

INDUSTRIAL ARCHAEOLOGY NEWS

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THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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INDUSTRIAL ARCHAEOLOGY NEWS 140 Spring 2007

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COVER PICTURE

22,500HP Burmeister & Wain diesel engine at
Copenhagen (see page 6)

Photo: Ian Mitchell

The British Archaeological Awards

The 2006 British Archaeological Awards were presented on Monday 6 November at the Custard Factory, Digbeth, Birmingham, by well-know television personality Professor Mick Aston, who himself comes from the West Midlands. He was wearing his familiar striped jersey, and there is now a Mick Aston Presentation Award. Here are brief descriptions of the winners and some runners-up of immediate interest to industrial archaeologists. Thanks are due to Professor David Breeze for a good deal of the information, and Andrew and Rob Selkirk of Current Archaeology for making available the photographs.

Robert Carr

This time industrial archaeology was even more in evidence than two years ago in Belfast (*IA News* 132, pp 10-11). As the industrial age recedes into the past, more and more industrial archaeology is creeping into awards other than our own AIA Award. A large number of Awards were presented at the 2006 Ceremony and further details will be found in *Current Archaeology*. Information is also available on the internet.

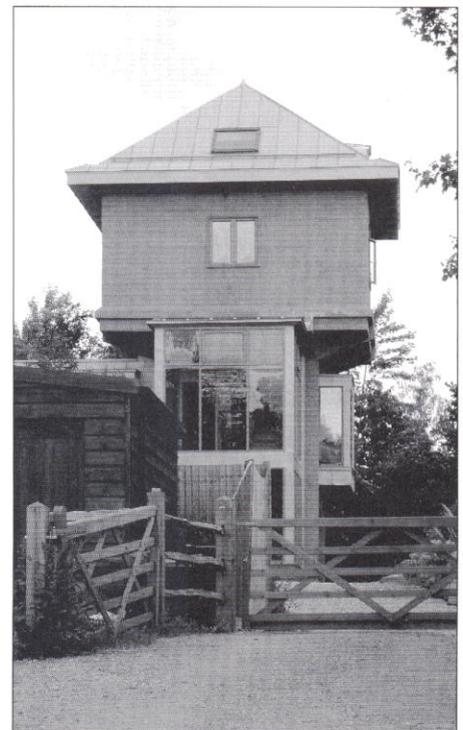
For our own AIA Award there was a shortlist of three entries. The University of Lincoln has converted the 1907 Great Central Railway grain-storage warehouse, Brayford Pool, into its Central Library. This brick building spent the second half of the twentieth century as a builder's warehouse, falling into disrepair in 1998. The formal opening of the new library took place in 2004 and the standard of the conversion received high praise from the Royal Institution of Chartered Surveyors.

In the early years of last century, at Great Maytham in Kent, the architect Edwin Lutyens designed a water tower to supply the grand house, Great Maytham Hall, which he was building nearby for H. J. Tennant. The water tower had a rectangular concrete tank at the top and the whole structure was to have been clad with weatherboarding to resemble the windmills of the locality. But, the cladding never took place and in recent years local residents have regarded the decaying structure as an eyesore worthy of demolition. However Denise & Bruno Del Tufo employed the architect Derek Briscoe to convert the tower into a remarkable dwelling house for themselves. The story of the conversion was the subject of a television programme in the series *Grand Designs*, broadcast on Channel 4 on 26 April 2006. The water tank itself is of considerable structural interest as it is an early reinforced concrete design. Louis Gustave Mouchel (1852-1908) the agent in Britain for François Hennebique (1843-1924) was involved and a large archive of drawings is still in existence. The conversion was carried out carefully to save most of the original work which is still in situ and therefore preserved for future study. This entry really is in the spirit of the AIA Award - saving a structure previously regarded as unsavable - and was a close runner up to the following entry.

Perhaps as expected, and especially as the presentations were being held within it, the winner was the Custard Factory, Digbeth (see *IA News* 139, pp 13-14). The effect that the re-use of the Custard Factory has produced on its locality is just the kind of rejuvenation of a district, giving historic buildings long-term sustainability through an ability to generate wealth, that the judges look for. The Award Certificate was received on behalf of the Custard Factory by Beth Massey. For previous winners of our AIA Award see *IA News* 137 page 6.

For the Young Archaeologist of the Year Award, this time the study of buildings was the theme and buildings investigated included The London Eye, the Globe Theatre, the home of Newcastle United football team, windmills, watermills, a working men's club, a freemasons' hall, an aircraft hanger, a Second World War gun emplacement, and a former Nat West Bank which was physically moved on a low loader to become Send & Ripley History Society's museum. The winner of the 8-12 age individual group was Rachel Taylor from Cambridge, who produced an excellent report on Morley Memorial Primary School.

Kirsty Wark the television presenter was the judge for the 13-16 age individual group. The shortlisted entries included work on a Welsh miner's cottage, Royston & District Museum, and the Castle Climbing Centre, Stoke Newington, London, which was formerly a beam-engine house for the Metropolitan Water Board. The winner was Yvette Taylor from Somerset for her



The new house at Great Maytham, converted from a water tower, was shortlisted for the AIA Award. The winner was the Custard Factory where the 2006 awards ceremony was held
Photo: R J M Carr

work on Ashton Windmill. Kirsty particularly enjoyed reading Yvette's story about a day in the life of miller Tom Wilkins, which she thought was a lovely way to explain how the mill works. Among the shortlisted entries in the schools and groups category was a report by the North Wiltshire YAC branch on the Type 28A Anti-Tank Gun Emplacement at Lydiard Green. The winners were Amber Class, Christian Malford Primary School, Gloucestershire, for their information booklet about their school.

The Press Award now embraces radio as well as newspapers and an interesting entry came from the USA. Henry Teitlebaum of Dow Jones International wrote in the *Wall Street Journal* about the problems of balancing ancient and modern in the redevelopment of London. A joint winner was Win Scutt and World Archaeology News on BBC Radio Five Alive. This Up All Night programme gives over 15 minutes to archaeology every Tuesday and has broadcast more than 50 hours worth in the last five years. It is claimed the programme reaches over a million listeners who are awake at 3.30 am to hear it. Don't we rise early nowadays.

The Current Archaeology Developer Funded Award included two industrial archaeology projects and in fact the majority of developer-funded work is devoted to eighteenth and nineteenth century sites. Two outstanding examples were Portwall Lane glasshouse, Bristol, where pioneer glass making took place in the late eighteenth century and the Albion Flour Mill, by the river in Worcester, which since the 1960s has been used by the Royal Worcester Porcelain Factory. In Bristol the civil engineers Ove Arup

redesigned the redevelopment, so that by using steel beams to bridge the structure of the glassworks, piles which were driven did not spoil the archaeology. This has been preserved for the future beneath a new office building. In Worcester the flour mill has been turned into a block of desirable flats after meticulous recording.

Geological exploration beneath the North Sea in the search for oil and gas has produced a mass of seismic data. Prospectors are not interested in the first two metres down and evidence for these shallow depths was put aside as worthless. However Professor Vince Gaffney of Birmingham has made use of this treasure trove of evidence, collected over decades, to produce remarkable detailed maps of a preserved but almost unknown submerged Mesolithic landscape, the size of Wales. British archaeologists are now exploring the rivers, streams, lakes and coastlines of a European country unseen for 8,000 years. This work received a runners-up award.

A winner of a Pitt Rivers Award was the study by the Norfolk Historic Buildings Group of buildings in the village of New Buckenham. Following a five-year plan £3,000 was spent on dendrochronology and the excellent published report covers the largest collection of vernacular houses in Norfolk to have been studied by dendrochronological sampling. This work is of particular value to anyone interested in timber-framed houses.

A runner-up for the Institute of Field Archaeology Award was the Shoreditch Park Community Archaeology Project which was a collaboration between the local community and

the Museum of London. Over 3,000 people took part and the subterranean remains of four nineteenth-century terraced houses were uncovered. These had been damaged during World War II when an unexploded bomb went off killing the bomb disposal team at work on it. This project was the subject of a Time Team television programme.

Runner-up for the Heritage in Britain Award was a project by the Hampshire and Isle of Wight Trust for Maritime Archaeology for the establishment of heritage trails, in this case for historic wreck sites in the Solent. The Alum Bay Dive Trail accesses the remains of HMS *Pomone* wrecked off the Needles in 1811 and lying in 20 feet of water. There are underwater interpretive booklets and handlines around the wreck for divers, augmented by on-shore exhibitions and briefings.

The Silver Trowel Award for the project or person showing the best initiative went to John Barnatt for his single-handed effort in bringing the archaeology of the Peak District to as wide a public as possible. Among several of his publications is a review of the lead industry and the future of its archaeology. He is also conservation officer for the Peak District Mines Historical Society. John spoke on Archaeological Recording Underground at the Friday Seminar in Nottingham before our Derbyshire conference in 2005, and we visited one of his sites during the conference itself.

Lord Montague of Beaulieu, President of the British Archaeological Awards, gave a moving vote of thanks at the end of the Ceremony. He is retiring as President and we will miss him very much.

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'Cornish Mining' designated World Heritage Site

The announcement on 14 July 2006 that the Cornwall and West Devon Mining Landscape [Cornish Mining] had been designated a UNESCO World Heritage Site was the culmination of three years' work and a just reward for the huge effort put in by over 70 organisations to prepare the most complex bid ever submitted for a site by our government.

Graham Thorne

Cornish Mining is now one of 830 World Heritage Sites of which 644 are cultural, 162 natural, and 24 mixed. There are 24 Sites in the United Kingdom ranging from Stonehenge and Avebury, Giants' Causeway via Georgian Bath to industrial sites such as Blaenavon, Ironbridge, New Lanark and Saltaire. The Cornish Mining site covers mining landscapes which evolved at the time when hard-rock mining was at its zenith, driving both technological innovation and social change. Some 175 areas worldwide have been identified as having known Cornish mining connections, notably in America, Mexico, Australia, Spain and elsewhere.

The bid document summarises the significance of the area thus: *'The Cornwall and West Devon Mining Landscape was transformed during the period 1700-1914 by early industrial development that made a key contribution to the evolution of an industrialised economy and society in the United Kingdom, and throughout the world. Its outstanding survival, in a coherent series of highly distinctive cultural landscapes, is testimony to this achievement.'*

The Site as designated is made up of ten distinct areas. They are the mining areas of St. Just, Tregonning and Trewavas, Wendron,



Cliff top arsenic calciner at Botallack Mine, West Cornwall

Photo: Peter Stanier

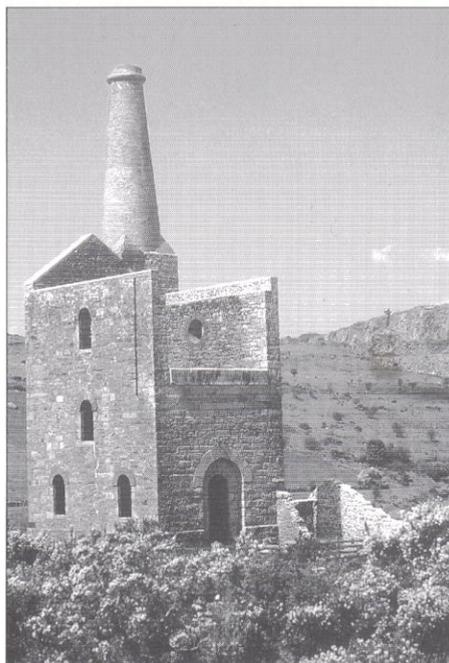
Camborne and Redruth, Gwennap, St. Agnes and Caradon as well as the mining ports of Hayle and Charlestown, plus the Tamar Valley and Tavistock.

