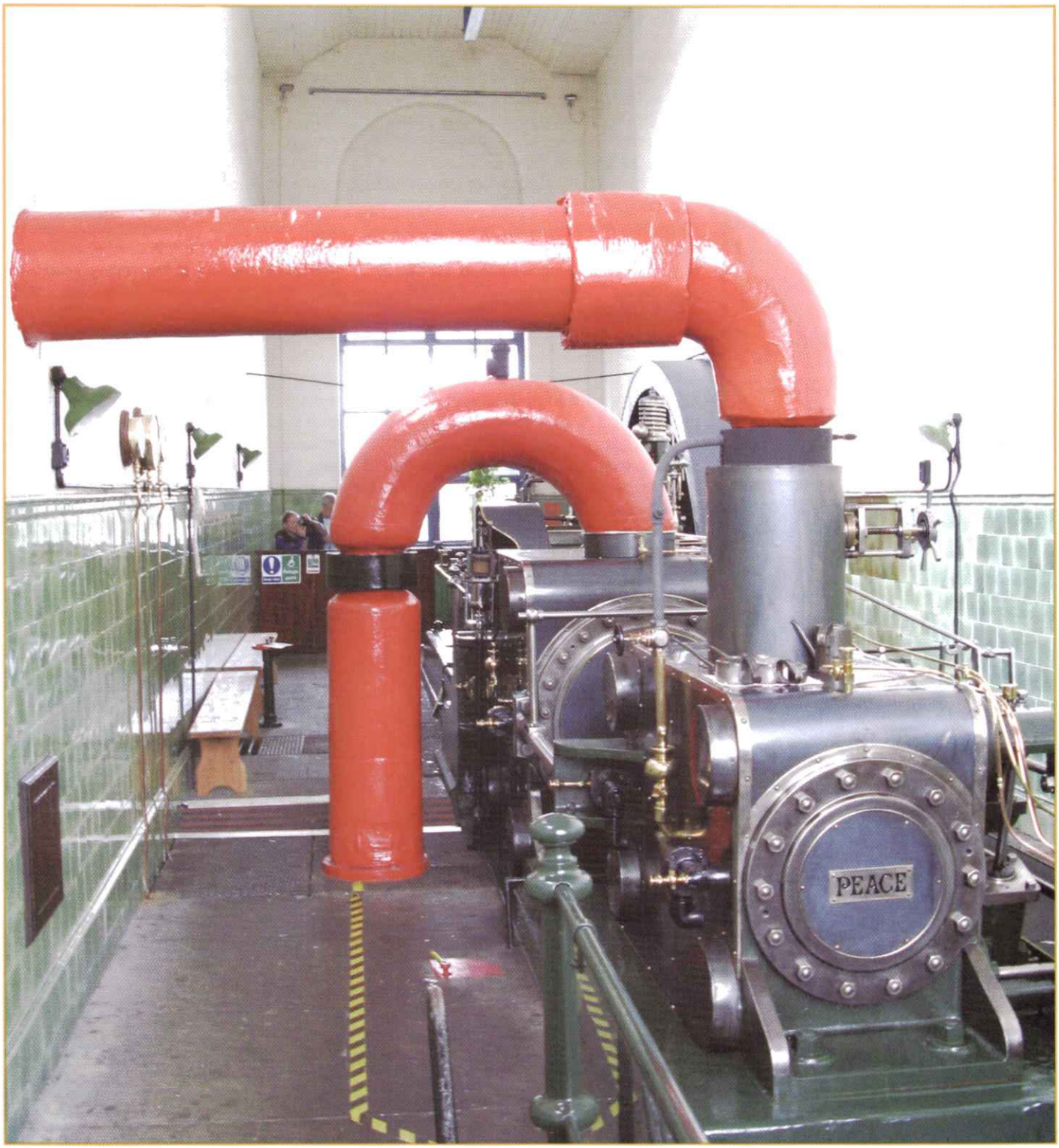
INDUSTRIAL ARCHAEOLOGY NEWS

143
WINTER
2007

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

FREE TO MEMBERS OF AIA



Preston conference • urban regeneration • AIA Awards • affiliated societies
gas celebration • technical drawings • Calder Hall • regional news • publications

AIA
ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

INDUSTRIAL ARCHAEOLOGY NEWS 143
Winter 2007

Liaison Officer
James Gardiner, AIA Office, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH
Tel: 0116 252 5337, Fax: 0116 252 5005
e-mail: AIA@le.ac.uk
Website: www.industrial-archaeology.org.uk

COVER PICTURE

Queen Street Mill engine 'Peace' of 1895, visited during the AIA Preston Conference

Photo: Steve Dewhirst

Preston Conference 2007

There were 124 delegates in attendance at the University of Central Lancashire in Preston for the 2007 conference, including that veteran of many previous occasions, Jean Singer, plus wheelchair. However, the venue was not noted for its convenience – four different buildings were used, on three different sites, up to ten minutes' brisk walking apart! Nevertheless we are grateful to all the organisers for their hard work in making the conference so successful. Thanks also to Barry Hood, Terry Evans, Andrew Hodgson and Tony Jervis for providing additional notes.

Roger Ford

As is usual, Friday was seminar day, with the main weekend starting at dinner in the evening. Mike Bone bade us all welcome and then handed over to Marilyn Palmer, after her year's sabbatical. The first speaker was David Lewis of the Northern Mill Engines Society, who gave a very clear and lucid explanation of the workings of the steam engines that replaced the waterwheels to provide the power for the textile mills; even to the ins and outs of the Lancashire boiler, as compared with the Cornish one. He expounded on line-shafting, with its fast (i.e. tight) and loose pulleys – the origin of the saying?

Next up was the key man of this conference, Lancashire County Museum Service head of collections Ian Gibson whose topic was the development of knitting frames, from the first patent of 1618 to the nineteenth-century patents of Arkwright and Hargreaves. Roger Holden concentrated on spinning and weaving with particular reference to the huge weaving sheds so characteristic of this part of the country, and the evening's offerings concluded with ex-AIA conference secretary Fred Brook giving a member's contribution on the street in Oldham where he was born, which, in its heyday housed 43 mills in the one road.

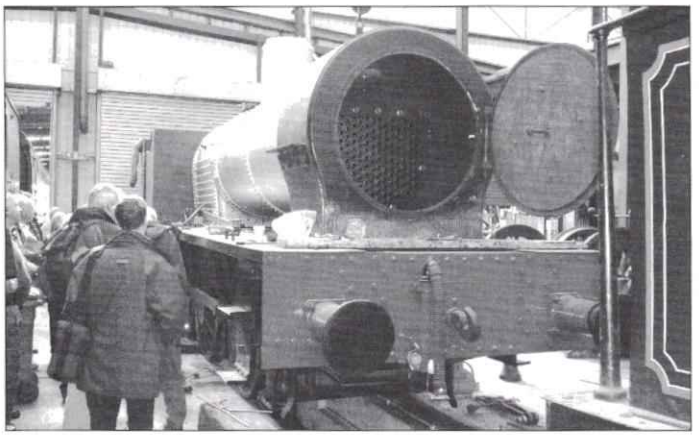
On Saturday morning Peter Iles gave a potted history of the administrative county of Lancashire, with special reference to the listing of buildings (80% of churches are listed and 0.8% of mills), also of scheduled monuments which includes four mill engines (not the buildings). Dr Geoffrey Timmins then discoursed on weavers' housing. It was interesting to find that cellars also housed 'loom shops'. The final Saturday morning speaker was Richard Newman, Cumbria County Archaeologist, whose topic was 'Rural industries in historic Lancashire' (the county used to be much bigger), which included clays for bricks, tiles and the pottery industry; coppicing for charcoal for the iron industry; potash for gunpowder'; bark for tanning; limestone, gritstone and the small Lonsdale coalfield.

Saturday afternoon offered a choice of tours. Helmshore Mill Textile Museum of 1798 is a virtually unchanged water-powered fulling mill which closed on 1967. It contains a complete range of wool-cloth finishing machinery, alongside which there is another establishment, which operated as a condenser cotton spinning mill until closure in 1978. This possesses an entire floor of carding and mule spinning machines – there are 2,856 mule spindles. The whole project is the subject of a major HL fund-assisted development, expected to be completed this year.

The second outing, to Blackpool, took in the alternatives of a visit inside the Tower or a heritage walk looking at the tram system, the outside of the Tower, the piers, the seawater works of 1876 which supplied clarified brine to public bathing establishments and hydropathic hotels, and the 1895 sea defences, overlain in 1981-2.

The third alternative was Sedgwick gunpowder mill (1857) and Carnforth station. Sedgwith was a very pleasant site, and by following the rails, and a leat from the River Kent, the remains of the various processes were

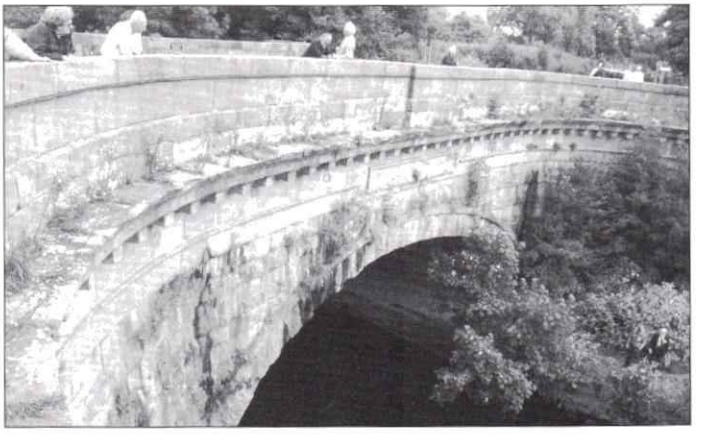
Sedgworth gunpowder incorporating mill *Photo: Steve Dewhirst*



Ribble Steam Railway workshops *Photo: Barry Hood*

AIA delegates at Glasson Dock *Photo: Tony Yoward*

A corner of Glasson Dock *Photo: Tony Yoward*



The Wyre aqueduct on the Lancaster Canal at Garstang *Photo: Tony Yoward*

identifiable. On to Carnforth to admire the 1846 station of the Lancashire & Carlisle Railway, which contrasts with the modernised Furness Railway platforms to the west. Signal boxes are well to the fore – Carnforth station old box sits at the north end of the Furness platform – the current box dates from 1903. The yard contains the preserved MR Selside box (1907) and two concrete coaling towers. A LMS 8F was raising steam in the yard, to complete the picture. The visitor centre features the famous station clock.

An excellent annual dinner was enjoyed in the evening, with the awards presentations in Marilyn Palmer's capable hands, as Angus Buchanan was unable to be with us. To follow this up Sunday started with presentations from the main award winners: Birmingham Archaeology on the Ministry of Supply factory at Rhydymwyn (Main Fieldwork Award), Ingleborough IA Group on Ingleton Hoffman kiln and limekilns (Initiative Award), and the Kelly Mine Preservation Society which gained the Dorothea Award for restoration of the micaceous haematite mine at Bovey Tracey, Devon.

Sunday morning also saw the proceedings of the AGM. The Rolt Memorial Lecture was delivered this year by Dr Colin Rynne of the University of Cork and his title was 'The Society of Friends in nineteenth-century Ireland and technological change as a 'colonial' discourse'.

Sunday afternoon's trips offered two guided walks around Preston, the first to mills and housing, including Corporation Street warehouses, the Corn Exchange (1822), Winckley Square (nineteenth century workers' terraces), Ribble Motor Services offices and garages, Fishwick Mill, Centenary Mill and Horrock's Mills, then the iconic 1960s bus station and car park. The second walk included Hanover Mill of 1796, Arkwright Mill (1854), Aqueduct Street Mill (1846), the mills of Shelley Road and the Blackpool Road, returning along the towpath of the Lancaster Canal. Alternatively, a coach trip took in Preston Docks, Ribble Steam Railway and the millennium canal link.

