ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

AIA
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ALABAMA ARCHAEOLOGY

The Historic American Engineering Record (HAER) is one of the longest established and most important industrial archaeological survey organisations in the world. Visiting students have always played a vital part in its work. This article describes the experience of one student from England of working with HAER. Before she went, most of her friends asked simply, 'Birmingham, Alabama! Why in the world are you going there?'

Known world wide for its race riots, and to a lesser extent for its industrial decay and entrenched conservatism, it may be only industrial archaeologists who get excited about the idea of visiting Birmingham, USA. Birmingham once boasted the country's largest producer of pig iron–now Sloss furnaces are a leading museum, one of the first to tackle the problems of preserving and interpreting twentieth-century industry.

Nearly twenty years after HAER's recording project on the furnaces helped to establish Sloss's importance, HAER is back in Birmingham. I joined part of a three year team. My placement was funded by the International Council on Monuments and Sites (ICOMOS), which should signify the importance of Birmingham's other industrial sites—its foundries, mines, large areas of workers' houses, for example. The project is hosted by the local Historical Society (can you imagine a local history society here financing such a project?) and there are laudable plans for a more integrated interpretation and preservation programme for industrial sites.

HAER requires each team to produce illustrative sheets and a historical report. Architects draw the structures or processes concerned with each site, and historians do the blurb for the sheets and research. No doubt many readers have seen the quality of work produced, the envy of many here. The teams are given a good deal of flexibility in the way their site is recorded—thus my project (one of four) decided to concentrate on how its engineering shop made a drum for a mine winding engine in c1925. This enabled not just an explanation of how the site worked, but illustrated the interdependent nature of Birmingham's iron industry. The winding drum was made with local iron and went to a local mining company. Thus HAER was actively backing up current academic thought on the nature of the South's iron industry.

Despite this flexible approach there are drawbacks. Although the recording project addressed issues of building design, it did not cover in great depth the architectural and construction details of each building. A more disciplined British approach here might at the very least aid future researchers using the archive produced. There was a lack of guidance over the level to which sheets and reports were to be aimed—at school teachers or fellow industrial historians or retired foundrymen? Would it be a good idea to use more young engineers and archaeologists, not the traditional young architects?

If Birmingham required a record of its important foundry industry, it is perhaps disappointing that an engineering works (one of many across America) was selected, rather than a cast iron pipe manufacturer where Birmingham led the industry. Local politics, funding, and the willingness of firms to participate all play a role in the decision-making process. When I left Birmingham this spring it seemed possible that HAER's role would be reduced to just recording a baseball park! Thankfully its projects actually include a major Sloss mine and mid-nineteenth century furnace.

The projects are progressed at a fair lick, and the quality of work coming out of HAER's Birmingham teams was much appreciated. However in twelve weeks it is hard to do justice to many sites, let alone an under-researched area such as foundries and machine shops. (I stayed an extra six months in Birmingham to write my dissertation for the Ironbridge Institute on over 60 foundry sites in the city centre–from down-market sash shops to the innovative pipe shops). In the South you have further problems with the unsurprisingly sensitive areas of industrial relations and segregation, and the under-researched issues of technological change and wage rates in North and South.

Working for HAER was an extremely interesting experience–not just for the work satisfaction

FREE BRIDGE DEMOLISHED

Regular *Bulletin* readers will be aware of the saga of the Free Bridge, just downstream from the Iron Bridge. Following the Ladywood Bridge Public Inquiry, its demolition was sanctioned, and had been completed by late September. The centre arch was demolished using a dragline with ball and chain mounted on a floating pontoon (just visible on left of picture); the side arches were then tipped over and broken up in situ by machines on either bank. A small section of the upstream side of the southern arch was cut out intact, and is destined to be displayed nearby, together with a brief history of the 1909 ferro-concrete bridge. A temporary Bailey bridge will carry traffic until the new cable-stayed permanent replacement is ready in summer 1994; plans and drawings are on display in the Tollhouse on the Iron Bridge.

John Powell

but also to see the strengths and weaknesses of an admirable institution. And I very much enjoyed Birmingham itself too. Yes, it has its faults. But it is also a good example of how ex-industrial cities need not go permanently to the dogs.

Others interested in scholarships to join HAER should contact ICOMOS UK, 10 Barley Mow Passage, Chiswick, London W4 4PH.

