

INDUSTRIAL ARCHAEOLOGY NEWS

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THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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INDUSTRIAL ARCHAEOLOGY NEWS 111 Winter 1999

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AIA Conference 1999

This year's conference was held at Greenwich University's Chatham campus, on a chunk of the old naval base, to enjoy a wide range of visits in the county of Kent.

Roger Ford

The Friday seminar day, arranged by Tim Smith, garnered a very good attendance, with the morning session devoted to the Thames estuary, and a choice for the afternoon slots between a London theme and brewing. Careful co-ordination of the afternoon's timing enabled delegates to switch between each.

Following the conference welcome, there was a thorough introductory talk by Bob Ratcliffe of Rochester Historical Society, and indeed to many of us the 1999 conference will be remembered as Bob's conference. Every day he led a trip, whilst on the Tuesday evening in an introduction to Wednesday's Medway valley excursions, he showed us a total of 151 superb colour slides!

Saturday dawned sunny and hot and, following a talk by Peter Dawson on the history and development of the dockyard, Rob Kinchen-Smith of Oxford Archaeological Unit talked about site evaluation - very much the theme of this year's conference lectures, again being taken up later when David Eve (author of the conference gazetteer) spoke on current work of the Kent Sites and Monuments Record.

A session of members' contributions included John Selby on the 1777 canal tunnel at Fenny Compton, followed by Neil Wright on an altogether more exotic location - a lime kiln for coral conversion on the Caribbean island of Nevis. Tony Yoward was in his usual ebullient form on cast-iron churchyard monuments at Stourport and the Crux Easton 1894 wind engine; then that perennial troglodyte Paul Sowan spoke on some little-regarded tunnels in Kent.

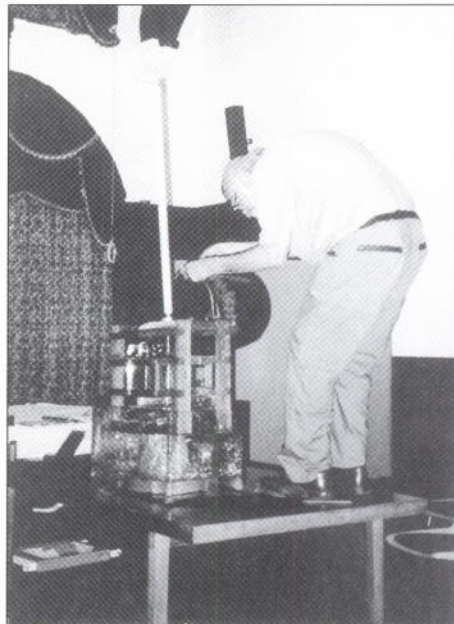
The afternoon's visits offered three choices. Bob Ratcliffe took group A to tour a rather derelict Dolphin sailing barge museum, then on to the Sittingbourne Light Railway. This latter, 2ft 6in gauge, was built to serve the paper mills in the area and is still worked by the original 0-4-2 tanks.

Visit B went to Crockenhill Foundry garage, ostensibly a village petrol station near Swanley. However, at the rear lurks a veritable Aladdin's cave of covered and open-air artefacts, including a 'Burrell' which was in steam, ancient trailers and caravans, and an assortment of decaying lorries and cars, and in sharp contrast one of these latest 'Smart' city cars. En route the restored (by an AIA member) Meopham smock-mill was briefly visited.

The 'local' visit comprised a walk around the dockyard, whose contents can no-way be appreciated in just one day. many historic listed buildings; an interesting museum; covered slips, one of which houses a steam centre, and another an RNLI exhibition; guided trips over the destroyer *Cavalier* (1944) and submarine *Ocelot* (the last warship built at Chatham, in 1962), both in dry docks; an amazing ropewalk, so long (1,135 ft) that from the start it is hard to make out the other

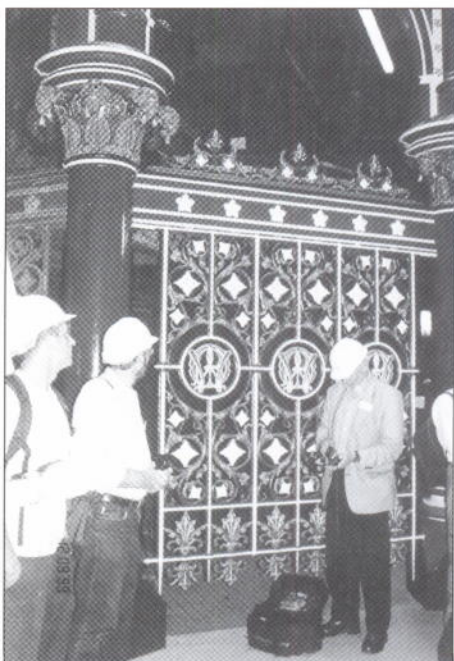
end! All returned to this site in the evening for an excellent conference dinner in the Wheelwrights' restaurant.

Sunday started with the AGM at which the President demoted himself to Chairman, and Council disbanded to be replaced by a much smaller one. Next came the awards presentations (reported elsewhere), and so to the highlight of the morning. An outstanding Rolt memorial Lecture was delivered by Professor Alan Crocker on early water turbines of the nineteenth century. The lecture finished in spectacular fashion with a home-made demonstration model set up on a flower pot in a



One man, his bucket and a turbine: Alan Crocker performs the highlight of his Rolt memorial lecture

Photo: Glenys Crocker



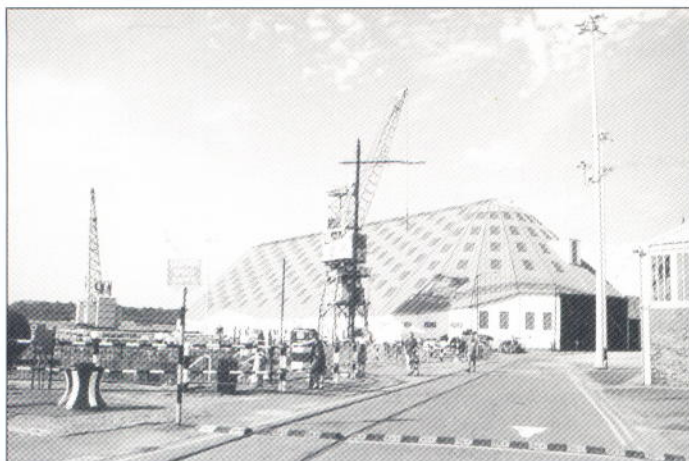
Victorian splendour in the Crossness pumping station

Photo: Ann Harrison

COVER PICTURE

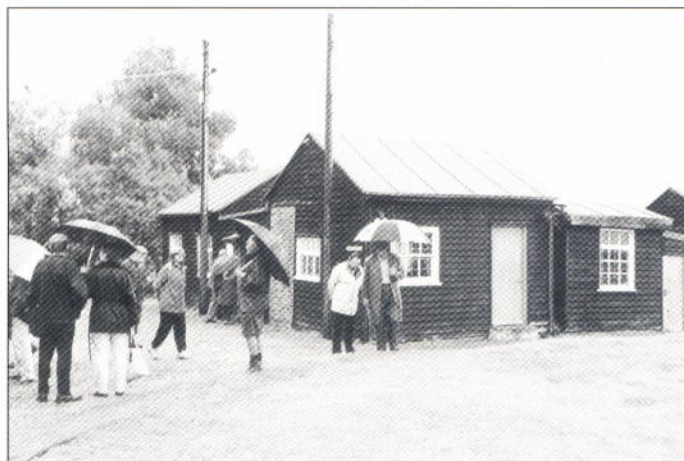
Interior roof structure of No. 3 Covered Slip, Chatham Dockyard, visited during the 1999 AIA Conference

Photo: R. J. M. Carr



No. 3 covered slip at Chatham Dockyard

Photo: Ann Harrison



Not seaside huts in the rain, but the Abbey explosives works at Faversham

Photo: Ann Harrison

glass tank. Alan then climbed onto the table, and poured a bucket of water into it, causing rotation of the tube above and a lot of apprehension amongst those within splashing range on the front row!

Afternoon trips in the sunshine again offered a choice of visits. Group A forayed out to the massive sludge pumping station at Crossness, Thamesmead, which houses four mighty beam engines, one of which is currently under restoration. Group B went to Brook pumping station, whose pumps and diesels of the 1900s are still working, then back to Fort Amhurst, 1756, which offers fascinating insights into the lives of its defenders during all wars since, also the story of the development of the River Medway was inspected at the heritage centre. Group C went out on the river in the paddle steamer *Kingswear Castle* of 1924 (though the engines came from an earlier vessel of 1904), with Bob Ratcliffe again on good form pointing out all the salient riverside features.

Wayne Cocroft of English Heritage gave the evening lecture on explosive manufacture in the Faversham area, to prepare us for Monday's programme which comprised a walk around this

fascinating and attractive town; a visit to Abbey works where compressed CO₂ cartridges used as explosives are produced in sheds set up in the mid-1920s and little changed since; lunch at Brogdale fruit farm, which has a complete collection of all known variety of fruit tree; and a tour of the Shepherd Neame brewery, complete with a tasting session. A memorable day. David Burrigge gave the evening dissertation on Dover's nineteenth-century defences.

Tuesday saw a return of the sort of conference weather regular attendees have endured in recent years. This turned out to be an incident-packed day, with half the party stranded in pouring rain at a disused tunnel (unfortunately closed with gates) of 1830 on the Canterbury-Whitstable railway whilst their coach was being switched with another. On to Dover for an abbreviated visit to the wartime HQ tunnels, followed by a stop at Western Heights to admire the overview of Dover harbour, ferries and maritime station, now used as a car park. Lunch was taken at Crabble water-powered corn mill, and after a very quick tour around, the coaches proceeded to Hythe station, for a trip on the famous narrow gauge Romney,

Hythe & Dymchurch Railway, hauled across Romney Marsh by a miniature Pacific. Bob Ratcliffe was of course in charge all day.

Wednesday morning's outings consisted of a choice of works visits to either a cement works or a paper mill (a couple of our members who turned out in shorts were unceremoniously ejected from the former, as apparently knobbly knees and cement are considered to be incompatible); or a chance to see some of the construction of the Channel tunnel high-speed rail link, where it will cross the Medway beside the M2 motorway bridge. The railway bridge is being fabricated a short distance away, to be rolled into place. This is the first new English main line for 100 years, but the site is so muddy all vehicles bog down and have to be dragged out by tractor! The Rural Life Museum at Cobtree served us lunch, and in the afternoon we returned to Chatham to see the quite splendid museum of the Royal Engineers. A lot more time would be required to appreciate this fully - it embraces the entire history of the Empire as seen by sappers through the ages.