Sunday night's lecture was by Colin Dickinson on the Lancaster Canal, engineered by John Rennie and originally cut for transporting limestone. We enjoyed a slide trip down the canal, finishing at Glasson basin next to the dock which is sited at the mouth of the River Lune. It was constructed by Lancaster Port Commissioners in 1783-91 and is still used today.

All-day field trips started on Monday, with the choice of City of Lancaster and Glasson Dock, or landscapes of weaving in the Pendle area. The Lancaster party investigated Ashton Park, to wonder at the incredible grandiose memorial there, erected by Williamson the lino king to his wife (lino Lil?) from which one sees the superb scenic view of Morecombe Bay. This is the domed memorial that motorists see as the speed past on the M6. Following a brief stop at the Lune aqueduct (John Rennie, 1794-7) on the Lancaster Canal, on to a superb little museum housed in the Custom House on St George's Quay (1764). Glasson Dock is now far busier than when we visited it from the Ambleside conference in 1993. There is an industrial estate, and the inner basin has been developed as a marina. A cargo of tin cans and bottles was being loaded into a ship for recycling in Portugal. The return journey took in Scorton to see a mill that is no longer there (it is now a building site!), then to Garstang to admire another Rennie canal aqueduct over the River Wyre, a most attractive location.

The other outing forayed along a very damp Leeds & Liverpool Canal towpath in Nelson, to Whitefield and Lomeshay Bridge Mills which used the canal as a water source as well as for transport. Escape from the heavy rain came at the Bridge Mills, into an 1893 four-storey warehouse which gave an excellent overview of Whitefield's north-light roof. Then we viewed Lomeshay chimney and adjacent early workers' housing. Lunch in the Pendle heritage centre at Barrowford was followed by a tour of Park Hill House (1696), then a walk down to the 1824 spinning and weaving site at Higherford Mill, plus a close-up of the packhorse bridge. On the run to Barnoldswick the sun finally appeared for the last visit of the day, Bancroft Mill where the 600HP Nelson-built cross-compound engine was in steam for us.

On Monday evening the first lecturer was Peter Keen, secretary of the Sankey Canal Restoration Society. The canal originally started in the Broad Oak area of St Helens and was later extended to Widnes. It had eight single locks and two staircases; it was effectively killed off by the St Helens & Runcorn Gap Railway, which amalgamated with it. It was stopped in 1919 and became totally derelict, with features such as the

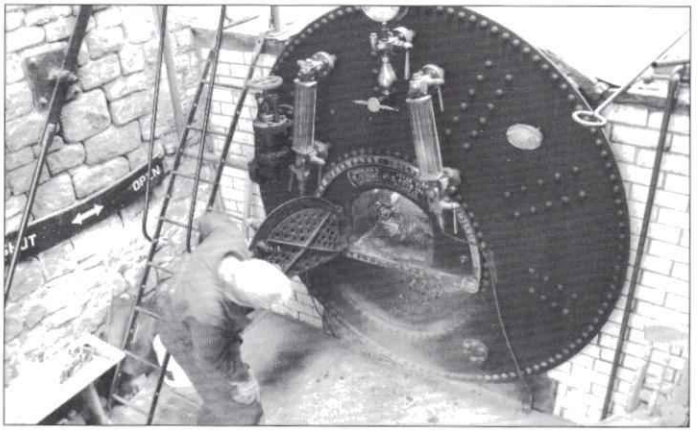
Warehouse on the Leeds & Liverpool Canal at Nelson *Photo: Barry Hood*

A corner shop on Pendle Street, Nelson *Photo: Barry Hood*

Setts at the rear of workers' terraces in Nelson *Photo: Steve Dewhirst*

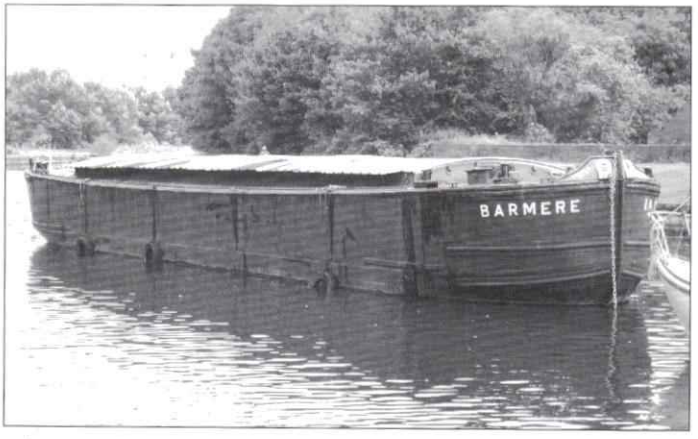
Roofscape at Lomeshay Bridge Mills *Photo: Barry Hood*

Hand loom weaver's house at Barrowford *Photo: Barry Hood*

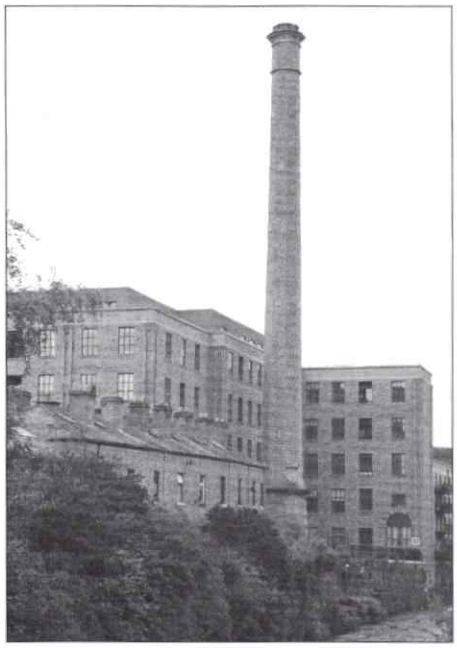


Cornish boiler in steam at Bancroft Mill *Photo: Steve Dewhirst*

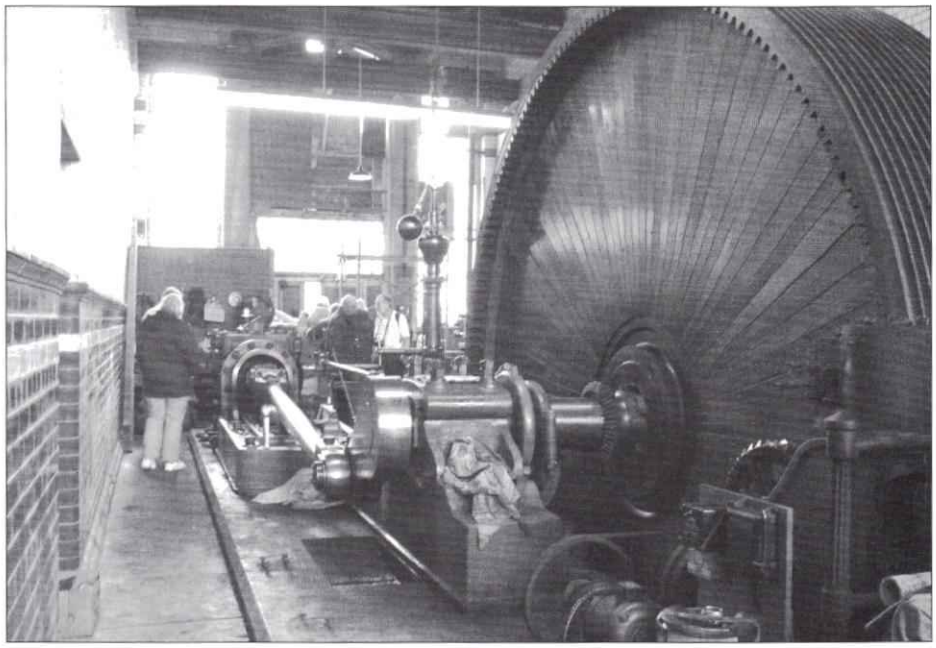
Visiting the World of Glass at St Helens *Photo: Steve Dewhirst*



A barge at Widnes Lock on the Sankey Navigation *Photo: Steve Dewhirst*



Ilex Mill, Rawtenstall *Photo: Marilyn Palmer*



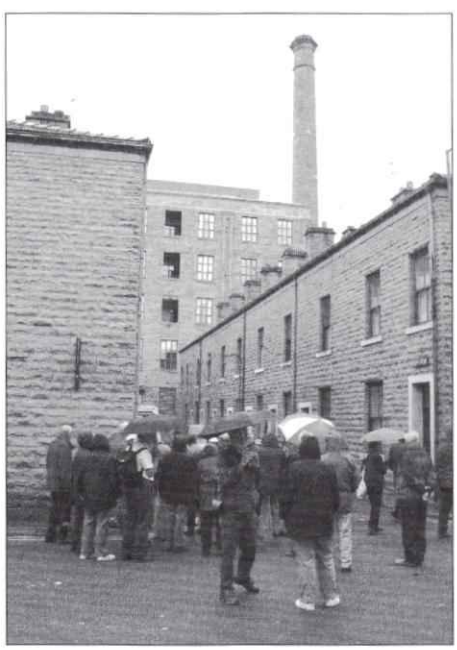
The Grane Mill engine, restored over a decade *Photo: Steve Dewhirst*

M62 built over parts of it, until this band of completely inexperience volunteer canal restorers came along. Their efforts prompted the local council to get in on the act, and several small areas have now been re-watered. The next speaker Brian Tomlinson discoursed about aircraft development and manufacture, which commenced in Burnley in 1909, later migrating to Blackpool, Lytham (seaplanes 1917-24), then to Warton and Salmesbury at Preston. Stanley Park airfield at Blackpool became an RAF base during WWII and afterwards became the site of the zoo. Preston built over 2,000 Halifaxes and 81 four-engined bombers. Post-war English Electric took over the sites, becoming BA Systems who now operate them.

Tuesday offered a choice of St Helens glass and sites on the Sankey Canal, or aviation around Preston. The delegates' conducted tour at the 'World of Glass' museum commenced in a simulated glass cone, then on to the foundation tunnels of the original regenerative furnace, which was fired by producer gas from its own plant. We next saw a demonstration of glass blowing and an instructive film on the history and present-day manufacture. After lunch the canal sites were toured, starting at Spike Island, the site of the original lock into the Mersey, alongside a small railway basin. Next, to Fiddler's Ferry to see locks, a boat-builder's yard and a marina which communicates with the Mersey via a swing bridge and a later, council-built lock. The final site was five miles from the St Helens end at Winwick Quay where a lock has been partially excavated together with the foundations of the lock keeper's cottage. A short distance away are a dry dock and canal warehouse, with the M62 as backdrop.

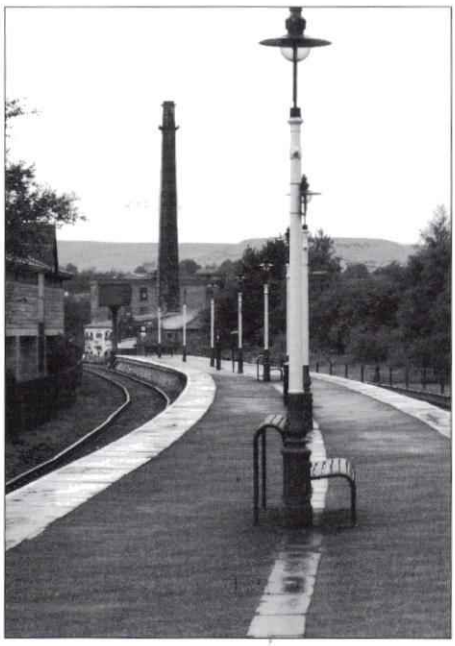
The second field trip visited aviation sites, starting at Freckleton village (the site of a serious WWII bomber crash), followed by a coach tour around Warton aerodrome, then Squires Gate, Blackpool's growing airport. The main building here manufactures car exhaust systems by robotics. At Stanley Park the two 1931 structures are alongside the elephant enclosure. BAE Systems laid on lunch at Salmesbury followed by a comprehensive introduction to the plant. Complex machining operations involving titanium, carbon fibre and aluminium impressed all present, thanks to the heritage group which Brian Tomlinson heads.