Tanya English

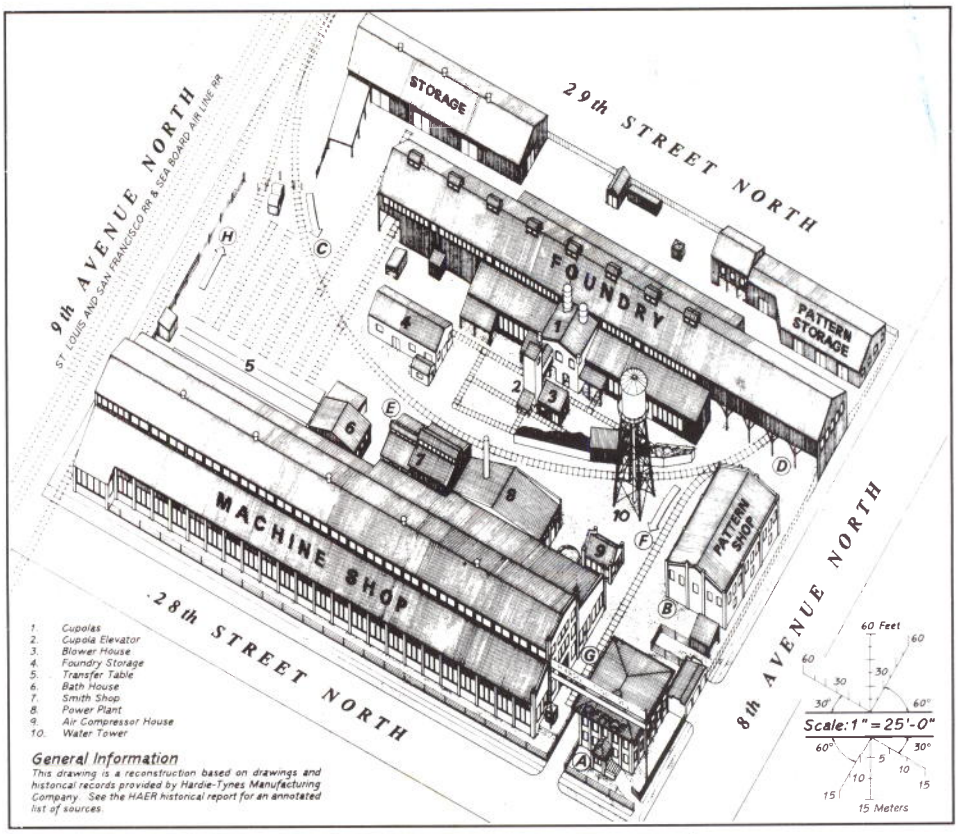
ENGINEERING: AN INDUSTRIAL ARCHAEOLOGICAL PERSPECTIVE

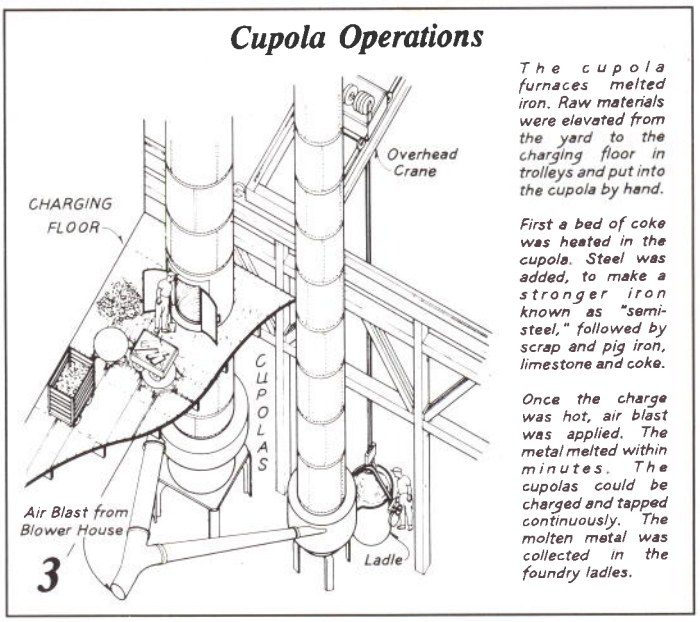
The spread of mechanical engineering skills, essentially the ability to manufacture such things as steam engines, agricultural implements and bridge parts, using machined castings and forgings, was one of the most significant developments of the industrial revolution period. Many aspects of the industry are already well covered in historical literature, but a comprehensive picture of its growth is difficult to obtain. Alex Hayward, External Affairs Co-ordinator at the Science Museum and Barrie Trinder, Senior Research Fellow at the Ironbridge Institute hope to establish an informal network amongst people working in this field which will help to provide a clearer view of the origins and growth of the industry.

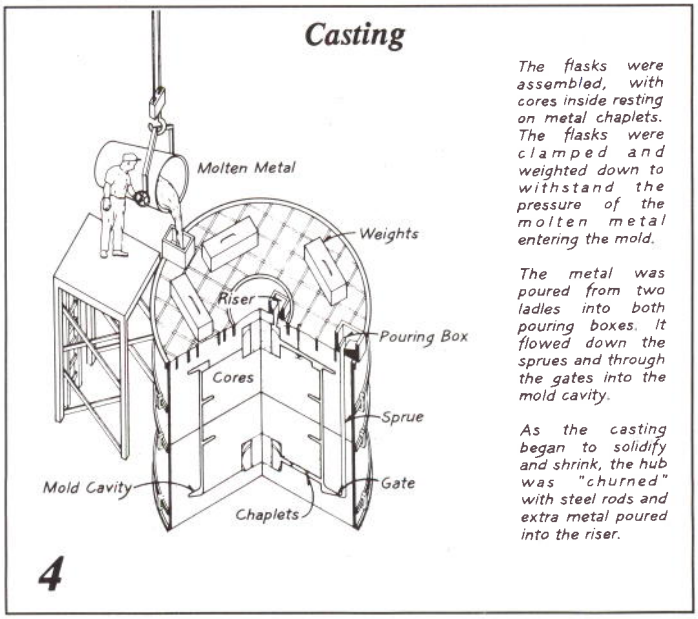
Discussion at the first meeting held at the Science Museum in March suggested that the engineering 'factory', taking orders for machines, making them and installing them, has its origins in the 1790s, with enterprises like the Soho Foundry of Boulton and Watt, Matthew Murray's Round Foundry in Leeds, and John Hazledine's Coleham Foundry in Shrewsbury. Machine tool technology subsequently developed, especially at Henry Maudslay's works in London, and in Manchester. By the mid nineteenth century a foundry making agricultural implements could be found in most market towns of substance. Factories building steam locomotives proliferated, while the development of iron ships made shipbuilding a part of the engineering industry. In the late nineteenth century companies making heavy electrical equipment employed many of the techniques of earlier engineering concerns, while the agricultural depression led some firms who had made agricultural implements to turn to new products.

The object of the network is to take a multi-disciplinary approach to the growth of the mechanical engineering industry in the nineteenth century, bringing together the work of the conservation and recording agencies studying buildings associated with the industry, museum curators concerned with collecting the products of particular works, historians of technology who may be studying the development of machine tools, local historians looking at the impact of engineering works on particular communities, and business historians investigating particular companies. It is hoped within the next two years to produce a bibliography, a gazetteer of well-preserved sites (which may be built up in sections in the ***Bulletin***), and some indications of the surviving products of various works.

Anyone interested in becoming part of the network should contact Alex Hayward at the Science Museum or Barrie Trinder, the Ironbridge Institute, Ironbridge Gorge Museum, Ironbridge, Telford, Shropshire TF8 7AW.







above: HEAR survey—the main drawing from a survey sheet: site operations at the Hardie-Tynes Manufacturing Company c1925
left: two detail drawings from a survey sheet on the foundry process for mine hoist manufacture at Hardie-Tynes

Historic American Engineering Record, USA National Parks Service: top drawing by Zvonimar Franic, 1992; lower drawings by Laura Letton, 1992

CUMBRIA CONFERENCE

The 1993 AIA Conference, which was held on 10-12 September in Charlotte Mason College, Ambleside, was organised by Chris Irwin and the Cumbria Industrial History Society (CIHS). The one hundred and twenty or so delegates stretched the resources of the college: the lecture hall was full and the dining room packed. Those lucky enough to have accommodation in the main building did not have to go outside but those in other buildings had a sometimes wet and always uphill walk for all conference events. Despite this everyone seemed to think it was a good venue.

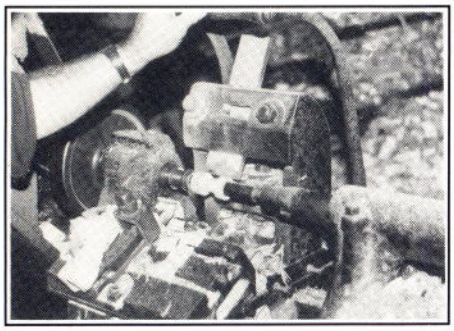
Proceedings opened after dinner on Friday with a welcome by John Marshall of CIHS and an introduction to the area by Mike Davies-Shiel. The abundant water power and the availability of coal, wood, stone and metalliferous minerals as well as good pastures for cattle and sheep were the basis of Cumbria's industrial past. We were given a time chart from the twelfth century to the present outlining the development of the various industries based on these raw materials.

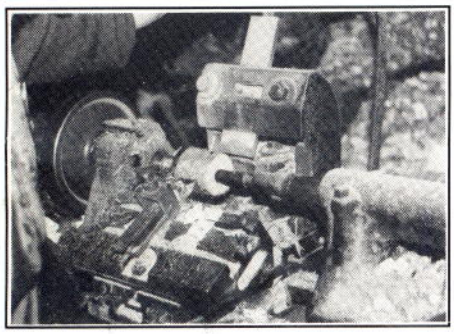
Later in the evening Michael Trueman introduced us to *IRIS* (the Index Record of Industrial Sites), about which much has been written (see *Bulletin* 20.3), and will no doubt be written in future, and we had half the members' contributions. A highlight was Anna Niznik's presentation on the textile mills of Lodz in Poland.