Continuing the military theme, Paul Calvocoressi of English Heritage gave the conference's last evening talk about the remaining buildings of Woolwich Arsenal, which we visited on our last formal day. Mary Mills gave a very comprehensive and erudite commentary on the trip there and back, which included diversions to see massive chalk pits, also riverside sites of interest. Paul took us into the original cartridge works (later a bomb factory) from which can be seen some of the outstanding Grade I listed buildings. This was necessary because all the roads have been dug up and carted away in yet another fatuously expensive 'contaminated land' clearance by outside contractors. Lunch at the picturesque Avery Hill campus of Greenwich University allowed a visit to the impressive Edwardian conservatories. Afterwards delegates enjoyed a conducted tour of the David Evans silk print works and museum at Crayford.

Thus ended a most fascinating and varied conference, which was a real tribute to all who had a hand in organising it. My thanks to other delegates for their contributions to this report.



Big men or a little train? The Romney, Hythe and Dymchurch Railway

Photo: Ann Harrison

The Lion Salt Works

Second in a series featuring industrial museums of all types around the country, this article describes the background, work undertaken and the future of the Lion Salt Works Trust at Marston, Northwich, Cheshire.

Andrew Fielding

Open pan salt making was dramatic, it was frequently described as being like Dante's inferno, with roaring coal fires and huge amounts of steam obscuring a boiling pan of brine, or stepping back into Dickensian conditions with gaunt men, stripped to the waist, throwing large rakes into billowing steam accompanied by dull thuds as they hit the bottom of the shallow pan.

What an attraction it would make today. Indeed it once did. In the early 1980s people went to the Lions Salt Works not to visit a museum but see a working, traditional salt works.

The history of the site spans four generations of the Thompson family though the title deeds go back much further to 1641. Through them it is possible to see the change in Marston from an agricultural to an industrial environment by the investments of entrepreneurs like John Gilbert in 1781. The Thompson family only came to Marston in 1842 but also had interests in rock salt mining, narrow boats, barges and brick making. Eventually the Lion Works became the last works to evaporate wild brine, making white salt crystals by a traditional open pan process.

It had attracted over 13,000 visits a year between May and September in the 1980s. However visitors were only a side line to the main business of salt production, which by then was mainly for markets in Nigeria. There customers preferred the crystal produced by the open pan process rather than modern vacuum salt which requires the addition of anti-caking additives. Closure occurred in 1986 following the loss of these

markets, as the Nigerian economy ran out of foreign currency, and Henry reached retirement age.

Vale Royal Borough Council purchased the works to prevent demolition and there began a series of working parties and development strategies. There were many problems, whilst traditional family businesses could operate in idiosyncratic ways public ownership, and applications for grant aid, required all aspects of the buildings' structural condition to be considered as well as investigations into the geological stability of the site.

Ground instability has been a problem in the Northwich area as a direct result of rock salt mining and wild brine pumping. Local to the Lion Works the Adelaide Mine had collapsed in 1928 and it was feared that further collapse may be likely. Investigations into these geological conditions has proved a difficult and time consuming task fortunately addressed through initiatives supported by English Partnerships, ICI, British Waterways, Vale Royal Borough and Cheshire County Councils. Without benefiting from their involvement within the area it would have been impossible to determine the long term stability of the site for future investment.

A charitable trust was established in 1993 and with a group of enthusiastic and local volunteers the site is opened each afternoon. Displays are currently housed in the former Lion Inn (converted from cottages on the demolition of the original Red Lion Hotel about 1900) and guided tours are provided to the external features which include the manager's office, boiler house (Cornish boiler dated 1891), horizontal steam engine (maker unknown) and brine pump, and one of the salt pans. A now rare pitched roofed salt van (c.1900) has been brought to the site and resides on the remains of the private railway siding.

The Trust has provisional museum registration and is working towards full registration as it acquires a long term lease to the whole site. Structural investigations are still continuing. One



Stencils, salt bags and tools

Photo: Lion Salt Works Trust

of the few benefits of a high salt environment has been the protection of the timber work from beetle and fungal attack, though iron fastenings are heavily corroded. Meanwhile, the Trust has taken the delays to initiate a number of related projects.

The manufacture of a lead salt pan based on the dimensions of a Roman pan discovered at Shavington and a scale replica of Agricola's sixteenth-century iron salt pan are providing experience in practical salt making skills, information about how they were fired and what kinds of salt crystals can be made. Both of these are fired using wood during demonstration days held in March, May, July and September and will be in operation during one of the additional field trips at the end of the AIA Manchester Conference in September 2000.

In collaboration with salt glaze potter Steve Harrison a limited edition firing of his work, specially designed for the Lion Salt Works Trust has been commissioned, which will use salt made on site. In May 2000 the pots will be taken to the 8th World Salt Symposium in The Hague, after which pieces will be offered for sale to raise funds for the Trust.

A photographic archive of Northwich dated 1891, donated to the Trust from the Cheshire Brine Compensation Board, has provide the basis for a computer graphics project. This will create a virtual reality model of the town at the time when ground movements, caused by wild brine pumping, resulted in the town centre being replaced by timber framed, subsidence resistant buildings. The project has been started with a grant from the Carnegie UK Trust and is being developed in partnership with students at Mid-Cheshire College, Northwich and help from Virtual Presence at Sale.

The site has a unique atmosphere mainly because of the structure and size of the pan houses. It is utilitarian and the greatest danger in restoration is that it could become too clean, too cosmetic. One of the challenges in restoration will be to retain that atmosphere. It is therefore the Trust's primary intention to restore the process and



Lion Salt Works, Marston, brine tank and pan houses

Photo: Lion Salt Works Trust

interpret the craft skills rather than create a pure gallery display.

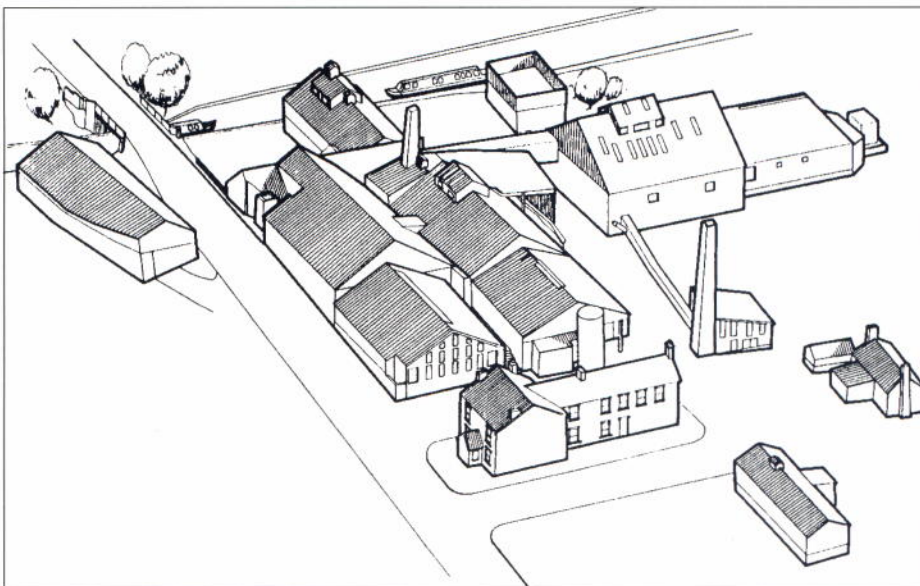
The working museum does not intend trying to replicate what may have happened in the nineteenth century, indeed the complete restoration of the 'Victorian' practices would not be acceptable, visitors and demonstrators toppling into boiling brine would be frowned on somewhat. There were a number of adaptations in recent years such as the move in the 1980s into using stainless steel tools and safety boots instead of clogs and the works will continue to develop and evolve, as they always have done, into for instance using biomass technology in the same way that Henry Lloyd Thompson changed from using coal to oil firing.

A trading subsidiary will be established and specialise in marketing lump salt, a product which we are not aware is available from other sources, whilst also varying the use of the pans to produce different grades of salt such as fine salt for dairy uses, common salt and coarse salt formerly bought by the fishing industry.

In researching the site and the practical skills needed to operate a salt works the Trust is contributing to the English Heritage, Monument Protection Programme reporting on the salt industry and as a member of International Commission for the Study of Salt History is striving to make links with other salt museums world wide.

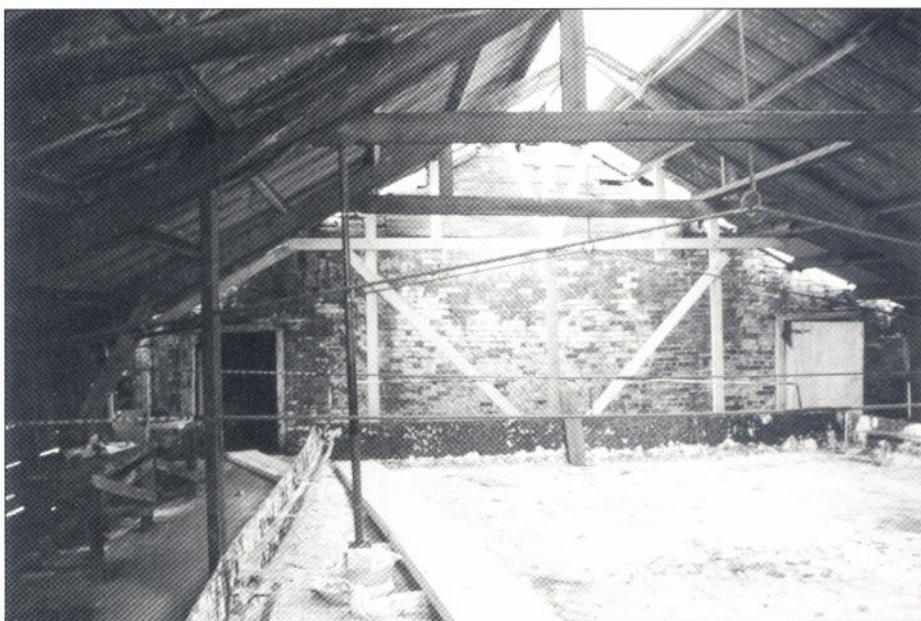
Currently site investigations are being completed and costings for restoration assessed prior to placing an application to the Heritage Lottery Fund and also through ENTRUST as the Trust is a registered environmental body and able to benefit from landfill tax credits.