On Tuesday evening Mike Nevell took the stage first, to talk on the water-powered textile sites on the River Irwell, together with its



Rain and workers terraces in the shadow of Ilex Mill, Rawtenstall *Photo: Steve Dewhirst*

LMS Jubilee class locomotive 'Leander' at Bury Station on the East Lancashire Railway *Photo: Steve Dewhirst*



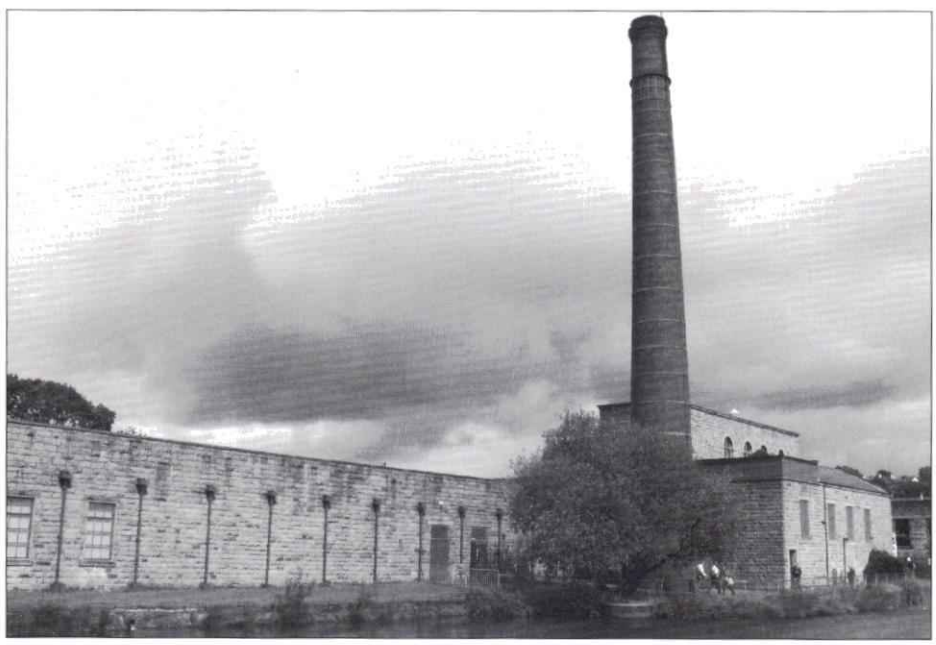
Rawtenstall Station *Photo: Steve Dewhirst*

Luggage and AIA delegates wait for a train on the East Lancashire Railway *Photo: Barry Hood*

tributary the Cheeseden in the Rossendale valley. This supported 13 water-powered sites in 14 kms. The valley also possessed 26 gritstone quarries for paving, walling and roofing. Mike was followed by Jack Smith who talked on archaeological sites in central Lancashire. This included particularly the Lancaster Canal; and the area around Witley Woods where it ran into a three-arm basin. This incorporated a tramway via Bamber Bridge down to the Ribble at Preston basin, opened in 1804. The tramway worked for 60 years. His discourse also embraced the Royal Ordnance factory at Chorley, opened in 1939 and the last shell-filling facility of WWII, which at its zenith boasted 60 miles of roads and 20 miles of railway tracks.

The Wednesday outings were either to Rossendale valley and the East Lancs Railway, or to Leyland commercial museum and RAF Chorley. At Rossendale we started at a well-preserved weaver's cottage adjacent to Ilex Mill, courtesy of Kathy Fishwick of the Civic Society. Ilex Mill has been adaptively reused for very attractive apartments. After identifying its salient features, on to Grane Mill where Dave Armfield has laboured for ten years to restore its 500HP tandem compound engine, worked for us by electricity. Both Lancashire boilers, the chimney and its weaving shed also survive. At Rawtenstall we enjoyed a trip over the East Lancs Railway to Bury, then visited the remains of Ramsbottom Mill where the two-storey weaving shed and small warehouse are still in their original state.

The last lecture of the conference was, appropriately, given by Ian Gibson whose good offices were responsible for a large part of the field trips. The talk was on Queen Street Mill and the weaver's triangle at Burnley, venues for the final day. Members' contributions followed from Patrick Knott on Isle of Wight cycle manufacturing, and from Henry Gunston on the effects of drainage on agriculture, navigation and flooding.



Queen Street Mill, Burnley *Photo: Steve Dewhirst*

The last day dawned very wet indeed. The half who visited Queen Street Mill first definitely got the best deal as the weather had cleared up by mid-day. This mill dates from 1894-5 and was worked until 1982, the last commercially steam-powered mill in the county. Its engine is a 500HP horizontal tandem compound; steam comes from a 1901 Lancashire boiler and an economiser pre-heats the feed water. Half of the original looms (600 plus) are still in situ and driven by the line-shafting; the mill has been open to the public under museum service management since 1997. The weaver's triangle sits beside the Leeds & Liverpool Canal (at 127¼ miles the longest in Britain). There is a visitor centre in the old tollhouse and wharfmaster's house on Burnley Wharf. Burnley led the world in the production of cotton cloth and there was a dense concentration of mills along the canal to utilise its water, and hereabouts it is virtually enclosed by a largely unbroken sequence of weaving mills and spinning sheds. We braved the rain to see the Oak Mount Mill engine being turned over at 28 strokes/minute (half its working speed) by electricity. The engine originally powered two mills. Our thanks to Brian Hall for braving the elements.

Thus ended an interesting week, with organisation by Ian Gibson, Mike Nevell and Bruce George. Due to the inconvenient domestic arrangements it was rather baptism of fire for our new conference secretary John McGuinness. We look forward to next year's conference at Lackham near Chippenham, from 22 to 28 August, where our hosts will be the IA section of the Wiltshire Archaeological & Natural History Society.

Urban regeneration and adaptive re-use of industrial buildings: the 2007 pre-conference seminar

Preston's pre-conference seminar, on the topic of 'Urban regeneration and the adaptive re-use of industrial buildings: problems and potential', attracted speakers who considered a wide range of subjects such as the contribution of the HLF, challenges of the former Royal Arsenal in Woolwich , prime industrial locations around Bolton, social, economic and environmental benefits of historic buildings, problems and answers in the east Lancashire textile industrial area, sustainable development in Lancaster and West Cumbria, and the importance of archaeological recording in Greater Manchester.

Marilyn Palmer

The topic for the 2007 pre-conference seminar was chosen because the urban landscapes of Lancashire and Greater Manchester have presented numerous problems in recent years of widespread regeneration schemes in the face of changing industrial conditions, particularly the wholesale decline of the textile industries. Speakers were asked to consider how the character of the existing industrial landscape could be preserved in the context of the different regeneration schemes, including the Pathfinder projects, which have affected the north-west although papers on regeneration schemes elsewhere in the country were also included.

On the national scene, Tony Crosby, elected Vice-Chairman of AIA at the AGM, who works with the Heritage Lottery Fund, discussed the ways in which HLF has contributed to urban regeneration projects and how such projects are subsequently evaluated. Alan Johnson from English Heritage presented a fascinating example of the challenges faced and overcome in the re-use of an extensive former military-industrial estate, the Royal Arsenal in Woolwich, in the context of the SHARP project on historic arsenals. 22 listed buildings and other non-listed buildings have survived for re-use in the factory zone of the roughly 70-acre historic core at the western end of the former 1200-acre site. The new reality and future for the Arsenal is as a mixed-use area mainly comprising residential development in converted historic buildings and new-build. He showed that a key challenge has been to identify what is important and to retain that which makes the site special while at the same time enabling a redundant site to have a sustainable future. A similar theme was followed by most of the speakers on the north-west of England.

Roy Murphy, formerly of the University of Bolton, opened the seminar with a nostalgic glimpse of buildings and industrial sites around Bolton when they were in use as working entities. He emphasised the problem that industrial sites often occupy large areas, are in prime locations, require high maintenance costs and even incur prejudice and opposition because of their former industrial uses. Since change and adjustment are features of a dynamic society, the destruction and reconstruction of industry, particularly when located in prime sites, are inevitable. This challenge was taken up by Dave Chetwyn, Head of Planning Aid England with the Royal Town Planning Institute and recently elected Chair of the Institute of Historic Building Conservation. His well-illustrated presentation considered the social, economic and environmental benefits derived from historic buildings and areas, drawing on examples of heritage-led regeneration projects from all around the country.

The downside of such projects was then considered by two speakers on the problems in the East Lancashire textile district, running along the western edge of the Pennines north of Manchester, which began to suffer serious economic decline after the First World War. This continued and reached its nadir in the 1980s, when the decline in textiles was exacerbated by the ending of the coal industry, leaving a legacy of redundant mill buildings and low-value housing. Consequently, the area has experienced a number of regeneration schemes and been the target of housing renewal proposals. Caron Newman of the Egerton Lea Consultancy showed how refurbishment of existing buildings as part of the maintenance of sustainable communities is creating a new context for the adaptive reuse and conservation of nineteenth- century housing and industrial buildings in the area. She referred to the popular protests which have taken place against proposals for housing renewal which have threatened wholesale demolition under the pretext of 'slum clearance'. One of the most vigorous of these campaigners then talked about her work. Sylvia Wilson is the owner of a website (www.fightforourhomes.com), as well as the founder of an umbrella group called Homes Under Threat, a national network which provides help and advice for people whose homes are under threat of demolition. Sylvia is bitterly opposed to the Pathfinder projects which mainly affect the North and Midlands of England, which she regards as a land-grabbing exercise by Local Authorities to provide land on which to construct unaffordable housing for local people. Delegates at the conference were later able to visit Sylvia's home town of Nelson in which she fronts the Whitefield Conservation Action Group which is seeking to preserve an area of terraced housing which once served the workforce of the local textile mills. In the 1990s, the local Council proposed a Neighbourhood Renewal Area which involved the demolition of 400 homes in the heart of Nelson. As she pointed out, these houses, built of local sandstone, are warm, affordable, sustainable, easily adaptable and also easy to convert into larger dwellings by the insertion of interior connecting doorways. They are popular with the cultural mix of people in Whitefield, about 64% of mixed Asian origin who value the community effect of these homes for their often extended families. Although Sylvia has won several planning enquiries, strongly supported by Lynne Walker of the CBA, the battle is not over yet and a considerable area of Whitefield is now boarded up awaiting the result of a further battle. It was very good to hear from a local resident

Spot the difference: two rows of terraced housing in Whitefield, Nelson, one cleaned, restored and attractive, the other boarded up awaiting a decisiion about demolition – or not
Photos: Marilyn Palmer

who was prepared to take on all comers in her efforts to save her community.

Two other speakers referred to sustainable development in the north-west of England. Richard Newman, the County Archaeologist for Cumbria, talked about the adaptive reuse of warehouses and port facilities in Lancaster and West Cumbria. These experienced considerable growth and wealth generation during the eighteenth century, when they played a key role in the slave trade as well as the export of coal. The urban fabric of towns such as Lancaster, Whitehaven and Maryport contain magnificent Georgian merchants' houses, customs houses and warehouses, and in West Cumbria especially they have also left a legacy of harbours and docks. All of these ports went into severe decline in the nineteenth century and only at Glasson Dock, Lancaster's out-port, has significant trading activity continued to the present day. Urban renewal at Whitehaven has largely been facilitated through granted-aided conservation and regeneration schemes, but Maryport and Harrington remain economically depressed. The adaptive reuse of merchants' housing and warehousing has met with varied success, and there are a number of schemes targeted at reviving the port facilities. The future will continue to require a compromise between the conservation needs of the historic structures and the requirements of sustainable new uses.

