

INDUSTRIAL ARCHAEOLOGY NEWS

89
SUMMER
1994

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

95 pence FREE TO MEMBERS OF AIA

Crisis to synthesis: building recording by RCHME

Mike Williams and Keith Falconer

Recent work by the Royal Commission on the Historical Monuments of England (RCHME) has shown how a broad perspective can arise from emergency recording of threatened structures in a way that significantly advances understanding. The work of RCHME's Emergency Recording Section was last reviewed in AIA Bulletin 17.4 in 1990. This article describes some of the latest rescue projects which are helping to promote more complete knowledge of our industrial past.

RCHME's Emergency Recording Section's work with industrial recording is continuing across England. Its value was clearly demonstrated with the publication of an entire issue of *Industrial Archaeology Review* (Vol XVI No 1) devoted to the Section's recording of textile

mills. This showed how the national perspective provided by the emergency recording programme could be utilised to produce significant works of synthesis from one-off recording projects. Encouraged by the success of its work on textile mills, RCHME is keen to identify topics on which to concentrate in the immediate future. These include the buildings of the brewing industry, buildings relating to the early development of power supplies, buildings of the coal industry, fenland drainage, the production of oil from coal, railway engineering works and associated settlements, the shipbuilding industry, and waterfront buildings generally. The collapse of the coal industry has led to an accelerated programme of colliery recording, and some of

this work has recently been published in a synthesis as *Images of Industry: Coal* (1994).

A common factor of these themes is that they require the study of large numbers of sites in different parts of the country, many of which increasingly are liable to alteration or demolition. They are also the subject of widespread interest, often spanning several academic disciplines. However, existing published information rarely deals specifically with the buildings themselves. Hence RCHME staff feel that there is a need to develop recording methodologies which are specifically tailored to these building types.

A selective list of recently recorded sites shows their variety and significance. The emergency recording of the Derby Railway Works, in advance of selective demolition, is a good example of the relevance of this work. This large complex, dating from 1839-40, originally included locomotive, carriage and wagon works, running sheds and ancillary structures, and is the earliest substantially intact example of the first generation of railway works. Its recording not only has provided valuable comparative material to enhance understanding of the Commission's work at the Swindon Works, but also has resulted in many of the earliest, unprotected buildings being Listed Grade II*.

Building upon the Commission's previous work on the textile industry, especially in areas outside those covered in the three recent RCHME publications, the Section is continuing to uncover significant regional variations in the development of the textile mill. A recent example is Otterburn Mill in Northumberland, a water-powered fulling (and possibly scribbling) mill dating from the 1820s, with an unusually complete survival of ancillary structures. At Bradford-on-Avon in Wiltshire, RCHME is working in cooperation with the local authority and a development company in a survey and assessment of three integrated woollen mill complexes. An even larger integrated woollen mill complex has been recorded at Tonedale Mills, Wellington, Somerset. This remarkably well-preserved site, ranging in date from the late eighteenth to the



Derby Railway Works: the interior of the Roundhouse

Crown Copyright RCHME

**RCHME Recording • Copper Mills • Undergraduate IA • Hawker Factory
AIA Ironbridge weekend • Regional Reports • Royal Gunpowder Factory • Smallsmith**

A case of mistaken identity?

T E Evans

There are two watermills at Harefield in Middlesex. One is now a prestigious establishment with the evocative title of 'Black Jack's Mill Restaurant', and the other, in Copper Mill Lane, is at present undergoing drastic redevelopment. In 1781 this was a paper mill said to have been acquired by the Mines Royal Company for the purpose of rolling copper sheets for sheathing ships. But which was really the mill where copper sheathing was made? Or were both mills perhaps involved?

Copper sheathing was invented to defeat the attacks on wooden hulls of the toredo worm. It also combatted fouling of the hull which impeded manoeuvrability, by means of galvanic action constantly replacing the sheathing surface. But unfortunately, galvanic action could be excessive, resulting in corrosion of iron bolts and fixings, and potentially the loss of the ship. Hence there was furious activity in the late eighteenth century to devise a recipe of mixed metals for bolts, fixings and sheathing which would avoid corrosion. This involved the use of mainly non ferrous bolts and fixings with adequate mechanical properties to replace those of iron.

Hence the question arises of whether the mill in Copper Mill Lane was the only Mines Royal site. Though the name Black Jack Mill Restaurant no doubt is now considered evocative of a past miller, 'black jack' is also the term for a material used in brass manufacture. The term is synonymous with zinc blende, a sulphide ore of zinc, which eventually replaced zinc carbonate ore ($ZnCO_3$), or calamine as it was generally known, in brass making.



The old mill at Harefield on Copper Mill Lane

Photo: Tim Smith

Black Jack Mill therefore might have been involved in the brass trade, rather than be named after Jack the miller. Did Mines Royal process black jack at this site, probably bringing the mineral to Harefield via the Thames and the canal system?

From c1784, Thomas Williams of Anglesey (the 'Copper King'), was able to win a monopoly of Naval contracts by overcoming the corrosion problem. By 1802, however, it seems that the Mines Royal too had entered the sheathing business at Harefield, having converted the mill from paper making with the services of one Robert George Spedding. Spedding, a Harefield landowner, was also a merchant of Dowgate Wharf, London, and a Liveryman and Freeman of the City. If he was of the west Cumberland family of that name involved in heavy industry, he would presumably be familiar with rolling mills and furnaces. There are common features in hot rolling non ferrous as well as ferrous metals, and part of Henry Cort's process using the reverberatory furnace might have been recognisable at Harefield. A profusion of patent applications for improved processes in copper

and brass followed closely on Cort's patent of 1783/4. A member of an important Harefield family was Sir Roger Newdigate, mill owner prior to 1752, who is mainly noted for his colliery interests in Warwickshire. He was an enthusiastic canal promoter, had dealings with a copper mill in south Wales, and probably shipped coals to Harefield via the canal system - and a connection with the Mines Royal seems probable. The Arbury Archive has much on Sir Roger.

The information so far discovered is mainly from local sources for the history of Harefield. Other than these, the writer has relied mainly on Henry Hamilton and J R Harris for standard works on the post Elizabethan history of the English copper and brass trade. There are several useful entries in the Dictionary of National Biography, and Grant Francis's early work on copper smelting in the Swansea district provides valuable details. The writer would be glad to hear from any reader who can provide a link between the Earl of Uxbridge (business partner of Thomas Williams in Anglesey) and copper at Harefield. ☎ 0444 412783. □



Grain mills go

On the south side of Royal Victoria Dock, London, the famous range of flour mills is presently being demolished (see Bulletin 19.1). The removal of these mills is a significant event: the destruction of the Ostia of the British Empire. Up to the 1960s a large proportion of the grain for feeding Britain was imported here, much of it coming from Australia and Canada. Sir Nikolaus Pevsner in his original architectural survey found the grain mills pleasing and one of the few things of note in this area. When the site is cleared relatively low density housing is likely to be built here. An urban village is planned. The fate of Spillers' Millennium Mills of 1933 is not finally decided. Silo D on a finger of the Pontoon Dock to the south of the Millennium Mill is to be retained and the brick chimney is to be kept (the demolition services of Fred Dibnah will not be required). Two blocks of flats to the (south) west are to be taken down. The photograph, taken looking north from the north end of Mill Road, London E16, March 1994, shows a dramatic section through a grain silo exposed during demolition of the western of the two Rank Mills on the south side of Royal Victoria Dock, and the chimney to be retained. On the right can be seen the west side of Spillers' Millennium Mills of 1933. On the left is one of the pneumatic grain elevators formerly used to unload ships.

R J M Carr

Photo: Robert Carr

The argument for undergraduate IA

Kath Langley and Stephen Young

Although industrial archaeology has been taught as a significant element in many undergraduate courses in recent years, it is still not possible to take a full first degree in the subject. The tutors of the latest attempt to broaden the scope for industrial archaeology in undergraduate courses, at Nene College, here argue for the value and importance of the subject at undergraduate level.