Saturday morning was bright and sunny but delegates were indoors listening to Andy Lowe on the problems (and successes) of industrial archaeology in a rural national park and Harry Fancy on the history of Whitehaven. This was of considerable interest in itself but was also a prelude to an additional programme visit. The remaining members' contributions rounded off the morning.

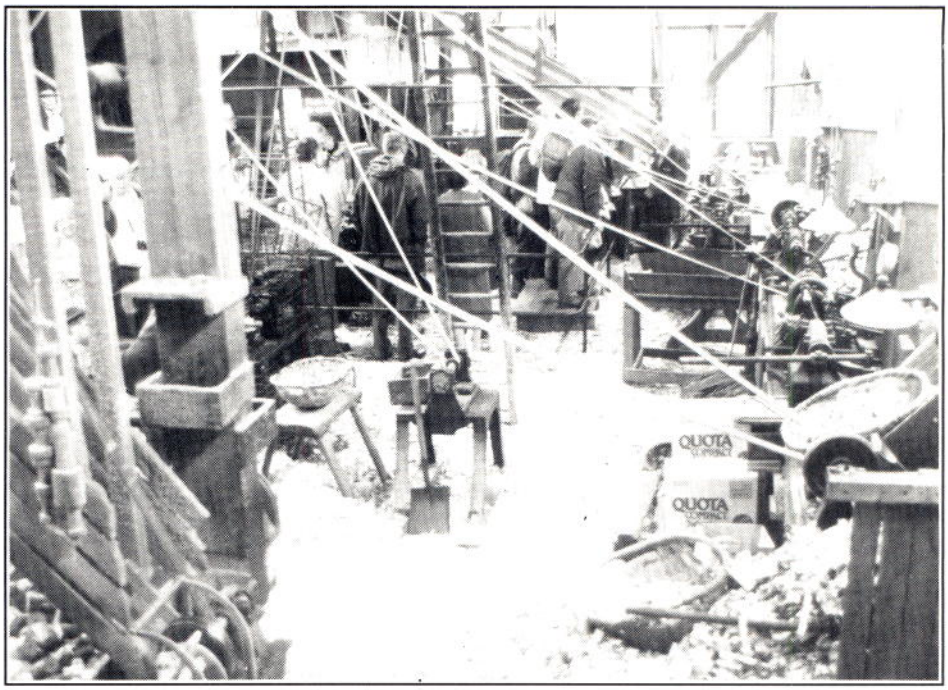
There was a choice of three visits on Saturday afternoon – to Gatebeck and Sedgewick gunpowder mills (Alan and Glenys Crocker), to Tilberthwaite slate quarries (Rob David), or a lake cruise and ride on the Lakeside and Haverthwaite Railway with a tour of the industrial hamlet of Newland.

The conference dinner in the evening included the presentation of the AIA awards (as reported on page 7), but there was no lecture afterwards. Delegates could however watch videos of past conferences or sit in the bar or lounge talking. There are reports of some doing this into the small (and no so small) hours.





Bobbin turning at Stott Park: before and after
Photo: Marilyn Palmer



A Health and Safety Nightmare? –the Stott Park Bobbin Mill, winner of the President's Award at the Cumbria Conference
Photo Marilyn Palmer

The Association's AGM on Sunday morning was followed by reports from the Royal Commissions and coffee. Marilyn Palmer then delivered the Rolt Memorial Lecture with the title, ***Industrial Archaeology: continuity and change***. The full text will appear in IA *Review*.

Conference concluded with expressions of thanks to the CIHS, Chris Irwin and the staff of Charlotte Mason College. However, before leaving Cumbria a number of delegates took part in the additional programme arranged for Sunday afternoon. This included several visits using independent transport, including the famous charcoal blast furnace at Duddon, the Armitt Library (with over 10,000 books of local interest), waterpower sites in Ambleside, and a conducted walking tour of Kendal. In the evening Professor Fawthorp gave a fascinating presentation of the machinations involving the L&NWR, the 'little' North Western Railway, the Lancaster and Carlisle and others to construct or not to construct a railway line from Wennington to Milnthorpe.

The additional programme was spread before and after the conference this year. It is difficult to judge whether this suited members better. Certainly numbers required two coaches on the three main days' visits, but two coaches were required at least some of the time at Cirencester and Dudley in previous years.

The programme started on the Wednesday before the conference with a visit to Glasson and Lancaster Docks and canal sites using private cars. In the evening Alan and Glenys Crocker gave us a presentation on Lakeland gunpowder manufacture as a trailer for Thursday's visit to Low Wood gunpowder works.

Further visits on Thursday included Newland settlement and the rebuilding of the furnace there, Stott Park bobbin mill and the industrial village of Cark. An excellent buffet lunch was provided in the dining room at Lakeside pier/station in an evocative atmosphere. John Gavin gave the evening lecture on paper making in Lakeland.

Friday was largely devoted to Barrow-in-Furness. One party spent the morning in the Record Office and Town Hall while the others went on a rather wet walkabout. A traditional Lancashire hot pot lunch was followed by a talk on the docks and, in particular the new dock entrance gate. The highlight of the afternoon came just after high tide when we watched the gate being opened.

There was also a stop at Roa Island, where there was an unsuccessful speculative venture to develop rail-fed steamer services to other parts of Lancashire and to Scotland. Rapidly improving rail links to other parts soon quashed this idea. Later there was a brief stop at the typical Furness Railway station at Grange-over-Sands and at the Wilkinson Memorial at Lindale in Cartmell.

On Monday the choice was Whitehaven and Sellafield or Florence haematite mine and Whitehaven. Of the latter all I can report is that haematite is a very red ore which seems to attach itself firmly to anything with which it comes in contact. The tour of the planned town of Whitehaven should have been led by Harry Fancy but he had been called away and Tony Pomfret deputised. It was very interesting but also rather wet.

At Sellafield an introductory survey of the history of the site preceded a conducted tour of the power station and, with the necessary clothing and other precautions, of the new radioactive waste processing and storage facilities. No one became radioactive and everyone was allowed home.

In the evening Ian Matheson gave a fascinating slide show of the remains of some of Lakeland's mines which led into Thursday's visit to mining sites at Coniston. A feature was a picnic lunch in the windiest part of the Coniston Fells.

Thanks are due to Chris Irwin and all the members of the CIHS who made the conference and the additional programme such a success. They had no control over the weather but they are used to it! Next year we shall be in the (supposedly) more tranquil climate of Hampshire.

Bill Firth

TICCIH 1992-93.

The following is the annual report for 1992-3 of the United Kingdom representative to The International Congress on the Conservation of the Industrial Heritage, Stephen Hughes.