This statement could equally well be used in the context of many of Greater Manchester's redundant textile mills, considered by Norman Redhead, the Assistant County Archaeologist for Greater Manchester Council. He concentrated on the importance and contribution of archaeological recording, both for standing buildings and below-ground remains, in promoting a better understanding and more sympathetic re-use of these complex industrial sites. He also presented an update on the survival of textile industry-related buildings since the Greater Manchester Textile Mill Survey of 20 years ago, which was an enlightening and slightly depressing experience.

The purpose of these seminars is to demonstrate what is going on in the world of industrial heritage and industrial archaeology both to AIA and non-AIA members alike, and we welcomed, for example, numbers of English Heritage staff from the Manchester offices. I hope that more AIA members will take advantage of the opportunities offered by the seminars to learn more of current issues in the disciplines before they go on to enjoy the talks and visits in the region which is generally the purpose of the conference. AIA Council has proposed that next year's seminar in Wiltshire takes up the issue of the recording and re-use of twentieth century military sites, of which there are so many in that county. I would be very glad to hear from anyone who would like to contribute a paper on such a topic.

I would like to thank all our speakers at the seminar who gave their time to presenting and discussing the issues of industrial buildings and urban regeneration in what proved to be a really excellent occasion. The presence of a technician ensured that all the excellent PowerPoint presentations ran smoothly!

ALBERT AND THE LANCASHIRE LOOM

Henry Gunston

Dedicated, with grateful thanks, to the organisers of the AIA Preston Conference, August 2007

Mister and Missus Ramsbottom,
Whose ancestors happen you'll know,
Were studying holiday brochures,
Deciding this year where to go.

When quickly young Albert, their offspring,
Cried 'Mum and Dad, come and look here,
If we go to this history conference,
They will give us a free gazetteer.'

The venue appealed to Our Mother,
With Blackpool nearby – quite in reach,
'If I tire of yon heritage history,
I'll take meself off to the beach.'

And as to the main theme of textiles,
Of knowledge they were not bereft,
For one granddad had once been a tackler,
So they all knew their warp from their weft.

Loading up the faithful Cortina,
They quickly set off for the ride
To reach the conference location,
Which were out on the Lancashire side.

On reading the conference programme
They signed up to a visit which said
It were out to a Heritage Centre
That were based on an old weaving shed.

They first went to view the steam engine
Which was shiny, and slid to and fro,
Then they pondered on sizing and bobbins,
And wondered where next they might go.

The sound of the weaving shed drew them,
With pulleys and shafts all a-go,
And the cotton looms laid out before them,
In row, upon row, upon row.

Retiring for tea in the café,
The parents looked round for their son,
And the truth quickly dawned upon Mother
'Our Dad, where has young Albert gone?'

Returning in haste to the loom shed
They peered all about in the gloom.
'I fear,' said Our Dad - in a bother -
'Our Albert's fell into a loom!'

They summoned, in haste, the Curator –
'We know not where our Albert lurks,
But we think he's run loose in yon loom shed
And got himself caught in the works!'

The engine was stopped, and Our Mother
Had sad premonitions of slaughter -
But the lad was soon found with an ice cream,
By the lodge, with his toes in the water.

And smiling, the happy Curator
Said 'I'm glad now that all has come right,
And that our future path is still open
To become a World Heritage Site.'

Queen Street Mill

AIA Fieldwork Awards 2007

There were a total of nine entries for this year's award and these were of the usual diverse nature and high standards. My thanks go to the judges for making the difficult decisions, but the clear Main Award winner was Birmingham Archaeology for 'The Valley Site Rhydymwym, Flintshire Historic Environment Management Plan'. The Initiative Award went to The Sow Kiln Project: Excavation of clamp kilns in the Yorkshire Dales, and Highly Commended certificates were awarded to M.H. Jones and the Exmoor Mines Research Group for their report on the West Somerset Mineral Railway incline winding house, and to David Ramsey for his research into the Leicestershire slate and granite industries.

Victoria Beauchamp

Peter Bone and Steve Litherland attended the AIA conference on behalf of the Birmingham Archaeology Team to collect their Main Award and give a short presentation about their work. Once part of the Gwysaney Estate, the Parish of Rhydymwyn was established in 1865. Lead mining in the area is known to have been extensive; a foundry associated with nearby mines is depicted on several early maps. Following the foundry's closure the land was used for agriculture until 1930 when the Ministry of Supply purchased the land and developed it as a purpose built chemical weapons factory and storage facility. Over 100 specialised buildings were constructed linked by an extensive rail network. The river Alyn was culverted and canalised and several rock caverns were excavated. In WWII the site produced mustard gas and was associated with the development of the atom bomb. Post war it has been used to store German nerve gas and until the 1960s continued to be a chemical weapon site. Since the 1960s it has been used by various Government departments and as a buffer store for emergency foodstuffs and rations, mobile bakeries and canteens. The site closed in 1994 and some buildings were demolished but around of 25% of the 180 buildings of the chemical plant survive. The admin blocks, chemical filling and assembly sheds and above ground storage have largely been lost. Thirty-eight buildings or distinct structures survive and were surveyed (drawn and photographic surveys). A visual inspection was made of the tunnels. The project was funded by DEFRA.

Work undertaken included an assessment of documentary evidence, map evidence, an assessment of the current surveys of underground chambers, archaeological recording, digital video recording an assessment of the historical significance of the site and preparation of proposals for public interpretation of the site. The result is a three-volume report that includes a gazetteer of pre-factory industrial features and discusses the background to the building of the site and chemical processes undertaken. Volume two gives detailed survey plans, elevations and photographs and volume three discusses the historical significance of the site and proposals for public interpretation.

The survey volume outlines where on the site certain processes took place and is supported by map, drawn and photographic evidence.

The final volume highlights the potential management conflicts of the site. Since the closure of the site it has become a haven for wildlife and it is difficult to identify viable options for many of the buildings. Also given the contamination and access difficulties visitor options are limited. There is a small visitor centre that could be used to show a virtual tour of the site and caverns. The report concludes that oral history should continue to be collected and archive material collated with an on-site database. There should also be a full photographic record of the graffiti and surveys made of WWII ancillary features and pre-war features. Species identification could help identify field boundaries and help recreate the historic environment. In terms of interpretation a 3D model should be made of the caverns and improved signage and interpretation panels produced. A heritage officer could be appointed and educational packs and a website developed.

The Initiative Award went to 'The Sow Kiln Project: Excavation of clamp kilns in the Yorkshire Dales. An Ingleborough Archaeology Publication'. David Johnson gave a fascinating short presentation about the project at the conference. The project, funded by the Yorkshire Dales Millennium Trust, the Yorkshire Dales National Park Authority and an anonymous benefactor, was completed between January 2005 and December 2006. It followed an excavation of a seventeenth-century clamp kiln that was part of the Ingleborough Archaeology Group's Broadwood project in 2003. The project aimed to investigate a series of potential clamp kilns in the area. In total six potential kilns were excavated, one of which proved to be a prehistoric storage pit. Field surveying across the Yorkshire Dales revealed a number of previously unknown sites that are now recorded in the HER. Archive research was also undertaken into early lime burning techniques.

The report covers an historical overview of lime burning in the Dales and a summary of known kiln designs. Details of the methodology and topographical survey are given. The discussion concludes that this project has added substantially to our knowledge of clamp kilns and was able to identify clamp kilns were widespread across the survey area and were of a characteristic size, form and structure across the area and that kilns were worked for a long period of time. The work has shown that in theory it is possible to phase clamp kilns by their internal structure. The report's appendices include excavation data with analysis of faunal remains and archaeomagnetic data, a gazetteer of clamp kiln sites, illustrations and photographs.

At two sites (Newby Cote and Feizor Nick) horse burials were found, involving some kind of ritual. Both assemblages of bones were carefully interred in the stoke holes in a ceremonial manner, probably closure of the kilns. The group would be interested to know if anyone else has come across any other rituals similar to this. (email d.johnson4@lancaster.ac.uk if you have any information).

Two further projects were awarded Highly Commended certificates and a small cash prize. M.H. Jones and the Exmoor Mines Research Group's 'Report on the Excavation of the Incline Winding House of the West Somerset Mineral

Chairman Marilyn Palmer presents the Main AIA Fieldwork and Recording Award to Peter Bone and Steve Litherland of Birmingham Archaeology at the Preston conference dinner *Photo: Barry Hood*

Railway at Brendon Hill and a Conjectural Restoration of the Building and Winding Machinery' is a beautifully illustrated work with detailed drawings of surveys and pictorial interpretations of the site. The incline was commenced in 1857 and was a twin track with a gradient of 1:4 and about 1030m long from Comberow to Brendon Hill. It was completed in 1858 and worked until the mines it served closed in 1898 but was reopened in 1907 and worked for another 10 years when the track was lifted and the incline machinery blown up for scrap. The report details the site's history as recorded in the documentary and photographic evidence before outlining the survey strategy and results.

The main purpose of the survey was to answer questions about the winding machinery and housing that had not been answered by a previous survey in 1959. They were able to conclude that the winding house was designed in 1856-57. 'The setting out of the building was exemplary, allowing for a one degree fleeing angle between the drums and the rails above.' The machinery used 'venture into uncharted territory ...on a scale not attempted before' but some modifications were attempted and some work was carried out on providing a water supply for a water balance but it was discovered that this was unnecessary after the machinery was bedded in. In 1883 a 'Robey' engine was added. The excavation and survey by the Exmoor Mines Research Group has given a much better understanding of the equipment and operation of the machinery in the winding house before and after 1883, and the survey drawings are exemplary.

The other Highly Commended work was submitted by David Ramsey entitled 'A New Light on the Leicestershire Slate and Granite Industries'. The established view of the early slate industry in Leicestershire has been that the material was taken from ground within what is now Swithland Woods in the north of the county. However, the author believed that the area around the village of Groby is where indications of the earliest active slate and stone quarries still linger and comparisons made with materials found at the recent excavations at Vine Street in the old Roman Town of Leicester (Ratae Corieltavorum) and material recovered from Groby have now confirmed this view. The author gives a detailed description of the various types of slates found and descriptions of the quarries where they came from. This is supported with map, documentary and photographic evidence. A timeline of slate workings from Roman to 1908 shows the development of the industry in Leicestershire. The work has now been published in the Leicester Industrial History Society Bulletin Number 18 (ISBN 978-0-955644500-4).

Other entries included: Ian Mitchell, 'The Midland Counties Railway Basin and Coke Store at Long Eaton'; Shane Keller, Birmingham Archaeology, submitted three entries which included an archaeological impact assessment of the Former Corus Steelworks at Tipton, and archaeological desk-based and historic buildings assessment of Tutbury Mill, Rochester, and an historic buildings assessment of 12,14 Bradford Street, Walsall; a final entry was received from MRIAS on the Bridgewater Canal.

If you would like to submit an entry for next year's please note the change in entry date to 31 MARCH 2008. Full details available from Fieldwork and Recording Awards, AIA Liaison Officer, School of Archaeology & Ancient History, University of Leicester LE1 7RH.

AIA NEWS

Affiliated Societies

As you may know I have taken over from Ray Riley as Affiliated Societies Officer. One of the things Ray used to organise was the 'Ironbridge Weekend', which did not, so far as we know, ever attract delegates specifically from Societies, but from individuals who were interested in the subject.

In April 2008, we will also be holding, jointly with the Society for Post Medieval Archaeology, a Conference at Leicester called 'Crossing Paths or Sharing Tracks. Future Directions for the Archaeological Study of post-1550 Britain and Ireland'. This will also mark the launch of the Centre for Historical Archaeology at the School of Archaeology and Ancient History, and will replace the usual Ironbridge Weekend for next year. Society delegates and interested individuals are encouraged to attend. Details will be in the Newsletter and on the website.

In 2009, there will be more extensive celebrations of the tercentenary of Abraham Darby's first successful experiment using coke in the blast furnace. The AIA will be involved in the organisation of events at Ironbridge, and we hope to provide at least a weekend conference. For the Seminar being planned for the 2009 AIA Conference in Lincoln it is hoped to bring together Societies of Industrial Archaeology and History and of Local and Family History, and have contributions based on their combined approaches to a subject. Please talk with your neighbouring Societies to try to find out what may be possible to bring to the Seminar.