If you would like to keep up to date with developments, *The Mundling Stick* is a quarterly newsletter which at present is free. So, if you need a traditional salt to use that special recipe for preserving your pork, beef or fish, salting your beans, making that moist pot pourri, tanning leather or spreading on your sugar beet (!) please contact the Project Director, Andrew Fielding, Lion Salt Works Trust, Ollershaw Lane, Marston, Northwich, Cheshire CW9 6ES



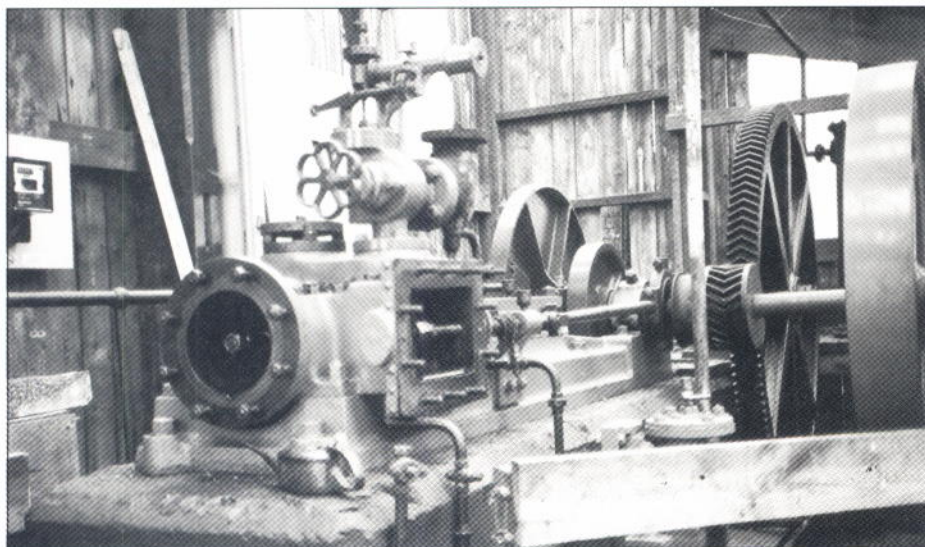
The salt works layout, well sited for transport between a road and the Trent & Mersey Canal

Drawing: Lion Salt Works Trust



Pan House No. 3, Lion Salt Works

Photo: Lion Salt Works Trust



Lion Salt Works horizontal steam engine with piston cover and slide valve cover removed

Photo: Lion Salt Works Trust

ADVERTISE IN INDUSTRIAL ARCHAEOLOGY NEWS

See page 9 for
details

REGIONAL CONFERENCES

Regional IA Conferences continue to attract interesting speakers and audiences. Here is what you may have missed.

EMIAC 57

The 57th East Midlands IA Conference was held on 8 May in the elegant surroundings of the Town Hall in Newark, built in 1773 to a palladian design by John Carr of York. The conference was hosted by the Nottinghamshire IA Society.

Geoff Matthews spoke on the crossings of the River Trent. The position of Newark at the crossing point of Ermine Street, the Fosse Way and later the Great North Road, the GN main line and the Midland Nottingham to Lincoln line made it a major focus of transport routes. After an introduction to the history of Trent crossings, the speaker concentrated on road bridges in the Newark area, where they are complicated by the Trent's splitting into two courses with marshy ground between.

Newark Trent Bridge is traceable from 1135 when Bishop Alexander of Lincoln paid for repairs. It was rebuilt in 1156, swept away in 1486 and rebuilt as a stone and timber 12-arch bridge that survived until the current seven-arch brick and stone structure of 1775. The bridge at Kelham, for many years maintained by the Sutton family, is traced from the thirteenth century. The eminent engineer W.H. Barlow was consulted in 1849 but his design for an iron bridge was too expensive. A cheaper timber bridge was built but washed away by winter ice and floods in 1855. The current bridge was designed by Henry Carr. To meet modern traffic demands, a reinforced concrete bridge has been inserted inside the earlier structure.

The bridge at Muskham on the Great North Road survived as an increasingly decrepit timber structure until replaced in 1920 by a reinforced concrete bridge. To join the Muskham crossing to the Newark Town Bridge, Smeaton built a raised causeway in 1776 as part of the turnpiking of the GN Road. This had 95 flood relief arches. His assessment of peak floodwater flow was conducted by measuring the washed out gaps in the hedges along this part of the GN Road after a major flood.

Amber Patrick spoke on the surveys conducted by the Nottinghamshire Industrial History Society on the Baird Maltings. Hugh Baird & Son had a pattern of acquiring maltings from brewers. The Spittal Maltings in Trent Lane acquired from Jas Hole in 1934, which was active as a malting until 1975. This was a 1902 rebuild of an 1880s maltings, destroyed by fire; the replacement was to perish itself in a conflagration in 1990. The William Street maltings, another 1880s maltings, was operated by Bairds until 1964 and is still extant. Two huge early mass concrete structures alongside the Trent date from before 1883, built once again for Jas Hole brewers. They were operated by Bairds until the 1940s. One has been refurbished into housing and the other, while being used for chocolate storage, suffered a huge fire in the 1980s. It was been rebuilt almost out of recognition as offices. All these premises were

Newark-type maltings (see *IA Review*, XVIII, no.2, 1996, 180 for Amber's typology). The markets developed by Baird covered a wide range of east, north eastern and midlands brewers, with Boddingtons being the exception in the north west.

Richard Sheppard of the Trent and Peak Archaeological Trust described the survey of the IA of Newark commissioned by Sherwood & Newark District Council using the RCHME rapid survey techniques. Over 300 sites were identified, from 1650 to present day. Brewing and malting began to dominate the economy from 1750 onwards. In the mid-nineteenth century there were over 20 breweries, but there are now substantial remains of only two. Agricultural engineering and iron founding appeared from the mid-nineteenth century, the early twentieth century providing many of the town's current large employers: Ransomes (woodworking machinery), Worthington Simpson (pumps), RHP (ball bearings), with sugar beet processing making a characteristic smell.

In the afternoon there were conducted walks around Newark. The market square is one of the finest in the country while the riverside mixture of warehouses, water power sites, road and rail transport, old maltings, ironworks remains and the castle, all alongside an active and very old river navigation, is fascinating. Well worth a visit.

Mark Sissons

SERIAC 99

Held at the University of Reading and hosted by the Berkshire Industrial Archaeology Group (BIAG), this year's South East Region IA Conference on 10 April saw a range of topics. The Royal Commission on the Historical Monuments of England merged with English Heritage on 1 April, so it was timely that Alan Stoyel's talk should examine the RCHME's involvement with IA in the past, speculating on how it will continue to contribute to the discipline in the future. Alan described some of the recent recording work in which he has been involved, illustrating the ongoing commitment that is being made to enhance the records that will continue to form the basis of the National Monuments Record Centre in Swindon.

Bob Carr talked on London Docklands. The Port of London was the largest port in the world less than 50 years ago. In the nineteenth century London was a major centre of heavy industry, building ships and making the steam engines to go in them. Although the majority of buildings have been demolished and the area densely redeveloped for offices and housing, the old dock basins are still essentially intact and it is still possible to make out traces of the industrial and maritime past.

Lawrence Cameron talked on the impact of tourism and the leisure industry on industrial archaeology, illustrated by examples from changes occurring along the Kennet Navigation. Cinema history was the subject of Bill White's talk. He introduced the early days of cinema going from the fairground and church hall to the super cinemas. The talk focused on a site in Southampton used for showing films for over 100 years.

Paul Sowan spoke on the importance of geology and groundwater. So many industrial processes depend on water supply and on such little-studied products as abrasives and refractories that the 'geological connection' deserves to be better understood by industrial archaeologists. The talk examined the interdependence of geological knowledge and understanding, and industrial development, with examples including mineral extraction, water supply and tunnelling.

John Foxley and Ron Martin spoke on the Brede waterworks (reported in *IA News* 102, 6) near Hastings, developed after 1904 with the installation of steam engines for pumping. Renovation began in 1994 following the creation of the Brede Steam Engine Society.

SWWRIAC

The 30th South Wales and West Region IA conference was hosted this year by the Dorset IA Society at Shaftesbury on 17 April. Dennis Dodd (Somerset IA Soc) first spoke on the Grand Western Canal between Taunton and Tiverton and in particular the excavations and restoration work taking place at the Nynhead Lift - one of seven lifts designed by James Green for the canal in the 1830s. Excavations are allowing structural evidence to be compared with contemporary archives describing problems during operation of the lift before closing in 1867. Amber Patrick (Gloucestershire Society for IA) talked on maltings in Gloucestershire, which ranged from thatched roofed to large commercial ones. Many have been converted to other uses, although conversion has not been easy. Peter Stanier (DIAS) talked on the working of granite stones on Bodmin Moor, Cornwall, where abandoned pieces of all shapes and sizes were apparently intended for Victorian civil engineering works such as dockyards, coastal fortifications or a lighthouse.

After lunch, Tony Jukes (Oxford House IA Society) talked of the Cwm-carn Dam disaster of 1875, in which 12 people lost their lives. Poor maintenance by the Monmouthshire Canal Co. was blamed for the collapse of their reservoir's earth dam after a period of continuous heavy rainfall. The 400-ft dam broke at 11pm on the night of 14 July 1875, the resulting flood sweeping away houses, roads and a bridge.

The last two talks of the afternoon were both related. David Brown (Bristol IA Society) spoke on cordite explosions on Royal Naval ships, pointing out that age, impurities and storage temperatures were all critical factors. His talk was illustrated with awesome pictures of battleships literally disappearing! Finally, Les Hayward (RNCF Association) described the Royal Naval Cordite Factory at Holton Heath near Poole, Dorset. This was begun early in the Great War to manufacture cordite for the navy and closed c.1960. This extensive site once employed 5,000 people.