The work of TICCIH in the period since September 1992 firstly concerned the main conference in Barcelona and Madrid from 13-18 September last year. This was reported in *Bulletin* 19.4. Since then national representatives and the TICCIH board have met to discuss various intermittent conferences and the main conferences to be held at two or three-yearly intervals.

Among the most important activities of TICCIH have been the World Industrial Sites Initiatives. There are two organisations concerned with these, the World Heritage Committee of the International Council on Monuments and Sites (ICOMOS), and TICCIH.

In 1992 the World Heritage Bureau of ICOMOS with TICCIH agreed to a joint comparative study of the industrial heritage, and in 1993 a majority of the Board of TICCIH began a series of meetings acting as joint consultants to ICOMOS on this subject. In this TICCIH was drawing on its work on International Industrial Landmarks Sites. (This earlier work may still bear independent fruition as a serial publication and as certificates of 'International Industrial Landmark Significance' awarded to individual sites or landscapes).

The ICOMOS initiative had its origins in 1988 when the twelfth session of the World Heritage Committee agreed on the need for a 'global study' of important historical monuments to assist the 'States Parties' (the various national government agencies responsible for monuments) in identifying their most internationally significant sites and also to help the World Heritage Committee in evaluating nominations received from the national governments.

In 1990 the lack of an international comparative context scuppered the British Government's nomination of New Lanark textile mills and settlement as a World Heritage Site. The present exercise to provide a context for all such suitable sites needs to be carried through quickly so that the World Heritage List's recognition of mankind's technological past can progress beyond the present meagre total of two sites—the Ironbridge Gorge and Wieliczka Salt Mine in Poland.

The initial sift to provide a specific list of British sites for possible nomination as TICCIH's own designation of 'International Landmarks' was made by the Council of the Association for Industrial Archaeology. Short texts were subsequently produced for some 17 British sites by Keith Falconer (England); Miles Oglethorpe (Scotland) and Stephen Hughes (Wales). These texts are intended for publication by TICCIH.

Most of the TICCIH Board met in Rome in February 1993 to discuss an initial list of possible World Heritage Sites for presentation to ICOMOS. The following were those sites approved for submission from Britain:

1. Albert Docks, Liverpool;
2. Cromford Mill and Settlement, Derbyshire;
3. Dallas Dhu Distillery, Forres, Grampian;
4. New Lanark Mills and 'model community' village, Strathclyde;
5. Blaenafon mining landscape and settlement, Gwent;
6. Merthyr Tydfil iron making landscape and early railway remains, Mid Glamorgan.

Interest was also expressed in a further three sites: Kew Bridge Engines; The Forth Railway Bridge; and Stephenson's Tubular Railway Bridge and Telford's Road Suspension Bridge at Conwy.

Selecting World Heritage Sites: the area around Merthyr Tydfil is being considered. The world's largest ironmaking centre in the early 19th century is still surrounded by mining landscapes of the period

Photo: Crown Copyright, Royal Commission on the Ancient and Historical Monuments of Wales, photo 925045-53

The UK TICCIH representative spent a considerable time liaising with local museums and council planning departments in order to prepare detailed files on each site for a TICCIH national representatives meeting in Copenhagen in August with Dr Henry Cleere, World Heritage Co-ordinator. The preparation of the files was considerably facilitated by the AIA Council. That for Cromford was enlarged to include Masson and Belper Mills and the Belper workers' housing.

The Copenhagen Meeting initiated the second stage of the 'Global Study' of the Industrial Heritage. Committees are to be formed by TICCIH to cover each of the main categories of industrial monument. Financial backing by the respective national governments has enabled Sweden to begin the evaluation of international mining and iron-making sites and the Netherlands to begin work on bridges and on water-towers. Other countries agreed to begin work on other categories. It has been suggested that Britain might co-ordinate work on the international coal-mining and textile-mills inheritance but without British government backing for this work it is difficult to see how it can proceed.

This issue shows, once again, how crucial it is for the AIA to co-ordinate closely with all governmental and other British heritage bodies in effectively interchanging ideas on UK TICCIH participation, and adequately funding involvement. UK participation, up to now, has largely survived on funding from the Royal Commission on the Ancient Monuments of Wales, from ICOMOS, and in this last year with support for meetings from the Italian and Danish Governments. The UK national subscription is paid by the AIA.

Lists on the tile and brickmaking industries and on early railways may be organised from Britain, and may not require the same levels of funding for further work. The detailed folders already assembled on the known sites of greatest importance will be used in this industry by industry study and also in the certification by TICCIH of 'World Industrial Landmarks' and in accompanying publications. Professor Marie Nisser, of Sweden, will co-ordinate the specialist committees, building on the work of Guido Vanderhulst of Belgium.

Another element of work in 1992-3 has been TICCIH 2000. TICCIH evolved from a meeting held at Ironbridge in 1973. It is proposed that the 25th anniversary of this be celebrated by TICCIH returning to Britain in about the year 2000 for one of its main conferences. This celebration event might not include so many working sessions as the usual conferences and might include a reception at the Science Museum in London, a train trip to the Cornish mining field, followed by a boat trip to the south Wales iron-making complexes with a culmination in the textile mill area of Lancashire and Yorkshire. Firmer details have to be presented to the TICCIH Board in June 1994 if the bid to hold this celebratory event is to succeed.

However, the breaking of the Iron Curtain has revealed the riches of Central and Eastern Europe in what the West considers archaic industrial practices and infrastructure. This may all be quickly swept away in the chaos of rapid re-industrialisation in the capitalist mode. In recognition of this the TICCIH Board held a meeting in Prague in 1992 and has supported locally organised conferences in Gdansk and the Urals in 1993. The enthusiastic new national industrial archaeological organisation in Hungary is also keen to host a TICCIH Conference, possibly the next available full conference 'slot' in 2000. Such a proposal will have to be considered by the TICCIH Board alongside any detailed British bid to host TICCIH 2000.

Stephen Hughes

SMALLSMITH'S DIARY

12 August

As time ticks towards our trip to Watt-Rotatia, I am ensuring I am fully aware of the workings of our computerised IA database in case I am called upon to address the "Congress of Community Industrial Archaeology" about it. Under Neill's expert guidance, I am beginning to master the machine. Neill did re-assure me that it will take only a fortnight to re-input the information which, to use computer-jargon, I "lost". Bolt was less helpful and went on about "incompetents" and "technology", which is rich given his usual luddite attitude to innovation. And I'm sure if I'd spent as much time as he has hogging the computer, I wouldn't be making little mistakes which can be easily put right. Indeed, he may well be jealous, as HE clearly isn't the person best suited to represent our Society at an international conference.

9 September

I can scarcely believe we are in Engineerograd—and how quaint it is. There are still little old trams clanking outside in the street, and I quickly used up my stock of film recording them. By speaking slowly and loudly, and referring to my English-Wattoslovak phrase book, I was able to buy more film from a street vendor. He seemed pleased by my efforts to communicate in his language, although my wife insists she heard him call me a "silly English tourist" as I walked away. I asked our tour guide about this, and she assured me there is a Wattoslovak phrase which sounds very similar, which actually means "have a nice day".