Our relationships with Affiliated Societies are not being overlooked in all this. Richard Hartree has been trying to ensure that the AIA website has links to the websites of all Affiliates which have them. There is the hope that we may be able to make the combined sites into a valuable, readily accessible source of Industrial Archaeology records and information about activities. If any Affiliate finds they have been omitted from the links please contact Richard at richard@hartree.org.uk. Please continue to send copies of your publications so that they can be abstracted and/or reviewed. If your Society is not affiliated to AIA please consider joining and so joining in the promotion of Industrial Archaeology.

Christine Ball

Good News... Bad News

The good news is that the Chancellor of the Exchequer announced in his budget statement of 21 March 2007 that the Basic rate of income tax would be reduced from 22% to 20% from 2008-9. Good news for individuals but less so for charities such as ours. What it means is the value of the Gift Aid charities can claim back from HM Revenue & Customs will fall by 11.4%.

All members who are basic rate taxpayers and have not signed a Gift Aid Declaration would perhaps like to reconsider doing so. Forms for that purpose can be obtained from James Gardiner, AIA Office, School of Archaeological Studies, University of Leicester, Leicester, LE1 7RH. Telephone 0116 2525337, or email: jeg17@leicester.ac.uk. Members who have already signed a declaration need take no action.

Better news for your Association is that an anonymous donor has again funded the Initiative Award we make and the Conference Bursary fund to the tune of £5,000 which, after gift aid, will make it worth £6,400 to us.

After the AGM at Preston in August I was asked about the funds I had shown in the accounts as being held at the bank. Were these funds not earning interest? I must make it clear that the term 'bank' covers both funds held in current accounts and on deposit with COIF Charities Deposit Fund, so yes, we are earning interest on the bulk of our monies.

Bruce Hedge, Hon. Treasurer

AIA Publications Awards 2007

The Occasional Publications Award was presented at the Preston Conference to Christine Clayborough on behalf of the John Wheelwright Archaeological Society for their excellent publication on Low Mill, Dewsbury, written by Kath Keith and Stuart Wrathmell. The Journals Award was presented to Dr Rodney Hall on behalf of the Hampshire Industrial Archaeology Society for No. 14, 2006. This is the second time that Hampshire has won this award, so while we congratulate them we hope that other societies will take note and challenge their position next year! The Newsletter Award was not given this year.

Marilyn Palmer

New members

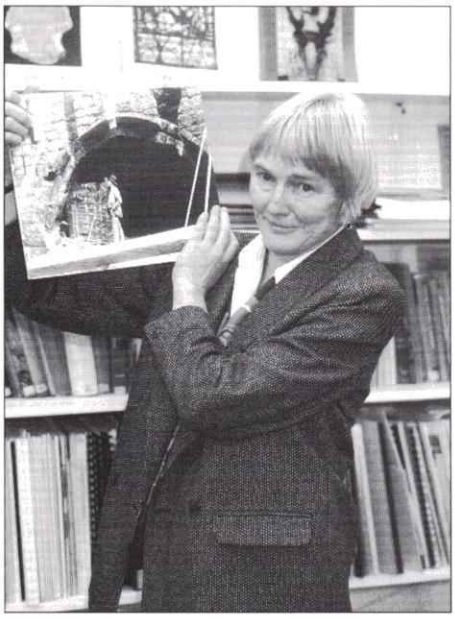
The AIA welcomes the following new members:

T.D. Cantle, Slough
Mr F.R. Hartley, Marlborough
Mr T. Manning, Edinburgh
Mrs J. Morris, Hove
Miss M.R. Perkins, Altrincham
Miss A.L.H. Sebille, Tonbridge Wells
Mr G.V. & Mrs M. Smith, Newbury

Robina McNeil

The death of Robina McNeil on 29 July 2007 comes as a sad blow to the many who knew her both as an outstanding archaeologist and a champion of the industrial archaeology of north-west England. Diagnosed with lung cancer in 2006, she had seemed to recover so well from her chemotherapy and was very cheerful, if tired, when I met her at a seminar on industrial heritage strategy in Swindon in early June this year and then walked with her along parts of the Llangollen Canal when we were both attending a seminar in Wrexham to discuss the proposed nomination of the Pontcysyllte Aqueduct as a World Heritage site. She was very familiar with the problems associated with such nominations, both as a member of ICOMOS UK and as a result of her tireless efforts to try to ensure that Manchester remained on the Tentative List of British World Heritage sites.

She edited with John Walker a series of Heritage Atlases on the Manchester area, which included *The Textile Legacy* (1996) and *Warehouse Album* (1997). The fourth issue of this series is entitled *Manchester – Archetype City of the Industrial Revolution* (2002), in which she waxed lyrical – as she often did – about Manchester's role as a symbol of the new industrial order and a model for the transformation of a city from small-scale domestic industry to a full-blown industrial city whose influence was felt in other major European textile centres such as Rouen and Ghent. This volume was subtitled 'Proposed World Heritage Site' and I was asked to launch this in Manchester at what seemed to be the beginning of an optimistic campaign to promote the acceptance of World Heritage status for the city, a project which has since fallen away in favour of increased development. At least Robina was successful in achieving, on the whole, the sensitive re-development of the mills of the Ancoats area which she regarded as being on one of the first industrial suburbs in which industry and the network of canals were closely related.



Robina McNeill *Photo: Michael Nevell*

Robina trained as an archaeologist at University College, London, before going on to research the medieval salt mines of Cheshire following her graduation. She joined the University of Manchester Field Archaeology Centre (part of the Greater Manchester Archaeology Unit) in 1986 and became its Director and County Archaeologist for Greater Manchester. As such, she was totally involved in demonstrating the fragility of Manchester's industrial heritage and working to ensure its sustainable development, a policy still being pursued by her colleagues like Norman Redhead, as attendees at the Friday seminar at the AIA Preston Conference will have seen, as well as by Mike Nevell and his colleagues at the University of Manchester Archaeological Unit. In 2000, she and Mike wrote the comprehensive *Guide to the Industrial Archaeology of Manchester* for the AIA's annual conference which in that year was held jointly with the Millennium Conference of TICCIH, giving the *Guide* a worldwide circulation. Most recently, she contributed extensively to the two volumes which make up the *Archaeological Framework for North-West England,* published in 2006. We were just in time to dedicate to her the *Guide to the Industrial Archaeology of Lancashire,* to which she had again contributed, at this year's conference based in Preston.

Our sympathy goes to her husband Brian Ayers, County Archaeologist for Norfolk, and to all her colleagues in Manchester who, like all of us, will miss her liveliness and enthusiasm both for the archaeology of buildings and for the industrial heritage.

Marilyn Palmer

Bernd Becher

Sadly the German photographer Bernd Becher died in Rostock on 22 June 2007 from complications following heart surgery. With his wife Hilla they spent their time together photographing industrial structures using a large format camera and their iconic images are now known internationally (see *IA News 125*, pages 12 & 13). The citation for the Hasselblad Award (2004) claimed that 'Bernd and Hilla Becher are among the most influential artists of our time. For more than forty years they have been recording the heritage of an industrial past ... their systematic photography of functionalist architecture brought them recognition as conceptual artists as well as photographers'. The wonderful prints that they exhibited were made by Hilla. Their work, in monochrome, is very matter of fact with exposures made in overcast light, avoiding contrast.

Bernd came from a coal-mining family and was born in Siegen, Westphalia, a coal-mining city, dominated by a giant steelworks. After studying painting and lithography with Karl Rössing at the Staatliche Kunstakademie in Stuttgart from 1953 to 1956 he returned to Siegen and attempted to draw the steelworks. Bernd discovered that drawing was too slow, demolition was taking place and he could not keep pace with it. He was reduced to using a 35mm camera and found that the photographs were a more powerful visual record than his drawings.

In 1957-61 Becher studied typography at the Staatliche Kunstakademie in Düsseldorf, working in advertising to support himself. Here he met Hilla and she joined him at the Kunstakademie in 1958. There was no photography course there; photography was not considered to be fine art. Working on their own, at first with a Rolleiflex and moving up to a large-format plate camera, they travelled around the Ruhr in a Volkswagen van photographing industrial structures, carrying ladders and scaffolding to get the best viewpoint for their exposures. Longer journeys were made later, the van serving as bedroom, improvised darkroom, and nursery for their son Max. In 1963 they held their first exhibition, in Siegen, at the Galerie Ruth Nohl, where visiting locals were somewhat perplexed to find industrial images displayed for inspection. Their first book, *Anonymous Sculptures – a Typology of Industrial Buildings* (1970) brought them to the attention of the art world. In 1972 and 1977 they were invited to show their work at the Documenta exhibition in Kassel. The Bechers were influenced by the work of new objectivity German photographers of the 1920s, for example August Sander, and the industrial Ruhr landscapes of Albert Renger-Patzsch.

Their publisher, Lutz Schirmer, has always insisted that their work is Fine Art and has consistently disapproved of notions that they have also carried out important industrial recording. He will only allow the books to be sold under the heading 'photography', not even under 'architecture'. This means that their work is only published in expensive art books and so not as well known in IA circles as it should be. In 1966 they spent six months photographing structures in Britain, mainly the coal industry, and the Tate Gallery in London has a collection of their pithead photographs taken between 1965 and 1973.

In Britain the Bechers discovered that people generally did not find their interest curious ... 'perhaps because it was here the industrial revolution started. In this country there is a love of inventors and engineers; Brunel, Stephenson and Watt are heroes'.

The Goethe Institute obituary made the point that the Bechers always picture a passing time or a time already past. 'Not incorrectly, the term industrial archaeology has been coined for this work'. It hardly needs to be said that the Bechers worked wonders for the acceptance of industrial archaeology in Germany. Their work emphasised the need to preserve some of the structures they photographed and they were influential in the retention of the art-deco Zollern colliery at Dortmund-Bovinghausen in the Ruhr.

Bernd was professor of photography from 1976 until 1996 and taught at the Düsseldorf Academy of Fine Arts, where Hilla also taught. Bernd was a gifted and patient teacher and his disciples became numerous and successful. After Bernd's retirement books appeared in regular succession; *Mineheads* (1997), *Framework Houses* (2001), *Industrial Landscapes* (2002), *Cooling Towers* (2006) and *Grain Elevators* (2006).

Robert Carr

A Preston postscript

Each AIA Conference generates a range of interesting points to follow up after returning home, and so it was with our time in Preston. Higherford Mill, which we visited from the Pendle Heritage Centre, is under restoration by the Heritage Trust for the North West. The mill featured in the television series 'Restoration Village', and a good description appears on pages 104-109 of the English Heritage book by Philip Wilkinson which accompanied the series, together with fine photographs of the mill by Peter Williams.

At Fiddlers Ferry on the Sankey Canal we saw the TID class tug *Bonchurch*. A recent illustrated article by Mike Taylor in *Archive* magazine (issue 54, pages 3-20) covers the history of the TID tugs, which were 'the largest class of tugs ever constructed in Britain'. Under the direction of the shipyard of Richard Dunston at Thorne, near Doncaster, separate sections of the TID tugs were built during the Second World War at widely distributed engineering workshops, and then brought by road to Dunstons for assembly. There were eight constructional 'units' for each hull, running from bow to stern, all of which were finally welded together and fitted out to form a tug. A total of 182 TIDs were built, 152 of them at Thorne. *Bonchurch* herself is illustrated on page 20.

At Bancroft Mill, Barnoldswick, where some of us sat almost mesmerised by the fascinating syncopated motion of the mill engine running, it was interesting to note that the names of jobs of those working in weaving sheds had been carved onto the wooden benches which were provided for visitors. I noted down the following: Beamer, Cloth Looker, Dresser, Fire Beater, Loomer, Loom Sweeper, Millwright, Overlooker, Reacher In, Sizer, Tackler, Taper, Tenter, Wages clerk, Warper, Weaver, Winder.