Designation does not in itself bring finance or tangible benefits to the area. It will, however, bring huge opportunities to improve the economy of one of Britain's poorest counties. It should also ensure that due regard is given to Cornwall's industrial heritage and prevent further losses through demolition or neglect. It should also encourage year round sustainable tourism as Cornwall is put on the world map. There is evidence from other World Heritage Sites that this status brings in visitors and money; indeed current estimates are that an increase of 60,000

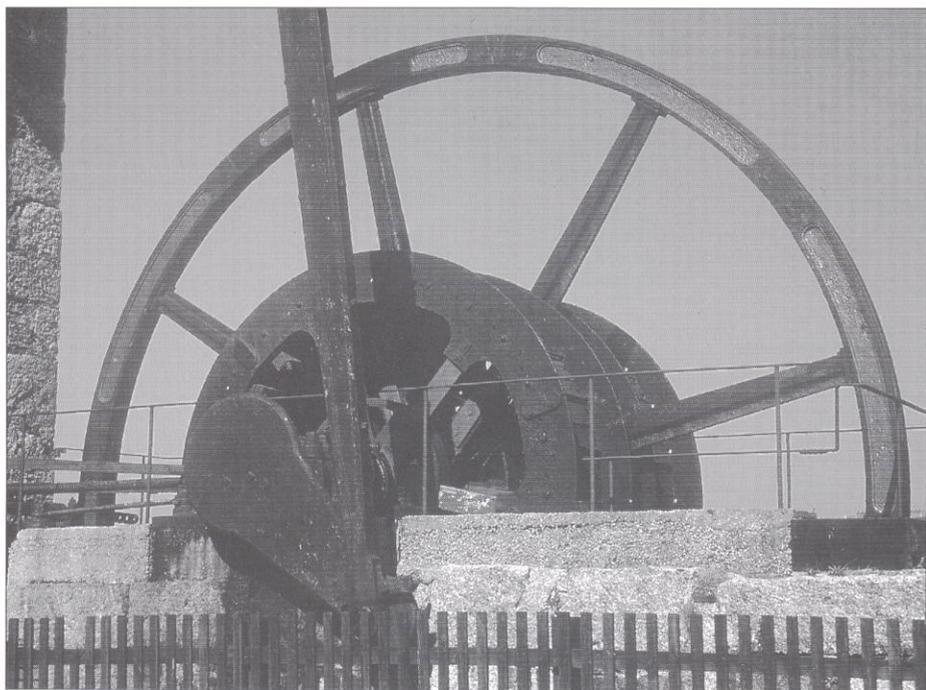
visitors per annum could be generated.

The bid identified five major relevant attractions within the ten sites: Morwellham Quay, Geevor and Levant Mines, Cornish Engines and Discovery Centre at Pool, Poldark Mine and Godolphin House and Estate. In all, 41 sites or attractions were identified in support of the submission. There is also the possibility of a major new 'Gateway' to the World Heritage Site based at the former Robinson's Shaft of South Crofty Mine.

A further benefit of the bid is the enormous amount of information collected in support of the submission, and much of this can be found on the project website at www.cornish-mining.org.uk.



The early twentieth-century Prince of Wales engine house, Phoenix United Mine, East Cornwall Photo: Peter Stanier



East Pool whim engine in the heart of the Camborne mining district

Photo: Peter Stanier



Copperhouse Dock at Hayle was once busy shipping ores to South Wales. Its walls are made from slag blocks

Photo: Peter Stanier

The partnership set up to advance the bid should also facilitate a more co-ordinated approach to Cornwall's heritage in the future.

News of the designation was greeted with joy in Cornwall, for example the local *West Briton* paper in Truro bearing the headline 'Camborne and Redruth can claim to have same status as Taj Mahal'. Bid manager, Nick Johnson said, 'It is a pat on the back for Cornwall... It could be a platform for regeneration, as all other World Heritage Sites have prospered since gaining the title. . . The bid has brought together for the first time our spectacular mine sites, mineral harbours such as Portreath and Morwellham, terraces of miners' cottages and Methodist Chapels as well as great houses and gardens.' Chairman of

Pendeen Community Heritage, which runs Geevor Mine, Bill Lakin, said, 'this will make it easier to deliver [our plans] because what we won't have to do is prove to funding bodies that Cornish mining heritage is something of intrinsic worth.'

While World Heritage Site status is enormously welcome and will provide a huge boost to the designated area, it is important to remember that the Mining Area is not starting from nowhere. The bid document states that, from 1998 to 2005, capital expenditure by public and charitable trust owners on properties in the nominated site areas amounted to £34.2 million. The bid has also included a ten year management plan for the World Heritage Site with this vision statement for the future: 'We believe that by

protecting, conserving and enhancing the universal value of the Cornwall and West Devon Mining Landscape World Heritage Site it will reinforce cultural distinctiveness, and become a significant driver for economic regeneration and social inclusion.'

Appreciation of Cornwall's industrial heritage and a determination, in the words of the Federation of Old Cornwall Societies to 'gather up the fragments that nothing be lost', may be said to have begun with the small band of John H. Trounson, Tregonning Hooper, Treve Holman and others, who in 1935 formed a committee which saved the iconic Harvey built winding engine at Levant Mine. From their efforts came the Cornish Engines Preservation Society, later the Trevithick Society. The 70 odd years since then have seen horrendous losses of industrial archaeology in Cornwall as well as periods of great progress. How proud those early pioneers would be to see Cornish Mining take its place on the world stage in 2006.

There have already been various activities in Cornwall seeking to build upon the designation, some organised by members of the newly formed Cornish Mining Attractions Marketing Association, CMAMA. Twelve large hoardings were unveiled at Paddington Station in November highlighting six facets of Cornwall's mining history. They will stay in place for four months and could potentially be seen by 15 million travellers. Cornish MPs, representatives of the Department of Culture, Media & Sport and representatives from the Heritage site areas attended. Among the claims made are that Cornish miners introduced football to Mexico (surely rugby is more likely), how half the population of South Australia was Cornish in the 1860s and how the profits from Cornish mining helped fund the introduction of new exotic plants such as rhododendrons, camellias, tree ferns and palms into British gardens.

A Surfeit of Mills

To come across a mill one has not heard of before is a pleasant surprise. To come across a group of three is unusual. To come across a commercially working Norse Mill definitely comes into the highly unlikely category. Especially when all five mills are inside a 10 km circle in the Dordogne region of France.

Chris Irwin

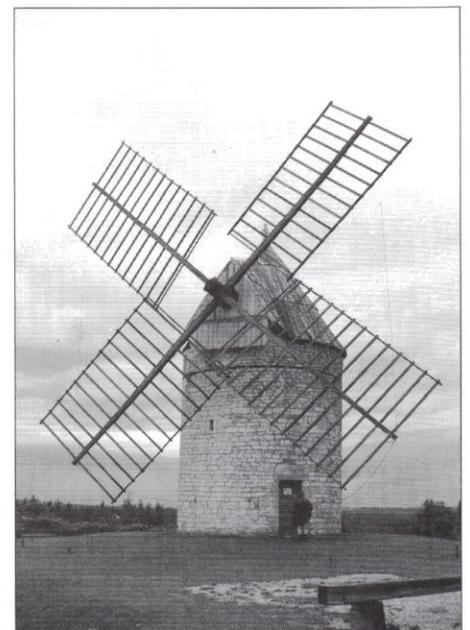
When visiting friends near Cahors recently I came across an English-language guide book which mentioned a watermill 'with a 13ft water-wheel'. There was little more about it but it did give a telephone number. This turned out to be that of the owner who was happy for us to come over that afternoon as he would be grinding wheat.

On the way we called at the Moulin de Boisse, an isolated windmill now maintained by the Friends of the Mills of Boisse and Canton. It is in working order and grinds on open days and for special events, though it was not open when we

visited. It is a typical four-sweep mill with a cylindrical tower and a cap turned by a long tail. Apparently it was built in about 1700. It has a website - look it up on Google and one can get it translated into English.

A few kilometres south lies the small town of Castelnaud-Montratier. On a ridge above the town there is a line of three windmills, all with cylindrical towers similar to that at Boisse. They are about 200 metres apart and the two end towers still have their caps and sails. I have found little about them except that one is in private ownership and has been restored since 1963 with the aid of national and European grants. The northernmost mill would never be able to work again in spite of its having sails because the town's header reservoirs have been built on either side.

In the valley of the Barquellonne between the two communities lies the watermill. As we drove up to the farm the farmer was just coming out of the house and he took us over to the mill, a low



Moulin de Boisse, kept in working order for special events
Photo: Chris Irwin

building on the banks of the stream. Inside there were two sets of stones and a bolter. The machinery was very basic and I could see no room for a conventional drive from the guide book's '13ft water-wheel'. The farmer told our friend, who speaks good French, that the wheels were driven by 'turbines' underneath the mill. Unfortunately they were under an arch, beside the attached sawmill, and in complete darkness. So I poked the camera underneath with the flash set and hoped for the best. Thanks to the wonders of modern technology we were soon looking at a picture of a pair of horizontal waterwheels!

Now it may be that these are common in France - I can only say that in some 50 years of poking around industrial backwaters I have never before seen a working 'Norse' mill. To be strictly accurate the wheels were not working that day as the stream, like so many others, had completely dried up in the summer's drought. As this happened most years the farmer had added an electric drive to one shaft so that he can keep his customers happy, but whenever there is water he prefers the wheel drive because it costs nothing!

As can be seen from the picture the present paddles are made of metal and surrounded by a simple case to guide the water. This appears to be merely sheet metal and neither the casing nor the paddles seem to be shaped in any way as turbine blades are. Apparently they were installed in the early years of the last century. No doubt a proper turbine would be more efficient but as the present set-up provides ample power for the work there seem to be no reason to replace them. The fall in the river at the mill is about 3.5 metres, no doubt the source of the erroneous information about a 13ft wheel.

The mill apparently dates from the thirteenth century, though presumably little original remains. Alongside is a small saw mill, once also water-powered but fitted with new machinery in the first half of the twentieth century and now driven by electricity. The farm and mill have been owned by the Moles family since 1917. They also own a working dovecote in the farmyard outside the mill - the whole scene looking, apart from the tractors, as it must have done centuries ago.



The middle and south mills at Castelnaud-Montrastier

Photo: Chris Irwin



Twin horizontal wheels at the Moulin de Brousse

Photo: Chris Irwin

Two Industrial Museums in Denmark

On a foreign holiday, finding the local industrial museums can be very rewarding. It certainly gets you away from the other tourists, to smaller towns and less salubrious parts of the big cities. On a holiday in Denmark in 2006, the authors found two excellent sites in the Copenhagen area.

Ian Mitchell and Mary Graham

In Copenhagen itself we found a brand-new museum called DieselHouse. This is located on a power station site a couple of miles south of Copenhagen city centre. The museum is the engine house built in 1932 to accommodate an enormous diesel engine used for electric power generation. For more than 30 years this was the

largest diesel engine in the world, generating 15 megawatts of power (equivalent to 22,500 horsepower). The engine is an 8-cylinder double acting two-stroke diesel, 25 metres long and 12 metres high, weighing 1,400 tonnes. It was constructed by the Danish company Burmeister & Wain, who specialised in very large diesels for ships and power generation. The engine ran regularly until the 1970s and was retained on standby until 2004.

When it was no longer required for electricity generation, the building and engine were bought by MAN, the German company that took over Burmeister & Wain in the 1980s, and now dominate the world market for large diesels. The building has been beautifully refurbished, and a

new mezzanine floor and three storey exhibition gallery constructed within the building. The exhibitions cover two main themes, the history of Burmeister & Wain which began as a small forge in 1843, and the significance of the large diesel engine in shipping and power generation. A large amount of archive film material has been digitised and made available for viewing through interactive terminals. Almost everything is labelled and sub-titled in English as well as Danish. It would be quite easy to spend a whole day browsing through this material.

Just a few snippets that we learned were:

- B&W built the engines for the world's first ocean going diesel powered ship in 1912,

and this was inspected by Winston Churchill who recognised it as a very important development for the future of shipping.

- B&W manufactured at a number of different sites in and around Copenhagen, and materials were transported between them by barge.
- Today diesel engines are still designed by MAN in Copenhagen, but manufacture is undertaken by licensees, mainly in the Far East.

As well as the new exhibition galleries, space has been found on the floor around the main engine to erect some examples of smaller engines manufactured by B&W, including their first ever diesel dating from 1904. The only disappointment in the visit was that we were unable to see the giant engine running; this only takes place once a month.

DieselHouse is clearly an exercise in corporate sponsorship, rather than a commercial or volunteer operation, and this can be seen in the high quality building work, and free admission and coffee, but no chance to spend

money at a café or shop. There is a good web site (in English) at www.dieselhouse.dk.

The second museum we found was in the small town of Frederickvaerk, which is about an hour's journey by train north-west of Copenhagen. This town was set up to exploit the water power available from a canal which was dug in 1717 to drain water from Arreso lake into the Roskilde Fjord. The first industry was a cannon foundry and this was followed in 1758 with a gunpowder works.