Undoubtedly the industrial past affected us all. It is central to any understanding of our national heritage. It is part of the past and our cultural accomplishments. If we consider technology and industry to be the cornerstone of our society and that this influence has affected and formed the social and physical context of our present way of life, then the pursuit of that evidence must be worthy of appreciation and recognition through undergraduate study on a wider scale.

Industrial archaeology provides an ideal medium through which we can accurately reveal, record and interpret the past. As a subject it reflects, realistically and without prejudice, the reality of past existence. It provides a way of being objective about understanding the past, without the need to rely entirely on reported recording which may have been biased. Industrial archaeology can provide a more objective version of the achievements of our forebears and provide insights into the working lives of ordinary people. The evidence of where people worked and lived is all around us. Changes which took place in everyday life can be interpreted from multiple sources of evidence available in both a rural and an urban setting and present on a variety of scales. Implicit in its existence is the need to take responsibility for recording, interpreting, understanding and communicating this evidence.

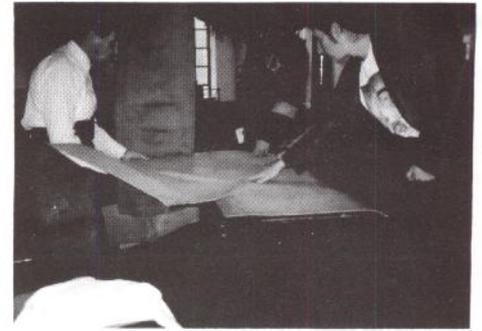
It is time that industrial archaeology came of age on a broad educational stage and enabled the scholarship of the last thirty years to be

recognised and understood by a wider group of undergraduates. Undergraduate industrial archaeology can link our present standard of living with the science and technology which helped to create it and influenced the changes towards modern society. It can be preemptive with respect to our industrial heritage and can be proactive with respect to theoretical debate.

Industrial Archaeology at Nene College, Northampton, currently forms a complementary course on a Combined Studies Honours Degree programme where it provides an ideal interdisciplinary subject. A strength of the course lies in its thematic approach to the industrial past, looking in particular across the period popularly referred to as the Industrial Revolution. Strong emphasis is also laid on practical applications, systematic fieldwork and detailed understanding of the evolution of industrial process. All of these elements have strong foundations and provide opportunity for academic rigour.

The interpretive and analytical qualities of industrial archaeology lend themselves to a multi-disciplinary approach which can draw on the strengths of a multitude of traditional subjects from geology and engineering to history and sociology. The utilisation of methods which originated in these and other areas of study demonstrate the flexibility and suitability of this exciting young subject at undergraduate level. In addition it facilitates the development of breadth of skill and depth of vision which stimulates the imagination and the mind. Sound methodology which draws from many sources enables balance within the subject to be achieved for example between historical context and past technology. These together can act as a window on our technological past. It is a discipline which involves a search for greater objectivity and contains scope for the use of scientific methodology. All these attributes taken together will assist in the progress of the subject.

We need to be aware of our heritage, and



Students from the new undergraduate course in industrial Archaeology at Nene College study leather at Walsall

Photo: Kath Langley

preserve and conserve it. Once it has been destroyed it has gone for good. The heritage of our past can not be regarded as a renewable resource. The physical evidence should be cared for and if possible kept in context with respect to place. Industrial archaeologists are capable of providing much more than just nostalgic romantic visions of the past. To undertake these tasks, people at a variety of levels are needed, both to be encouraged as specialist practitioners and on a general level to promote educated awareness.

As both an inter-disciplinary subject and a subject in its own right, industrial archaeology suits the needs of the graduates of today and the decision makers of the future by providing an awareness of both industry and technology in a social and economic context. Undergraduate courses can provide students with a wide vision, flexibility of mind and the ability to make value judgments which few other traditional subjects approach. It has the potential to promote an appreciation of science, technology and engineering as well as arts and humanities. It enables students to learn from past mistakes and past achievements. The study of industrial archaeology gives students an academic dimension which will provide them with the confidence to assist in improving the prospects of our industrial heritage in the medium term and help secure the foundations of our industrial past for future generations. □



Graig Heritage Ltd.

UNIT 6, BRYNGELLI IND. ESTATE, HIRWAUN, MID GLAMORGAN CF44 9PT.



CONSULTANTS AND CONTRACTORS IN THE RESTORATION OF HISTORIC MACHINERY

Authentic Restoration of Historical Machinery including Equipment Associated with:
Mining, Ironmaking, Agriculture, Factories & Mills etc.

Contractual Engineering and Industrial Archaeology Research facilities
available for all phases of Restoration, including:-

★ FEASIBILITY STUDY ★ RESEARCH REPORTS ★ INTERPRETATION & DISPLAY PROPOSALS ★

Sympathetic on-site restoration of machinery to display and, where appropriate, working order standards.

tel: Hirwaun (0685) 813319 / 811438

Hawker bites the dust

Robert Carr

The former Hawker aircraft factory at Ham has been totally cleared away. One recent visitor likened the site to the Russian steppes. British Aerospace, formed in 1977, took over Hawker's aircraft production as finishing touches were being put to the last of the Harriers being built at Kingston at the end of 1991. Greater London IA Society paid an excellent visit to Ham in December that year organised by David Perrett.

Aeroplane manufacture started in Kingston in 1913 when T O M Sopwith set up an aircraft factory in Canbury Park Road near the railway in a building which had been a roller skating rink. This building is now demolished but remnants of Kingston's first aircraft manufactory still exist as part of Kingston University. Harry Hawker soon joined Sopwith's as a partner and business boomed with the commencement of World War I. Sopwith Aviation took over another factory on a site at Ham just over a mile north-west of their original venture close to the Thames and bounded on the east by Richmond Road. This new factory had been built for the Government's unsuccessful National Aircraft Factory programme.

Following the Great War manufacturers were required to repay to the Government part of what were considered to be excessive war

profits. This bankrupted Sopwith's. However on the day that the old company was wound up a new one with the same directors was formed with the title Hawker Engineering.

The Ham factory was leased to Leylands in 1928 and the Trojan motor car was built here under licence. This lightweight vehicle aimed at a popular market sold for £140 with solid tyres or £145 with pneumatic ones. It was driven by a 1500cc four-cylinder two-stroke motor-cycle type engine of unusual design mounted under the floor. The pistons were joined in pairs, each pair driving a single crank. Thus the engine worked as a two-cylinder two-stroke. Elsewhere other eccentricities were numerous. The car might be compared with the French Citroen 2CV or perhaps the East German Trabant. Sales were promoted by the slogan 'Can you afford to walk?'. GLIAS members were able to take a ride in a Trojan following their visit to the Ham factory.

With the outbreak of World War II the factory at Ham made tanks and bombs. Hawker's did not return here until the early 1950s. A few years later, funded by profits from their successful jet fighters, notably the Hunter, Hawker's built an imposing office block facade parallel with Richmond Road. □



The Hawker Factory, with demolition in full progress, September 1993

NOTICEBOARD

Tremadog conservation group

The mile-long Great Embankment (or 'Cob') at Porthmadog in North Wales was built by W A Madocks to drain the local marshes for farmland. Later it carried the Festiniog narrow gauge slate railway to the wharves there, and thousands of holidaymakers and railway enthusiasts have travelled across it. Somewhat less well-known for its association with William Madocks is the village of Tremadog which he built on reclaimed land just over a mile to the north-west. It was here that Madocks built a water powered woollen mill and tannery about 1805. One of these was demolished around 1962 but the other survives, albeit in a derelict state. In 1990 an application was made to demolish the remaining listed building, but this proposal met with resistance and a local preservation trust has been formed. The cost of preservation will be considerable and anyone wishing to offer help should write for further information to Cyfeillion Cadw Tremadog, The Derwen Stores, The Square, Tremadog, Gwynedd.



The Hawker Factory, Ham, in September 1993: a demolition crane looms ominously over the office facade on Richmond Road, looking north west Photo: Margaret Rees

OBITUARY

Robin Atthill, 1912-1994

With the death of Robin Atthill at the age of 81 on 12 February, industrial archaeology has lost one of its pioneers, and the Bristol IA Society has been deprived of one of its most long-standing supporters.