11 September

I was very pleased to have that extra film as we have been on a most fascinating tour of the Rotatia state ironworks. It is most refreshing to see that the authorities are taking such efforts to retain the old methods of manufacture to show interested tourists like ourselves. I'm sure the workers and local people were not displeased to put up with the slight inconvenience of smoke, fumes, and somewhat lax safety conditions to be so much part of living, working history. What would the directors of Beamish and the Black Country Museum give to have such authentic conditions in THEIR displays?! Our visit after lunch was something of an anti-climax, to the state's brand new aluminium plant, of which the factory guide seemed unreasonably proud. I was moved to comment to her that, as delegates of an international IA conference, we were unlikely to be impressed by such modern processes; and that it seemed to me economic folly for Watt-Rotatia not to concentrate wholly on the vast heritage potential of its still intact, traditional heavy industries, which would be a tourist pull across Europe. She responded in a rather excited way about acid rain, health care programmes, poisoned lakes and new beginnings. I believe she missed the point. I am after all a delegate representing the nation which was birthplace, cradle and nursery of the world's Industrial Revolution. But she was young and hot-headed, lacking that level-headed approach we value among our brother (and, yes, often our sister) industrial archaeologists.

15 September

We returned this morning, and although it is a privilege to travel to foreign lands, it is always a pleasure to be back home in Pipeclay among familiar views and faces. My short address to the CIA Conference seemed to go remarkably well, and my dear wife, who has recently shown a regrettable tendency to be a little quick to criticise, was full of praise. I can at least say that I did not over-run my allotted speaking time, and several continental community IA groups expressed interest in our computer database. Although fatigued we still met up with our colleagues to report on our activities. Needless to say we were somewhat eclipsed by Bolt and Mrs Dobbin who had attended the national IA conference in Cumbria. The remarkable Mrs D was somewhat sheepish, and Bolt was possibly too quick to explain why. On their trip round the Sellafield nuclear plant, she had been bundled off the bus by the BNFL authorities who thought that she was from the women's peace camp outside the plant. BNFL were suitably apologetic once the confusion was sorted, and even kindly provided delegates with free tea at their very attractive restaurant with its views over the Fells; but they insisted throughout that they were only acting on an anonymous tip-off. It was clear from the hostile silence that Bolt and Mrs D had not spent much time together after that particular trip.

13 October

I am pleased to hear that other diarists exist to chart the progress of IA in their writings. Only today I heard on Radio 4 that admirable exponent of the diarist's craft, Mr Adrian Mole, describing visits with his engineer girlfriend (who is a dedicated industrial archaeologist, he says) to Tower Bridge and the great arched roof of King's Cross Station. His true feeling for IA was revealed most fully by the portrait of that great hero of us all, I K Brunel, which he hangs in an honoured position on his bedroom wall. I must write to dear Aunty Beeb and ask for more of this. Perhaps they may even want a regular commentary on activities in IA. I will resolve to propose a new weekly series and volunteer my services: "Letter from Buttockbarn" perhaps.

AIA NEWS

BULLETIN CHANGES

This issue, completing Volume 20, will be the last of the AIA *Bulletin* as we know it. After a long process of consideration for a policy document which lays out the aims and approaches of the Association's news organ, the Membership Services Committee has decided to institute a number of changes: to style, presentation and content. We hope that all the good features of the present newsletter will be retained, but please feel free to write to the Editor with your opinion of the new model when it comes out in February. It will go under the new title of *IA News*, subtitled as the Bulletin of the Association for Industrial Archaeology, and it will begin at Number 88 to show continuity with the present *Bulletin*. The Volume and Part numbers have been dropped, but eagle-eyed readers may have noticed the issue number appear for the first time on the last issue, alongside the old notation.

AIA AGM

The Annual General Meeting of the Association was held during the Cumbria Conference, on 12 September. Reports of the Officers of the Association were delivered and accepted, and the present Officers were re-elected. Two Council members retired from election, Janet Graham and Carol Whittaker, owing to career pressures. Carol was the Association's Publicity Officer, Janet Graham was the Conference Secretary, and their many contributions to the work of the AIA have been much valued. Three new members of Council were appointed: Shane Gould of the Cranstone Consultancy, Gordon Knowles of Surrey Industrial History Group, and Victoria Perry of Sheffield University. Mike Harrison was co-opted to Council to undertake new fund-raising initiatives. Profiles of the new Council members will appear in the next issue.

AFFILIATED SOCIETIES

The AIA has a new Affiliated Societies Liaison Officer, Gordon Knowles, who is also Chairman of the Surrey Industrial History Group. After many successful years, Pam Moore has resigned from the post and at the same time from the Council of the Association. At its meeting in October the Council thanked Pam for her hard work over several years, particularly in making the annual Ironbridge Weekend the popular and effective meeting it has become both for affiliated socities and many individual members.

The next Ironbridge Weekend, on 9-10 April 1994 will be on the theme of typological studies and their relevance to recording, research and preservation. Special attention will be applied to the study of limekilns among other subjects, and there will be an opportunity to bring up questions and suggestions about the work of the AIA in general. Details will be circulated directly to Affiliated Societies and with the next mailing.

Gordon Knowles can be contatcted at 7 Squirrels Green, Great Bookham, Letherhead, Surrey KT23 2LE.

TREASURER MOVES

The AIA Honorary Treasurer, Michael Messenger, has moved to a new address in Cardiff. From now on members can contact him at 144 Lake Road East, Roath Park, Cardiff CF2 5NQ. His telephone number remains 0222 754616.

NEWS

RECORDING FARM BUILDINGS

A conference combining the experience of the Historic Farm Buildings Group, the Centre for Conservation Studies, the Royal Commission on the Historical Monuments of England and the Royal Commission on the Ancient and Historical Monuments of Scotland, is to be held in York on 15 January 1994.

Despite the fact that many planning authorities now require records to be made as part of the planning process many thousands of buildings face demolition or conversion unrecorded and it is a matter of some urgency that more of these are recorded before they disappear. One of the conference's main aims will be to encourage professional and non-professional individuals and groups to record farmsteads in their own areas.

Speakers will include both amateur recorders and representatives of professional bodies. A range of recording objectives and techniques will be presented, mostly aimed at recording historically significant data. Guidance will also be given on ways in which records can be rendered suitable for deposition in archives (both national and local), where they can be consulted by future researchers.

Further details and booking forms are available from Davina Turner, RCHME, Shelley House, Acomb Road, York YO2 4HB.

GEEVOR TIN MINE

After ten months devoted effort by volunteer workers who are mostly ex-employees, Geevor Mine at Pendeen re-opened its gates in August. Geevor was the last operating tin mine in Penwith, and the penultimate in the whole of Cornwall, with only Camborne's South Crofty still remaining. Almost the most westerly mine in Britain, Geevor has a proud history dating back to the turn of the century.

It fared less well as tin prices fluctuated in the 1980s, and diversified into guided tours of surface and underground workings. Now, new owners Cornwall County Council have created a Visitor Centre, and refurbished enough of the other surface buildings to allow conducted tours of this fascinating heritage site to be resumed.