Most of us, on train journeys northwards through Preston, cannot have missed the imposing steeple of St Walburge's Roman Catholic Church. This lay just a few yards away from our Conference accommodation and many of us walked along for a closer look. The architect was Joseph Aloysius Hansom, and the church was built in 1850-54, reflecting the strong Catholic presence around Preston. The distinctive steeple (at over 300 feet high, reputedly the third tallest in England), is one which, as Pevsner comments '...one does not forget...' It is of light stone, contrasting with the brown stone of the body of the church. Pevsner describes the church as 'Hansom's most personal building...alarmingly individual.'

Henry Gunston

Celebrations of gas industry history

This summer saw ceremonies in London to mark two separate milestones in the early history of the gas industry. In June 2007 a 'green plaque' was unveiled, in response to an initiative from the Institution of Gas Engineers and Managers, at 100 Pall Mall in London to mark the 200th anniversary of the first public demonstration of gas street lighting. This demonstration was carried out in June 1807 by Frederick Winsor, a German entrepreneur who had previously witnessed a display of gas lighting in Paris before moving to London. A simple gas retort in his own house in Pall Mall was used to make coal gas which lit a small number of lamps, firstly in Carlton House Gardens and then in the nearby street. These demonstrations were designed to attract publicity for the National Heat and Light Company, in which Winsor was selling shares and for which he was seeking a Royal Charter for a monopoly to supply gas throughout the whole of Britain, an idea which was over 140 years ahead of its time!

Other early promoters of gas lighting, notably the Boulton and Watt Company (whose engineers, William Murdoch and Samuel Clegg, are credited with pioneering the techniques of making gas from coal) advocated the localised manufacture of gas, in factories and other large establishments and vigorously opposed the radical idea of making gas in centralised works and piping it through the streets. However, Winsor's business model prevailed, despite the failure of his National Heat and Light Company to attract investors or gain Government support. A group of influential backers met in London in July 1807 to form what was to become the Gas Light and Coke Company, with more modest ambitions to supply gas just to Central London. This initiative was effectively marked in a second ceremony, the unveiling of a green plaque to mark the site of the Gas Light and Coke Company's first gas works (the first public gas works in the world) in Great Peter Street, which opened in 1813. This plaque was sponsored by a private individual, Graham Darling, whose father worked for the GLCC at Great Peter Street between the wars.

Angela Cooper, deputy Lord Mayor of Westminster, Richard Haddon, President of the Institution of Gas Engineers and Managers and a member of British Gas's London Lamplighters Department at the unveiling of the green plaque in Pall Mall

Photo: Gillian Dawson

Somewhat overlooked in this anniversary year for the gas industry is Golden Lane in the City of London, which was the first street in the world to have permanent gas lighting. In 1805, William Brown and Joseph Parry formed the Genuine Beer Brewery in Golden Lane, pledging to beat the established London brewers in terms of both price and quality. They purchased a small gas plant from Josiah Pemberton of Birmingham, which was used to light the brewery and a total of 11 street lights in Golden Lane and Beech Street. In August 1807, *The Athenaeum* magazine reported 'the single row of lamps fully illuminate both sides of the lane...the experiment has been rather better performed than [Frederick Winsor's] at the back of Carlton House.' It is understood that, unlike the lights in Pall Mall, these gas lights remained in place for some years.

Ian West

Kelham Island Museum and the June flood

Kelham Island Industrial Museum, the surrounding area and much of the Lower Don Valley was flooded to a depth of over 1.4m in June 2007. The museum is officially closed until further notice as both infrastructure and larger industrial machinery was damaged. The staff have been working exceptionally hard to save the collections and move items to a higher level, but the clean up operation will take some time to complete. A thick layer of mud covered almost everything; the River Don engine and other industrial machinery will need to be stripped down and cleaned. The power of the water was most evident in the car park next to the River Don where the tarmac was lifted up and smashed back down.

The recently opened SCOPE science activity zone has been lost, but the transport gallery, part of the recent £1.1 million lottery funded project to create a new mezzanine level, was not affected. The museum's new large objects store was also damaged.

Sheffield Industrial Museum Trust and Sheffield Galleries and Museums Trust have been working together to save damaged items. The latter house the city's social history collections at Kelham Island

and have been working hard to salvage documents and other irreplaceable material. Insurance grants will enable conservation work and the redesign of exhibitions to take account of the new high water 'tide line' of oily residue around the premises. The museum also received assistance from the nearby Fire and Police Museum who have equipment, now museum exhibits but fully useable, which pumped out water from the museum and its grounds.

In September, the Duke of Gloucester paid a return visit to Kelham to see the extent of the floods. John Hamshere, Executive Director said that the Duke's support was greatly appreciated, and that the Museum hoped to be back up and running as soon as possible.

News of progress and about reopening will be posted on the website at www.simt.co.uk.

Christine Ball

Lovelace Bridges receive Conservation Award

The 2007 Conservation Award of the Surrey Industrial History Group was presented in the Great Hall of Horsley Towers to the Horsley Countryside Preservation Society on 15 July 2007 for their work in restoring the Lovelace Bridges constructed by Lord Lovelace in his forest at East Horsley in the nineteenth century. A plaque was presented to Mr Des Hollier (Chairman, Horsley Countryside Preservation Society) by Professor Alan Crocker (President, SIHG) in the presence of the Mayor of Guildford, Councillor Mike Nevins. This award is the 25th in the series of annual awards by the SIHG.

The First Earl of Lovelace, Lord Lieutenant of Surrey for some decades in the nineteenth century, constructed 15 bridges in his forest at East Horsley to ease the transport of timber to his sawmill over the undulating ground and to avoid numerous bridle paths. Ten of the bridges survive, and a project to conserve and restore them was started in 2003 in conjunction with Forest Enterprise. The first to be restored is Stony Dene Bridge. All the bridges are constructed in the style of the numerous buildings erected in East Horsley by Lord Lovelace, with facings of flint and polychrome brick, which may be seen most prominently on the Duke of Wellington public house and the gatehouses of Horsley Towers. A trail has been marked out so that the majority of the bridges may be visited on foot, starting in the car park in Green Dene, south of the A246. A map has been produced by Forest Enterprise. The Great Hall of Horsley Towers has an unusual arched timber roof, designed by Lord Lovelace and commended by Brunel.

Stony Dene Bridge *Photo: Des Hollier*

Inspired at Swindon

The Inspired Project is one of only six left in the running for a £50m lottery prize, which will be decided by public vote on an ITV programme at Christmas. As the only science, heritage and education project and, we believe, the project with the greatest chance of transforming people's lives, we are looking for help from people and organisations who would naturally support this endeavour to shoulder arms and help us win.

The Science Museum's collections are considered the best in the world, yet 92% of its objects are kept in inaccessible stores in London and Swindon. These are unique physical records of human invention whose value to education and research is almost entirely wasted. There is a steady stream of people that wish to visit the objects and use the Swindon site.This is the old Wroughton airfield, and was visited in September 1994 by delegates at the Winchester AIA Conference. In the last year the infrastructure has decayed to the point that only one hangar is safe for public use. Temperature and humidity fluctuations are affecting the condition of the objects, many of which are irreplaceable.

Science teaching is dwindling and fewer children are finding pleasure in scientific disciplines. Scientific literacy is directly related to economic competitiveness and the need to develop education and careers in science and technology, is widely acknowledged. The Science Museum has always played an important role in inspiring young people, and is the market leader for school trips, but its central London building has reached its capacity.

The Swindon site is strategically located on the M4 technology corridor, with 12m people within an hour's drive. It is a 550 acre sealed site with 11 aircraft hangars containing iconic objects. The scale of the land and buildings allows for activities impossible in central London, and pilot projects have demonstrated that people enjoy spectacular events linked to scientific issues, and schoolchildren enjoy practical hands-on activities that are not possible in school.

In January 2007 a proof of concept education programme called The Dream Factory was run in partnership with Honda to engage children in engineering before they chose their exam subjects at school. Feedback has demonstrated an increase in interest in science and engineering among participating schools, especially from girls, and demand for repeat programmes is high.

The Inspired Project will regenerate the old Wroughton airfield into a cultural and

educational venue and create a 6-acre building on the skyline overlooking Swindon. It will provide all-year, all-weather leisure and educational activities on a scale not possible elsewhere. It will protect and make available to the nation over 200,000 objects, many for the first time ever. It joins two refurbished aircraft hangars with a simple but majestic glass atrium, builds a new great hall behind the hangars and extends the atrium back into this new structure. Education and conservation workshops are incorporated into the central structure and a festival arena created outside. The design picks up on the simplicity of the giant structures with clean lines and large volumes. The angle of the hangars creates a natural entrance and draws people through into the building.

Science Museum Swindon

Shadow drawing or shadowy drawings? Highlighting technical drawings

AIA members are invited to help make technical drawings more understandable for industrial archaeologists, heritage conservators, and historical researchers. My doctoral research is investigating ways to bring technical drawings out of the archival shadows, and into the research limelight. Involving research users of technical drawings is key to ensuring that it addresses their real needs. Based at Liverpool University Centre for Archive Studies, my PhD is funded by the Arts and Humanities Research Council.

Technical drawings graphically represent engineering and manufacturing designs better than any textual description. These potent instruments of power and innovative thought depict progress, process and product across British industry. They developed rapidly from the 1830s, and dramatically increased in numbers from the 1870s, with new reprographic techniques. My research spans this period, up to the 1980s, when computer-generated drawing increasingly replaced hand drafting.

Today, technical drawings have research values for industrial archaeology and heritage restorations, and for academic and enthusiast study. Yet they are much less likely than textual records to be selected as archives, or be adequately catalogued for researchers. To some archivists, they perhaps represent one of the more challenging record types. My research will develop new methods to make technical drawings more understandable for archivists. This will better enable them to select and catalogue appropriate records, and make them more accessible for research. I now needs to know what sorts of technical drawings are of most interest to researchers, and what information they want to find from them.

Archaeologists, conservators and historians of industry are very welcome to collaborate with this research. You are invited to help identify key issues, comment on research methodologies and findings, and to critically assess the project's outputs. If you would like to be part of the consultation process, or just receive further information, please contact: paul.sillitoe@liverpool.ac.uk.

Paul J. Sillitoe

Introduction to industrial architecture

Those of you within easy access to the city might like to know that Oxford University Department for Continuing Education will be running a course on industrial architecture over a ten-week period from 2.00-4.00pm starting Thursday 17 April 2008. The fee is £85. All students will be expected to submit coursework at the end of the session and ten CAT points will be awarded to students reaching the required standard. The course location is Ewert House in North Oxford, where access and parking is easier than in the city centre. The tutor is Hubert Pragnell whose aim is to introduce the student to the immense range of industrial buildings to be found in Britain, from the medieval to such twentieth-century icons as Battersea power station and the Hoover factory. Find further information and enrolment on www.conted.ox.ac.uk/courses.

Thomas Clarkson and slave trade abolition

William Wilberforce was by no means the only campaigner for the abolition of the slave trade and Hull (see *IA News 141*, p15) is not the only place to be holding bicentenary celebrations this year. Wisbech has its own, not dissimilar, series of events and activities to commemorate the life of Thomas Clarkson, born there in 1760. He is claimed to be the man most responsible for the abolition of slavery and the first to bring the subject to the attention of William Wilberforce. Clarkson was the son of a schoolmaster and born in Wisbech Old Grammar School (1549-1898), now the Conservative Club. A blue plaque on the building describes him as 'Friend of the Slaves'. In 1785 while a student at Cambridge, Clarkson wrote a prize-winning Latin essay condemning slavery and from that year devoted his long life to its abolition. He died aged 86, a greatly respected figure, at Playford Hall in 1846. A street in Ipswich was named after him in the 1850s.