In 1964 Robin Atthill led the first field visit of the adult education class from which BIAS eventually grew. By this time he was already well known in the Mendip area as a teacher at Downside School, as a keen local historian, and especially as an enthusiast for the interpretation of the complex industrial history of the district. The publication of his *Old Mendip* shortly after this ensured him a wider audience, because his superb book, with its lyrical

evocation of life on Mendip in the not too-distant past, made many people who had not previously known these limestone uplands aware of the old houses and settlements, the crafts and curiosities, and - above all - the people of Mendip. The lead miners who had worked the 'gruffy' ground, and the epic struggles of the Fussells of Mells to produce tools for farmers and miners and to bring roads and canals to the area, acquired a new existence in the pages of *Old Mendip*, and inspired many of us to go in search of the physical remains of their work.

Robin went on to write *The Somerset and Dorset Railway*, published in 1967, and this encapsulated another of his lifelong interests, described with the verbal felicity which made his style such a delight to read. These books,

together with his many articles and his presidency, in 1986, of the Somerset Archaeological and Natural History Society, gave him the opportunity to expound his devotion to Mendip, and he did so with consummate skill. He was also a talented poet, catching the historical resonance of Mendip with phrases like, 'Our fathers smelted what the Romans left, / grooved deep in the sunless hill...'

Above all, Robin Atthill will be remembered as a wonderful man, kind and generous in everything he did, a devoted family man, an excellent companion, and one of the first and most outstanding spokesmen for the subject of industrial archaeology. He will be greatly missed.

Angus Buchanan

Ironbridge Weekend 1994

Each year about Easter the AIA organises a weekend conference at Ironbridge, and this year's was the fourteenth. It was designed originally to encourage representatives of affiliated societies to share experiences and problems, but now we welcome all members, and non-members when they make contact. Unlike the AIA's annual conference, held in different centres and providing local visits and lectures (this September in Winchester), the Ironbridge Weekend tackles different themes and promotes a lot of conferring. This year's theme sounds forbidding, but as Miles Oglethorpe pointed out in his opening address, the ability to classify objects into types is fundamental to understanding the mass of jumbled information often collected by industrial archaeology, and fundamental too to the progress of industrial archaeology as a respectable discipline. Miles Oglethorpe's own review of the proceedings follows.

John Crompton

On the face of it, a weekend spent discussing typologies was not an especially appetising prospect, and so it was something of a surprise to find over forty people attending this year's Ironbridge

Weekend. Saturday morning began with a brief introduction to the concept of typologies and the need to structure data, with examples of simple classifications and groupings from the Scottish heavy ceramics industries. Other papers on the principles behind typologies included a contribution from Dr Barrie Trinder of the Ironbridge Institute, who wisely cautioned against the dangers of strict adherence to rigid classifications, wordlists and typologies. Later in the weekend, Peter Wakelin's lucid contribution helped to bind together proceedings by proposing a typology of typologies! This proved to be extremely useful, dividing typologies into empirical, theoretical, and broad groupings (predominantly for data management). By relating these concepts to recording and conservation priorities, the value and uses of typologies became evident.

Much of the weekend was, however, an orgy of limekilns, with successive contributors illustrating examples from all over the UK. Contrary to expectations, this proved to be both constructive and fascinating, as were the many ways in which various typologies had been constructed in different areas by different people for different purposes.

On Sunday morning, proceedings began with a contribution from

Amber Patrick on maltings in England. As well as showing the nature and variation of maltings buildings, and imposing a useful typology, the awesome extent of the crisis facing many of the finest maltings in the country became apparent. There followed further useful contributions on limekilns, and then a fascinating paper on water turbines by Professor Alan Crocker, who reminded delegates that he now holds a major collection of turbine catalogues (donated by Gilkes), information from which he is prepared to provide to interested parties. In the long term, it is possible that this collection will pass to the Ironbridge Institute's library.

As delegates departed on Sunday afternoon, it was clear that it had been an extremely successful weekend. Thanks were extended to Gordon Knowles, the new AIA Affiliated Societies Liaison Officer, for organising the event. The opportunity was also taken to acknowledge the contribution of Pam Moore, who stood down from the post last year after many years of service.

Gordon Knowles will be pleased to hear from anyone with ideas for inclusion in next year's Ironbridge Weekend. Please write to him within the next three months to allow for forward planning and publicity, at 7 Squirrels Green, Great Bookham, Leatherhead, Surrey KT23 3LE.

Membership queries

Anyone who has queries about their membership of AIA should address them to the Membership Secretary, David Perrett, 33 St Margaret's Road, Brockley, London SE4 1YL ☎ 081 692 8512. Some members appear to have missed out on mailings in recent months, so please contact David if you think your series of the *Bulletin* or *Industrial Archaeology Review* is incomplete. You should also write to David if your address label for this latest mailing is out of date or incorrect.

Corrections

Derek Bayliss has written with two corrections to *IA News* 88. The implication on page 2 that no Bessemer converter is preserved in the UK should more accurately have referred to there being no complete Bessemer plant. We should not, of course, forget the fine Bessemer Converter brought from Workington which stands outside Sheffield Industrial Museum at Kelham Island. On page 11, Frickley Colliery should have been described as being in West Yorkshire, not South Yorkshire, as it is just over the border.

When I came to industrial archaeology, the crusades were still in progress. The IA evening class was at its zenith, its book box replete with well-thumbed copies of Hudson, Buchanan and Cossons. We were exhorted to spread the gospel, that furnaces, bridges and steam engines were every bit as important as castles and cathedrals in representing Britain's history and heritage. In particular we wished that 'they', the impersonal, sometimes invisible hand of local and national government, would heed the gospel and somehow save the castles and cathedrals of the industrial age.

Twenty years on, 'they' are doing a great deal! All the statutory government bodies, in England, Scotland, Wales and Northern Ireland, extend their recording or protective roles to industrial period archaeology as a matter of course. Many local authorities are writing clauses for the protection of industrial heritage into their strategic plans. The Royal Commission on the Historical Monuments of England (RCHME) is the latest body to consult with representatives on policies for its future industrial archaeology work. English Heritage's Monuments Protection Programme has tried to establish extensive consultation, though it has to be said that response from the IA grassroots has been generally disappointing. Historic Scotland, Cadw and the Scottish and Welsh Royal Commissions are strongly committed to respective Industrial Archaeology Panels which provide wide consultative bases. English Heritage and RCHME have supported the five regional panels in England (can the South-West manage without one?); but their chief achievement has been to build contacts between county and local officers and local and amenity societies.

The crusades, then, have worked, even if everything in the garden is not yet perfect. The most significant change, to my mind, is that

COMMENT

industrial archaeology is no longer a fire-brigade activity, but a contributor to a planned process by which the recognition, recording and protection of industrial heritage has its place alongside all the other aspects of environmental activity. A planned process - part of a strategy, written in to the strategies of the institutions whose work brings them within the scope of industrial archaeology.

In a world of change, the AIA needs to recognise and respond to change. Our policy document *Working for the Future*, needs to be put into effect, not by 'them' alone, but by the Association itself. To this end, Council has been working on a 'Forward Plan', looking hard at its responsibilities in the sphere of industrial archaeology, and at the best ways of responding to these responsibilities and to the hopes and wishes of its members. In a voluntary association such as ours there is a great deal to do just in maintaining membership services, events and publications, and we are fortunate to have officers who devote prodigious amount of time and energy to running and improving the Association. The 'Plan' defines this work and sets targets for what Council sees as the most pressing needs. The plan also sets out the Association's role in promoting industrial archaeology itself, both nationally and even internationally. It identifies activities which can not be met by the Association's existing resources, and for which sponsorship and external funding must be sought.

Copies of the Forward Plan will be circulated to all members with the 1994 AGM papers, and members will be invited to approve it during the Annual General Meeting at Winchester in September. Council will, of course, maintain the Plan under regular review, and hope to benefit by its guidance for some years to come.