The County Council is continuing restoration work and hopes to enhance the visitor experience, in particular by providing underground tours, in the near future. Surrounding derelict land is being treated, with the aid of a Derelict Land Grant, to safeguard its important archaeological assets.

The whole project is being assisted by the Trevithick Trust, which hopes to manage and co-ordinate industrial heritage sites like Geevor throughout Cornwall. For further information contact the Project Manager, Stuart Smith (Chief Executive of the Trevithick Trust) ☎ 0736 788662.

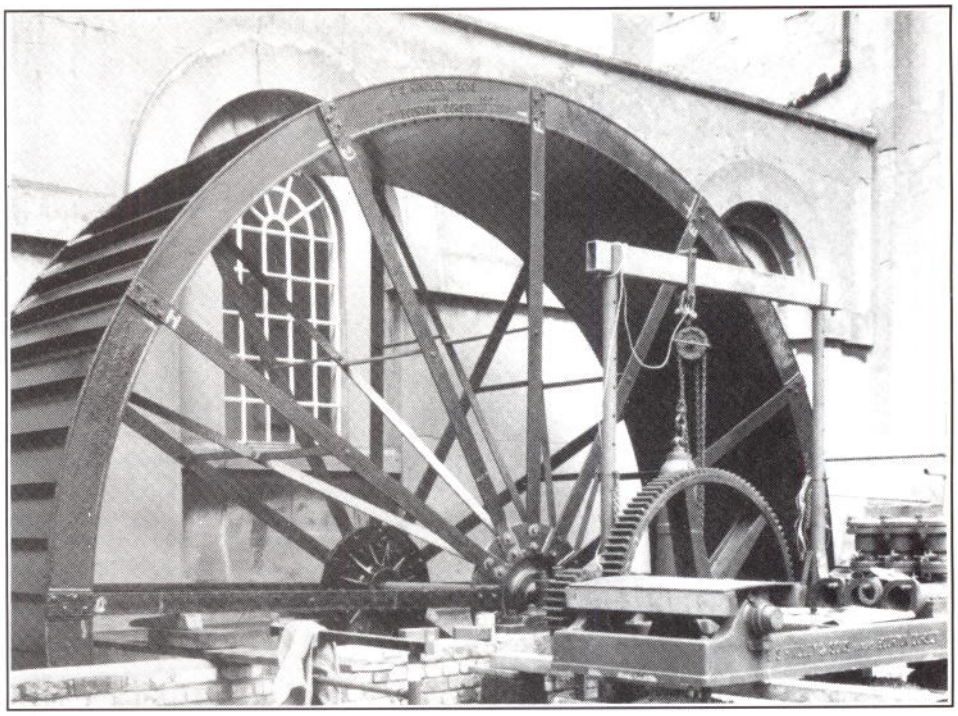
SIA IN BRITAIN

Forty-five members of the North American Society for Industrial Archeology (NOT Archaeology) spent two weeks in September visiting industrial monuments in England and Wales. The itinerary was devised by Dr Barrie Trinder of the Ironbridge Institute and the tour was organised by the travel operator Summit.

The Society, founded in 1971 (two years before the AIA), is concerned to conserve and interpret North America's industrial heritage. This was the first tour to be organised outside North America and the participants, who included professionals concerned with industrial heritage and people interested in industrial history, were keen to see the monuments of the first country to experience an industrial revolution.

The tour took in many of the best-known industrial monuments in Britain, and some which are less celebrated. The group saw the Science Museum, crossed the Iron Bridge, visited the Museum of Science and Industry in Manchester, and the Helmshore Textile Museum. They saw something of four cities, London, Birmingham, Manchester and Leeds from the towpaths of canals, and braved Pennine gales to see relics of lead mining in County Durham. While the group did most of their travelling by coach, they also sampled a cruise boat on the Thames, the Severn Valley Railway, the Festiniog Railway, and a glass-topped tram through the Blackpool Illuminations.

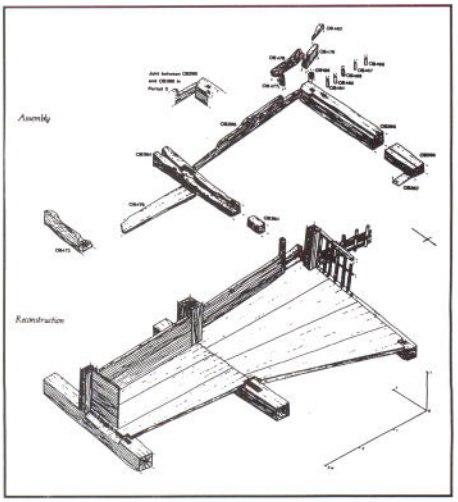
Participants in the tour came from ten of the fifty states of the Union and two Canadian provinces, and they met industrial archaeologists in many parts of Britain. The group returned to North America with great insights into the early industry of Britain; and perhaps an increased feeling that the 'special relationship' of Britain and America still has some value in industrial archaeology at least.



WATERWHEEL AT KEW BRIDGE
The Kew Bridge Steam Museum is a museum of water supply and it is appropriate that a pumping arrangement other than by steam engine should be on display there. At a ceremony on 27 July 1993 the Duke of Somerset inaugurated a waterwheel which had been used for a pumped water supply to his estate and the village of Maiden Bradley. The wheel was made by E S Hindley and Sons of Bourton, Dorset, in 1902. Originally it was installed on the headwaters of the River Frome in a pumphouse where it drove through gears a set of horizontal three-throw ram pumps drawing water from a borehole. The photograph shows installation work at Kew during May 1993. *Robert Carr*

CHATTERLEY WHITFIELD SHOCK

Viewers of BBC TV's *Midlands Today* were shocked by the sudden announcement on 11 August of the closure of Chatterley Whitfield Mining Museum, Stoke-on-Trent, which was reported as having gone into receivership. The Director appeared on screen insisting that the museum was still viable, and it was ridiculous that they were having to turn potential visitors away. Details are not clear, though a report in the Railway Magazine states that Stoke City Council, who have poured over £350,000 into Chatterley Whitfield over the years, had reduced their annual grant to the museum and were not willing to provide an additional sum to guarantee a £75,000 overdraft.



Fieldwork and Recording main award winner *(see opposite page)*: left, reconstruction of Bordesley Abbey Mill and right, part of the recording and reconstruction drawing of the headrace timbers from the mill.

COMMENT

This regular feature in the Bulletin provides a 'leader' column for opinion. The Editor is pleased to receive letters in response to Comments, or on other matters.

'Training' is reckoned to be one of the key words of the 1990s. None of us can do without it, apparently. It is said to be the route to high quality in all aspects of life–from first aid to football, secretarial skills to safe sex. How does this affect us in the more stable world of industrial archaeology?

There are indeed moves towards extending training for practitioners of our discipline. National Vocational Qualifications and Scottish Vocational Qualifications (NVQs and SVQs) are being introduced for environmental education, and it is likely that they will increasingly be regarded as necessary qualifications for many jobs. They may even be applied to voluntary activities where there is some wider responsibility to ensure quality, such as caring for donated museum artefacts or destroying archaeological evidence by excavation. For these reasons, and to ensure that VQs in archaeology are in tune with the special needs of industrial archaeology, officers of the AIA have worked closely with those who are drawing up VQ programmes.