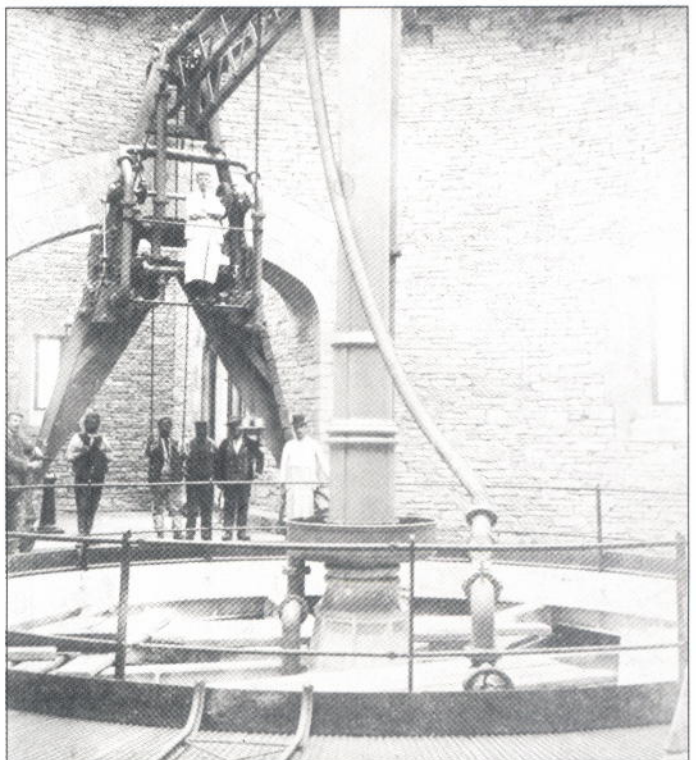
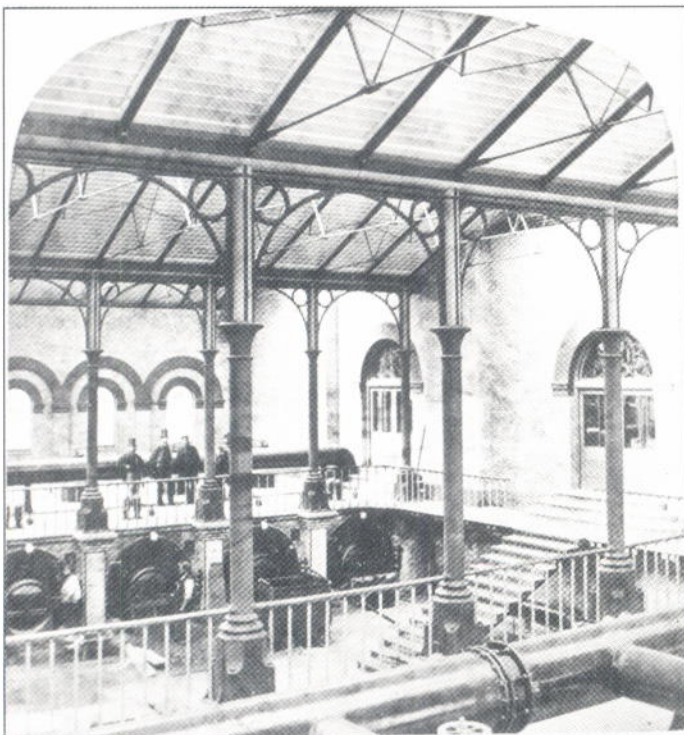
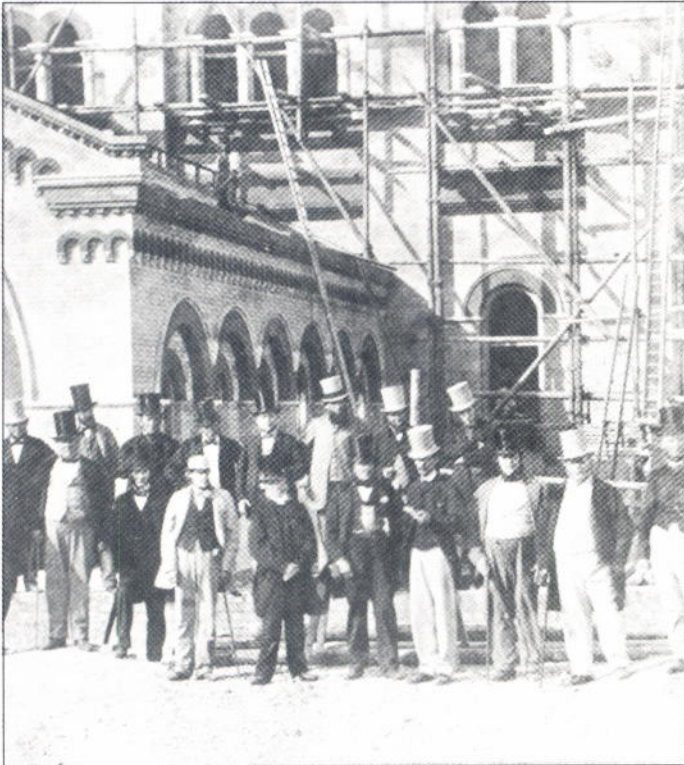
Following the main conference, there was the choice of three field visits: Holton Heath for a tour of the cordite factory site; a visit to Shaftesbury itself; or nearby Cann Mill, a commercial water-powered corn mill which is still in operation and a rather unique feature - a windmill on the roof.

MYSTERY PHOTOGRAPHS

Three photographs illustrated here are from stereo pairs purchased recently from a dealer, who found them 'somewhere in England'. They show an industrial installation of c.1870. It might be a pumping station although there is no sign of the engines. One view shows a battery of typical Lancashire boilers and a largish pipe that suggests water supply. It is assumed that all the views are of the same place because the format of the three cards is identical. There is no identification on any of them except for one blind stamp reading 'London Stereoscopic Co., 54 Cheapside, London.'

The location of the fourth photograph (bottom right), from a different stereo pair, is known as it is captioned 'Interior of the [?] Well Room, Thirlmere' and is clearly related to the water reservoir. The question is, what is the 'thing' featured in the view?

Can any reader help with identifications? Please contact the editor, and Robert M. Vogel, 4628 49th Street, N.W., Washington, D.C. 20016, USA.



Fieldwork and Recording Awards for 1999

The standard of entries this year was exceptionally high and this is reflected in having two winners of the Main Award. The results, as announced at the Chatham conference, are as follows:

Main Award

Tyne and Wear Museums Service: Excavations at Wallsend Colliery B Pit 1997

AOC Archaeology: The Embassy Cinema, Braintree and St. Faiths Hospital, Brentwood

Student Award

Gary Hope: Preserving the Titfield Thunderbolt

A fuller account of all entries submitted will appear in the next issue of *IA News*.

The judges hope that this year's high standard will be maintained, but we are especially keen to see further entries from the AIA Membership and students; the Ironbridge Institute currently has a monopoly on the latter! Our thanks to Keith Falconer and Amber Patrick for once again acting as judges. Having coordinated the Awards for two years I now intend to stand down. Details of the 2000 Awards and the new coordinator will appear in a future issue of *IA News*.

Meanwhile, submission date for the next award is 1 May 2000. Information can be obtained via the AIA Liaison Officer, AIA Office, School of Archaeological Studies, University of Leicester, Leicester LE1 7RH.

Having been in operation for several years the marking system for the awards has been reviewed in order to reflect the changing nature of both the subject matter and recent submissions. The new scheme has been approved by the judging panel and notification has also been given to the AIA Council. Briefly, each entry is assessed on the basis of a total mark allocation of 100 in six categories; they include:

Research Strategy (10 Marks)

The methodological/theoretical aim of the survey which can be linked to national and/or local research agendas. It is becoming increasingly important that the aims of a project are explicitly stated from the outset

and that these are integrated with national, regional and/or local research strategies. By constantly reviewing the results of recent projects more can be learnt about the past which will in turn identify areas that warrant further research.

Documentary Research (15 Marks)

The degree and relevance of the textual data to the fieldwork strategy.

Fieldwork (20 Marks)

An assessment of the fieldwork methodology and survey technique.

Analysis/Interpretation (30 Marks)

This remains the highest scoring category which considers the project results and in particular how the strategy, documentary analysis and survey technique has informed the conclusions.

Presentation (15 Marks)

Quality of drawings, photographs and report format.

Advancement of the Subject (10 Marks)

The contribution of the project to the methodological and/or theoretical advancement of the subject. This may result from an innovative approach, the study of a poorly researched area or the use of a new theoretical technique.

Awards are given in the following areas:

Student Award - The highest scoring student entry for the year.

Main Award - For the outstanding piece of fieldwork for the year.

Outstanding Practice Award - This is only given where all the judges agree that the entry has made a major contribution to the methodological and/or theoretical advancement of the subject. It will only be awarded in exceptional circumstances.

A report outlining these changes has been issued to both the judges and President, and a new certificate has also been produced. It is hoped that this will enhance the operation and status of the AIA Fieldwork and Recording Awards.

Shane Gould

1998 President's Award

Hilary Malaws presented the 1998 award to Tuckers Maltings in recognition of the excellent standard

of interpretation and presentation of the floor malting industry. The efforts of the company's staff in demonstrating the historic malting process as a living industry were thought to be particularly successful.

Tuckers maltings was chosen following the AIA's conference at Newton Abbot in 1998 and it was particularly appropriate that Amber Patrick, nationally acknowledged expert on the industry as well as our former company secretary, was able to attend the presentation. Amber is well known to the staff at Tuckers where she is involved in continuing research.

The 1998 award was the first in the new form chosen for the President's Award - an engraved glass plaque designed by Stuart Warburton.

Changes at the AGM

The 1999 AGM held at Chatham on 12 September approved new changes to the make-up of Council. We now have a Chairman, not President, the aim being to invite a distinguished person to take the title of President to represent the AIA, while the everyday running of our affairs continues to be overseen by the Chairman and Vice-Chairman. Michael Harrison and Marilyn Palmer remain in post, with these new titles, Michael Messenger was re-elected as Treasurer, while David Alderton was confirmed in position as Secretary, a post he has held on an acting basis for the last few months.

Members elected to a new trimmed-down Council were Dr Robert Carr, John Crompton, Roger

Ford, Philip Morris, Tony Parkes and Stuart Warburton.

Other officers will be confirmed by Council at a meeting on 31 October.

There are, however, three vacancies for ordinary Council members, as well as Publicity Officer and Co-ordinators of the Conservation Award and the Recording Awards. Anyone willing to help with these please contact David Alderton or Michael Harrison.