John Crompton

12 MARCH

Tonight, Neill gave us more news of the once pace-setting Chatterley Whitfield Mining Museum. Neill had received particulars from a Birmingham-based property consultant for the disposal of the British Coal Collection and other items from Chatterley Whitfield. The sale takes place in April at the request of the Museum Trust's liquidators, and as Neill pointed out, at least at this stage it is anticipated that the British Coal Collection will be sold as a collection, and not broken up. He went on to argue that this type of museum closure was inevitable, even desirable, as market forces run their course in the heritage world, and that mining artifacts would now pass to 'properly-managed museums with the right financial planning to ensure their security for the future'. Bolt was less forgiving, and his reaction was both aggressive and predictable. He thundered and roared, and banged the table with the sale details clenched in his sizable fist. But it seems even he now tires quickly of this tirade - which he has regaled us with regularly for over three months now - against the many and varied charlatans behind this onslaught against the noble body of industrial archaeologists; and he soon quietened down, and read the attractively glossy sale details instead. Indeed, such is the power of glossy presentation, that Bolt soon changed his views, arguing now that the real charlatans were the 'so-called managers of Chatterley Whitfield who had put this country's mining heritage at risk through their incompetence'. He then suggested that our Society should bid for some of their earth-moving equipment for any future excavations or canal-restoration schemes we may undertake. At this point Neill owned up that his museum too may bid for a number of items, 'purely, of course, to complement areas where collections of this region's deep coal mining industry are under-represented'. So the meeting broke up with a strong sense of anti-climax. As my dear wife reminded me later, it is only weeks since Neill took a strong stance against this affair in the letters page of a professional museum journal. And while I can never quite

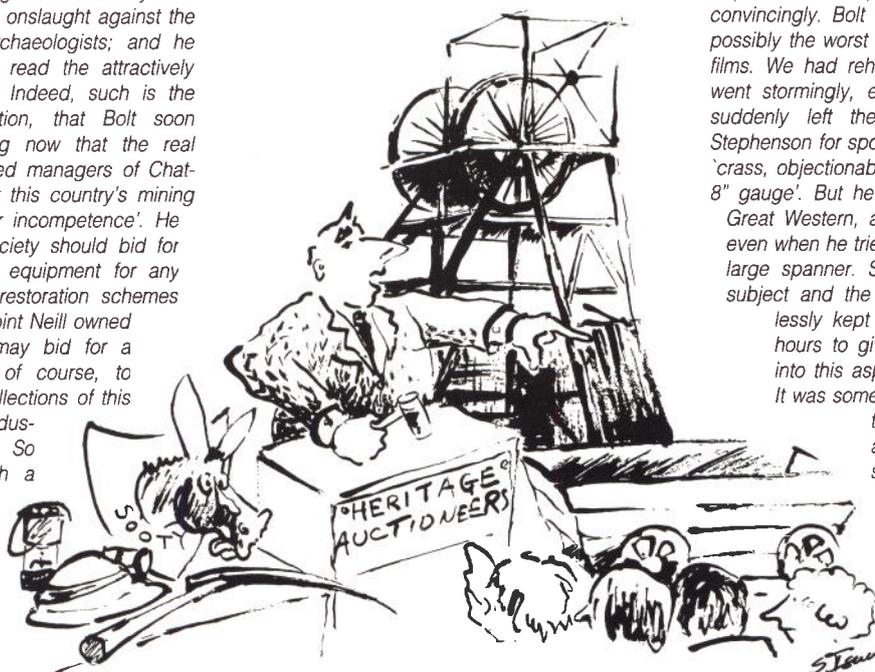
Smallsmith's Diary



respect her tendency to make political comments, this time I am forced to agree that, however legal, respectable and inevitable the break up of the Chatterley Whitfield Museum may be, there is something very shabby about it all.

19 MARCH

Yesterday saw the start of the 'National Science, Engineering & Technology Week', which aims to raise the profile of these three areas nationally. We were aware of the approach of this campaign through the involvement in it of Neill's museum. So last night we were invited to assist the museum's first ever 'Techno-boffins sleep-in' - a new trend which predictably started in the USA. Some thirty children and parents brought their sleeping bags to



Going once, twice, three times - to the raggedy gent with the horse and cart

take part in a night of after-hours activities on a technology theme using the museum's collections. There was a treasure hunt; a behind-the-scenes look at the museum stores; a game in which two teams raced to restore treadle sewing machines to working order; and a juggling unicyclist who proved scientific principles in an entertaining way.

Indeed Neill alone was un-entertained when the juggler lost control of his skittles, and unicycled into a huge montage of Buttockbarn Iron Foundry. Apparently the display was newly completed at great expense by the famous museum designers, Groper and Inane Associates of Covent Garden, and although the children loudly demanded an encore, Neill ordered the unicyclist to leave with words not wholly appropriate to the occasion. Then, as the night's climax, Bolt, Mrs D and myself gave a living history session in period costume to show how steam power evolved on the railways. I was privileged to play George Stephenson, with some aplomb I feel. Mrs Dobbin wanted to play Isambard Kingdom Brunel, but finally gave in to Neill's request for her to play a navvy, which she did most convincingly. Bolt was James Watt, with what was possibly the worst Scottish accent since the Lassie films. We had rehearsed for some weeks, and it went stormingly, except when Bolt's James Watt suddenly left the script to blast my George Stephenson for spoiling the future of railways by my 'crass, objectionable and irrational support for a 4' 8" gauge'. But he has a sentimental love for the Great Western, and I did not take it personally, even when he tried to hit me with his main prop, a large spanner. Such was our command of the subject and the dramatic muse, that we effortlessly kept the play going for nearly three hours to give our audience a lively insight into this aspect of the Industrial Revolution.

It was somewhat disappointing, then, to find that not only were the children asleep, but the parents, Neill's staff, and Neill as well. And I'm not sure quite what Neill meant when I heard him tell one of the parents in the morning that this was why he had brought us in, and that, unicyclist apart, he regarded the sleep-in as a great success in a most valuable campaign.

IRIS update

Following meetings between the AIA and the Royal Commission on the Historical Monuments of England, reported in the last issue of *Industrial Archaeology News*, a joint statement has been issued as an update on how data, compiled within the IRIS project, will be computerised:

'Completion of the paper IRIS forms remains the most critical need of the project, and is the activity to which volunteers can most readily make a valuable contribution. Once information has been compiled in this way, it is obviously very important to ensure that it can be retrieved easily when needed. The best way to achieve

this is to hold the information on a computer database. Following discussions between the AIA and RCHME, it has been agreed that the most efficient way to input IRIS forms to a computer database is to carry out the work centrally. To this end it is recommended that the IRIS procedure for collating information remains as previously stated in the IRIS handbook and associated handouts. That is: completed paper forms should be copied both to the relevant county SMR and to the AIA. AIA/RCHME will then input this data to the National Archaeological Record. The relevant portion of this computerised record may then be digitally transferred to each SMR as required'.

New members

The Association welcomes the following new members:

Mr G Pugh, Broadstone, Dorset
Miss Hilary White, Birmingham
Mr J Wilkinson, Burnley
Mr B Cargill, Oxted, Surrey
Mr and Mrs G. Wragg, Winchester
Mr G Bisschopp, Clwyd
Mr P Doel, Sheffield
Mr J Mitchel, Stirling
Mr D Money, London
Mr J Milln, Stafford

The following institutions have also become subscribers:

Industrial Buildings Preservation Trust, London
English Heritage (London Division)
China National Publications Agency

Tameside landscape survey

In December 1993 the Greater Manchester Archaeological Unit published the third volume in the *History and Archaeology of Tameside* series. This survey was set up in 1990 with the intention of examining the landscape archaeology and history of the Metropolitan Borough of Tameside, in eastern Greater Manchester, from the end of the last Ice Age to 1930. The latest volume, entitled *Tameside 1700-1930*, summarises the changes in the landscape and society of this area during the industrial revolution.

The four main industries surveyed, cotton, hatting, agriculture, and mining, each had a similar pattern of growth, beginning in the late eighteenth century, peaking in the mid to late nineteenth century, and declining after World War I.