A number of the buildings from this period have been preserved. A cannon foundry building from c1760 has been converted into a gallery, performance space and tourist information centre, and a storehouse for ammunitions and arms beside the canal is now the town museum (closed in 2006 due to flood damage). However, the main attraction is the Krudtvaerksmuseet (gunpowder museum). This is the gunpowder works, made up of a number of small buildings strung out along the canal. Whilst the layout is similar to gunpowder sites in the UK, Friedrickvaerk is remarkable for the survival of some of the original machinery, and the closeness to the town centre. The reason for the survival is that the works continued to produce black

powder up until 1965, and its historical significance was already recognised at that date.

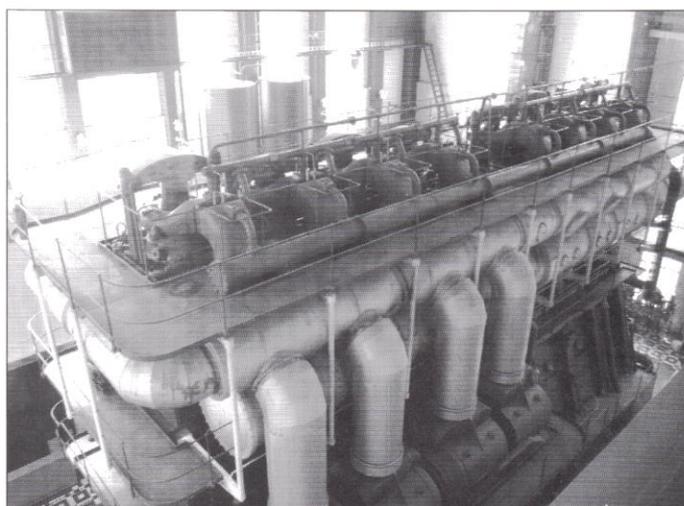
The layout of the site is as it was established in the eighteenth century, but the surviving buildings and machinery are of various dates, with examples of waterwheel, turbine and electrically powered equipment. With well spaced small buildings and a watercourse running through it, the site has a very rural feel, and on our visit we were able to watch a heron fishing in the tailrace from the waterwheel.

Some but not all of the interpretative material is English, and there is a web-site at www.indmus.dk. This is only in Danish, but the information on opening hours and location is easy enough to understand. The site is highly recommended to those who have attended AIA visits to gunpowder sites on desolate hillsides and dense woodland, but have never seen in-situ examples of the machinery these places used to contain.

According to information on a web site (www.industrikultur07.dk) 2007 is going to be a Year of Industrial Culture in Denmark, so this might be a good year for AIA members to visit these two sites, and no doubt also find some more, equally interesting, ones.



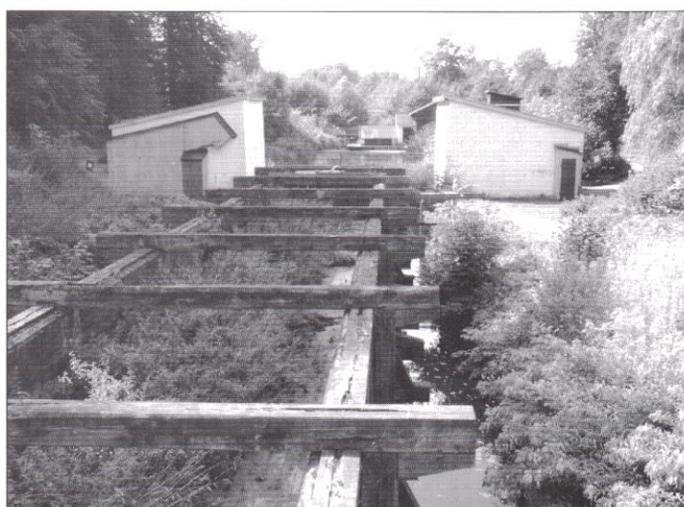
Two views of the 22,500HP Burmeister & Wain diesel engine which is the centrepiece of the DieselHouse museum, Copenhagen



Photos: Ian Mitchell



Lefebre swing corning machine of 1854 at the Fredericksvaerk Gunpowder Mill Museum
Photo: Ian Mitchell



A view down the watercourse along which the Fredericksvaerk Gunpowder Mill is laid out
Photo: Ian Mitchell

AIA Awards

The AIA offers the following awards:

Essay Award: two prizes of £200 each

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Fieldwork and Recording Award: main award of £500, Initiative Award of £300 and Student Award of £200

Dorothea Award for Conservation: one award of £500

The **information awards leaflet** can be obtained from James Gardiner, AIA Office, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH.

Telephone: 0116 252 5337. Fax: 0116 252 5005. Email: aia@le.ac.uk

AIA Visit to Latvia

14 – 20 May 2007

A water pumping station with compound engines made in Riga by Felzer & Co, still in working condition, will be one of the highlights of this first venture by AIA into the Baltics. Riga itself has medieval warehouses, beautiful art nouveau buildings and an unusual central market built from first world war Zeppelin hangars. The canal of the naval port of Liepaja, which we will also be visiting, is spanned by a split-span swing bridge, still in use, designed and built by a company from St Petersburg. There are impressive fortifications. Just a sample of the many good things to be seen. Put yourself on the mailing list to receive details when they are ready by expressing an interest to Paul Sautler, 80 Udimore Road, Rye, Sussex TN31 7DY or email paul@ia-tours.demon.co.uk



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The AIA, in conjunction with Dorothea Restorations Ltd, offer an annual award of £500 and a handsome Plaque to the project considered the best of that years entries.

To be eligible for entry projects must be concerned primarily with the conservation of a site or object of industrial, agricultural or domestic archaeological interest.

Initial expression of intent to submit a detailed application is achieved by completion of a simple Questionnaire, which can be obtained from the award co-ordinator, David Lyne, 10 Somerville Road, Leicester, LE3 2ET, Phone/fax 0116 29 19 706. e-mail lihs99@ntlworld.com, who will also ensure that you receive a full copy of the rules and award information.

Entry for an Award is made by completing the questionnaire, followed by a detailed submission at a time decided by yourselves. Applications received **before the end of April 2007** should be in time to be considered for the award for that year. Applications received after this date may have to be deferred until the following year.

The winner will be notified in time to arrange for representation at the AIA conference in August, at which two places, one of which is complimentary, will be reserved, for the presentation.

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Promoting the study and appreciation of industrial archaeology

ANNOUNCING THE THREE FIELDWORK AND RECORDING AWARDS FOR 2007

The AIA Fieldwork Award scheme exists to encourage recording of the physical remains of the industrial period to high archaeological standards. The awards are open to both amateur and professional field workers, and have been operating successfully for over a decade.

Work submitted may already have been published or, if not, entrants may be encouraged to publish.

As well as the **Main Award** there is also the **Initiative Award** for innovative projects, e.g. those from local societies. To encourage the future industrial archaeologists, there is also a **Student Category**.

THE CLOSING DATE FOR ENTRIES IS 31ST MARCH 2007

Successful Entries will be notified in July

The successful authors will be invited to attend the AIA annual conference in Preston to collect their award in August

Further details from:

Fieldwork and Recording Awards, AIA Liaison Officer, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH

Essex Industrial Housing Thematic Survey

During 2006 the 17th thematic comparative survey of historic industrial monuments in Essex was finally completed by the Historic Environment Branch (HER) of Essex County Council. Following on from themes such as malting, textiles, hospitals and breweries, this latest survey concentrates on the provision of purpose-built workers housing by Industry to attract and retain a loyal workforce. The information gathered during this exercise will be used to enhance the HER by providing detailed records of each site, plus comparative assessments of their significance and recommendations for their future management.

Most of the sites were built during or following on from a period of industrial growth that occurred around the mid nineteenth century although earlier examples of eighteenth and early nineteenth century housing survive at Mistley Quay, Waltham Abbey Gunpowder Mills and Whitbread's chalk quarries in Purfleet. At the opposite end of the spectrum the water industry continued providing housing into 1950s, while an entire estate of housing was built during the 1960s for technicians working at the Armament Research & Development Establishment (ARDE) in Waltham Abbey.

Arguably the most interesting period occurred during the later nineteenth century and interwar period with the founding of entire planned towns, such as those built by the Great Eastern Railway (GER)

at Parkeston near Harwich and the 'model' towns established by visionaries Francis Crittall at Silver End (Crittall Windows), Braintree and by Tomas Bata at East Tilbury (Bata Shoes). In addition to modern housing tailored for individual status, these model estates offered religious, educational and recreational facilities for the employees and their families. The flip side of this provision was that employees were ever aware that ill discipline or confrontational behaviour at work or within the community could lead to losing more than just their employment. Both the interwar estates are noted for the use of the modernist architecture, those houses of the Bata estate built to a standard construction module of 6m square and modelled on the first planned industrial town founded by Bata in Zlin, Czechoslovakia. Other examples of innovative housing includes the Clockhouse Way Estate in Braintree, a predecessor to Silver End, which boasts some of the earliest flat-roofed concrete block built houses in the country and the 50 later nineteenth to early twentieth century terraces of concrete cottages built by iron founders Bentall in Heybridge.

Most of the housing has associations with traditional Essex industries such as brick making, malting and brewing but it also encompassed a broad range of general manufacturing and light engineering industries. Two sites which were not directly associated with an established industry were those of the Land Settlement

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Association, in Great Yeldham and Lawford. Influenced by the work of the Carnegie Trust UK and founded in 1934 by Government, both estates were made up of small holdings which along with another 23 LSA estates across the country were established to provide a new beginning for unemployed workers from the depressed north. Today the original landscape of the two

estates can still be recognised although many of the houses and particularly the outbuildings used for horticulture and animal rearing have been altered. It was found that survival of housing associated with the various industries was relatively high as much of the housing has passed into private ownership or was absorbed into larger developments. Only in a few



Industrial housing on the Crittall's estate at Silver Street in Silver End, Cressing, Braintree
Photo: Adam Garwood



Housing in Bata Avenue, East Tilbury

Photo: Adam Garwood

cases was the housing lost and in most instances the housing survived but the industrial complex had long since been demolished. Only in a few instances, namely Wilkins' Preserves in Tiptree and the various utility sites, does this relationship persist.

Fortunately Listing and Conservation Area status protection covers just over 40% of all the industrial housing identified, however, the vast majority of this number are concentrated within just two large planned developments (i.e. Silver End and East Tilbury) leaving the remaining (56%) undesignated. Based on the assessments made, two sites (16 individual buildings) will be proposed for listing and six new Conservation Areas plus five extensions to existing Conservation Areas will also be recommended. Also by drawing attention to those buildings not considered worthy of statutory protection it is hoped their future may be secured by inclusion in future Village Design Statements, Local Development Documents or Development Master Plans.

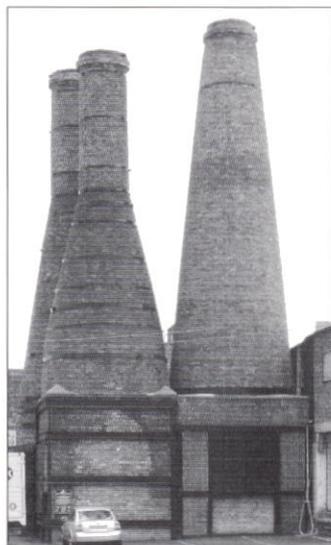
The next two thematic surveys of industrial sites and monuments (Nos. 18 & 19) in Essex will start during 2007 and will encompass the topics of watermills (including tide mills and steam mills) and the railways. At present both are in the preparation stages but to date c.60 extant mills have been identified for survey.

Although most mills are already listed the assessment will address issues such as rate of loss, redundancy, change of use, how many have been converted to residential, light industry and other uses, how many retain technology and the loss of mills since the advent of roller milling. Following on from historic assessments of two disused branch lines, the Flitch Way (2003) and the Saffron Walden Branch Line (2005) the next railway survey, will take on the entire network but due to the sheer size of the subject will tackle it on a line by line basis.

Adam Garwood

Gloom in the Potteries

An industrial archaeologist visiting the Potteries around Stoke-on-Trent in North Staffordshire at the end of last century would have been heartened to see so much traditional industry still in business.