Explore Spain ... with the AIA

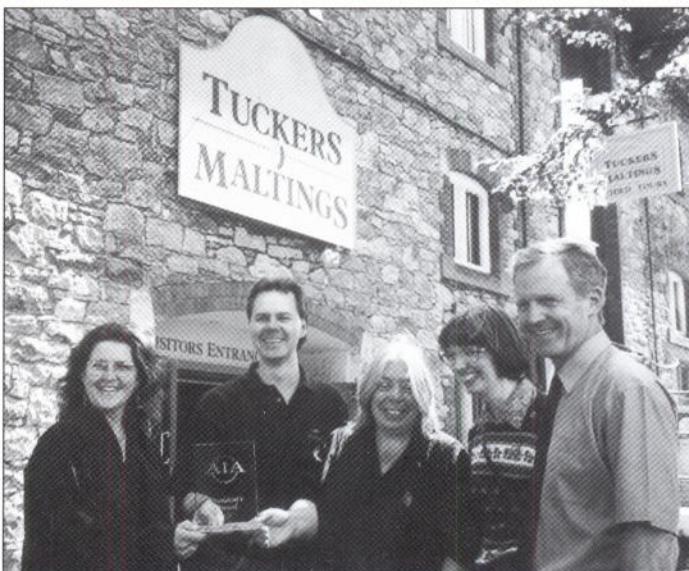
In the week following Easter, 24-30 April 2000, we hope to visit the IA of central Spain between Madrid and Cordoba. This includes the windmills of La Mancha (immortalised in 'Don Quixote'), water mills, wine cellars, distillery, gunpowder works, lead mining remains and many more sites. If interested, please contact Paul Saulter, 62 Marley Road, Rye, East Sussex TN31 7BD.

Ironbridge weekend

The annual Ironbridge Weekend is at the planning stage but we have no definite date as yet. Late March, just before Easter 2000 is the favoured date. Watch this space!

Waterway archivist

Paul Sillitoe, former AIA Council member and, for a short time, Secretary, has been appointed by the Waterways Trust as Head of Archives at the Boat Museum Archive Centre, Ellesmere Port.



Hilary Malaws (centre), with Amber Patrick, presenting the President's award to Jo Webber, Brian Gates and Richard Wheeler of Tuckers Maltings

Readers are encouraged to write to the Editor with their views on matters raised in IA News, or other current issues.

Standedge

The article on page 4 of *IA News 110* about routeways over Standedge summarises the information about this very interesting area. Readers who wish to learn more might like to know that in the early 1980s Kirklees Metropolitan Council carried out a detailed survey of the remains which was published in *Standedge Guide: an Industrial Landscape of Roads, Canals and Railways*, by Graham Keevill (Huddersfield, 1986), ISBN no. 0 951123 0 1, including 28 figures and maps and 25 plates.

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Limekiln typology

I would like to comment on the article in *IA News 110* about limekiln typology. I have been involved with IA classification and the use of IRIS for some years and have come to the conclusion that the premise that seems to be favoured, for classification by function rather than by form, is flawed.

When approaching the subject academically, one is tempted to classify by function, as with industry the whole essence is the functioning of the site to produce something. However, when one comes to the practical difficulties of classifying a site in the field it is the form of the site which is more relevant. Frequently due to circumstances, it is not possible to investigate the history of the site fully and this is often the only way of determining its function. The classic example of this sort of confusion in IRIS is where mills have to be classed as either 'Animal Feed' or 'Corn'. Without any history of the site or inspection of the stones, this would be impossible to determine. In many cases both classes would apply, or would have applied at different times throughout the history of the mill.

With reference to the classification of limekilns, the essential conundrum is whether the limekiln is intermittent or continuous as this is the fundamental basis of the typology. As there is virtually no difference in form between draw kilns of the two classes, the only criterion to determine the type of kiln is the

extent of the vitrification of the lining, even if one considers that this can give a definitive answer. Of some 28 draw kilns I have inspected in Sussex, only seven have sufficient of the lining visible to determine the extent of the vitrification. Hence in 75% of these kilns the basis of the typology postulated is useless.

The other anomaly is the distinction of flare kilns, of which there are two distinct forms. The small eighteenth-century agricultural flare kilns which proliferated on the heavy clays of the Weald are quite distinct in both shape and operation from the late nineteenth-century flare kilns with twin firing holes. The former would be classed as IS1 in John Leach's list but the latter could only be classed IS2, a general catch-all grouping, an unsatisfactory state for a distinctive pattern of kiln.

The other point about the article is that the illustration of the kiln at Amberley, although within the structure of the De Witt kiln, is in fact a later draw kiln built after the De Witt proved unsatisfactory.

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Having spent over 30 years looking at limekilns, some still working, and talking with the people who worked with them and reading the associated archives, I hope I am qualified to join the limekiln typology debate! Albeit from a rather limited Surrey and Sussex standpoint.

John Leach's article in *IA News 110* is a most welcome contribution to an important debate but does not, in my opinion, constitute an entirely satisfactory answer.

Typology based on function. As John Leach says, it is often impossible to be sure whether a kiln was intended to be operated intermittently or continuously. The largest proportion of surviving kilns could have been used either way. Thus, the primary feature used in the proposed typology is a question of subjective interpretation of field evidence, rather than objective and directly observable features. A full appraisal of internal vitrification of the kiln lining might, in an ideal world, reveal the answer. Vitrification

in an intermittent kiln is expected to be from the base to top of the charge, whereas a continuous or draw kiln, if operated efficiently, should show no vitrification in the lowest cooling zone and similarly none in the top preheating zone.

John Leach's useful summary table is in need of some development. The term 'flare kiln' is a trap for the unwary. Early use of the term, as in James Malcolm's *Compendium of modern husbandry* (1805), describes small kilns fired intermittently, in which the fuel (saplings, brushwood, etc) was added continuously through a built arch or tunnel of limestone blocks at the bottom of the charge, giving long, relatively low-temperature flames with a high steam content to produce an excellent and highly reactive quicklime. The ash was kept separate in the tunnel. The term 'Flare kiln' was effectively high-jacked by the limeburning industry later in the nineteenth century for quite different kilns. I suggest the terms flare kilns *sensu stricto* for the original wood-fired small structures, and flare kilns *sensu lato* for the much larger mixed-feed coal-fired structures often (as at Brockham and Betchworth in Surrey) built in pairs, and in batteries of three or more pairs, with lime discharged by hand via access tunnels.

Dietzsch kilns can hardly be described as 'mixed feed.' As with what he appropriately describes 'dual-feed' Brockham and Smidth kilns, they relied on the introduction of solid fuel, separately from the limestone charge, direct into the calcining zone.

Smidth kilns should occupy the same slot in the classification as Dietzsch, the functionally important difference being that although there are two preheating towers back-to-back (as usual with Dietzsch kilns) there is only a single large firing chamber/calcining zone, with solid fuel separately introduced through its

ceiling, from a central 'tunnel' some way up the height of the structure. The fine example at Betchworth, Surrey, is particularly interesting as it has never been fired and thus remains in pristine condition!

The De Witt kiln at Amberley is not in fact constructed in accordance with De Witt's Patent, which was for a particularly elaborate kiln for firing pottery, tiles, etc, with provision not just for controlling thermal efficiency, but also for controlling the oxidising or reducing qualities of the kiln gases. The De Witt kiln as built at Amberley (designed by him - the signed drawing survives) is therefore quite different functionally from that in the patent. Indeed, if intended to be loaded by tipping chalk into the chambers from above, as suggested by the large apertures in the ceilings, it is hardly surprising it didn't work! The Amberley De Witt must be written off as a ghastly mistake by a Belgian who adapted and simplified a complex kiln meant for another purpose with, it seems, absolutely no knowledge of limeburning technology! Neither version of the De Witt kiln should, therefore, be confused functionally with the 'Belgian' modification of the Hoffman kiln for limeburning. Incidentally, John Leach's photograph is not of the De Witt!

Documentary resources are essential in furthering the study of limeburning, but company records rarely survive. It is essential to be familiar with the technical aspects of limeburning. Patents are all very well but I know of no lime kiln actually built strictly in accordance with the patent!

There is a lot of unexploited archaeological evidence out there waiting to be taken more seriously, recorded carefully and interpreted.

Paul W. Sowan
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For further details, contact the Editor.

European heritage on internet

Which museums are there in Europe? Which historical buildings can I visit? Which organisations are concerned with the preservation of mills? Where can I receive training to become a restorer? Which magazines include industrial archaeology? Where can I find appropriate display cases? When and where do workshops, courses, conferences, exhibitions and other events take place?

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If you are interested in joining, ask for your registration forms online, or at the following address: Conservare nv, <http://eur-heritage.com> secretariat, Vlamingsstraat 4, B-8560 Wevelgem, Flanders-Belgium, Fax: (+32) 56.417636, e-mail: conservare@conservare.be

Beam engine's new home

The Crossness Engines Trust has acquired a beam engine built in 1888 by Easton & Anderson (Erith Iron Works) for pumping water at Addinton, near Croydon. The engine, which was part of the Museum of London's collection recently advertised for disposal, will feature in the heavy machines collection to be housed in the Valve House at Crossness.

London's internet heritage

A photographic record of London's industrial heritage, taken by Peter Marshall over 25 years, can be seen on the internet at <http://www.cix.co.uk/~petermarshall/>. Many of these sites featured have since been demolished or redeveloped.

Lion of Manchester

The Museum of Science and Industry in Manchester has become the new home for the locomotive reputed to

be the oldest in the world. 'Lion' arrived in June and will spend five years here on loan from the National Museums and Galleries on Merseyside.

In July 1838 the Liverpool & Manchester Railway Co. took delivery of two locomotives, later called 'Lion' and 'Tiger', to haul luggage trains. In 1928, after a long service with the railways and as a stationary pump at Liverpool Docks, 'Lion' was rescued and restored to working condition. It featured in a number of films, including 'The Titfield Thunderbolt', but in 1989 it was withdrawn from steaming for conservation reasons. Visitors can see 'Lion' in the museum's Power Hall which holds motor transport and locomotives built in the Greater Manchester region, as well as the world's largest collection of working steam mill engines.

Whistling millennium

The Westonzoyleland Museum of Steam Power and Land Drainage, near Bridgwater in Somerset, intends to welcome in the new millennium with engines in steam from 2pm on New Year's Eve until 5pm on New Year's Day: 27 hours of continuous steaming! The 1861 Easton & Amos drainage engine will run into the third century of its life and other engines restored by members of the Westonzoyleland Engine Trust will also be running.

At midnight there will be the traditional blowing of steam whistles. Anyone who has one, which they would care to bring, will be welcome but please make the necessary arrangements in advance with the Trust. Free entry to the museum is

offered to owners of steam and stationary engines who are invited to join in the fun by running their own exhibits. They should let the secretary know well in advance as space could be limited.

Visitors will be welcome at any time during the 17 hours and, as volunteer members do all the work for the Trust and museum, the usual entry charges will apply. Light refreshments will be available. For further details of this event, or any aspect of the Trust or its museum, please contact Mrs B. Eaton, ☎ 01823 275795.

English to French

English China Clays has passed into French ownership in a £758m takeover by the minerals firm Imetal, creating the world's largest producer of china clay and calcium carbonate.