Sixteen industrial building complexes were specifically studied for the survey; six from the textile industry, four from the hatting trade, two farmsteads, one retail shop, one canal warehouse, one urban corn-mill and one gas-work.

Among the most interesting of these was the Cavendish cotton spinning mill, one of the first in the region to have concrete floors installed, and now being converted into flats. Another site of importance was the Stalybridge urban corn-mill, which started life as a woollen spinning mill in the 1790s and was converted to corn-milling during the great population boom in Stalybridge during the 1820s. Finally, Wilson's hat factory in Denton was the largest hatting complex in Tameside. It shows the impact of mechanisation in the industry, and the subsequent use of mill-building techniques in the purpose-built hatting factories of the early twentieth century.

Michael Nevell

Medieval iron furnaces, Castleshaw

Norman Redhead of the Greater Manchester Archaeological Unit has been carrying out research on remains of free standing shaft furnaces, also known as bloomeries, in the Castleshaw Valley, Saddleworth. A short programme of field survey and excavation has revealed two separate furnace sites, one beside Spa Clough and the other some 200m away on Cudworth Pasture.

Despite extensive disturbance by reservoir constructors in the late nineteenth century, two intact furnace bases, a 'working hollow' and a post-pad have survived. The furnace remains, which only survived below ground level, displayed good evidence for the tapping arch and channel and the clay lining of

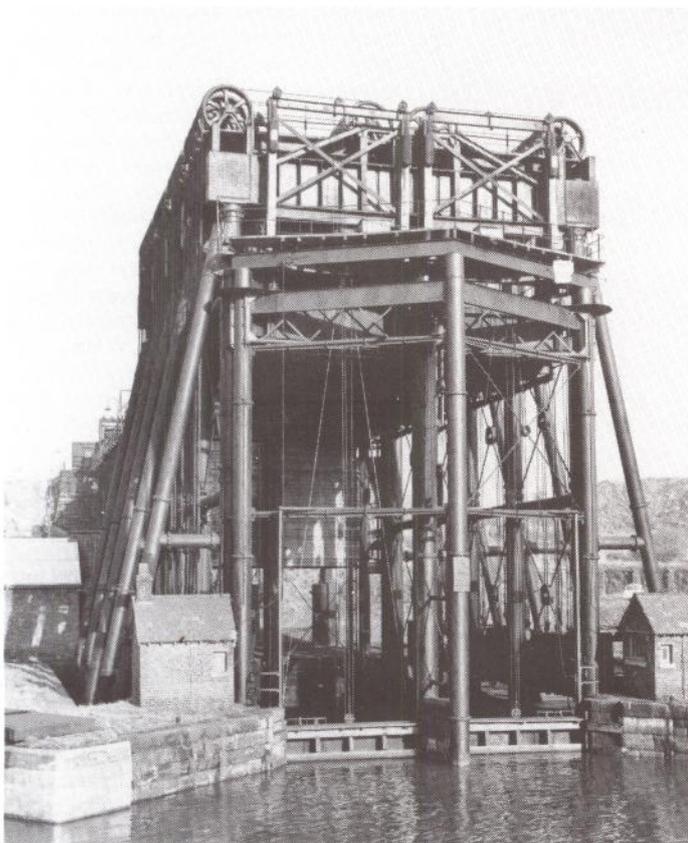
the shaft bases (including evidence of repair work). The shafts were 38-40cm in diameter. In both cases a large mass of slag had replaced the clay lining on the tuyere side of the furnace. Samples of furnace materials have been sent to Bradford University for analysis by Dr G. McDonnell.

Originally it was thought that the industry may have been associated with the Roman fort which is only one kilometre away. Given the lack of datable artifactual material, archaeo-magnetic and radiocarbon techniques were used to produce a date of late twelfth or early thirteenth centuries. This period coincides with Roche Abbey's ownership of Castleshaw Valley.

A final two week season of excavation in 1994 will concentrate on the site on Cudworth Pasture, where Ammon Wrigley revealed a furnace in 1907.

below: Excavated remains of a furnace at Spa Clough. The tapping arch and channel are on the right, and the clay lining of the shaft pipe is evident

Photo: Norman Redhead, Greater Manchester Archaeological Unit



The Anderton Boat lift, seen from the River Weaver and below, the lift as seen from above
Photos: Derek Pratt/British Waterways

Anderton Lift restoration

British Waterways has recently developed proposals for the restoration of the Anderton Boat Lift after many years of disuse. The lift is a spectacular example of waterways engineering of the late nineteenth century, and the only boat lift surviving in Britain. It is a Scheduled Ancient Monument, and British Waterways have put their restoration plans to English Heritage for Scheduled Monument Consent and for potential grant assistance. The lift was closed in 1983, when it was discovered during routine repairs to be unsafe. The lift was built in 1875 to the ideas of Sir Edward

Leader Williams and detailed designs of Edwin Clark, and it is widely recognised as a prototype for many boat lifts on commercial waterways in Europe and North America. It carried boats between the Trent and Mersey Canal and the River Weaver in counterbalanced tanks lifted vertically with assistance from hydraulic power. It was modified and converted to electric power in 1908. The total cost of restoration is thought to be in the region of £2.8 million. The lift is continuing to decay, and the restoration scheme is considered urgent if this internationally important engineering landmark is to be saved.



Heritage hallmark for Wortley Top

The president of the Institution of Mechanical Engineers, Dr Tony Denton, presented Wortley Top Forge with one of the Institution's Heritage Hallmark Plaques at a ceremony on 25 March. The plaques are given very selectively and so far fewer than twenty have been awarded. The previous one was to the Thames Flood Barrier.

Wortley Top Forge is a preserved water-powered iron forge on the Upper Don near Barnsley. The first known record of it dates back to 1623. In the early eighteenth century it was one of a group of iron working sites in the area which formed part of the Spencer Syndicate. It turned to making wrought iron railway axles from 1835 until it closed in 1908.

The plaque commemorates the Forge's long history, but more particularly its part in the development of engineering. James Cockshutt, who directed the Forge at the end of the eighteenth century, was one of the first to adopt Henry Cort's puddling furnace for making wrought iron, and designed improvements to it. In the late nineteenth century the Forge was directed by Thomas Andrews II, who conducted important research into the properties of wrought iron under extremes of temperature, and had a test rig in the Forge yard which dropped a one ton iron ball on specimen axles from heights up to thirty feet. Cockshutt and Andrews were both Fellows of the Royal Society.

The Forge was empty and neglected for nearly fifty years after it closed. The Sheffield Trades Historical Society made visits to it in the 1930s, and latterly its sister body the South Yorkshire Trades Historical Trust have carried out a programme of restoration. The wheels that drove the two tilt hammers are now in working order, though the hammers themselves cannot be worked. The third wheel, for a blowing engine, is being restored and work done on the dam. The Forge is open every Sunday from 11am to 5pm, and occasional steam events are held.

The Society and the Trust were glad to welcome many friends, including the Deputy Mayor of Barnsley and the Presidents of the AIA and the Newcomen Society, to the presentation of the plaque. They look forward to welcoming AIA members during next year's AIA annual conference in Sheffield.

Derek Bayliss



left: Inside Wortley Top Forge, looking north towards the dam. No 1 hammer is right of centre and No 2 hammer far right; their wheels beyond the wall on the right
Photo Professor Francis Evans

Archaeological awards

The biennial British Archaeological Awards are the leading awards presented for archaeology in Britain. In existence since 1976 they are supported by, among many other organisations, the Society of Antiquaries, the Council for British Archaeology, the British Archaeological Association and the AIA. Ten awards are given under a variety of headings: giving recognition for example to the best projects by volunteers, public presentations, sponsorships, books, conservation schemes, adaptive re-use schemes, or films. Awards are sponsored by organisations such as the Virgin Group, Wedgwood, the Ironbridge Gorge Museum Trust and English Heritage. This year in addition, IBM are donating a personal computer to the best proposal for computer-assisted analysis in archaeological projects. Many categories provide opportunities for industrial archaeologists, such as the adaptive re-use award for innovative rehabilitation of an historic or industrial building, or the Pitt-Rivers Award of up to £6,000 for the best project by volunteers. The closing date for entries is 30 June 1994. Details from John Gorton, Honorary Secretary, British Archaeological Awards, 56 Penn Road, Beaconsfield, Buckinghamshire HP9 2LS.

