
SE-TECH 2001

at Falmouth College of Arts, an international symposium on the current and future uses of steam energy technology, organised by the Trevithick Society. For information, contact Philip Corbett, Greenacres, Short Cross Road, Mount Hawke, Truro TR4 8DU, 01209 890897, Fax 01209 891134, E-mail: truranbooks@btinternet.com

13 OCTOBER 2001
WILTSHIRE INDUSTRIAL ARCHAEOLOGY SYMPOSIUM

at the Wharf Theatre, Devizes, the 7th biennial IA symposium on textile workers' housing, railway restoration, dam construction, hydraulic rams, bell foundries and Portsmouth dockyard. For details, contact the Bookings Secretary, Devizes Museum, 41 Long Street, Devizes SN10 1NS.

14 OCTOBER 2001
INDUSTRY OF THE CARLISLE AREA

at Tullie House Museum, Carlisle, the 3rd annual October Conference of the Cumbria Industrial History Society. Five speakers on themes relating to the industry and engineering of Carlisle and district. For details and booking form send SAE to CIHS Bookings, Broombank Cottage, Lindal-in-Furness, Ulverston, Cumbria LA12 0LW.

24 OCTOBER 2001
EMIAC 62: A TASTE OF MELTON

at Melton Mowbray, the 62nd East Midlands IA Conference hosted by the Leicestershire Industrial History Society, on the theme of the town's IA and a look at its major industries, pies and pet food. Send SAE for details from Mark Sissons, 1 Far Coton, Market Bosworth, Nuneaton, Warwickshire CV13 0TJ.

OVERSEAS DIARY

7-9 SEPTEMBER 2001
SFES UNDERGROUND ARCHAEOLOGY CONFERENCE

at Laon, northern France, a conference on underground archaeology, particularly the building stone quarries and sand mines beneath the city. Hosted by the Société Française d'Études des Souterrains. Details from M Denis Montagne, 8 rue de Serrurier, F-2000 LAON, France.

13-21 SEPTEMBER 2001
TICCIH IN CHILE

at Santiago, the Third Latin American Meeting on the Recovery and Preservation of the Industrial Heritage, TICCIH-Chile, 13-16 September, with a conference tour 17-21 September. Contact TICCIH-Chile, 56-2 3364 2113, e-mail conpalch@entelchile.net

AIA DIARY PAGE

Information for the diary should be sent directly to the Editor as soon as it is available. Dates of mailing and last dates for receipt of copy are given below. Items will normally appear in successive issues up to the date of the event. Please ensure details are sent in if you wish your event to be advised.

A full diary can also be viewed at www.industrial-archaeology.org.uk



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30 September for November mailing
30 December for February mailing

The AIA was established in 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 groups and bodies involved in the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. The AIA publishes an annual Review and quarterly News bulletin. Further details may be obtained from the Liaison Officer, AIA Office, School of Archaeological Studies, University of Leicester, Leicester LE1 7RH. 0116 252 5337 Fax: 0116 252 5005.

The views expressed in this bulletin are not necessarily those of the Association for Industrial Archaeology.



Headgear at Foxfield Colliery (see page 6)

Photo: Chris Thomas