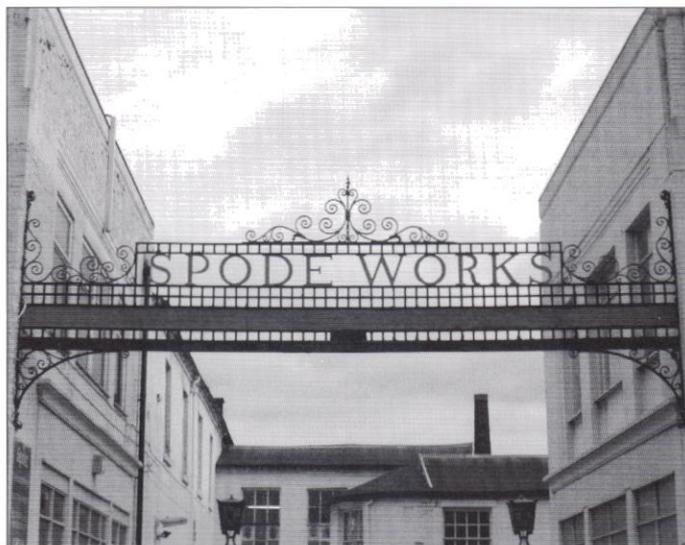


Salt, Pepper & Vinegar – calcining bottle ovens at Fenton
Photo: R J M Carr

Even though many industrial premises looked rather derelict, walking about and peering through broken windows plenty of work was still in evidence and it seemed that almost everywhere, inside buildings were piles of ubiquitous white china. Longton and Burslem were particularly rich in this kind of activity but in what Arnold Bennett would call the 'Five Towns' (not six), there was much generally to excite the visitor interested in the present-day manufacture of china and porcelain. Nearly all the bottle kilns might have gone but more modern kilns indoors were apparently doing plenty of work.

Unfortunately this is no longer the case and many of the great names have been bought up, their wares no longer in production. In Longton, Aynsley is still in business and there are some Stoke ceramic and pottery firms at work, but many fewer than five years ago. Small art potteries employing only a handful of people are producing exciting new designs, popular with younger people, and these wares also appeal to collectors, but large-scale production is almost at an end.

Since Staffordshire Tableware collapsed in December 2000 there have been more than 6,000 job losses in the pottery industry and more than 50 companies have closed since 1996. In that year Wedgewood employed 4,000 and Royal Doulton had 3,000 employees in North Staffs. Royal Doulton was bought by Wedgewood in December 2004. Wedgewood still employ 2,000 people but is likely to shut its Tuscan works in Longton, leaving



Entrance to the Spode Works

Photo: R J M Carr

just the Barlaston factory.

The North Staffordshire pottery industry suffered 1,150 redundancies in 2006 including 540 jobs at Wedgewood, 220 at mug-maker Tams and 195 at bathroom manufacturer Twyfords. Announcing redundancies shortly before Christmas has become something of an unfortunate Potteries tradition. Now, the great firm of Spode have announced they will be cutting their workforce, from 400 to 200. At sister firm Royal Worcester, in Worcester, production ceased in October. For well over 200 years Spode's have been at their present address and their factory is the oldest pottery works in England, still manufacturing on the same site. There are plans for housing, a shopping complex, heritage site and museum here. It is understood some buildings are listed and the whole factory could be declared a conservation area.

Spode's were one of the great aristocrats of the industry, along with Royal Doulton and Wedgewood. Josiah Spode established his first pottery works in 1767 producing cream and blue painted earthenware. Being successful he became rich enough to afford a larger factory in Stoke where the firm has been ever since. At the end of the eighteenth century he perfected fine bone china, ensuring Spode's success for two hundred years. After the death of Josiah Spode II in 1827 the firm was bought by William Copeland and the Copeland family have been involved in the management of the business for five generations.

It is not just the pottery workers themselves who are suffering. Many supporting industries supplied the needs of the pottery manufacturers and skilled people such as precision toolmakers are now finding work hard to come by. The famous JCB works on the A50 between Stoke and Uttoxeter provides employment for many people from Stoke-on-Trent but this is something of an exception and the Potteries are fast becoming a depressed area.

As it was, rates of pay for pottery workers were low by British standards but these wages are still high compared with those of the Far East. Stoke firms have had pottery and china made in the Far East in places like Indonesia, Malaysia and Thailand but there seems to be no local expertise there, and according to Stoke-on-Trent workers the quality is unacceptably bad. British-made classic pottery is too expensive for most people and they buy cheaper ware, made in other places.

Robert Carr

Communities left out of local planning decisions

Strong and prosperous communities, the government's Local Government White Paper places a new duty on Local Authorities to ensure the participation of third sector organisations in developing cohesive communities and responsive services. Heritage Link points out that people already spend thousands of hours responding to local government

consultations about local planning issues on development and the local environment.

This is the subject of Heritage Link's report, *Making Consultation Matter*, promoting community involvement in local planning authority decisions. The report shows heritage groups are confident in their ability to play a positive role in the planning process and that their participation can make a real difference to the quality of decisions and the future environment. It also reveals serious shortcomings in local consultations and the need for local community groups to make their voices more effective.

If constructive participation is to be realised through this White Paper, the issues arising from planning consultation experience need to be addressed. Heritage Link calls on local government to invest in and improve consultation standards and practice to exploit the wealth of expertise, experience, local knowledge and civic pride that make national and local groups such a valuable resource.

With this White Paper, further land use planning reforms in the offing and the Heritage Protection White Paper this winter, the pros and cons of public participation have never been more topical. Numerous Government statements suggest a commitment to the concept but Heritage Link's research gathered through nearly 200 local groups indicates serious concerns that local planning authorities lack the staff, skills, capacity and experience to deal effectively with Government expectations for community involvement. Targets for handling planning applications and listed building consent applications are driving the speed of decision making but not necessarily their quality. The potential benefits of consultation are less than optimal because the capacity and resources of heritage groups often lag behind their aspirations.

Heritage Link's Chairman, Anthea Case, says: 'The country is fortunate in having a lively and enthusiastic network of community groups to stand up for our heritage and the local environment. Heritage Link urges central and local government to involve them more in the planning decisions that affect all our lives.'

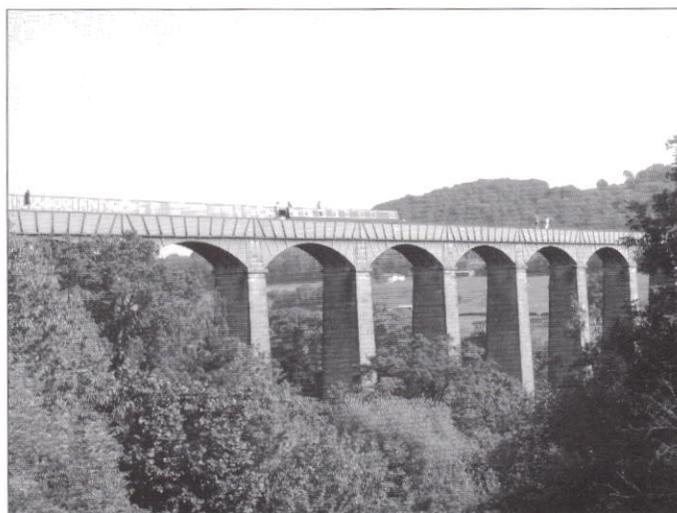
Heritage Link (www.heritagelink.org.uk) was set up in 2002 by

national heritage groups in England to promote the central role of the voluntary movement and to make their voice heard collectively and coherently. Contact: Kate Pugh, Secretary, Heritage Link, 89 Albert Embankment, London SE1 7TP. Tel: 020 7820 7796, Fax 020 7820 8620, email kate.pugh@heritagelink.org.uk
Heritage Link

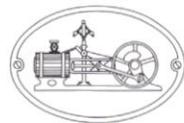
International importance of Pontcysyllte Aqueduct

Telford and Jessop's great 200 year old canal aqueduct is 127 feet (39 metres) high and over 1,000 feet long. It is still the highest ever built. Tom Rolt's pioneering journeys up the Llangollen Canal to the aqueduct were one of the events that led to the establishment of the international waterways restoration movement.

There will be a conference at the Ramada Plaza Hotel, Wrexham, on 10-12 June 2007, in the year of the 250th anniversary of the great engineer Thomas Telford's birth. This will review the research done since the aqueduct's bicentenary in 2005 examining the case for World Heritage Nomination of the Llangollen Canal and its innovative aqueducts and engineering. This event will be held on and around the Pontcysyllte Aqueduct and the adjoining heavily engineered Llangollen Canal with its tunnels and innovative aqueducts taking the waterway through the picturesque hills and mountains of the Welsh borderland. The context of the World Heritage Canals study of The



The world-famous Pontcysyllte Aqueduct will be the centrepiece of an international conference in June
Photo: Peter Stanier

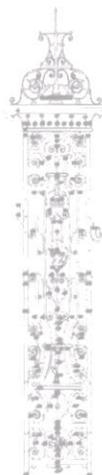


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International Committee for the Conservation of the Industrial Heritage (TICCIH) and The International Committee for the Conservation of Monuments and Sites (ICOMOS) will form the background for this event.

Organised by Wrexham Borough Council and the Royal Commission on the Ancient and Historical Monuments in Wales as

the first Conference of the new UK Board of TICCIH, held in association with the Institution of Civil Engineers' Telford's 250 anniversary celebrations and as a preliminary event for the 2007 International Canals Conference in Liverpool hosted by the Inland Waterways Association. This will be the launch conference for the nomination of the Pontcysyllte and Chirk Aqueducts and the adjoining 8 mile length of canal for nomination as a World Heritage Site. Chairing the Sessions and giving talks will be Eusebi Casanellas, President of TICCIH; Gordon Masterton, President of the Institution of Civil Engineers; Sir Neil Cossons, Honorary President of TICCIH; Stuart Smith, Secretary of TICCIH; John Hume, Chairman RCAHMS; Peter Wakelin, Secretary RCAHMMW; Barrie Trinder; Miles Oglethorpe; David Gwyn; David Edwards-May; Ron Fitzgerald, John Rodger, Chris Pound, Stephen Hughes, Peter Birch and Susan Fielding. There will be boat trips and walks along the canal and over the aqueducts. A variety of accommodation and charges are available. Further details from kay.rickard@wrexham.gov.uk.

Back to back houses - another award

The restored back to back houses in central Birmingham won the prestigious BAA Heritage in Britain Award in 2004. Recently a bronze plaque was presented to this innovative scheme by Sir Christopher Audland, honorary president of Europa Nostra. The back to backs, the last such remaining courtyard in Birmingham, have won a European Union Prize for Cultural Heritage - Europa Nostra Award.

Following the slum clearance of last century, back to back houses are now very rare in most cities and not that many people know what they are. They often think of terraced housing which is commonplace. The courtyard and three back to back houses at 50-54 Inge Street and 55-63 Hurst Street, Birmingham B5 were preserved and opened to the public in July 2004. Built 1802-31 they are listed grade II. Knowledgeable local guides lead first-rate visits round the premises and can be highly recommended. The houses included in these visits are restored to the periods 1840s, 1870s and 1930s. You also see the communal washhouse and a toilet. Telephone 0121 666 7671 to book a tour. It is also possible to stay overnight here in three houses restored to different periods - a real heritage experience.

Robert Carr

From steel to watercross

Steam enthusiasts have acquired a 40-tonne locomotive from the Zenica Steelworks in Bosnia, where it worked for some 50 years. After restoration it will be operated on the Mid-Hants Railway, affectionately known as the Watercross Line.

Generating news

Dungeness A in Kent and Sizewell A in Suffolk, two first-generation Magnox nuclear power stations were shut down on New Years Eve, having been operational since the mid-1960s. The B stations on each site remain in service. Meanwhile, London's iconic Battersea power station, which has been in a poor condition while awaiting redevelopment since closure in 1982, has been sold for a reputed

£400m. Flats, shops and a leisure complex are planned and a £90m regeneration project has been approved by Wandsworth Council.