Many other initiatives are being taken to increase training for industrial archaeologists, discretely or as part of other disciplines. The *Bulletin* regularly features news items and diary entries on new courses and seminars. Training programmes in higher education seem to be springing up all over at present: new diplomas in archaeology and heritage interpretation at Birkbeck College; a masters degree in industrial archaeology at Michigan Technological University (reported in *Bulletin* 20.1); expanded courses at the Ironbridge Institute (*Bulletin* 20.2); a new internal option at Nene College; and training excavations in Clwyd (*Bulletin* 20.2) to mention but a few. Even the Cornish School of Mines is said to be considering a masters degree course in managing industrial heritage. The AIA itself provides an opportunity for training in its annual Ironbridge Weekend (last time concentrating on writing and publishing), and promotes high standards in recording and conservation through its annual Fieldwork and Dorothea Awards. Some local societies also teach fieldwork skills during group projects. There are often opportunities to learn by volunteering to help with professional organisations such as the Welsh Royal Commission on Ancient and Historic Monuments or the Historic American Engineering Record (as reported by one student in this issue).

Despite all this, the standards applied in industrial archaeology are not always high. How many of us can say that we are confident of how to undertake a thorough record drawing of the detailed fabric of a threatened building, rather than just a rough measured survey? How many of us know which conservation techniques for metal artefacts are reversible, and which permanent? How many of us are familiar with correct conventions in structuring and referencing an academic argument?

The fact is that despite the importance of training and its increasing availability, most of us have no formal training whatever in industrial archaeology. No wonder the subject is so little developed as an academic discipline. Self-eduction is important and highly beneficial, but it is only when one is confronted with proper instruction that one realises just how much one does not know.

If industrial archaeology is to make progress and be respected, we must take advantage of the training challenges that lie ahead. *IA News* will do its best to ensure its readers are aware of opportunities.

PW

THE AIA FIELDWORK AWARDS FOR 1993

This is the eighth year of these awards that have made the AIA known far beyond its existing membership and faithful attendees at conference. The Cornwall Archaeology Unit's Engine House Assessment, winner of the Fieldwork Award for 1992, now proudly bears a tastefully designed sticker on its front cover with "WINNER 92" encircled by the name of the Association and its award. The winning entry for 1993 is about to be published and may acknowledge receipt of the award in some similar fashion.

The future of the award looks secure. A report from the amateur group working on the Ashton Canal Warehouses has been promised for next year and it is hoped that other groups will submit entries. The completion of sets of IRIS forms (see *Bulletin* 20.3) dealing with monument groups, or specific industries, might form suitable winning entries for the future.

This year's winner is Grenville Astill's report on ten years work on ***A Medieval Industrial Complex and its Landscape: the metalworking watermills and workshops of Bordesley Abbey***. The judges feel that the high standards set by this intensive archaeological study of a metalworking complex fulfil much of the ultimate aims of the Association in seeking to promote the best standards of interpretation and recording. Fragmentary remains of early metalworking sites are hard to detect and interpret. The waterlogged archaeological remains on this site in the Bordesley Abbey complex at Redditch are extremely well-preserved and the standards set by this work will provide a benchmark against which other similar metalworking sites can be examined. Superb reconstructions and a well-written text greatly expand our pitifully small knowledge of early water-power technology in Britain. The site is carefully placed in context, both in relation to its surrounding landscape and to contemporary technology.

AIA members have already read in *Bulletin* 19.4 of the excellent work being done by Great Orme Mines Limited on the spectacular early mining remains uncovered at Llandudno. The resources provided by each summer's visitors are being used to fund winter campaigns of exploration and development, with the subsequent exhibition, interpretation and publication of each season's results. Part of this process was the commissioning of an Underground Survey from Great Orme Mines Limited by Cadw: Welsh Historic Monuments. This survey, carried-out by Andrew Lewis, illustrates a masterly knowledge of the local geology and of survey method. This has been linked to an excellent strategy of selective radio-carbon dating and the examination of the composition of the early mining tools discovered. Survey underground in these tiny and intermittently unsafe passages with the comprehensive interpretation obtained shows great initiative on the part of those involved. Survey procedures used are carefully explained and the site is firmly placed in its international context. For these reasons Great Orme Mines Ltd is given the AIA Initiative Award for Fieldwork for "the most enterprising fieldwork project". Building on Duncan James's pioneering work they have shown how the tunnels surrounding a nineteenth-century mine shaft can transform our perceptions of the industrial enterprise of our Bronze Age forefathers.

Other entries for the 1993 awards also clearly show how the general standards of fieldwork, recording and interpretation in industrial archaeology are improving. Robert Kinchin-Smith's report on the since-demolished Staley's Warehouse at Banbury was well-written and presented and noteworthy for its comprehensive set of survey drawings which included cross-sections—often the key to sound structural interpretation. The judges highly commend this entry from an Ironbridge Institute student.

The Gwynedd Archaeological Trust's Report on the Archaeological Recording of the Incline Drumhouse and Associated Buildings, Port Dinorwic is one of a rapidly growing number of industrial archaeological reports produced by archaeological units prior to the demolition of

Dr Grenville Astill receives the Fieldwork and Recording Award from AIA President John Crompton

sites. This one is notable for its combination of high standard survey drawings (by P T Muckle and A J Shallcross) with good contextual interpretation by a local worker experienced in the specialisms of industrial archaeology (Gwynfor Pierce-Jones). The results of this combined 'amateur/professional' project are highly commended. A second well written and presented entry from the Gwynedd Archaeological Trust was also received, on the Vale of Conway Mine Complex, Llanrwst.

Helen Gomersall's project on Water Power in the Kirkstall Valley made good use of documentary sources in elucidating the complexities of an industrial water-economy system combined with a sound use of physical evidence.

Judges of the AIA Fieldwork Awards for 1993 were Keith Falconer, Stephen Hughes and Amber Patrick.

Entries for the 1994 Fieldwork Awards should be sent to Stephen Hughes at RCAHMW, Crown Building, Plas Crug, Aberystwyth, Dyfed SY23 2HP by 1 May. Entries may be copied for the National Monuments Records or illustrations used to publicise the winning projects. There is no set form for entries which will be accepted as long as they contain at least an element of fieldwork.

Stephen Hughes

DIARY

23 November 1993
THE ARCHAEOLOGY OF INDUSTRIAL BUILDINGS: CO-OPERATIVE STRUCTURES

a day school at the Ironbridge Institute to consider the archaeology of wholesale and retail co-operative societies—buildings to be found in most British towns. The factories of the Co-Operative Wholesale Society were some of the first to produce consumer goods on a large scale, and the retail outlets were often highly advanced for the time and set new examples in the use of architectural house styles. Details: Carol Sampson ☎ 0952 432751

10-12 December 1993
MEDIEVAL TRADES AND INDUSTRY

a conference at Warwick. Details from Tony Brown, Staff Tutor in Archaeology, Department of Adult Education, University of Leicester, Leicester LE1 7RH ☎ 0533 522522.