The Royal Gunpowder Factory's Quinan guncotton drying stove: in addition to its eminent position in the manufacture of gunpowder, the Factory was also at the forefront of development of manufacturing processes for chemical based explosives. This role continued into the inter-war period and is illustrated by the Quinan stove built in 1935, used to dry guncotton following a process devised by an American, W P Quinan, at the turn of the century

Photo: RCHME Crown Copyright BB92/26209

Royal Gunpowder Factory survey

In 1993 the Royal Commission on the Historical Monuments of England (RCHME) carried out a combined archaeological and architectural field survey of the former Royal Gunpowder Factory site at Waltham Abbey (centred TL 376 015), in the context of closure in 1991 of the government research establishment there and resulting proposed land-use changes.

The factory had its origins in a seventeenth-century commercial enterprise that rapidly became one of the main suppliers of gunpowder to the Board of Ordnance. It was purchased by the government in 1787, just before the Napoleonic Wars, and was substantially expanded and rebuilt. During the mid and later nineteenth century further large-scale developments provided both for an increase in gunpowder manufacturing capacity and for technical developments in specialised cannon powders of pelleted and moulded forms and in brown powder. In parallel with this, from the 1860s chemical-based explosives and propellants - guncotton, nitroglycerine and cordite - were developed and put into production to meet new requirements of armaments technology, and effectively superseded gunpowder by the end

Insurance advice

For owners of historic buildings, whether domestic or commercial, insurance is becoming an increasingly problematic issue. English Heritage and the Royal Institution of Chartered Surveyors have produced a joint booklet giving advice on a range of relevant topics. Copies of the booklet, *Insuring your historic building: houses and commercial premises*, are free from Room 221, Chesham House, 30 Warwick St., London W1R 5RD.

of the century except for limited uses, for example in fuses. In the twentieth century Waltham Abbey RGPF continued to be responsible for the research, development and production of a number of propellants and high explosives including Tetryl, TNT and RDX. At each stage, in state hands the factory acted as a centre for innovation and developments whose benefits were fed out to the contemporary commercial producers.

The site encapsulates in built and buried features the physical remains of the development of gunpowder and other technologies of explosives manufacture over a 300-year period in a single monument.

RCHME's archive report on the survey - *The Royal Gunpowder Factory at Waltham Abbey, Essex (1993)* - has been made available as an informal publication extending to approximately two hundred pages of text plus a binding of fifteen A3 plans and diagrams. Copies can be obtained from Karen Jordan, Publications Department, National Monuments Record Centre, Kemble Drive, Swindon SN2 2GZ ☎ 0793 414617. The cost is £10 for the report plus £2 postage and packing. Payments should be made to 'The Royal Commission on the Historical Monuments of England'.



Scotland

As Scotland emerges from one of the severest winters in many years, so her economy continues to look a little frosty around the edges. During the last year, several industries have been faced with extinction, the demise of cotton thread manufacture leaving the future of the now redundant mills at Anchor Thread Works in Paisley and Neilston's Crofthead Works in some doubt. The traumas of the coal industry have left Scotland with only two operational deep coal mines, one already privatised, and a third mothballed. Even whisky seems to have hit hard times, with United Distillers mothballing four malt whisky distilleries, closing one grain distillery (at Cambus in Clackmannanshire) and, worst of all, ceasing production of Crabbies Green Ginger Wine.

On the recording front, the Royal Commission on the Ancient and Historical Monuments of Scotland has been attempting to keep up with these events, the largest group of sites to be covered comprising distilleries, and Crabbie's Winery in Leith. In addition, interest was generated by the conversion of Longmorn Distillery's directly coal-fired wash stills to steam following on from similar changes at Strathisla in Keith, another of Chivas Brothers' distilleries. In order to catch similar examples before further change, the coal-fired stills at Glenfiddich, Glen Grant, Ardmore and Glendronnach Distilleries were also recorded. Future industrial recording programmes are likely to involve the doomed Atomic Energy Authority's complex at Dounreay, and Royal Ordnance factory sites in Scotland. Meanwhile, work has continued with the Farm Buildings Survey, the assessment phase of which is due to be completed shortly, as is the desk-top assessment phase of the Central Scottish Woodland project.

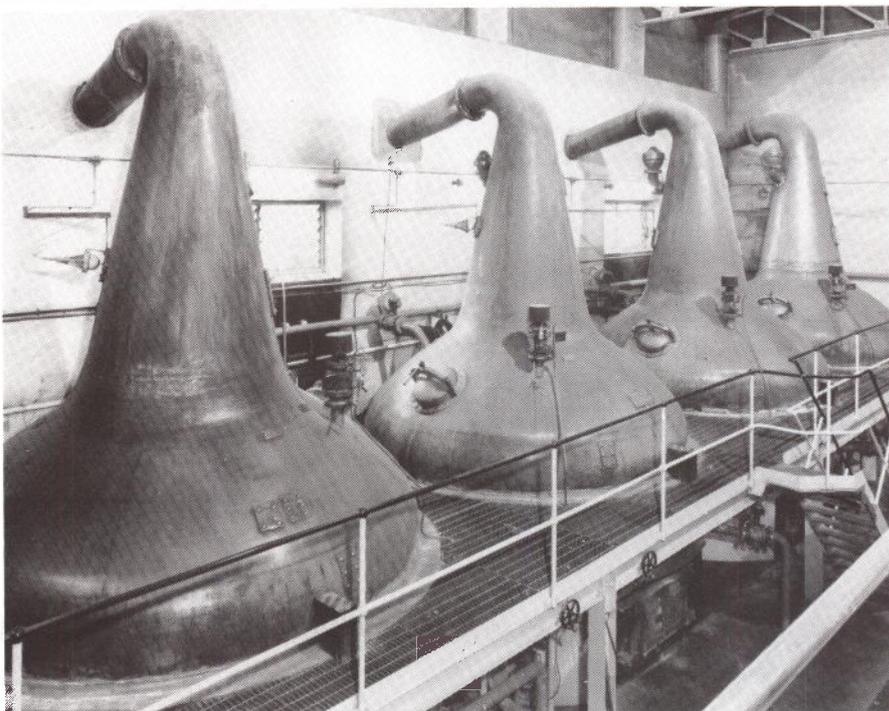
The big news to emerge from Historic Scotland has been the promotion of John R Hume to the post of Chief Inspector of Historic Buildings (reported in *Bulletin* 20.3). Although busier than ever, he has still found time to chair the Scottish Industrial Archaeology Panel, whose major concerns have included the problems posed by the reorganisation of Scottish local government (including the abolition of the top tier of Regions), and the threat to public archive material. With respect to the latter, some good news has been forthcoming, Scottish power and British Gas giving large quantities of valuable

Scottish archives to the National Monuments Record of Scotland. Similarly, in the aftermath of the return by British Steel of the Scottish steel archives to Scotland (where they are now in the care of the Scottish Record Office), British Coal have agreed to safeguard the future of their archives in Scotland. Sadly, this has excluded the coal abandonment plans, which have been sent south to Brettey in England.

Elsewhere, Borders Regional Council are continuing their attempts to rescue Dangerfield Mill in Hawick, hoping to revive carding and mule-spinning operations as part of a working museum. Also of encouragement has been the progress of a trust formed to look after Laigh Milton Mill Viaduct in Ayrshire, said to be the oldest surviving railway viaduct in the world. A number of industrial buildings and structures have, in addition, received funding from the Historic Buildings Council in Scotland. These have included the two giant cantilever cranes at Finnieston in Glasgow and at Greenock, and Mill Number One at New Lanark.