Board house update

Following a note in *IA News 110*, page 11, the Secretary of State for the Department of Culture, Media and Sport has agreed to the upgrading of Castle House, Bridgwater, to Grade II*. The Somerset IA Society's contribution towards the initiative for a revised listing took the form of a researched report by the society's archivist, Brian Murless, who covered architectural, historical and technological aspects of the structure with particular emphasis on its association with John Board, the Somerset cement manufacturer. The report attracted a good deal of attention not only at local level but also nationally where support was especially welcome from

SAVE Britain's Heritage and the Victorian Society. Protracted negotiations are under way to secure the building's future.

Railway rebirth

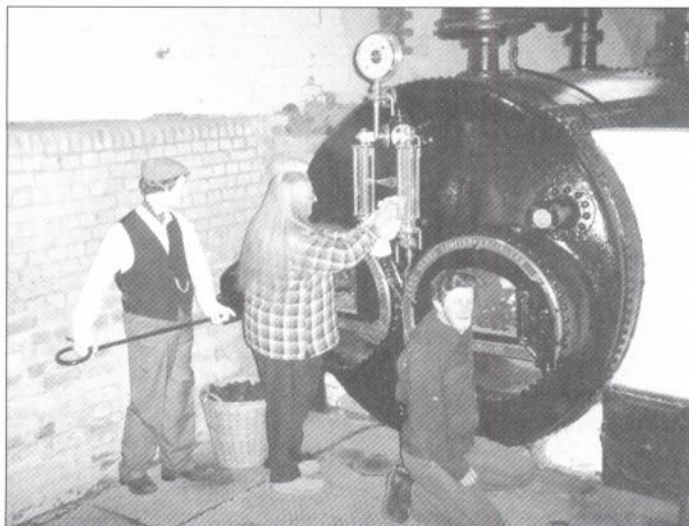
Aided by a £4.3m Millennium grant, plans are well advanced for the restoration by 2005 of the Welsh Highland Railway through the Snowdonia National Park from Portmadoc to Caernarfon. Most of the course of the line, which closed in 1937, can be still recognised but the scheme is not without controversy. Opponents to the scheme would prefer it to become a path or cycleway through the spectacular scenery, but supporters say stations will give access to the mountains for walkers and the whole route will help reduce road traffic congestion.

Aviation heritage at risk

The name Farnborough - the home of the Royal Aircraft Establishment and its airshows - holds a respected place in the history of British aviation. Now that 180 acres of the RAE have been sold off to developers, the Farnborough Air Sciences Trust is fighting to save the historic core. As well as concern for the buildings, the Trust has collected a major film archive, wind tunnel models, early jet engine components, high-altitude flying suits etc, many of which were invented or developed here. Listed structures, which have been recently demoted in their grading, include the 24-ft wind tunnel of 1935, powered by a 30-ft diameter mahogany fan, and the transonic wind tunnel which produced wind speeds of 800mph. With so much equipment and buildings associated with the cutting edge of aviation development from the earliest years, the Trust is proposing to redevelop this key site as a monument to aviation history.

London bus award

The London Bus Preservation Trust was presented with the annual conservation award of the Surrey Industrial History Group on 4 September, in recognition of the preservation and restoration of former London Transport vehicles carried out for many years at the Cobham Bus Museum. The award, in the form of a decorative plaque, was presented to Mr Peter Plummer, Chairman of the LBPT, by Prof Alan



Volunteers working on the Lancashire boiler display at Westonzoyleland

Photo: Westonzoyleland Engine Trust

Crocker, President of the Surrey Archaeological Society.

The work of the museum is aimed not merely at restoring buses to a display condition, but also to maintain them in a roadworthy condition so they may be licensed to carry passengers. There is an active programme of events at Cobham and elsewhere, at which vehicles from other groups participate. Notable among these was the museum's annual open day at Brooklands in April, at which some 150 visiting vehicles were present alongside the museum's own fleet.

Hideous news

The Bournemouth Yellow Bus depot has been saved from development proposals by a recent Grade II listing, a decision that has been received with delight or shock. Built in 1951 with a single span concrete roof, the large depot has been described as either a 'landmark modern building' or 'hideous', the latter by those who work there or have to live next to it!

Bottle ovens saved

A Heritage Lottery Fund grant of £272,000 will help the repair of 12 surviving bottle ovens at five sites in the Staffordshire Potteries. These characteristic brick features once dominated the skyline of the potteries - it is said there were 2,600 at the turn of the century - but now there are only 47 left. Legislation on air quality in 1960 saw to their rapid demise.

SA gold mine closes

The shutdown was announced in July of the 90-year-old East Rand Proprietary Mines near Springs, east of Johannesburg, with the loss of 5,000 jobs. In the Second World War the mine played a key part in funding Britain's war effort. For many years it was the world's deepest mine (14,000 ft) and in its lifetime produced 1,450 tonnes of gold. Closure is blamed on falling gold prices and poor underground grades. Other mine closures are possible. In

the last 15 years employment at the South African Chamber of Mines' 33 goldmines has fallen from 500,000 to 200,000.

Best industrial museum

The Dundee Industrial Heritage Trust has won the Michelotti Prize for Europe's best industrial museum in the European Museum of the Year Awards. The flax and jute High Mill of Verdant Works (1833) became a museum in 1996. The museum was chosen from 60 high quality entries from 20 countries.

Moving light

The recent scheme to move the diminutive old Beachy Head Lighthouse a few yards back from the cliff top is dwarfed by a recent scheme in North Carolina, USA. The whole structure of the 4,800-ton tower of the Cape Hatteras lighthouse, Buxton, has been moved over half a mile after the Atlantic had begun undermining the site.

A slipped countess awaits maid

The Scottish Industrial Heritage Society has been recording the steam-powered slipway at Balloch on Loch Lomond. The vessel currently on the slip is the 100-ton *Countess Fiona*, built in 1936 as the *Countess of Breadalbane* to serve on Loch Awe (another inland loch). She is a rare survivor from Denny's shipyard at Dumbarton. The vessel was prefabricated and assembled at Loch Awe, later stripped down and pulled across country to be launched in the Firth of Clyde to be refitted again. She spent many years as a cruiser and, after service elsewhere, she was lifted from the Clyde by the Finnieston Crane (built by Arrols to load railway locomotives) and entered service on Loch Lomond as the *Countess Fiona* in 1982. The much larger *Maid of the Loch* is due to go on the slipway for her refitting.

J.S. Mitchell

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South East England

This report is very largely concerned with wind and its applications for power, although from Kent there is news that the paddle steamer *Medway Queen*, which sadly sank in 1997, has now been refloated at Dam Head Creek on the Medway and fully surveyed. The preservation society hopes to have the vessel fully restored in time for next year's 60th anniversary of the Dunkirk evacuation, in which she took part. For the rest of Kent, there must be something newsworthy going on - especially following this year's AIA conference - if readers know of anything please inform your correspondent so it can appear in *IA News*.

At Selsey in West Sussex, the long disused Medmerry windmill has had new sweeps fitted and there is talk of a full restoration to this coastal landmark, costing an estimated £400,000. Other Sussex windmills undergoing work include a new cap and fantail at Barnham and a much heavier workover at Stonecross with the aid of a £142,000 Lottery grant. Once work started at the latter, the cast-iron curb was found to be cracked necessitating replacement and a delay of some eight weeks to the schedule.

Non-wind related news from Sussex includes the restoration of Petworth railway station to something approaching its former glory. The new owners have relaid a length of track through the station and brought in two Pullman carriages to be restored and used as stationary bed and breakfast accommodation.

The Chalkpits Museum at Amberley has recently opened a new exhibition on cycles and cycling, built a new steam locomotive building on the light railway and made new shop displays in the Electricity Hall which houses the former Milne Museum collection from Tonbridge.

At Chichester, the former Shipham's paste and meat products factory is under threat. Plans proposed suggest keeping the Victorian brick buildings while the 'unattractive industrial buildings to the north of the site may be removed.' The latter area includes the large 1955 packing building with its vaulted concrete roof.

Inland, at the Weald and Downland Open Air Museum at Singleton, the Westham windpump has been restored and re-erected. Meanwhile, at Cowfold there is hope

of an initiative to restore the rare éoliënne Bollée at St Hugh's Monastery. This is the sole survivor of at least four on this site, and is essentially a wind turbine with the rotors enclosed in a metal tube at the top of a 30ft column down which the drive passes, through a right-angle to a small pump house. Dating from around 1880, the éoliënne has not been used since 1943 and is in poor condition.

In Surrey, a far more conventional wind-engine has been in the news. This is a Climax version mounted on a tower made by Duke & Ockenden (DANDO). It was 'discovered' on a farm at Holmwood south of Dorking during research for one of the Surrey Industrial History Group's guides. The pump, of as yet indeterminate age, had served the water supply needs of a model farm. Standing out of use for many years, it had suffered during the 1987 'hurricane' when the sails become detached. Members of SIHG approached the farmer and he agreed to let it go to the Rural Life Centre near Farnham. He even helped with the dismantling. The pump has now been re-erected and is in working order, hopefully one day soon to be pumping water again. What makes this version unusual is its Eiffelated tower with graceful curves and decorative patterning on the platform brackets.

In Guildford, Dennis Brothers' old car manufacturing plant at Rodboro Buildings in the town centre is finally seeing a better future in store. Believed to be the world's first multi-storey purpose-built car factory, it had

lain virtually derelict for many years. Now the ground floor has been opened as a public house and the whole structure has been put into good order.

At Betchworth, surveying and protection work is finally getting under way on the important surviving limekilns in this large chalk pit. This is thanks to the allocation of funds from landfill tax, and the wildlife trust is working with the industrial archaeologists to ensure that both wildlife and industrial structures are safeguarded.

Alongside the A3 London to Portsmouth trunk road where it crosses the M25 is Chatley Heath Semaphore Tower, owned and restored by the county council. This unique survivor of the Admiralty's communication system with its navy at Portsmouth has just been officially recognised with a Grade II* listing. It is open to the public and its original signalling equipment is in full working order.

Grade II listing has been given to the important surviving Farnham Pottery and restoration is progressing well. To ensure historical accuracy, a new corrugated iron roof has been fitted to a large part of the main block of these mellow home-made brick buildings. Its garish metallic finish currently jars the eye, but this is how it must have looked when originally installed some 90 years ago. No doubt once the galvanising has weathered enough to allow a coat of bitumastic paint to be applied, it will be less noticeable.