Robert Carr

EH's critical sites at risk

English Heritage has made an urgent plea to save 16 critical heritage sites, all requiring expensive funding. Those of IA interest include: Chatterley Whitfield Colliery (Stoke-on-Trent), Cardington No.1 Shed (Bedford), Ditherington flax mill (Shrewsbury), Soho Foundry (West Midlands), Birnbeck Pier (Weston super Mare), Abbey Mills and Crossness pumping stations (London), Tynemouth Station (Tyne and Wear), and Wicker Arch and Viaduct (South Yorkshire). It is not easy to find investors when industrial buildings are difficult to convert, or they are poorly located for modern businesses. Funding is now critical if such sites are to be saved. The 16 'basket cases' are perhaps the most expensive of the 1,235 entries on the Buildings at Risk Register.

Belle Toute lighthouse

A trust has been established to attempt to buy the old lighthouse on the clifftop at Beachy Head in East Sussex. The Belle Toute Lighthouse Preservation Trust is looking for donations so it can open the building to the public. The Grade II-listed lighthouse became disused in 1902, when the new lighthouse was built down in the sea at the foot of the cliffs. Since then the Belle Toute lighthouse was a private house and a tea shop. It was famously moved back 17m (56ft) from the crumbling cliff edge to its present position by engineers in 1999. Details can be found at www.belletoute.org.uk.

Managing mining features on farmland

The Historic Environment Service of Cornwall County Council, in partnership with its Devon equivalent has published a free 12-page leaflet entitled *Managing Mining Features on Farmland: an introduction.* It has background on the Cornish Mining World Heritage Site before covering specific features: Shafts, Adits, Outcrop Workings, Ponds, Buildings, Leats and Spoil Heaps. There are notes on General Land Management, Biodiversity, Listed Buildings and Scheduled Ancient Monuments, followed by a section on where to get help and advice. This simple leaflet is a practical and targeted spin-off from the recent WHS designation and its contents could easily be applied to similar landscapes elsewhere. The leaflet is available free from the Historic Environment Service, Kennall Building, Old County Hall, Truro TR1 3AY.

Calder Hall demolition

At Calder Hall in Cumbria the four cooling towers were demolished by explosives at 9.00am on Saturday 29 September 2007. Calder Hall was the world's first full-scale nuclear power station when it was opened by HM the Queen on 17 October 1956. Workington was the first town in the world to receive electricity from nuclear power. The last of four nuclear reactors started work here in December 1958. Will any early nuclear power stations be preserved for posterity? Residual radioactivity is likely to discourage this.

Robert Carr

Hudson Gallery at Bath

A new gallery has been named after Kenneth Hudson at The Museum of Bath at Work in Julian Road, Bath. In a long and distinguished career Kenneth Hudson was at the centre of the international museum scene and h felt it his role to speak for the museum visitor, not the officials. He provided great support and advice when J.B. Bowler & Sons closed in 1969 and the collection was saved by Bath Industrial Heritage. Kenneth Hudson devised the name The Museum of Bath at Work. The new gallery, made possible by a grant of £25,000 from the Heritage Lottery Fund, allows eight local societies to have their own displays in the museum.

Bath Industrial Heritage Trust

South West England

Nothing this year has been as significant as the designation of Cornish Mining as a World Heritage Site and it is probably still too soon to assess the consequences of that event. In December 2006 the first sign at a visitor attraction to include the designation was unveiled at the Trevarno Estate near Helston. Trevarno was for many years the home of the Bickford Smith family. William Bickford Smith was the inventor of the safety fuse and part of the company's factory remains in a ruinous state at Tuckingmill near Camborne. The Trevithick Society has recently republished the Bickford Smith Centenary volume of 1931 and a new edition of Bryan Earl's definitive book on *Cornish Explosives*. In May the organisations responsible for the WHS submission gathered at Cotehele House to see the Duke of Cornwall receive the formal inscription from Dr Michtild Rossler representing UNESCO. In June Nicholas Johnson, Cornwall County Archaeologist, and a key player in the bid, received an MBE in the Queen's Birthday Honours List.

In November 2006 the Royal Cornwall Museum, Truro, purchased a collection of 16 drawings by artist Terence Cuneo. They were commissioned by Holman Brothers and published as 'vignettes' in their 150th anniversary history, *Cornish Engineers*. That book also contained five Cuneo colour paintings, which the museum has owned since 2004. The pencil sketches cover all aspects of the company's work; of particular delight is one showing 'Elephants Hauling a Holman boiler through the Burmese jungle'.

In the same month the Trevithick Society mounted a major exhibition at the Cornwall Centre, Redruth, on the Redruth Brewery, showing many of the artefacts saved from the site. The exhibition attracted a great deal of interest and was followed in July this year by one on Holman Brothers. A further exhibition on 'Extractive Industries of Cornwall' takes place in August. Still on matters Trevithick, a commemorative plaque was unveiled in March 2007 at the Bull Hotel, Dartford, where Richard Trevithick died in 1833, while in Bridgnorth, Shropshire, a working party has been formed to explore the building a replica of Trevithick's 1808 'Catch-me-who-can' locomotive. This engine, which ran on a circular track off Gower Street, London, was built by J. U. Rastrick at the Hazeldine Foundry, Bridgnorth and is the only Trevithick locomotive, which has not to date been replicated. Not to be out-done the 'Murdoch Flyer' project in Redruth has just unveiled its replica, which is a scaled-up reproduction of Murdoch's model steam carriage of 1784.

Since I wrote in *IA News 140*, the derelict Redruth Brewery site has suffered a series of major arson attacks. These are likely to lead to the complete clearance of the site and all historic buildings. Bizarrely, responsibility for the most recent fire in June has been claimed by the self-styled Cornish National Liberation Army. The group, which has previously threatened the Cornish operations of celebrity chefs, Rick Stein and Jamie Oliver, apologised for the inconvenience caused 'by the necessity to test incendiary devices in an urban environment.'

CPR Regeneration is about to unveil its master plan for the Pool area between Camborne and Redruth. This is the heart of the most concentrated mining area in Cornwall and the proposals will require careful scrutiny. Following disputes with Baseresult, owners of South Crofty Mine which they are seeking to reopen, the master plan now retains some access for tin mining at Crofty via the Cook's Kitchen and Tuckingmill Decline shafts. The plan also includes Kerrier District Council's Heartlands park project around the disused Robinson's Shaft, which is the subject of a separate Lottery funding bid. The buildings at Robinson's have suffered vandalism and have just been added to English Heritage's 'At Risk Register'. Simultaneously English Heritage announced that, following expenditure of £810,000, the historic site at Wheal Peevor had been removed from the Register.

Following a successful 2006 season with visitor numbers up 12%, Geevor Mine began work in June on a £3 million restoration project for 23 buildings on the site. Midas Construction will employ 20 people for the duration of the project. Geevor still has aspirations to open up some of its twentieth-century workings to visitors with access from Victory Shaft.

The unique tin streaming works, Tolgus Tin, has re-opened for the first time since the demise of the Trevithick Trust in 2004. Owner Treasure Park is seeking funding for improvements. There were once hundreds of such works, with fifteen in the Tolgus valley alone, so its survival is as important as more glamorous artefacts. The proposal to employ half a dozen professional actors to dress up as old tin streamers and operate the machinery seems somewhat less essential.

King Edward Mine held a successful open day at the end of April, attracting some 1,300 people to the site. Among the new items on display was the last shift cage from South Crofty used prior to closure in 1998. Prior to this a meeting earlier in April had agreed to found a support group, The Friends of King Edward Mine. Its aims are to raise funds for the preservation, conservation and benefit of King Edward Mine and to encourage education, research and to raise awareness of King Edward Mine. Membership is available at £15 annually for a Friend and £50 for a Patron. More information about King Edward Mine and the Friends can be found at www.kingedwardmine.co.uk .

There has been little or no progress on the future use of the former Perran Foundry site at Perranarworthal. Perran Foundry was one of the great trinity of Cornish engine builders (the others being Harvey and Copperhouse at Hayle) and the only one where significant remains survive. The buildings were latterly used as a flour and seed warehouse and have been empty since 1986. Various proposals have been put forward and the current application was submitted in 2005. This involves the restoration of the buildings with a combination of commercial, residential and live-work usage. Concerns about the effect of such a large development on traffic and infrastructure plus the need to safeguard the historic nature of the site have conspired to delay progress. Additionally the site lies within a tidal flood plain and this has caused the Environment Agency to register its concern. Carrick District Council could give a decision this autumn.

In Devon , 60 years of maritime history came to an end at Torbay

this year with the departure of the two Western Lady ferries, which ran between Torquay and Brixham. They were the last of the ex-Royal Navy Fairmile B launches, once common as pleasure vessels around our shores. *Western Lady III,* RML 497, built by Southampton Steam Joinery in 1941, will see further passenger service in Swanage; *Western Lady IV,* RML 526, from the Solent Shipyard in 1942, has been sold for private use. The last surviving British three-masted wooden trading schooner, the *Kathleen & May,* is for sale for £3.5 million. Her Bideford owner has spent £2 million since rescuing her from Gloucester docks in 1998 but can no longer afford her upkeep.

Tamar, the Journal of the Friends of Morwellham, has a report on an interesting structure at nearby Ferry Farm. This is now believed to be a kiln used to produce dried wood or 'white coal' used as a fuel for lead smelting from the late sixteenth to early eighteenth century. Such kilns are common in Yorkshire, Derbyshire and Cumbria but the Ferry Farm example, which almost certainly served the Buttspill Mine and its smelter, is the first to be identified outside the north of England. Morwellham Quay itself is seeking volunteers for continuation of last year's archaeological activity, which investigated the railways in the main dock area there.

The Fairground Heritage Trust is now established in its permanent base at the former Dingles Steam Village, Lifton, now known as Dingles Fairground Heritage Centre. It is currently hosting an inaugural Pleasurelands exhibition on the world of the travelling fun fair.

Offshore on the Isles of Scilly, work by the Tresco Estate on that island has removed some of the evidence of the World War1 seaplane station RNAS Tresco. After a successful season last year, a second phase of conservation will take place on the uninhabited island of Samson to ensure the survival of this remarkable landscape, abandoned in 1854. Work will also take place on the little island of Tean where a late eighteenth century ruined farmhouse, once home to the Nance family, who founded the Scillonian kelp industry sits on the site of an early Christian chapel. This October saw the 300th anniversary of one of Britain's greatest maritime disasters when *HMS Association,* flagship of Admiral Sir Cloudesley Shovel, and her accompanying fleet, were lost on the Gilstone near Bishop Rock. 1,450 men drowned. A programme of geophysics is seeking to establish the existence of burials on neighbouring St Agnes. Incredibly, although the alleged place where the admiral's corpse was washed up is well known, no other graves are currently known or marked. A major series of events to mark the anniversary is planned for the autumn.

Finally, the last year has sadly seen the deaths of two major figures in the field of Cornwall's industrial heritage. James Hodge, who has died aged 87, was a gifted engineer who worked with Frank Whittle at Power Jets and was Engineering and Research Director at Holman Bros from 1958 to 1974, where he worked amongst other things on the application of gas turbines. He was successively the first Chairman and then President of the Trevithick Society, author of a short life of Trevithick and many technical papers. Clive Carter, a later Chairman of the Society, who died unexpectedly aged 65 in late 2006, described himself as 'a well known figure around the harbour at Penzance, author, artist, maritime historian, model maker, sometime salvor, engineer, raconteur, freebooter and Cornish Bard'. Hugely knowledgeable on all aspects of Cornish industrial history, he will be sadly missed. A gathering of family and friends at Geevor in April saw a plaque unveiled beside the Cornish stamps whose re-erection from Nancledra he had arranged some years before.

Graham Thorne

West of England

Now that the Brunel bicentenary celebrations outlined in our last report have been concluded, attention has shifted to a more-familiar fare of threatened sites and attempts to conserve and restore industrial and transport heritage.