Scotland's industrial museums continue to prosper, the Scottish Mining Museum at Newtowngrange purchasing Lady Victoria Colliery from the Marquess of Lothian, with money from the National Heritage Memorial Fund. At Summerlee Heritage in Coatbridge, a new underground coal-mining display has been opened, and the reconstructed timber headstock which accompanied an 1810 Newcomen engine from Farme Colliery, Rutherglen, is due to be erected in May this year. Meanwhile, in Edinburgh, work continues on 'The New Museum of Scotland', and the National Museum of Scotland, on the retirement of James Wood have appointed a new Curator of Industry and Engineering: one John Crompton Esq., currently President of the AIA.

Miles Oglethorpe



Longmorn Distillery still house: four coal-fired wash stills, converted to steam in August 1993

Photo: RCAHMS Crown Copyright C19955

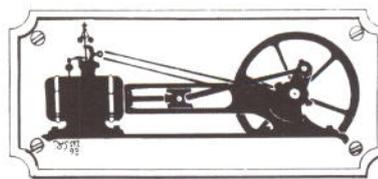
West of England

Bristol's industrial archaeologists joined the technical historians of the Newcomen Society for their recent venture in the city. Over sixty enthusiasts from as far apart as Penzance, Manchester and Ashford in Kent, met at the University's Wills Memorial Building to hear Iain Miles, Chairman of the Westonzoyland Engine Trust, talk on the Drainage of the Somerset Levels. Such support proved encouraging for the proposed West country branch of the Newcomen.

Ralph Allen's eighteenth-century mines on the heights above Bath, source of stone for the city's outstanding Georgian architecture, continue to be the focus of controversy. The extraction of acres of

oolitic limestone, some thirty feet in depth, left only a few feet of overburden in some places, unbeknown to planners who allowed houses to encroach on the area. The stout pillars originally left to support the cavity roof were later shaved down to the point where stress fractures are now occurring. Only in the last two or three years has this danger been fully realised as holes appeared in gardens. To prop, or fill, or not to fill with PFA - the pulverised fuel ash said to be the only economic solution, is the current question. The record of industrial features with their associated history of early wooden-rail carriage, specially designed cranes and quarrying techniques is overshadowed by more immediate problems.

Joan Day



Heritage Engineering

MILL THREE, NEW LANARK MILLS, LANARK ML11 9DB

TEL: 0555 666066

CONSULTANTS AND CONTRACTORS IN THE RESTORATION OF HISTORIC MACHINERY

We can undertake a range of approaches covering rescue, restoration, replication and display of anything from a simple set of blacksmith's bellows to a water-wheel or a steam engine
Proprietors: J S Mitchell BA(Hons) and C D Bates

North West England

The Wet Earth Colliery Exploration Group has continued with the task of de-watering and excavating the various drainage tunnels at the Wet Earth Colliery. Members now include a professional surveyor/civil engineer who has brought a high degree of accuracy to the surface survey and a mining surveyor who has made a start on surveying the drainage channels, using state of the art laser equipment.

An exhibition of the first three years of exploration and research was held at the Salford Mining Museum from December 1993 to March 1994. Aerial photography of the site continues and a 'risk assessment' has been produced in conjunction with the City of Salford Safety Section. Six members, having successfully completed a two day 'Work in confined spaces' course, are now qualified to use breathing apparatus in case of emergencies. Work on the riverside water turbine has halted due to river water levels but the group are undertaking an engineering assessment regarding future stability, and studying means of keeping river silt from burying the turbine after excavation. The site, at Clifton on the south bank of the River Irwell, is well worth a visit. Details from Alan Davies, Museum Officer, Salford Mining Museum, Buile Hill Park, Eccles Old Road, Salford, M6 8GL ☎ 061 736 1832.

The Mines Rescue Station, Ellenbrook Road, Boothstown, has escaped the fate of many other recently closed British Coal sites by receiving a Grade II listing.

South West England

With the recovery still having little effect in the far south west, the reduced rate of destruction of industrial sites has been some slight compensation in the last few years.

But meanwhile there is considerable activity - mainly following the establishment of the Trevithick Trust with Stuart Smith as its Chief Executive. With the long overdue realisation that Cornwall's industrial past is important and a real asset to the County it is splendid to see the County and District Councils all involved, as well as Camborne School of Mines, the Trevithick Society and the National Trust. The last two have of course jointly carried out extensive work on the Levant engine house in recent years.

Following the end of mining and purchase of the site by the

County Council, the first stages of a redevelopment of Geevor Tin Mine is now open to the public while a few miles the other side of Land's End, the Cable and Wireless company have finally left Porthcurno and donated land to the National Trust. Their museum remains at this significant site in the history of communications and the Trevithick Trust have arranged limited public openings for this summer while discussions take place over long term plans.

Opened on 18 November 1933 the station was on a model layout, with no expense spared in the original construction, of which 99 per cent is as it was 61 years ago. At that time over 50 collieries were able to call on the station's two full-time rescue corps of 12 men, whose houses still stand close by. Credit is due to Salford's Senior Conservation Officer for proposing listing and also to English Heritage who spotlisted the structure, saving it from imminent demolition.

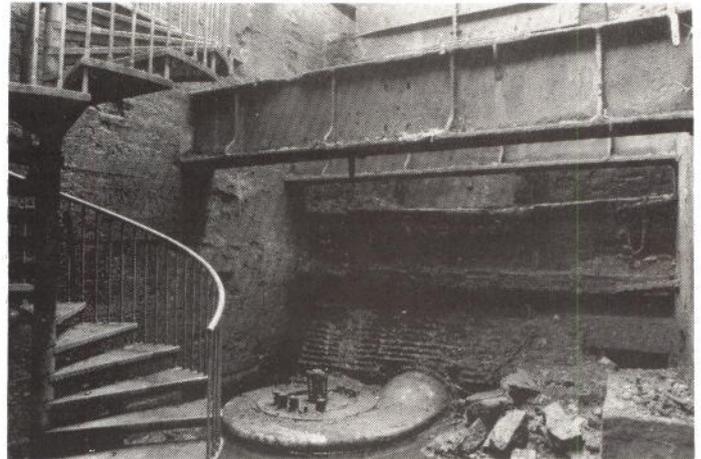
The North West Society for Industrial Archaeology and History has been renamed Merseyside Industrial History Society (MIHS). It is hoped this shorter name will make things easier for publicity purposes and help people to recognise where the Society has its base. An experimental series of Saturday morning classes for children between the ages of nine and fourteen, organised by MIHS in association with the National Association of Gifted Children (NAGC), proved to be very successful. Although the class take-up was small, there was a very positive feed-back from the children and the NAGC. It is hoped the course will be repeated in the autumn.

Both Safeways Stores and the Manchester Ship Canal have discovered that campaigning works. The canal company had planned to close off Walton Lock and Safeways at St Helens proposed to re-define the Sankey Canal's terminus by decking it over outside their superstore. However the Sankey Canal Restoration Society and their allies at the Inland Waterways Association, together with numer-

ous letters of objection, including those from the CBA North West Industrial Archaeology Panel and the AIA, have ensured that both organisations are having to rethink their proposals. 1994 is the hundredth birthday of the Manchester Ship Canal. Although it was not

opened officially until May 1894, the first ship sailed down the canal on the preceding New Year's Day, following the opening of the lock gates on the Mersey estuary. Numerous activities have been arranged to mark the centenary.

Edwina Alcock



The turbine at Wet Earth Colliery. The view shows the spiral staircase put into the wheel chamber by the City of Salford and the turbine thought to have been installed by Gilkes of Kendal. Note the immense girders which span the wheel chamber and the third tailrace portal which can be seen above the stone block, bottom right

Photo: Ken Nunn



Boothstown Mines Rescue Station in August 1993

Photo: A Davies

trial Heritage Management course at Camborne School of Mines, plans for the School's historic King Edward Mine site, the existing National Trust Cornish Engine sites at Pool or the Minerals Tramway Project based on the line of the Poldice Tramway (c1809-c1860)

which is now making considerable progress. Plenty is going on in the farthest south-west so prospects for the long term preservation and interpretation of Cornwall's industrial past now look more hopeful than some ever thought possible!