King Edward's open day

The King Edward Mine Museum just to the south of Camborne in Cornwall, is holding its Open Day on Sunday 29 April 2007, with free entry. Well signposted, it is located on the famous Flat Lode in the new World Heritage Site area. The museum houses almost unique tin processing plant, including the only set of working Californian Stamps in Europe and one of only two Cornish roundframes left in the world. These, and the 1907 horizontal steam winding engine, now relocated back on the original foundations will all be working at different times during the day. Additional attractions include the Great Flat Lode Pasty Race, music from the Helston School Jazz Orchestra, entertainment for children, vintage vehicles, static displays and food. See the website: www.kingedwardmine.co.uk

National Gas Museum Trust

The National Gas Museum Trust was formed in 1997 to safeguard the gas industry's collection of historic artefacts, many of which had been on display in museums run by the former regions of British Gas. One of these museums, the John Doran Museum in Leicester, is still in operation, but much of the collection is currently in store at the Science Museum's site at Wroughton in Wiltshire. With funding from the Heritage Lottery Fund and various companies and other organisations in the gas industry, the Trust has embarked on a 12 month project, in partnership with Leicestershire County Council, to sort and catalogue its collection and provide 'virtual access' to some of it via a new web site. This is envisaged as the first step in a long term plan to safeguard what is considered to be the most important collection of gas industry artefacts in the world and to display some of the items at Leicestershire County Council's Snibston Discovery Park. For more information, contact Ian West or Vanessa Tipton on Tel: 01530 278444 or e-mail: iwest@leics.gov.uk



Shaking table and round frame in the tin processing mill, King Edward Mine

US bridge restoration

The Old US 80 Bridge (Gillespie Dam Bridge) located on the Gila River, southwest of Phoenix, Arizona, is owned by the Maricopa County Department of Transportation (MCDOT). The local government agency is planning to restore it and is preparing consultation documents for the Arizona State Historic Preservation Office. The agency will be working with the SHPO, interested parties and the public to develop a quality restoration project. Designed by the Arizona Highway Department and constructed in 1926-7, its series of spans totaled 1660 feet long and at the time it was the largest steel structure in the state. It carried US-80's traffic until 1956 when US-85 was completed. The Gillespie Dam Bridge was entered in the National Register of Historic Places in 1981. It is still open to traffic.

Brian Kenny, MCDOT

Cuts on the cut

Last autumn many narrowboat owners joined a mass floating protest over planned cuts in the government's grant to British

Waterways, in places as far apart as Gloucester, Birmingham, the West Midlands, Manchester and London. The Save our Waterways campaign fears the cuts will result in job losses and affect the maintenance of the canal system. Much of what has been achieved in the last few years will be in jeopardy. Meanwhile, a planned £86 million restoration of the Shrewsbury and Newport Canal has apparently not received the full backing of Telford & Wrekin Council, unlike Shropshire County Council, Shrewsbury & Atcham, Stafford Council, and Staffordshire County Council. If it were to go ahead the scheme might generate some £4m a year for the local economy.

Isle of Man steam ships

Captain Jack Ronan, the retired Steam Packet captain who spoke to us at the Isle of Man Conference 2006, has asked that we correct a couple of dates in Roger Ford's report in *IA News 139*. The Steam Packet Company came into business in 1830, hence the fuss for the 175th anniversary in 2005. 1815 was the date the first steam ship was sighted in Manx waters.

Yorkshire and Humberside

While Saltaire and a few other outstanding textile sites have found a new identity in the heritage sector, the many other textile mills across the West Yorkshire landscape have faced a long and difficult period of change. A few remain in use but many have been demolished, and others have stood empty for long periods or provided low cost accommodation for marginal businesses which could not look after them. The 1992 RCHM(E) report *Yorkshire Textile Mills 1770-1930*, by Colum Giles and the late Ian Goodall, encouraged interest in them, and a good number have been listed. The pressure of development, and in particular the demand for land for housing, means that demolitions continue, but also that developers are now readier to consider a conversion to apartments or offices, particularly for listed mills in reasonable condition. When changes are made, whether demolition or conversion, it is now common for the West Yorkshire Archaeology Advisory Service (WYAAS), like others elsewhere, to recommend building recording and archaeological work where appropriate. This throws light on the successive stages in the development of the older sites, the adoption of new sources of power, and early examples of gas production or electricity generation.

Among recent examples, the nineteenth-century Shaw Lodge Mills, Boyes Lane, Halifax, are still an active textile mill but a ten year plan has been prepared for redevelopment and the creation of an urban village. It covers the scheduled remains of the associated gas works and an 1895 extension of the 1855 engine house for a dynamo to provide electric power. The WYAAS recommended that the plans should be changed to retain this. The grade II listed Woodhouse Mill, at Steeton near Keighley, dates from the early nineteenth century and includes the remains of two 1810s waterwheel pits, two beam engine houses (1840s/50s), a mid-nineteenth century retort house for gas production, and a 1904 horizontal engine house. The WYAAS recently recommended archaeological recording of the retort house.

Stonebridge Mills, Leeds, also grade II listed, were established in

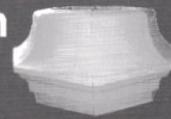
the early 1800s and retain small loomshops for handloom weaving as well as later single storey sheds for power weaving. The WYAAS recommended building recording and revision of the development proposals to involve less demolition. Planning permission has been given for Winker Green Mill, Armley, Leeds, to be converted to 101 flats and a cafe-bar. The site dates from the early 19thC and the present mill from 1824 with later changes. Much of Folly Hall Mills, St Thomas Road, Huddersfield, has been demolished. The larger of the two surviving buildings dates from the origin of the mills in 1825. It was rebuilt after a fire in 1844 but includes much of the original engine house, and is listed grade II*. The WYAAS recommended recording and the preservation of the engine house remains.

The West Riding was a major centre of the tanning industry from at least the sixteenth century, and Leeds was second only to London as an industrial leather producer in the nineteenth century. An excavation by ARCUS, the University of Sheffield's archaeological consultancy, has unearthed the remains of a tannery including ten tanning pits in the Westgate area of Wakefield, and it is hoped that something can be preserved in the arts centre being built on the site. Researchers from the University of Bradford School of Management have set up a website (www.bradford.ac.uk/pittards) to chronicle the history of Pittards from its origin at Yeovil, Somerset, in 1826, to recent times when, having acquired the Leeds firm W. H. Miers in the mid-1970s, it produced high quality leather for luxury goods, fashion accessories and sports equipment. Its decision to close its Leeds factory on the Cross Green industrial estate and transfer work to Yeovil and to a subcontractor in Asia led to the study which is recorded on the website.

A glass industry developed in South and West Yorkshire from the seventeenth century after coal replaced charcoal as fuel. An important site is the scheduled Bolsterstone Glasshouse near Stocksbridge, excavated in the 1980s by Denis Ashurst who found evidence of waste heat recycling in the flues (now reburied) beneath the long gone furnace. The Glasshouse has been on the English Heritage

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(EH) Buildings at Risk Register, but has now been restored with a £85,000 EH grant and will be used for storage.

The Heritage Protection Review study by EH of Darnall Steelworks, Sheffield, was outlined in an article by Craig Broadwith, Principal Conservation and Design Officer, Sheffield City Council, in the Summer 2006 Conservation Bulletin. It was the only pilot study concerned with an industrial site. Conservation work is being funded by £1.4m from the European Regional Development Fund and £300,000 from EH, and has begun in the part of the site occupied by the laser cutting firm Mayflower Technology. Their offices are now in the listed 1913 steel and concrete Heat Treatment Building, which has been given an external cladding to protect the decaying concrete. Rubbish has been cleared and preparatory work begun at the 1871 48-hole crucible steel melting shop, the largest surviving in Britain, and the adjoining range of smaller crucible shops; the whole group is scheduled. On the other part of the

site, excavations by ARCUS found a lot of glass waste but no structural remains of the late eighteenth century Attercliffe Glasshouse. The listed 1871 gate lodges and manager's house are being repaired, while the other listed 1913 steel and concrete building, the Machine Shop, awaits attention.

While melting ended in July 2005 at CORUS's Stocksbridge Steelworks, billet rolling was stopped for a short while and then resumed, and it seems likely to continue for some time, partly as an indirect result of the transfer of rail rolling from Workington to Scunthorpe. Eckland Bridge Works at Millhouse Green near Penistone, where Hoyland Fox made wire and umbrellas until recently, is being demolished for a housing development after building recording and archaeological work. The site began as a water powered paper mill in the eighteenth century. From 1875 it was used by William Hoyland, who had been company secretary at Samuel Fox's Stocksbridge steel works, to make the Flexus umbrella frame with

spring steel ribs which he had invented. The firm has moved to a new factory at Goldthorpe. MAGNA, the science adventure centre in the former Templeborough steel works, Rotherham, has opened a new attraction called Living Steel, an interactive exhibition based on the memories of former steelworkers, some of whom now show visitors round.

Braime's Pressed Steel Works at 153-5 Hunslet Road, Leeds, has been listed grade II. It was built in 1911-13 and has a terracotta front. The firm was founded in 1888 to make oil cans, and later produced other pressings. Its work in World War I qualified it for an armed police guard. An earlier site from Leeds' engineering history is Midland Mills in Silver Street, where textile machinery was made from the early nineteenth century and many surviving buildings date from the 1810s. It is listed grade II and WYAAS has recommended that more of the buildings should be kept in a proposed redevelopment and that there should be archaeological recording.

In Sheffield Butcher Works, an 1820s/50s cutlery and edge tool works in Arundel Street, listed grade II*, has been converted to apartments and three-quarters of the first phase was let in the first hour. It seems unlikely that it will be used any more as a Dickensian film set. The last phase of the Five Weirs Walk along the Don from central Sheffield to Meadowhall has been completed, using a Bailey bridge moved from a sawmill not far away. The name of the Walk refers to the weirs that fed water to local industries, while the Bailey bridge was designed by Sir Donald Bailey from Rotherham, where another example stands in memory of him. There is concern about the future of Whirlow Wheel, one of the few surviving water powered cutlery and edge tool grinding wheels in Sheffield. It stands on the Limb Brook, on the southwest edge of the city. Unusually for Sheffield, the waterwheel was replaced in 1901 by a turbine, which is still there but unused. The building dates from 1803, on an older site, and has long been used as a park store. Now it is suffering from vandalism and decay, and there is no money for repairs.

Production ended at Doncaster's last working colliery, Rossington, on 31 March, but work

is in hand to reopen another Doncaster pit, Hatfield, by driving down from the High Hazel to the Barnsley seams. This is a joint venture of KRU, Russia's second largest opencast mining firm, and former UK Coal chief Richard Budge. The target is to produce coal by January 2008. Philford Engineering, Rotherham, one of the few surviving mining engineering firms in Yorkshire, is building the heavy duty conveyors for the project.

Howsham corn mill on the Derwent between Malton and York did well in the latest series of the BBC's 'Restoration'. The strong community involvement in its restoration impressed viewers, as did its Gothick architecture of c1755. While it did not win, the publicity should help it to find funding elsewhere. The water corn mill at Crakehall near Bedale in North Yorkshire, which has opened to the public for some years, has regrettably closed. The WYAAS recommended archaeological recording before demolition for two eighteenth century water corn mills near Leeds, Horsforth corn mill in Millbeck Park and Collingham Old Mill (where the waterwheel survived). Worsbrough Mill near Barnsley continues to be open to the public. It has its first woman miller, Catherine Roebuck, and there are

plans to resume producing flour. There is an ambitious scheme to put a large new waterwheel in the wheelpit of the Britannia Corn Mill (demolished in 1975) close to Kelham Island Museum in Sheffield, to generate electricity.

A feasibility study by consultants Atkins has recommended the restoration of the greater part of the Barnsley and Dearne and Dove Canals to give a through route between the Calder and the Don. Parts, mainly on the Dearne and Dove, will be on new alignments. Barnsley MBC planning officers are supporting the inclusion of the scheme in the new Local Development Framework, and Wakefield MBC is encouraging, but Rotherham MBC sees difficulties over the new line in its area. The Standedge Visitor Centre at the entrance to Standedge Tunnel at Marsden on the Huddersfield Narrow Canal reopened last summer, but it closes in the winter. There are displays about the history and restoration of the canal, and boat trips into the tunnel, which is the longest on a British canal.

The Middleton Railway has been given a £730,000 Heritage Lottery grant to develop a new visitor and resource centre at Moor Road, Leeds. The National Railway Museum has successfully bid for

£995,000 from the Heritage Lottery Fund for the Search Engine project. This will create a National Centre for Railway Knowledge, based on the present library and archive and open to the public without prior appointment, and a Railway Community Archive to collect the stories of railway families and give access to oral history and moving images in audio-visual booths. Because of the work involved the existing Research Centre will be closed until next autumn.