13-16 December 1993
THEORETICAL ARCHAEOLOGY GROUP CONFERENCE

at Durham. Details from TAG Organizing Committee, Department of Archaeology, 46 Saddler Street, Durham DH1 3NU.

15 December 1993
THE ORGANISATION OF TECHNOLOGY: THE CASE OF RUDOLPH DIESEL

a lecture at the Science Museum at 3.45pm. Details from Robert Bud ☎ 071 938 8041.

18-19 December 1993
FARM BUILDINGS FOR LIVESTOCK HUSBANDRY

a conference in London jointly organised by the Vernacular Architecture Group and the Historic Farm Buildings Group. Details from VAG Conference Secretary, Broad Green House, Brampton Rd, Madley, Herefordshire HR2 9LX.

15 January 1994
RECORDING FARM BUILDINGS

a conference organised by RCHME, RCAHMS, the Historic Farm Buildings Group and the Centre for Conservation Studies at York University. Details from Davina Turner, RCHME, Shelley House, Acomb Road, York YO2 4HB.

17 February 1994
PORT HISTORY: TECHNICAL AND AESTHETIC ASPECTS

a lecture by Adrian Jarvis, organised by the International Commission for Maritime History Seminars, 5.15pm, Room G01, Norfolk Building, King's College, Surrey Street London WC2. Bookings: David M. Williams ☎ 0533 522582.

16 March 1994
BREWING IN LONDON

a free lecture by Ken Smith organised by Greater London IA Society at 6.30pm, Lecture Theatre 3, New Science Block, Medical College of St Bartholomew's Hospital, Charterhouse Square, London EC1.

19 March 1994
SECOND ANNUAL NEW RESEARCHERS IN MARITIME HISTORY CONFERENCE

Merseyside Maritime Museum. Details from Adrian Jarvis, Merseyside Maritime Museum, Albert Dock, Liverpool, L3 4AA.

9-10 April 1994
AIA IRONBRIDGE WEEKEND

at the Long Warehouse, Coalbrookdale. Details will be circulated with the next mailing.

16 April 1994
SOUTH WALES AND WEST OF ENGLAND REGIONAL IA CONFERENCE

at Tredegar House, Newport. Details from Oxford House IA Society, or Paul Reynolds, 87 Gabalfa Road, Sketty, Swansea SA2 8ND.

16 April 1994
SOUTH EAST REGIONAL IA CONFERENCE 1994

on the theme *Making Air Work*, at Godalming. Details: Peter Tarplee, Donard, East St., Great Bookham, Leatherhead, Surrey KT23 4QX.

16 April 1994
MANCHESTER AIRPORT AND ITS RAIL LINK

a day school on their development since the early years of this century, at Manchester. Details from Derek Brumhead, Gayton, Laneside Road, New Mills, via Stockport, SK12 4LU.

6-8 May 1994
INDUSTRIAL HERITAGE OF THE EDEN VALLEY, CUMBRIA

a weekend course for those who missed the AIA conference in September. Details from Blencathra Field Centre, Threlkeld Keswick ☎ 07687 79601.

11-13 May 1994
PLANNING AND THE HISTORIC ENVIRONMENT

a short course at the Department of Continuing Education, University of Oxford, 1 Wellington Square, Oxford OX1 2JA ☎ 0865 270360.

29 May-6 June 1994
INTERNATIONAL CONFERENCE ON INDUSTRIAL HERITAGE

at Montreal, Ottawa and Toronto. Organised by TICCIH, the Canadian Society for Industrial Heritage, and the Society for Industrial Archaeology. The main theme will be de-industrialisation and the industrial heritage of the twenty-first century. Details from Louise Trottier, National Museum of Science and Technology, PO Box 9724, Ottawa Terminal, Ottawa, Ontario K1G 5A3, Canada.

9-10 September 1994
ARTEFACTS FROM WRECKS

a conference on the archaeology of material culture from shipwrecks of the late middle ages to the industrial revolution, to be held in South Wales. For offers of papers or further details contact Dr Mark Redknap, Deaprtment of Archaeology and Numismatics, National Museum of Wales, Cardiff CF1 3NP

12-17 September 1994
ELEVENTH INTERNATIONAL ECONOMIC HISTORY CONGRESS

in Milan, Italy, including over 75 sessions on different themes. Details from Ing. Alessandro Ciario, Bocconi Comunicazione, Universita Bocconi, Via Sarfatti 25, 20136 Milano, Italy.

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 that details are sent in if you wish your event to be advertised.

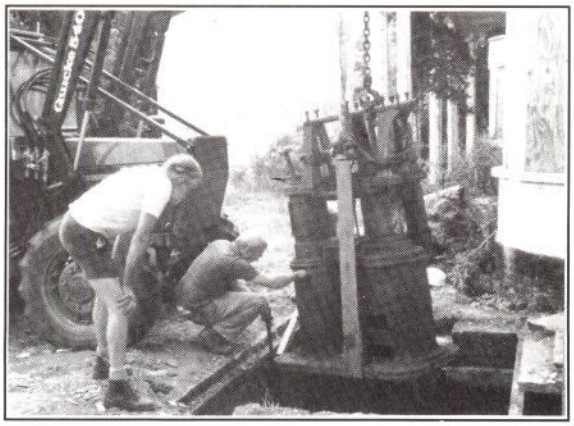
NOTICEBOARD

HOT AIR

Volunteers are restoring a Hayward and Tyler hot air engine for the National Trust in Buckinghamshire. The unusual one horse-power model was installed in the basement of a house in Taplow in about 1880 to raise water from a 180 feet deep well. It was just prior to the demolition of the house that the engine was discovered and rescued by members of the team and National Trust staff. Working on a development of the Stirling Cycle, the same air was shuttled between the vertical furnace cylinder on the hot side and the cold water-jacket cylinder: thus the air was alternately expanded and contracted, passing through a 'regenerator' or heat exchanger of thin cast iron plates on each transfer.

The engine has been largely dismantled and the condition of the bearings is excellent. Due to rust the pistons had to be removed with a jig, but they are in reasonable condition and there is no reason why the engine should not be restored to working order and put on display. David Burton and Gary Marshall are appealing to readers of the *Bulletin* both for offers of help with bead or sand blasting and for any shared experience in the restoration and running of such engines. Several half horse-power engines are extant, but this may be the only surviving one horse-power model.

Please contact David Burton, 27 Talbot Avenue, Downley, High Wycombe, Buckinghamshire HP13 5HZ ☎ 0494 523960.



The Taplow engine being rescued from its cellar

AIA Bulletin

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Final copy dates currently are as follows:

30 December for February mailing
30 March for May mailing
30 June for August mailing
30 September for November 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 and research 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. Further details may be obtained from the Membership Secretary, Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Shropshire, TF8 7AW, England ☎ 095243 3522.

TWELVEHEADS PUBLISHING SERVICE, CORNWALL