Back to wind power, in Hampshire the Southampton

University Archaeology Group (SUIAG) has been involved in the removal of a redundant flour dresser at Wilton windmill for installation at Longparish Mill. In Southampton, a public enquiry was held last November into an alleged planning contravention. This involved the infilling of the city's Trafalgar dry dock by Associated British Ports. The dock, which is listed, sat right in the middle of a proposed car storage area. There was also concern over the photographic and video record made just before the infilling, and the apparent disappearance of a number of keel blocks which were supposed to have been safely stored.

Finally, it's back to the air. At Farnborough the Air Sciences Centre has moved a step nearer to reality on the site of the former Royal Aircraft Establishment. A leasing agreement has been signed by the Air Sciences Trust for a part of the airfield factory land. The area includes the historic 24ft wind tunnel and it is hoped eventually to extend this to include the old balloon sheds and the transonic wind tunnel, and possibly the famous black sheds where flying first began in this country (for more details see page 10).

Chris Shephard

Northern England

This report brings news of conservation in Hexham, a delightful market town, built around its very old Abbey on a terrace above the River Tyne, some 20 miles west of Newcastle. In 1835, when the Newcastle and Carlisle Railway was being built, Hexham became connected by rail to Newcastle and opened its railway station. This building, designed by Benjamin Green of Tyneside, is still in use and is one of the oldest continually occupied stations in Britain. There were five distinct periods of building between 1835 and 1871, with further alterations in 1901. The Railway Heritage Trust has funded the restoration of the station. Notably, the two platforms have been re-fitted with slate roofs, replacing metal sheets, but with glazing retained at the ridges. The former luggage room has been turned into a modern cafe - called the 'Engine Room'. It brings back warmth and human contact to the station, which has Grade II listed status in a conservation area. It is good to see renewed life in this station which once served two branch lines, one south to Allendale and the



Left: Another job well done. SIHG's fully restored windpump at the Rural Life Centre near Farnham. At the re-opening ceremony on 19 September are (L to R) Ken Major, Marilyn and Richard Boardley (who donated the pump) and Tony Stevens (SIHG vice-chairman and project leader). Right: The Holmwood windpump before restoration



Photos: C. Shephard



The Grade II listed Hexham Ropery faces an uncertain future

Photo: Fred Brook

other north via the Border Counties Line to Scotland.

Less successful in conservation terms is the Hexham Ropery. This Grade II structure is thought to be one of the last survivors of its kind. On a town map of 1826 it was shown as an open air ropewalk. The 1856 O.S. map shows it with a roof, and named a ropery. It ceased working early this century. Located beside the old cattle market, it eventually became the longest and narrowest fish and chip cafe in the country. I used to pass it on my way to work. It now stands empty on the north side of a superstore car-park. Bids to the Lottery to refurbish have failed. There is much local concern as to its future, i.e. do something with it or knock it down!

Hexham was once an important centre for leather products. Its tannery district, once foul-smelling with its tanyards and soak-pits, is now a highly desirable residential district at the west end of Market Street which, as the old road to Carlisle once forded the Skinners Burn. A public house, the Skinners Arms, commemorates this past activity.

Silloth is a port on the Solway, promoted by the Carlisle interests who wanted their own deep water outlet to break the near monopoly of Maryport, Workington and Whitehaven. It was built on ground with no previous history of port activity. Excavation of the Marshall Dock was completed in August 1859, and a railway spur from the Carlisle to Port Carlisle line had reached the coast three years earlier. The promoters hoped that Silloth would become the outlet for goods from

North East England destined for Ireland, but by the time the dock opened the Newcastle and Carlisle Railway had agreed to route its Irish traffic via Liverpool.

Despite the early setback Silloth recovered, thanks to the nation's appetite for biscuits and the growth of the celebrated confectioners, Carrs of Carlisle. They erected a flour mill beside Marshall Dock and added other facilities at an inner dock opened in 1880. Silloth is still a working port, and Carrs' Solway Mills are still milling. The site also includes preserved steam engines and the 'floating silo' for grain. This wooden structure is so-called because it is made of cells which expand or contract as the silo is filled or empties. Hence the cells 'float'.

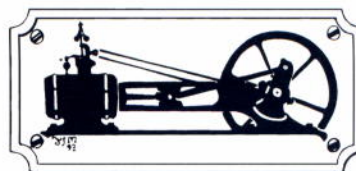
The promoters of the port and railway to Silloth also gave a holiday resort to the Solway coast. Elegant terraces, promenades and gardens were made, and it became a popular resort. It is now faded, but is still popular and easily recognised as a once swanky Victorian seaside holiday town.

And finally, across on the other side of the country, many Happy Returns to Robert Stephenson's High Level Bridge between Newcastle and Gateshead, 150 years old this August. A truly magnificent monument.

Fred Brook

Greater London

At St Pancras the listed gasholders are likely to be dismantled and put in store in the very near future to make way for the redevelopment of St Pancras station to take trains from the Channel Tunnel. The gas storage



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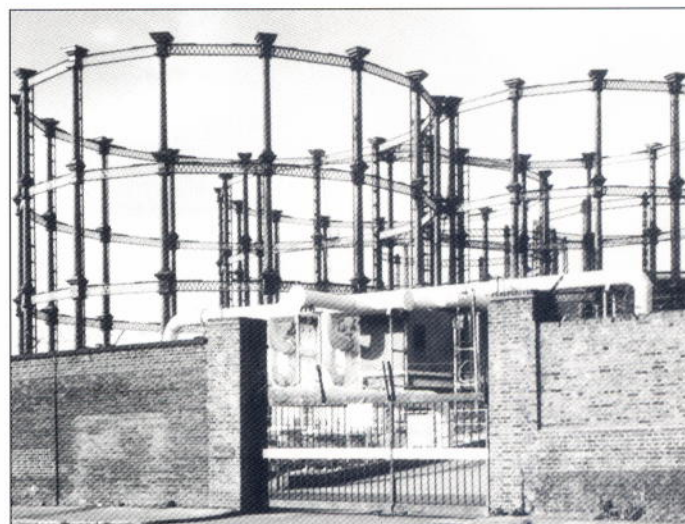
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area is needed for enabling works. Alternative line storage capacity has already been provided in the vicinity of Potter's Bar. A new site and funding need to be found if the famous gasholders are to have a future.

The area around W warehouse on the north quay of Royal Victoria

Dock, Newham, has for some time been earmarked for London's industrial museum but it is now unlikely that such a project involving the display of large items will ever come to fruition. Redevelopment work is now underway here and the Custom House, or Dock Directors' Access Centre (1920-24) by Sir Edwin



The St Pancras gasholders

Photo: R. J. M. Carr

REGIONAL NEWS

Cooper, has been demolished. One of the Addington Well beam engines has gone to Crossness where it is hoped to display it in the Valve House there.

About twenty five years ago a national scheme for industrial museums was drawn up which included Ironbridge, Beamish, etc. Of all the projects only that for Greater London has not been implemented. We may now have to accept that the last quarter of the twentieth century was the golden age of the industrial museum and that from 2000 something else will take their place.

In Southwark, Bankside Power Station is due to reopen next May as the new Tate Gallery of Modern Art. A two-storey addition to the roof will allow more natural light into the upper part of the building and is to house a restaurant, Members' Room and bar. The former Turbine Hall will become a massive entrance space running the full length of the building with access both from the riverside and via a ramp at the west end. The conversion of the power station will cost some £134 million. The new Gallery is to be linked to the area around St Paul's Cathedral on the opposite side of the river by a footbridge designed by Sir Norman Foster, Ove Arup's and Sir Anthony Caro.

The Chris Burden aeroplane factory (see 'Comment' in *IA News* 110, page 9) sadly remained a work in progress throughout its period of exhibition at Millbank and apparently

produced no complete aeroplanes. Technicians laboured away without success. It must be borne in mind that from a post-modern viewpoint art is process, not product. What happened

may have been intentional. Bathos is currently all the rage in the art world and Mr Burden has a reputation as a performance artist.

Robert Carr

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, RCAHMS, 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
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Region 5: NORTH WEST ENGLAND

Lancashire, Merseyside, Greater Manchester and Cheshire
Mrs Edwina Alcock, 5 Friars Walk, Formby, Merseyside L37 4EU

Region 6: WALES

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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

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Region 9: EAST ANGLIA

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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 Shephard, 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

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Cheques should be made payable to the *Association for Industrial Archaeology* and sent with orders to:

Roger Ford, AIA Sales Officer, Barn Cottage, Bridge Street, Bridgnorth, Shropshire WV15 6AF

The AIA can now accept payments by the following credit cards: ACCESS VISA MASTERCARD PLEASE WRITE FOR SALES SLIP

Short Notices

Patrimoine de l'industrie: ressources, pratiques, cultures *Industrial Patrimony: resources, practices, cultures*

We welcome a new magazine, jointly published by TICCII and the Ecomusée de la Communauté urbaine Le Creusot - Montceau les Mines. It is edited by Louis Bergeron, the present president of TICCII and will be published twice a year. The first issue, of 128 pages in A4 format, contains 19 short articles, of which all but two were delivered as papers at a conference 'Patrimoine industriel et effets de taille' held at Le Creusot in 1997. Reflecting its international coverage, there are nineteen papers in English, French, Italian and Spanish but abstracts are provided in English. Reviews of books from world-wide sources are also included. Individual annual subscriptions for European residents will be 309F, 245F for TICCII members and 203F for students. AIA members will be receiving a mail shot and invitation to subscribe in due course.

The Lee Moor Tramway: A Pictorial Record, by R.E. Taylor (Twelveheads Press, 1999) ISBN 0 906294 42 8. 96pp., 148 ills., £16.00.

Built in 1859, with horse-drawn, and later steam sections between two cable-hauled inclines, this 4ft 6in gauge tramway served the west Dartmoor china clay industry until 1960. This book brings together a remarkable collection of photographs, most never published before.

Scotland's Inland Waterways, by P.J.G. Ransom (NMS Publishing Ltd, 1999) ISBN 901663 22 1. 80pp, 36 ills., £5.99.

This book relates the part played by inland waterways in Scottish life from prehistoric times to the early twentieth century. It gives the vital background to the modern schemes of redevelopment and restoration which are bringing the waterways back into prominence.

Sheffield Industries: Cutlery, Silver and Edge Tools, compiled by Joan Unwin & Ken Hawley (Images of England Series: Tempus, 1999) ISBN 0752416588, £9.99.

This collection of images comes principally from the Hawley Tool Collection and depicts the skilled processes of manufacturing cutlery, tools and silverware. Many of the photographs have been donated by craftsmen and firms, some have been taken by Ken Hawley and others are reprints of illustrations from old trade catalogues; most have not been reproduced before.