Derek Bayliss and David Cant

East Anglia

This year, the East of England IA Conference was held at the Museum of Fenland Drainage at Prickwillow in Cambridgeshire. The turnout on a beautiful day was good, and the programme went down well. It included talks on the wind and diesel powered eras of Fen drainage, running of some of the museum's fine collection of diesel engines used for pumping, and a walk along the River Lark to see the remains of both wind and diesel powered sites. Staying with the Fens, the problem with the jammed scoop-wheel at Stretham Old Engine, mentioned last year, has been resolved with the help of the Waterbeach Land Drainage Board. The Board dredged

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Cumbria, Northumberland, Tyne and Wear, Durham and Cleveland
Graham Brooks, Coomara, Carleton, Carlisle, Cumbria CA4 0BU

Region 4: YORKSHIRE AND HUMBERSIDE

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Devon and Cornwall
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the dyke and pumped out the scoop wheel race, thus enabling the removal of timber jamming the wheel, but it was also found that a steel plate had collapsed, and the board has promised to deal with this.

In Cambridgeshire generally, the proposed guided bus system along the route of the defunct Cambridge to St Ives railway is going ahead, with the consequent demolition of some of the remaining railway buildings and structures. Redevelopment plans for the Foster's mill site beside the railway station in Cambridge include flats in the fine mill building, and somewhat improbably a Heritage Centre in the silo. The future of Hauxton Mill, the last working commercial watermill in Cambridgeshire, is uncertain but it still contains its machinery. At the Cambridge Museum of Technology the boiler repairs have been completed and the engines were steamed again in August. The collection of material from the Cambridge Instrument Company (Pye) is steadily being augmented.

The Historic Environment Branch of Essex County Council has completed its 17th thematic comparative survey of Essex historic industrial monuments, of workers' housing built by industry (see page XXX for a fuller account). Although most dates from the mid-nineteenth century, there are eighteenth and early nineteenth century examples at sites such as Mistley Quay and Waltham Abbey Gunpowder mills, and mid-twentieth century examples from Waltham Abbey again and the water industry. Industry-run housing is now rare, though one survivor is the jam factory at Tiptree. The most important sites are probably the planned towns at Harwich (G.E.R.), Silver End (Crittall Windows) and East Tilbury (Bata shoes), the latter two being interwar. In most cases the housing survives the industries and their buildings, but private ownership inevitably affects the coherent appearance of an estate. The next two surveys will be of water and steam mills and railway buildings. If only other counties would follow the Essex example of thematic surveys, the industrial archaeological record would be in a much better state. Sadder news is that at the site of the world's first radio factory, Marconi's in Chelmsford, only the office block is

listed and the rest is likely to be cleared

At Gunton Sawmill in Norfolk, where in 2005 rot got a hold in a beam supporting one of the main bearings and the saw could no longer be safely operated, work over the winter enabled demonstration sawing to recommence in May. As no millwright was available, the work was done very adequately by a local carpenter, and it now runs more smoothly than before. The mills trust continues its good work, with Polkey's Mill at Reedham nicely restored, including the water channels and scoop wheel. Fakenham Gasworks has seen a doubling of visitor numbers, though still only just below 1000, but it soldiers on with good volunteer support. Despite its listing, the early nineteenth century textile mill at the core of Read's Flour Mill has acquired an inappropriate penthouse in the course of its conversion to flats. There is concern for the Laurence Scott Electromotors site, with virtually no protection even for the interesting 'Gothic' railway frontage, and also for the New Mills air compressor station, the future of which remains very uncertain, despite its unique machinery in pretty good condition. At the Gressenhall Museum, it is hoped to overhaul the boiler so the steam engines can be run again, and the building holding the steam laundry is being restored, so the plant (mostly 1940s/50s) can be on show. Sadly, attitudes towards Norwich's industrial past are too well revealed by an exhibition at the Castle Museum on shoes which failed to mention that Norwich until recently housed a major shoe industry, and one not yet dead. Certainly the surviving factory buildings have very little statutory protection.

In West Norfolk, there has been an interesting conversion of the lighthouse and coastguard tower at Hunstanton. All of the flax factory built on the Sandringham estate during the Second World War has been demolished with the odd exception of a rather scruffy corrugated iron store. Within Kings Lynn virtually all the medieval warehousing is now converted to residential or office use, and the Savage's site is totally cleared. However, some industries survive: fishing boats still moor in the Fisher Fleet at Kings Lynn, though there are

problems of a conflict of interest between the fishermen looking for cockles and mussels and English Nature which is concerned for Eider Duck which frequent the sands. Carr-stone is still being quarried in the Heacham area, and the local lavender growing and processing industry flourishes. The large Eagle mill at Downham Market, is probably the last mill built for steam still producing flour in the Eastern region. More encouragingly, there has been restoration work on some of the local icehouses, if only to help the bat population.

In Suffolk, the Ipswich branch of the Inland Waterways Association won the AIA's Dorothea Conservation Award for their restoration of Creeting Lock on the Gipping. They took a lot of trouble to retain the original appearance while making the lock usable. The steam drifter *Lydia Eva* has now all the funds to commence work, including a Heritage Lottery grant of £839,000. She will be restored to full steaming order, which should enable her to return to her original home at Great Yarmouth, occasionally at least. Work will include a museum in the fish hold. It is hoped the work will be completed by the early summer of 2008. Much more problematic is the Tolly brewery site on Cliff Quay in Ipswich. Since the museum failed after losing the contract to brew beer for other companies, the brewery has been in limbo. It is too inaccessible to run as a museum on its own, and conversion for housing is prevented because it lies next to an oil depot, quite apart from the fact that all the interior plant is listed along with the building. However, Ipswich Borough Council has been investigating development funding for re-opening it as a brewery. More cheerfully, a former cabmen's shelter severely damaged in an arson attack has been restored and returned to Christchurch Park.

At Felixstowe the roller mill and the seaplane hangar still stand, but seem to be doomed by the port's expansion plans described last year. As always the Suffolk Mills Group have been hard at work, with repairs to the post mill at Drinkstone well in hand, and Stansfield tower mill given a simple roof and made watertight. Although Pakenham watermill has had a good season with increased visitor numbers and sales of stone-ground flour, there

are problems with the pond leaking into the meal floor, and cracks in the spokes of the spur wheel. Despite withdrawal of County Council funding, the town council has found extra funds to enable Buttrum's Mill in Woodbridge to open again in 2007. Anyone in the area really should visit this magnificent example of what was cutting edge technology in the 1830s.

Sources of information include Suffolk IAS and Norfolk IAS newsletters, Suffolk Mills Group Newsletter, Ken Alger, Peter Filby, Adam Gold, Keith Hinde, Derek Manning, Tony Vine and Steven Worsley. The use I have made of it is my responsibility.

David Alderton

West Midlands

Two headline-grabbing stories relating to the food industry have featured prominently in the West Midlands during 2006. Firstly, it was announced early in the year that the HP Sauce factory, located in Aston in north Birmingham, was to close with production transferred to Holland and the loss of just over 100 jobs. Seen as something quintessentially British, with the Houses of Parliament on the label, HP Sauce and its predecessors have been made in Birmingham for a century or more, so could not be allowed to be made abroad without a fight! Academic and professional Brummie Carl Chinn spearheaded a vociferous press and media campaign against the closure. A bottle of HP was, perhaps inevitably, brandished in the House at Prime Minister's Question Time, and a boycott of all Heinz products was threatened (Heinz having recently purchased the HP factory from Danone). All to no avail, however, as the final outcome is that the plant will cease production in early 2007, and the factory will no longer be a landmark for those who dare to take their eyes off the road when dashing up or down the Aston Expressway.

A similarly vocal campaign was mounted in Shropshire against the closure of the Allscott Sugar Factory. Opened in 1927, as part of the rapid growth in the sugar beet industry following the shortages experienced in World War I, it was built in open countryside just west of Wellington, and has become a familiar reference point for walkers on top of the nearby Wrekin hill. Adjacent to the

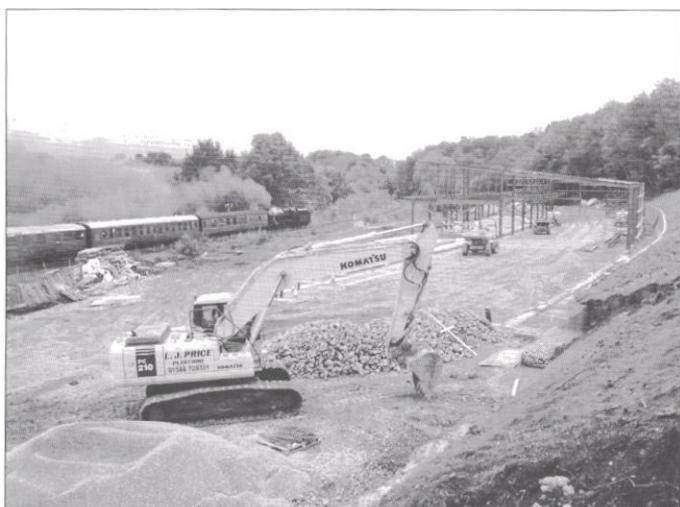
Shrewsbury to Birmingham railway line, it formerly had its own private sidings and locomotives. Latterly, all deliveries of sugar beet have been by road, and protestors have pointed out how dependent large numbers of Shropshire farmers have become on growing sugar beet for



Allscott sugar works, just west of Wellington, Shropshire, in the 1950s. It is to close following the 2006/7 winter campaign
Photo: Ironbridge Gorge Museum Trust



Thomas Telford's first iron bridge (1796) at Buildwas, Shropshire, has since been replaced (twice!) but many of his works survive nearby. The 250th anniversary of his birth will be commemorated in 2007
Photo: Ironbridge Gorge Museum Trust



The Severn Valley Railway's new locomotive storage building at Highley takes shape towards the end of 2006
Photo: John Powell

their livelihood. Again, protests have been to no avail and, following the closure of the slightly earlier (1925) Kidderminster factory a few years ago, the end of the current Allscott campaign will see the sugar industry disappear from the area all together.

Close to the Wrekin and the sugar works is the old A5, still known locally as the Holyhead Road, a reminder of the close association that the civil engineer Thomas Telford had with this locality. He was Surveyor of Public Works for the County of Salop from 1787 until his death in 1834, and it is because of this close local association, and the Holyhead Road in particular, that the nearby Dawley New Town was re-named Telford in his honour in the late 1960s. Numerous examples of his work, including bridges, churches and, of course, Longdon on Tern Aqueduct survive in the vicinity. 2007 marks the 250th anniversary of Telford's birth (in Scotland in 1757) and will

see a number of events, lectures, exhibitions, etc. throughout England, Wales and Scotland to commemorate this. Though not on the scale of Brunel 200, it is hoped that the celebrations will do something to re-establish the reputation of this remarkable engineer and draw the public's attention to his many fine achievements.

2006 has been another good year for the Severn Valley Railway. Not only have they succeeded in completing the impressive overall roof at their Kidderminster terminus, but rapid progress is also being made with their new locomotive storage shed / museum at Highley. When completed, this will provide much needed under-cover storage facilities for locomotives awaiting boiler renewals, etc., and will at the same time allow access to the visiting public.

John Powell

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Ironbridge Roads Weekend

This year's Ironbridge weekend, 14-15 April, is on the topic of Roads: Characteristics and Forms of Transport.

Full details and a booking form are enclosed with this mailing.

Ray Riley, Affiliated Societies Secretary

AIA Annual Conference 2007

The 2007 annual conference of the AIA will be held in Preston at the University of Central Lancashire. The main conference will be from Friday 10 to Sunday 12 August with the additional programme extending to Thursday 16 August.

Details are enclosed with this mailing.

John McGuinness

New members

The AIA welcomes the following new members:

A. R. Baker, Poulton-le-Fylde
 Dr W. Barr, Glasgow
 A. Blunt, Kenilworth
 A. Boucher, Hereford
 E. G. and A. H. Brown, Radstock
 N. Buchanan, Wigan
 S. Burke, Perth, Australia
 I. Cases, Caveirac, France
 N. Cole, Leeds
 E. J. H. Coulson, Reading
 M.J. Davies, Douglas, Isle of Man
 T. Davies, Machynlleth
 J. Edgar, Townsville, Australia
 Dr W. Freer, Ashby de la Zouch
 R. S. Galloway, Kidderminster
 S. Hallam, London
 B. Halter, Letchworth
 J. Hind, Thame
 D. Hodgkinson, Stoke On Trent
 K. Hollamby, Lincoln

H. Harnow, Odense, Denmark
 Dr A. Horning, Leicester
 R. P. Israel, Bath
 R. Jackson, Bristol
 S. James, Hemel Hempstead
 O. Jessop, Sheffield
 C. Jorgensen, Copenhagen, Denmark
 C. S. Kulicke, Fort Washington, USA
 W. J. Mason, Chorley
 Dr I. Mellor, Hemingbrough
 P. Payne, Ulverston
 T. J. Peters, London
 J. Phimester, Eynsham
 R. Pomfret, Omskirk
 R. Pressland, Charfield
 M. Ramirez, Lepe, Spain
 Dr C. Rayne, Cork, Republic of Ireland
 T. Roberts, Sheffield
 Dr A. Spurgeon, Malvern
 Dr D. Watson, Marlborough
 C. Whincup, Lancaster
 A. Wright, Ilkley

LETTERS

Locked in a paradigm

When I wrote my letter which was published in *IA News 136* (Spring 2006) under the title 'Our fascination with machines' I hardly expected to find myself being cheered, indeed I thought some people might wish to boo me instead. Nor, having made my point, did I really want to come back again. However, Audrey Horning's review of 'Industrial Archaeology: Future Directions' in the latest issue of *Industrial Archaeology Review* (Vol.28, No.2, November 2006, p123) does prompt a couple of reflections.