John Stengelhofen



The Levant engine house, near Land's End, contains a small 1840 winding engine built by Harvey's Foundry, the Trevithick Society has now restored the engine to steam with a 'new' boiler and the National Trust, owners of the site, have built the fine new boiler house to the right

Photo: W Newby

8 June 1994**BOYS TOYS:
THE TECHNOLOGY OF CARS
AND BODIES**

a lecture at the Science Museum by Ruth Oldenziel. Details from Dr Robert Bud ☎ 071 938 8041.

16-20 June 1994**AIA FIELD WEEK IN LONDON**

details from David Alderton, 48 Quay Street, Halesworth, Suffolk, IP19 8EY ☎ 0986 872343.

24 June - 3 July 1994**CITIES AND SUSTAINABLE
DEVELOPMENT**

a Global Forum about all aspects of urban environments, based in the Castlefield Urban Heritage Park, Manchester. Details from Global Forum '94, Castle Street, Castlefield, Manchester M3 4LZ ☎ 061 234 3741.

4 July - 26 August 1994**TRAINING EXCAVATION AT
BERSHAM IRONWORKS**

on the site of John Wilkinson's iron-works near Wrexham, being excavated by Clwyd County Council. Training courses run for 5 or 10 days. Details from Bershram Heritage Centre, Bershram, Wrexham, Clwyd LL14 4HT or ☎ Steve Greuter 0352 702745 or 0978 261529.

7 - 9 July 1994**MANAGING THE INDUSTRIAL
HERITAGE: ITS IDENTIFICATION,
RECORDING AND MANAGEMENT**

A seminar organised by the AIA, the Royal Commission on the Historical Monuments of England and English Heritage, at Leicester University. Details from Marilyn Palmer, Department of History, Leicester University, Leicester LE1 7RH.

16 - 23 July 1994**THE CRADLE OF THE
RAILWAYS**

a summer school at Durham. Details from Andrea Nicolaidis, Summer Academy, The University, Canterbury, Kent CT2 7NZ ☎ 0227 470402.

23 July 1994**THE DEVELOPMENT OF MAIN
LINE ELECTRIC TRACTION**

a day conference at the National Railway Museum, York. Details from the Executive Secretary, Newcomen Society, Science Museum, London SW7 2DD.

30 July - 4 August**22ND SYMPOSIUM OF THE
INTERNATIONAL COMMITTEE
FOR THE HISTORY OF
TECHNOLOGY**

at the University of Bath. Main themes include institutions of engineers, the gunpowder industry, and the value of physical artefacts. Details from Professor R A Buchanan, Centre for the History of Technology, University of Bath, Bath BA2 7AY ☎ 0225 826886.

6 - 13 August 1994**MUCK AND BRASS**

a summer school on the North's glorious industrial heritage, at Durham. Details from Andrea Nicolaidis, Summer Academy, The University, Canterbury, Kent CT2 7NZ ☎ 0227 470402.

13 - 20 August 1994**CANALS AND COUNTRYSIDE**

a summer school at the Peak National Parks Centre, Losehill Hall, Castleton, Derbyshire S30 2WB ☎ 0433 620373

2 - 4 September 1994**RAILWAY AND CANAL
HISTORICAL SOCIETY
FORTIETH ANNIVERSARY
MEETING**

at Lancaster University. The RCHS was formed on 4 September 1954 and celebrates its anniversary with a conference and tour in Lancashire. Details from J R Searson, 23 Bank Croft, Longton, Preston, PR4 5AL ☎ 0772 614363.

7 - 13 September 1994**AIA ANNUAL CONFERENCE**

in Winchester. Booking forms were enclosed with the last mailing. Details from David Alderton, 48 Quay Street, Halesworth, Suffolk IP19 8EY ☎ 0986 872343.

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, in Cardiff. Details from Dr Mark Redknapp, Department 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 Ciarlo, Bocconi Comunicazione, Università Bocconi, Via Sarfatti 25, 20136 Milano, Italy.

13 - 16 September 1994**MUSEUMS ASSOCIATION
ANNUAL CONFERENCE**

in Brighton. Details from Antonia McCafferty, Museums Association, 42 Clerkenwell Close, London EC1R 0PA ☎ 071 250 1836.

4 - 11 December 1994**WORLD ARCHAEOLOGICAL
CONGRESS**

at New Delhi, India. Details from Prof V.N. Misra, Deccan College Post-Graduate and Research Institute, Pune 411006, India ☎ 91 212 662982.

8 - 13 September 1995**AIA ANNUAL CONFERENCE
1995**

in Sheffield. Details will be circulated with a future mailing.

□ *Information for the diary should be sent directly to the Editor as soon as it is available. Dates of mailing and last dates for 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 advertised.*

AIA

INDUSTRIAL ARCHAEOLOGY NEWS
(formerly AIA Bulletin ISSN 0309-0051)

ISSN 1354-1455

Editor: Dr Peter Wakelin

Assistant Editors: Hilary Malaws and
Jessica Laurence

Designer: John Stengelhofen

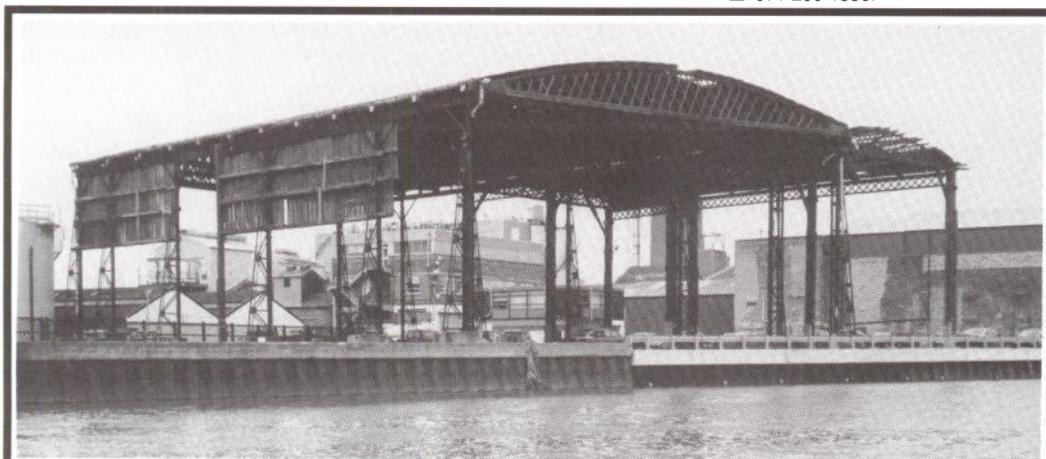
Published by the Association for Industrial Archaeology. Contributions should be sent to the Editor, Dr Peter Wakelin, School of Humanities and Social Sciences, University of Wolverhampton, Castle View, Dudley, West Midlands, DY1 3HR. News and press releases should be sent to the appropriate AIA Regional Correspondents, names and addresses for whom are given regularly on this page. The editor may also be contacted on 0222 465511 extension 269 or 0222 668644. A fax is available on 0222 450859.

Final copy dates are as follows:

- 30 June for August mailing
- 30 September for November mailing
- 30 December for February mailing
- 30 March for May 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 Wharfe, Ironbridge, Telford, Shropshire, TF8 7AW, England ☎ 095243 3522.

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

**Belfast Truss sheds demolished**

At Jubilee Wharf on the Middlesex Bank of Bow Creek two former timber sheds with Belfast Truss roofs dating from the post World War I period have recently been demolished. Much of a Belfast truss being made from relatively small pieces of timber, this type of construction was popular in timber yards where a stock of small pieces of wood was to hand. Some twenty years ago such timber sheds were a common sight, but examples now are beginning to become scarce. Belfast Truss roofs were once popular for aircraft hangars. There were two types. Francis Ritchie and Sons Ltd of Mountpottinger Road, Belfast, claim to be the originators of the design (Ritchie's Girder Roof), which goes back to at least the beginning of this century. In the Ritchie design the diagonal lattice elements are arranged so as to fan out from two centres below the truss. In the later and more common type the lattice elements are parallel. Purists contend that only the radiating non-parallel type should be called a Belfast Truss. The photograph, showing the view from the south east, was taken during the Greater London IA Society cruise up Bow Creek in October 1992.

Robert Carr