Structural appraisal for iron-framed textile mills, by Tom Swailes & Joe Marsh (Thomas Telford Ltd, 1998) ISBN 0 7277 2713 3, 64pp, 83 ills., £19.50.

This ICE Design and Practice Guide, produced by the Institution of Civil Engineers, provides an introduction to the subject for practising civil engineers who have limited experience in this area and an overview of the subject for more experienced engineers.

Sweat and Inspiration: Pioneers of the Industrial Age, by Martin Worth (Sutton Publishing) ISBN 0 7509 1660 5, 224pp, 67 ills., £18.99.

The story of the great engineering pioneers of the nineteenth century, including such figures as Isambard Kingdom Brunel, George and Robert Stephenson, Thomas Telford and Richard Trevithick. This book looks at them together, as their turbulent careers interwove with each other, and reveals their work in a new light. The book will reach out to anyone fascinated by ingenuity and awe-struck by the remarkable and still standing creations of those great engineers.

Books Received

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

A man worth his salt, by Gordon Ewart & Andrew Dunn (Fife Council, 1997) ISBN 1 873162 13 4. 20 pp, 18 illus. £3.50.

This booklet describes the recent excavations at the salt pans, Preston Island, Fife, Scotland.

Coal mining in Lunesdale, by Philip J. Hudson (Hudson History, 1998), ISBN 0 9533643 0 5. 303 pp., 131 ills. £15.00.

An introductory study into the history of coal mining in the valley of the River Lune and its tributaries in north-west England.

Ironbridge History and Guide, by Richard Hayman and Wendy Horton (Temous Publishing, 1999), ISBN 0 7524 1460 7. 160pp., 100 ills. £14.99.

A 'definitive' guide to the surviving buildings and archaeological remains of Ironbridge. Using archaeological and historical evidence the authors chart the rise and fall of the iron, clay and coal industries of Ironbridge and bring to life the communities that worked in them.

Marconi and his wireless stations in Wales, by Hari Williams (Carreg Gwalch, 1999), ISBN 0 86381 536 7. 110 pp., 38 ills. £4.50.

Transatlantic cables came ashore in Wales and long-wave transmitting and receiving stations were erected at Waunfawr and Tywyn. This book deals with their history.

South West Granite: a history of the granite industry in Cornwall and Devon, by Peter Stanier (Cornish Hillside Publications, 1999), ISBN 1 900147 14 9. 223pp., 87 ills., £18.99 (£14.99 paperback).

The story of the important quarrying industry and stone trade is told in full for the first time, with many references to the industrial archaeology.

Steam and the river, by William P. Carlin (Rocket Press, 1999), ISBN 0 9535164 0 2. 23 pp., 9 ills., £3.90 inc p/p.

Written by a descendant of George Stephenson's sister Anne, this book traces the family association with the Ohio, Allegheny and Monongahela rivers in the USA.

The Industrial Archaeology and Industrial History of South Western England: A Bibliography, compiled by John Greenwood (Merton Priory Press, 1999), ISBN 1 898937 28 1. 253 pp. £30.00.

This book contains 3,888 references to books, pamphlets, articles and unpublished theses relating to all aspects of the history of agriculture, industry and transport in the city of Bristol, the counties of Cornwall, Devon, Dorset, Gloucestershire, Somerset and Wiltshire.

The Salt and coal industries at St Monans, Fife in the 18th and 19th centuries, ed. by Peter Yeoman (Tayside an Fife Archaeological Committee, Glenrothes, 1999), ISSN 1360-5550, 69 pp., 54 ills. £6.50 inc. p/p.

The Newark Coal and Salt Company flourished to the east of St Monans in east Fife, Scotland between 1771 and 1794. Coastal erosion precipitated a rescue excavation of part of the saltpans complex, which led to more extensive investigations. The site has now been landscaped for display.

The slate regions of North and Mid Wales, by Alun John Richards (Carreg Gwalch, 1999), ISBN 0 86381 552 9. 279 pp., 48 ills. £7.50.

This volumes provides brief accounts and location details of some 600 or so sites and almost 40 tramways and railways which provide evidence of this once extensive extractive industry.

W.H. Auden, Pennine Poet, by Alan Myers & Robert Forsythe (North Pennines Heritage Trust, 1999), ISBN 0 9513535 78. 60 pp., 19 illus. £3.50.

W.H. Auden first visited Rookhope in 1919 and continued to visit the moors between Brough and Hexham until the year before his death in 1973. The authors chart the chronology of his engagement with this northern landscape revealing how detailed some of his plays are in their knowledge of the area. A detailed analysis of the named locations used in Auden's writings is also included.

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22 January 2000 THE ARCHAEOLOGY OF INDUSTRIALISATION IN N. W. ENGLAND

at Portland Basin Museum, Ashton-under-Lyne. Contact Dr M. Nevell, University of Manchester Archaeology Unit, University of Manchester, Oxford Road, Manchester M13 9PL.

☎ 0161 2752317

Fax: 0161 2752315

e-mail: mike.nevell@man.ac.uk

1 April 2000 SERIAC

the South East Region IA Conference, at Chertsey, organised by the Surrey Industrial History Group. Details, when available, from:

Alan Thomas,
6 Birches Close,
Epson,
Surrey KT18 5JG.

8 April 2000 SWWRIAC

the South Wales and West Region IA Conference, at the Town Hall, Bridgwater, Somerset, organised by the Somerset IA Society. Details from:

Geoff Fittton
Giles Cottage
Hill Lane

Brent Knoll

Highbridge TA9 4DF

☎ 01278 760869

e-mail: geoff@fittong.freemove.co.uk

24-30 April 2000 AIA VISIT TO SPAIN

exploration of IA in the area between Madrid and Cordoba, Spain. Includes the windmills of La Mancha, water mills, wine cellars, distillery, gunpowder works and many more sites. Please contact:

Paul Saulter,
62 Marley Road,
Rye,
East Sussex TN31 7BD.

14-18 July 2000 1ST INTERNATIONAL NAMHO CONFERENCE

the 21st annual event of the National Association of Mining History Organisations goes international, hosted by the Carn Brea Mining Society and Camborne School of Mines at Truro School, Truro, Cornwall. The theme of

InterNAMHO2000 will be 'acquire, record and display'. Events will include indoor lectures and a large selection of excursions to mining heritage sites. For further information and booking forms, write to:

Lawrence Holmes,
Rivergarth,
Malpas,

Truro,
Cornwall TR1 1SS

☎ 01872 278234

e-mail: NAMHO@csm.ex.ac.uk

30 August - 7 September 2000 TICCIH 2000

the 11th Congress of the International Committee for the Conservation of the Industrial Heritage, with plenary and workshop themes held at Imperial College in London from 30 August to 2 September 2000, followed by a choice of tours to Cornwall, Scotland or Wales from 3-7 September and a concluding evening in Manchester on 7 September. There is then the opportunity to attend the AIA Conference which starts on 8

September. Details from:
TICCIH Congress Administrator,
42 Devonshire Road,
Cambridge CB1 2BL
☎ +44 (0) 1223 323437
Fax: +44 (0) 1223 460396

8-15 September 2000 AIA ANNUAL CONFERENCE

at Hulme Hall, Manchester. Advance notice only. Further information will appear later.

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.



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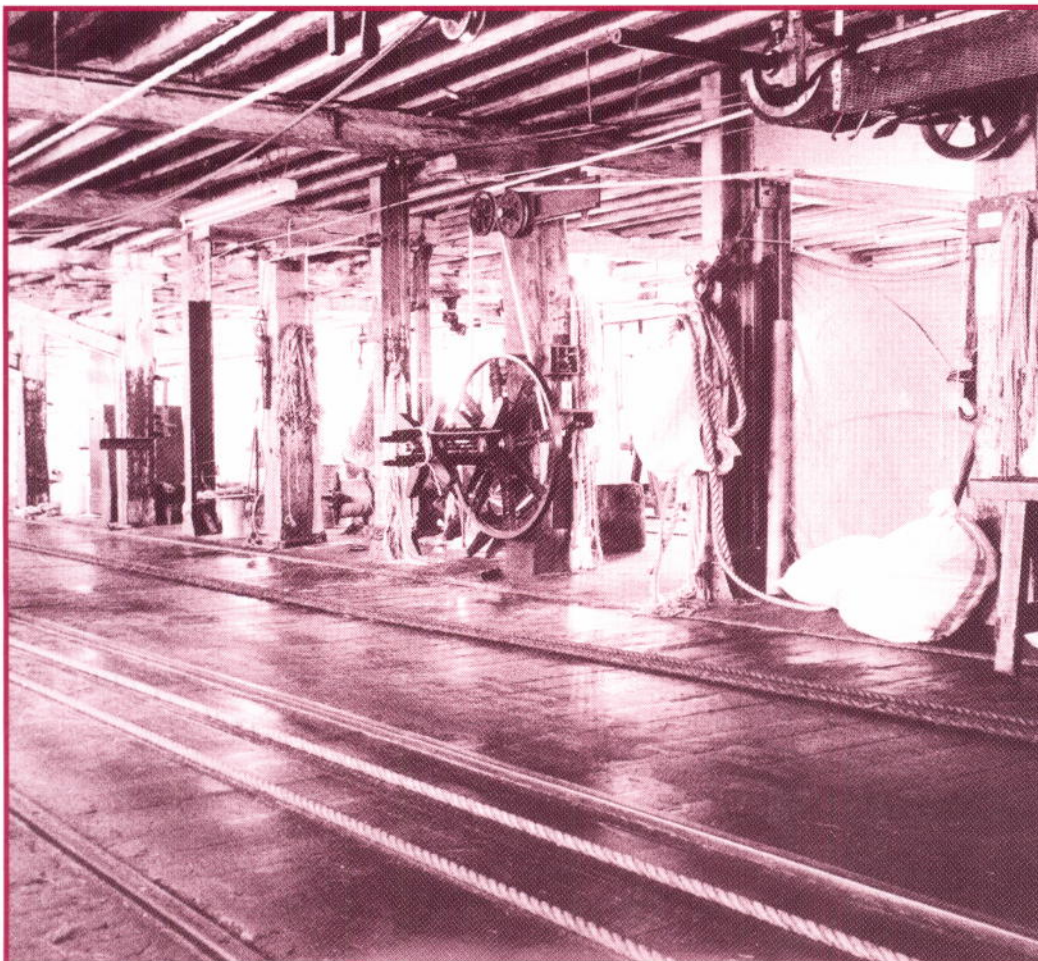
Final copy dates are as follows:

30 March for May mailing
30 June for August mailing
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.

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



Chatham Dockyard ropewalk (see Annual Conference Report)

Photo: R. J. M. Carr