First, the story behind my focusing on the word 'antriumphalist' is more amusing than she probably imagines. When I first read it I did indeed read it as 'anti-triumphalist', but to be honest I did not think I was interested in writing such narratives, nor indeed the implicitly criticised 'pro-triumphalist' narratives. It was only when I went back to check the reference that I found that it actually said 'antriumphalist'. I had noted the number of typos in this book, and indeed the incorrect captioning of the cover photographs, but I was now faced with a dilemma, was this a typo or was it a piece of esoteric verbiage? Eventually I decided for the latter.

Secondly, I do have now to put in a word of support for the book. Audrey Horning is no doubt correct that the hardback edition is exorbitantly priced but there is in fact a paperback edition, mine cost me £21.78 plus postage from www.amazon.co.uk. So if you want to see for yourself what all the fuss is about you can do so without having to take out a bank loan.

Finally, I do have to say that some people will be horrified to learn that, rather than moving from the technological to the social, I have recently been moving in the opposite direction by perusing the report of the 1833 Factory Commission into the employment of children to find what it can tell me about the structure of early weaving mills. And it contains some very interesting data. So I remain

an unrepentant technocentric, but I deny being locked in a paradigm, which sounds a most unpleasant thing to happen to anybody, Thomas Kuhn has a lot to answer for.

Roger N. Holden

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The three-generation paradigm

A number of authors have taken of late to referring to a three-generational paradigm for English industrial archaeology. According to this model, the base-line first generation industrial archaeologist is Neil Cossons, while earlier practitioners, like Rex Wailes, Tom Rolt or George Watkins, are pre- or proto-industrial archaeologists. Michael Rix, who burdened us with the title of industrial archaeology in the first place, is a mythical character akin to Adam or the Fisher King.

The second generation comes with the real archaeologists, like Marilyn Palmer and David Cranstone, who brought conceptual frameworks, research agendas and rigour from the university archaeology departments. There is a simple self-assessment test to know if you belong to the first or the second generation which involves looking at a mirror and saying 'post-processual'. Hesitation or lipping means you're definitely 1G.

Identifying members of the third generation is trickier, and to me it starts to look rather less like a generational paradigm - later ones learn from but kick earlier ones - and more like a schools paradigm, rival centres of opinion, in Leicester, Manchester, Sheffield or Exeter, competing to impose their perspectives.

Either way it is part of a climate of discussion that makes British industrial archaeology more stimulating than anywhere else at the moment, and the AIA can take considerable credit for that.

James Douet

Editor TICCIH Bulletin

Barcelona

Demolition of post-war buildings

In *IA News 139*, page 17, Graham Thorne mentions the plight of unlisted post-war buildings in central Plymouth, famous for its post blitz reconstruction and modern city centre. This is a serious matter. The precarious position of 50 year old planned city centres has been graphically demonstrated by recent events in Bristol where a large amount of demolition has taken place; here mostly buildings from roughly the 1960s or early 1970s were destroyed. A block near Broad Quay, just to the east, is/was about to come down and a large area on the south side of Bond Street/Newfoundland Street has been cleared. Although no doubt generally unloved, is anyone taking an interest in these structures? This is the kind of thing younger members might be encouraged to do.

The buildings of the present time, now being erected in large numbers in all our cities, are steel and glass, just as much as 1960s buildings were predominantly concrete. Bristol is only getting the same treatment as most UK cities. The Colston Tower, however appears to be a re-clad building - it looks like an early 1970s block recycled. Some recycling does take place.

At a meeting in Birmingham in April 2006 a fairly elderly lady asked about 'Future Heritage'. What about the future? Who is looking after future heritage - that which we will leave to future generations? This is an even more daunting question.

Things move on apace - not long ago we were bemoaning the loss of Victorian buildings. The general public, and especially the car-bound who tend to be excluded, are probably not that aware of what is happening in town centres.

Robert Carr

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

Berkshire Industrial Archaeology Group News, 10, Autumn 2006
Brewery History, 122, Spring 2006
Brewery History Society Newsletter, 35, Spring 2006
Bristol IA Society Bulletin, 118
Cumbria Industrial History Society Bulletin, 65, August 2006
Cumbrian Industrialist, Volume 6, 2006
English Heritage Conservation Bulletin, 52, Summer 2006
Greater London IA Society Newsletter, 224, June 2006; 225, August 2006; 226, October 2006
Hampshire IA Society Focus on Industrial Archaeology, 66, June 2006, 67, December 2006
Hampshire IA Society Journal, 14, 2006
Hampshire Mills Group Newsletter, 72, Spring 2006
ICE Panel for Historical Engineering Works Newsletter, 110, June 2006, 111, September 2006
Industrial Heritage, 32/1 Summer 2006, 32/2 Autumn 2006
Industrial Heritage Association of Ireland Newsletter, 26, February 2006; 27, July 2006; 28, October 2006
Journal of the Norfolk IA Society, 8/1, 2006
Manchester Region IA Society Newsletter, 117, August 2006; 118, October 2006
Merseyside Industrial Heritage Society Newsletter, 269, October 2006
The Mole – Newsletter of Friends of Williamson's Tunnels, 17, June 2006
Museum of Bath at Work Newsletter, Summer 2005; Autumn 2005; Spring 2006; Autumn 2006
Piers: the Journal of the National Piers Society, 80, Summer 2006
SAVE Britain's Heritage Newsletter, May 2006
Search: the Bulletin of the South Wiltshire IA Society, 84, September 2006
Somerset IA Society Bulletin, 101, April 2006; 102, August 2006
Suffolk IA Society Newsletter, 94, August 2006; 95 November 2006
Surrey Industrial History Group Newsletter, 152, July 2006; 153, September 2006; 154, November 2006
Sussex IA Society Newsletter, 130, April 2006; 132, October 2006
Sussex Mills Group Newsletter, 130, April 2006; 132, October 2006
TICCIH Bulletin, 33, Spring 2006
Trevithick Society Newsletter, 121, April 2006
Waterfront, 13, Autumn/Winter 2006
WaterWords: News from the Waterworks Museum, Hereford, Autumn 2006; Winter 2006
Welsh Mines Society Newsletter, 54, Spring 2006; 55, Autumn 2006
Worcestershire IA & Local History Society Journal, 30, Summer 2006
Yorkshire Archaeological Society, Industrial History Section Newsletter, 66, Early Spring 2006; 67, Late Spring 2006; 68, Autumn 2006

Books Received

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

Bridport and West Bay: The buildings of the flax and hemp industry, by Mike Williams. Swindon: English Heritage, 2006. 68 pp, 70 illus. ISBN-10 1 873 592 86 8, ISBN-13 978 1 873 592 86 1. paperback £7.99. If ordered through English Heritage Postal Sales (Tel: 01761 452966) quote product code 51167.

An attractive publication highlighting the characteristic buildings of a West Dorset industry which has been continuous since at least 1211. Bridport gained a reputation for making twine, rope, sailcloth, canvas and also nets for the Newfoundland fisheries and much later for sports. Although much declined, activity today includes the manufacture of aviation cargo nets. Despite the development of steam powered mills, covered walks and

warehouses, the traditional hand operated walks and workshops continued alongside for more specialist work. The highly distinctive heritage of Bridport includes the old medieval burghage plots which became long spinning walks, some still surviving as gardens, while the South West Quadrant is said to be one of the

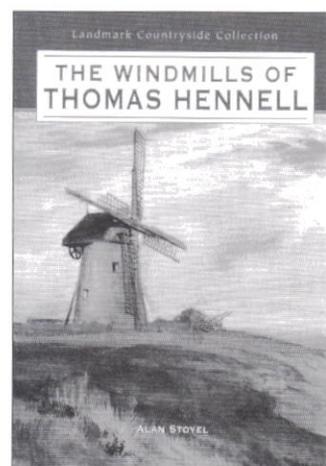
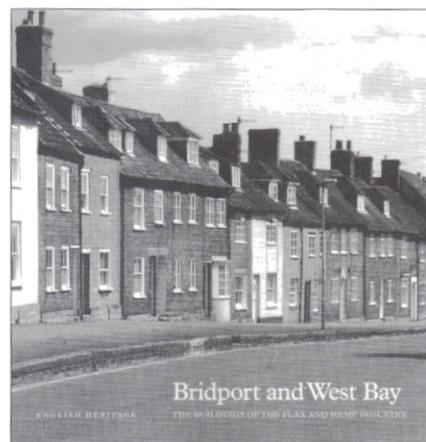
country's earliest industrial suburbs. It developed from the late eighteenth century into an area packed with long rope and net works, covered walks and warehouses. Bridport's harbour at West Bay harbour is also included, where warehouses retain wooden cranes and hoists inside. The book concludes with an examination of the survival and future of the industrial heritage and the initiatives to preserve the distinctive historic areas.

James Watt Volume 3: Triumph through adversity, 1785-1819, by Rev Dr Richard L. Hills. Ashbourne: Landmark Publishing. 2006. 288 pp, 60 illus. ISBN 1 84306 193 7. £26.99.

This last volume of a trilogy, which is the first new biography on Watt for over 60 years, covers Watt's later engine patents, the development of the rotative engine, the calculation of the power of engines, and his involvement with the Cornish Metal Co. in 1785-92. Other chapters include family tribulations, Watt's experiments and manufacture of chlorine and medicinal gases, and the rivals and infringers of his patents with accounts of the trials brought against Bull and Hornblower in the 1790s. We next see the workaholic Watt in retirement when he was interested in steam power for boats, a project for the Glasgow waterworks, Sheerness Dockyard and sculpturing machines such as the 'parallel eidograph' which made multiple copies at the same time. There is a final coverage of his death on 25 August 1819 at the age of 84.

The Windmills of Thomas Hennell, by Alan Stoyel. Ashbourne: Landmark Publishing. 2006. 144 pp, 120 illus. ISBN 1 84306 224 0, ISBN-13 978 1 84306 224 0.93 7. £19.99.

Thomas Hennell, who is also known for his illustrations in *Change in the Farm* (1933), became an official war artist but tragically disappeared in Java late in 1945. He was a close friend of the late Rex Wailes and this unique collection of paintings and drawings of windmills belongs to the latter's family. There are 78 windmills illustrated, mostly in England, but also some in Wales, Ireland and France, and Hennell's sketches capture the details far better than a photograph. The book is aimed at mill enthusiasts as well as those wishing to learn more of the working details. Alan Stoyel has grouped the pictures into chapters covering the windmill in the landscape, harnessing the wind, inside post, tower and smock mills, millstones, sack-hoists and other machines and equipment. He has added informative notes to accompany each illustration, and includes a glossary of windmill terms. A salutary postscript notes that 27 of the mills have disappeared completely and only 25 can be said to remain in a similar condition today.



SHORT NOTICES

Brine in Britannia: Recent Archaeological Work on the Roman Salt Industry in Cheshire (Archaeology North West Vol 7), ed. Michael Nevell & Andrew P. Fielding. Manchester: University of Manchester, 2005. 72pp, illus. ISBN 0 9527813 4 4, ISSN 0962-4201. £10.00.

This booklet falls well outside the archaeology of the industrial period. Nevertheless, salt making, like many other industries, saw steady development rather than revolutionary change from its early pre-Roman origins, and Andrew Fielding's chapter on practical salt-making describes techniques which even in a major salt producing area like Cheshire were fundamentally unchanged in the nineteenth century and can still be seen demonstrated at the Lion Works today. This volume is essential reading for anyone investigating salt production sites of any period, but perhaps especially those working in more remote areas where methods and even scale changed little between the Iron Age and the early modern period.

East Surrey Underground, by Peter Burgess. Crawley: P. Burgess. 2006. 121 pp, illus. £10.50 incl p&p from the author, 8 Trotton Close, Maidenbower, Crawley, West Sussex RH10 7JP.

The author is a leading light of the Wealden Cave & Mine Society and has been actively engaged in researching the mines, underground quarries and other man-made and natural spaces of east Surrey for some decades. Chapters are devoted to safety, sand caves and mines, firestone quarries, hearthstone mines, underground mushroom farms, wartime use, s, deneholes, fullers earth mines, subsidences, swallow-holes, early exploration, rumours, myths and conservation. The book includes a number of photographs, location maps, mine plans, sections and finds. This authoritative book is highly recommended.

Guildford via Cobham - The Origins and Impact of a Country Railway, by Howard Mallinson. Claygate: H. Mallinson. 2006. 278 pp, 227 illus, 16 maps. hardback. ISBN 0-9543934-2-2. £25 + £5 p&p obtainable from the author, 22 Gordon Road, Claygate, Surrey KT10 0PQ.

The railway from Surbiton to Guildford via Cobham parallels the main line via Woking at a distance of no more than five miles. Although it is now very busy with commuter traffic, it was operated at a loss from the time it was opened in 1885 until the house-building boom of the post-WWI era and electrification. Howard Mallinson has studied in detail the circumstances and pressures that led to the construction of the line, its subsequent history from its opening until the present day, and the impact its presence had on the communities and country through which it passed. For many years traffic consisted of agricultural goods, livestock and a few passengers, mainly travelling to London. The landowners' hopes of profitable development of the adjacent land were slowly realised, initially mainly for the building of large houses for wealthy people wanting a country home. Sufficient development to ensure profitable commuter traffic did not begin until the 1920s and '30s, particularly after the line was electrified in 1925. Most of the existing villages on the line expanded greatly, losing their former character, and there was an extensive new settlement at Hinchley Wood. After WWII the establishment of the Green Belt inhibited further development, so that the scenery through which the line passes still justifies its description as a 'country railway'. The traffic was nevertheless sufficient to save the line from the 'Beeching axe' which fell on another country line to Guilford, that from Horsham. The book has been lavishly produced, with many excellent black-and-white and colour photographs. The include illustrations of the line under construction, and in operation up to the present day: but the work is essentially one of social history, particularly in respect of the impact of the line on the countryside and the local communities.

Gunpowder Plots: a celebration of 400 years of Bonfire Nights, by Brenda Buchanan, et al. London: Allen Lane, 2005. 188 pp, illus. ISBN 0 713 99886 5. £14.99.

This is a series of essays on various aspects of the history of celebrating 5 November. Of most interest to the industrial archaeologist is the last essay by Brenda Buchanan on 'Making Fireworks' which is mainly concerned with the techniques and differing types of powder and container needed for

different styles of firework. She looks at how knowledge of the use and production of gunpowder and fireworks was disseminated from China and India to Europe via the Arab world even before the period of direct trade with the Far East. She goes on to look at the development and use of rockets in warfare (and incidentally for life-saving), and at the development of grand firework displays. Interestingly, in seventeenth and eighteenth-century England the same government official was responsible for fireworks for war as well as for celebrations, and only in the mid-nineteenth century was firework production for national events handed over to the private sector, a sector which seems to have been in existence since the sixteenth century despite official prohibition in 1697. However, although Dr Buchanan provides a well researched, coherent and lively account of technical developments and the history of fireworks, there is very little on production methods, plant used, factory design or any of the details useful to the industrial archaeologist with a fireworks factory on his patch.

The Nestle Company in Salisbury (Historical Monograph 17), by John Potheary. Salisbury: South Wilts Industrial Archaeology Society. 2006. 12pp, illus. ISBN 0 906195 17 9. No price given.

This pamphlet is a valuable reminder that the food processing industries have an industrial archaeology well worth recording. The author's sources vary from company records to personal reminiscences, and have not always been very well integrated, nor can it be said that the account is totally coherent. Nevertheless, this is a very worthwhile record of a specialist local industry, and well produced for a short run publication. Useful illustrations include an aerial view of the works, pictures of personnel, plant and vehicles, and colour reproductions of ephemera such as labels and instructions. The account covers the plant installed, processes, from collecting and preparing the milk to making tins for condensed milk, and preparing iron rations for troops at the front, and some information about the treatment of the work force. All too often relatively small concerns leave very little to inform the future when they close, and the author is to be congratulated for making the effort to bring this material together, and the South Wilts Society for publishing it.

DIARY

24 FEBRUARY 2007

ARCHAEOLOGY AND INDUSTRY IN MANCHESTER

at Trafford Park Heritage Centre with wide range of topics. For details Tel: 0161 980 7612, email: admin@mriias.co.uk, or see www.mriias.co.uk

14-15 APRIL 2007

AIA IRONBRIDGE WORKING WEEKEND

at Coalbrookdale, the AIA affiliated societies' weekend on 'Roads: Characteristics and Forms of Transport.' A booking form is enclosed with this mailing.

17-22 APRIL 2007

5TH INTERNATIONAL IA CONFERENCE & WORKSHOP

in Romania, with study visits to Caras Severin and Bucharest. TICCIH Conference info: Irina Iamandescu, irina.iamandescu@cultura.ro, irina_iamandescu@yahoo.com

18-20 APRIL 2007

WILTSHIRE'S INDUSTRIAL HERITAGE

at Urchfont, a residential course with lectures and field visits. Details from: Urchfont Manor College, Devizes SN10 4RG, Tel: 01380 840495, Fax: 01380 840005, Website: www.urchfontmanor.co.uk

21 APRIL 2007

SERIAC

at Reading University, the South East Region IA Conference organised by the Berkshire IA Group with assistance from Sussex IA Society. Contact Dennis Johnson, 12 The Huntley, Carmelite Drive, Reading. RG30 2SB, email: huntley12@waitrose.com

**3-5 MAY 2007
INTERNATIONAL
CONFERENCE ON
AGRICULTURAL & FOOD
HERITAGE**

at Reims, France, organised by the Association pour le Patrimoine Industriel de Champagne-Ardenne in conjunction with TICCIH. See www.ticcih.org for information.

**12 MAY 2007
EMIAI 73: PEAT PADDLES
AND PUMPS**

at Boston, the 73rd East Midlands IA Conference, hosted by the Society for Lincolnshire History and Archaeology, on the draining of the Lincolnshire Fens. Further details from SLHA, Jew's Court, Steep Hill, Lincoln LN2 1LS.

**14-20 MAY 2007
AIA VISIT TO LATVIA**

See advert on page 8. Contact Paul Saulter, 80 Udimore Road, Rye, Sussex, TN31 7DY or e-mail: paul@ia-tours.demon.co.uk

**19 MAY 2007
SWWRIAC**

at Wellington, the South Wales & West Region IA Conference organised by Somerset IA Society. Details from Geoff Fittou, Giles Cottage, Hill Lane, Brent Knoll, Somerset, TA9 4DF, Tel: 01278 760869 or email: geoff@fittong.freereserve.co.uk

**31 MAY - 2 JUNE 2007
III MEETING OF TICCIH
TEXTILE SECTION**

in France. Call for papers. The organisers hope to propose a list of the world's 100 most important textile sites. Contact: Alain Renard,

2 rue Saint Denis, 08210 - Mouzon (France), Tel: +33 3 24267448

**7-9 JUNE 2007
INTERNATIONAL
INDUSTRIAL HERITAGE OF
ELECTRICITY**

at Divonne-Les-Bains (France) and Geneva (Switzerland), seminar with local visits, aiming to establish a TICCIH section for electricity and energy. See www.ticcih.org for details.

**7-10 JUNE 2007
18TH ANNUAL MINING
HISTORY CONFERENCE**

at Leadville, Colorado, USA. For details see: www.mininghistoryassociation.org

**9 JUNE 2007
EERIAC XVII**

at Harwich, the 17th East of England Regional IA Conference. Send SAE for details and booking form to Mrs B. Taylor, Crown House, Horsham St Faiths, Norwich NR 10 3JD.

**10-12 JUNE 2007
THE INTERNATIONAL
IMPORTANCE & CONTEXT OF
PONTCYSYLLE AQUEDUCT**

at Wrexham, launch conference for the nomination of the Pontcysyllte and Chirk Aqueducts as a World Heritage Site. This will be the first meeting of the new British Committee of TICCIH. See page 11 for details or email: kay.rickard@wrexham.gov.uk.

**13-15 JUNE 2007
WORLD CANALS
CONFERENCE 2007**

at Liverpool, the 20th international conference, focused on the value of

involving volunteers and the community sector alongside professionals. Hosted by the Inland Waterways Association. Further details are at: www.wcc2007.co.uk

**15-17 JUNE 2007
NAMHO CONFERENCE 2007**

at Morwellham, West Devon, hosted by Tamar Mining Group, Plymouth Caving Group and other local NAMHO members. See details on the National Association of Mining History Organisations' website: www.namhoconference.org.uk

**1-4 JULY 2007
SOMERSET AND DORSET:
TWO LANDSCAPES WITH
INDUSTRY**

at Ilminster, a course with lectures and field visits. Details from Dillington House, Ilminster, Somerset TA19 9DT, Tel: 01460 52426, website: www.dillington.co.uk.

**10-16 AUGUST 2007
AIA PRESTON CONFERENCE** at the University of Central Lancashire, Preston, the AIA annual conference. Papers are enclosed with this mailing.

**11-14 SEPTEMBER 2007
BIG STUFF 2007:
PRESERVATION OF LARGE
INDUSTRIAL HERITAGE
OBJECTS**

at Bochum, Germany. Call for papers. For details email: bigstuff07@bergbaumuseum.de, or see www.bigstuff07.net

**13 OCTOBER 2007
INDUSTRIAL ARCHAEOLOGY
SYMPOSIUM**

at Devizes, hosted by Wiltshire Archaeological & Natural History Society. Information when available from: Doug Roseaman, c/o WANHS, 41 Long Street, Devizes, SN10 1NS.

**THE AIA WEBSITE'S
DIARY SECTION GIVES
FULLER DETAILS OF THE
LATEST NOTICES OF
CONFERENCES AND
MEETINGS. IT ALSO
INCLUDES AN
EDUCATION SECTION**

www.industrial-archaeology.org.uk



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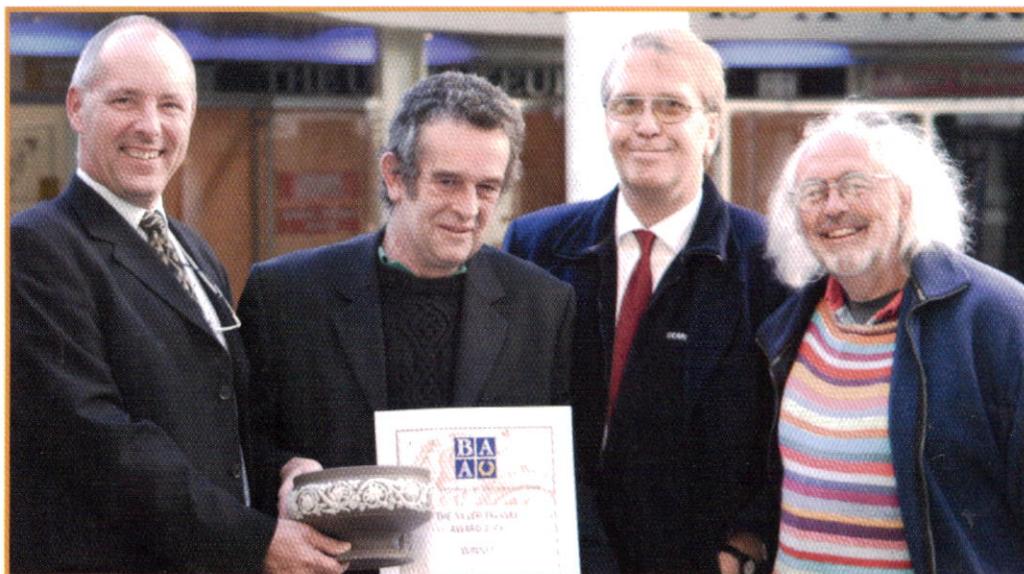
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Final copy dates are as follows:

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

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



John Barnatt, second left, winner of the Silver Trowel Award at the 2006 BAA ceremony for his work in the Peak District (see inside, page 3)
Photo: David Weight Design Artwork