In Dorset, there have been further developments on the Swanage Railway where volunteers have saved an historic footbridge from demolition and installed it at Corfe Castle station. The bridge was built in 1893 by the London, Brighton & South Coast Railway and was previously in use at Merton Park until displaced by the Croydon Tramlink. This is the first time since the station opened in 1888 that it has had such a bridge, passengers having previously used a gated crossing. General Manager, Nick Brown, commented that 'the new footbridge fits in so well you would think it was an original feature of the station.' All credit to the volunteers and a challenge to future industrial archaeologists if they rely solely on the physical remains to interpret the passenger experience at this evocative country station!

In Gloucestershire, the Cotswolds Canals Partnership has submitted an £18.9 million bid to the Big Lottery for funding the restoration of the Stroudwater Canal between Saul Junction and Stonehouse, a four-mile stretch that includes the major obstacles of the A38, the M5 and a mainline railway. Ray Wilson reports on the work of the Gloucestershire Society (GSIA) who supported the bid by carrying out a large number of 'mini projects' all related to the Canal. Not only does this demonstrate community involvement in the scheme but some of the research has provided information which will assist the restoration. The work done by GSIA members and friends counts as match funding for the project and the value of the work done so far is nearly £21,000. For further information go to www.gsia.org.uk/canals.

Our last report (Winter 2006) mentioned an upsurge in interest in the hemp and flax-based industries of south Somerset, stimulated by the inclusion of Dawe's Rope Works in last summer's 'Restoration Village' TV series. Previous work on the industry across the region has been locally-oriented and there has been a need to pull things together. To their great credit Somerset IA Society organised a well-attended day conference in February to begin the task. Included were presentations on the twentieth-century revival of flax processing. Pam Slocombe, chair of the IA committee of the Wiltshire Archaeological & Natural History Society spoke on a government flax factory of 1940 on an industrial estate on London Road, Devizes which produced fibre to be made into webbing for parachute harness. This Roundway Flax Mill was one of the last of government flax factories to close and operated until 1957. Most of the buildings are likely to be demolished for housing and it is timely that their significance has been recognised in time and that a letter to the local press has enabled contact to be made with former workers.

Pressures for development of brownfield sites continues apace in the region's larger cities and passions have been high in Bath, some seeing a rerun of the 'sack of Bath' that did so much to damage that city's Georgian heritage towards the end of the last economic boom in the sixties and early seventies. Two 'industrial' sites have been at the centre of controversy. The first was the former offices and showrooms of Bath's electricity undertaking, Churchill House. This fine building of the inter-war period has now been demolished, as have the remains of the generating station to the east

The facade of world-famous crane maker Stothert & Pitt's Newark Foundry in Lower Bristol Road, Bath, recently listed in the face of plans to redevelop the site. The architect Thomas Fuller emigrated to Canada where he was involved in designing the parliament buildings in Ottawa *Photo: Peter Stanier*

and rear of the site. Nearby, the former Newark Works of engineers and crane-makers, Stothert & Pitt, has now been listed. The 1857 building on Lower Bristol Road has a fine facade which faces the railway and many later buildings of this famous firm survive to the rear of the site alongside the River Avon. Demolition was proposed to make way for Sir James Dyson's Dyson School of Design and Innovation and Bath Spa University's new arts campus, but it is now intended to keep the facade and incorporate this in revised schemes. In a more recent decision, only the new university campus will be developed here.

In Bristol, there have been a number of schemes for adaptive reuse of some of the city's industrial buildings that have survived in ruined or reused form. These have included the fine carriage works of 1862, listed Grade II*, on Stokes Croft to the north of the city centre, extensions to Christopher Thomas's elaborate Byzantine soapworks in Broad Plain, Severn Shed (one of the oldest transit sheds on The Grove, originally built on the banks of the Floating Harbour to handle imported hides) and the two remaining 'untouched' warehouses opposite on Redcliff Backs, known as 'Huller House' and the 'Cheese Warehouse'. Nearby, on Redcliffe Wharf, a temporary urban beach is to be installed prior to development on this historic quay. Such is the changing face and usage of Bristol's old dockside! Elsewhere, work is now underway on Temple Backs, where the facade of the former municipal power station is to be kept. Nearby on Counterslip, significant parts of the former Bristol Brewery and the remains of Finzel's sugar refinery that were incorporated into the brewery buildings in the 1920's are to be 'stitched in' to this large mixed-use development. Other schemes are in preparation and it seems there will soon be few ruined or untidy remnants of Bristol's rich and diverse industrial heritage left for us to savour and campaign about.

Mike Bone

Northern England

Starting on Teeside, Tees Archaeology have recorded a sail hoist, this was installed in the roof space of a building on the corner of Vulcan St. and Dock St. which from nineteenth-century maps is shown to have been a sail loft. It had a large first floor room with large windows for natural light, which was used for making and repairing sailing ship sails. The hoist allowed the sails to be lifted from the road and swung in through a door at first floor level into the building. The building has now been demolished but the hoist has been moved to the Dorman Museum in Middlesbrough.

Moving up to Tyneside the Tyne and Wear Museums Archaeology Department have carried out work at the Hawks Iron Works, Gatehead. The original iron works was set up on the site in 1747 by William Hawks and Co. and the site grew rapidly until 1840, but closed suddenly in 1889. The site to the south of the road continued as the Kelvin works with buildings eventually being demolished in 2005. The north side of the road was cleared by 1898 and a power station built on part of the site. Buildings associated with the Baltic flour mill occupied other parts of the site. This site was cleared between 1973 and 1984 and the Ingersoll Rand building built. This in turn was demolished in 2006. Excavation of the site has revealed remains of all phases of the use of the site from the iron works through to the power station.

Moving up into the Pennines Cumbria Amenity Trust (CAT) have completed the opening of the entrance to Middlecleugh Mine at the head of the Nent Valley and the North Pennine Heritage Trust have finished the restoration of the mine shop next to the entrance. Also in the Pennines, an experiment took place to compare the firing of a traditional Pennine limekiln and a Romanian kiln. A group of Romanians from Meziad visited the area and first fired a Romanian-style kiln built especially for the event near Bowes and then a restored traditional kiln near Cowshill in Weardale. The experiment showed that the Romanian-style kiln produced 1.8 tons of putty lime from 4 tons of limestone using 10 tons of wood as fuel whilst the traditional kiln produced 2 tons of putty lime from 5.5 tons of limestone and 1.5 tons of coal and coke.

In the Lake District a group of mine explorers including Warren Allison, Sam Murphy and Rob Smith have been working in the Roughtongill and Silver Gill area on the medieval lead and silver mines. Documentary evidence goes back to 1319 for mining in the Caldbeck Fells and the German miners started work circa 1566 in Silver Gill. Excavations along one of the closed adits revealed a small piece of timber with 1 inch diameter holes drilled in it pegged to the floor with wooden pegs. Two flat boards also with holes approximately 1 inch diameter were also found but not in situ. A further six pieces similar to the one still fastened to the floor have been found. Carbon dating has provided a date to the early Elizabethan period. An inventory of 1586 states that two Rowle Wagons were being used at Caldbeck as well as other mines in the Lake District. The people who found these artefacts along with specialists in early waggonways from the National Railway Museum in York who have visited the site believe that these remains are of an early waggonway consisting of sleepers laid parallel to the wall of the adit with boards fixed to the top along which the wagons run with possibly a metal spike between the boards to keep the wagon in line. If these findings are correct these will be the oldest remaining examples in Europe and show that the Lake District is the home of the railway in England.

In the same area recent carbon dating of charcoal from a bale site (ancient smelter at Calebreck on the eastern side of the fells has given a date of 1092 at the time that the Carlisle mint was working. Previously, references to the Carlisle Mines have always thought to have been the mines in the Alston district. But this finding may suggest that the lead and silver was coming from Silver Gill instead. In the centre of Carlisle the discovery of a Roman lead smelter with ore that is suggested to have come from the Lake District, opens up the possibility that the Romans were mining lead in the Caldbeck Fells which are only 14 miles from Carlisle and there is evidence they were working a quarry only 5 miles away. Further work is on going in Silver Gill to try and open more of these early workings.

Out on the west coast of Cumbria an archaeological investigation of Pottery Park at

Dearham has been carried out. This site was a pottery that was active from the mid eighteenth century until the early 1900s. Excavation revealed a large dump of mainly earthenware sherds. The main buildings were an L-shaped block with the end walls still upstanding but no evidence of the kiln was found. The local people were invited to visit the site during the excavations and examples of the type of pottery made were brought along.

Graham Brooks

Wales

Brief news from the South Wales coalfield. In 2007, the *Guardian* and BBC News reported that the first coal in a decade has emerged from the reopened drift mine in the Neath Valley, South Wales. Unity Mine at Cwmgwrach, had been closed since 1998, but is estimated to have reserves of up to 90 million tonnes. The mine's owners stated that it would be capable of producing up to one million tonnes of coal a year for the next 25 years and around 120 jobs should be created at the site by early next year.

The drift mine is the first to be opened in Wales since Betws Colliery at Ammanford in 1974. Horizon Mining, the company behind Unity, also has four other mine sites in South Wales under development. When coal mining was at its peak in the 1920s period, around 600 large scale pits were working in the South Wales coalfield. Until Unity opened, the only major deep mine still operating was Tower Colliery at Hirwaun, owned by the workers, which is rumoured to be closing next year because its reserves have been exhausted.

Also in South Wales, in one of the former prosperous industrial towns at the 'Heads of the Valleys', The Brynmawr Historical Society and Brynmawr and District Museum are putting together a trail which will include a series of interpretive panels to highlight the town's heritage. The project is one of the HERIAN Heritage in action programme known as 'This is Our Heritage'. Brynmawr expanded from a village to a large industrial settlement in the early nineteenth century, when new housing was constructed for the employees and their families at Nant-y-Glo ironworks and the surrounding collieries. The town itself developed a thriving boot-making industry to supply these workers.

In Carmarthenshire, the first National Hunt Racecourse to be built in the UK for 80 years is currently being constructed on the former open-cast site at Trimsaran. The 608 acre Ffos Las Mine closed 10 years ago. The redevelopment scheme includes the customary hotel, restaurant, public house and of course 250 new houses.

In North Wales, distressing IA news has been reported in issue 197 of the caving magazine *Descent*. This is the sudden demolition and destruction at the Robey Incline Head at Llechwedd slate quarry, Blaenau Ffestiniog. The Robey steam winder, later converted by the installation of a large electric motor, stood almost intact in its house, along wiith compressors and other large machines. But in late May 2007 all this was smashed when the site was suddenly bulldozed, apparently with no attempt to save the machinery for a museum. Cadw put a stop to further demolition but of course it was too late.

Pat Frost

The Industrial Archaeology debate

As one of the 'third generation' of industrial archaeologists and a co-proponent of the 'Manchester Methodology' I have been following the debate on the nature of Industrial Archaeology both here and in *IA Review* with keen interest. Some correspondents have assumed that Industrial Archaeology is nothing but the archaeology of technology, an ancient debate that goes back to the 1950s, whilst others have argued that IA is completely separate to so-called 'main-stream' archaeology.

It is tempting to characterise this debate as a sterile, polarised, argument between the pure technologist and the technophobe academic. So perhaps before the so far lively debate becomes too fevered it would be wise to highlight a few points.

Firstly, there is no place in our discipline for snide comments and insults. Not only is this unprofessional but its runs against the spirit of cooperation and enthusiastic exchange of information that is one of the pleasures of the IA community. Worse, it runs the risk of alienating much of the AIA membership. However, there is nothing wrong with strongly held and strongly argued views and indeed it is refreshing to see the passion of the current debate.

Secondly, archaeology is the study of the *physical* remains of the past in all its forms from bricks to documents, and by this measure IA is very firmly a branch of archaeology and not some special reserve of the technologically literate. Again, this is an ancient debate from the 1950s and 1960s and to argue otherwise is to let those archaeologists who are not convinced of the need for IA to deride us as peripheral.

Thirdly, and in the current context most importantly, what all correspondents in this debate appear to have in common, myself included, is the recognition of the centrality to modern IA of technology, technological change in the Industrial Revolution, and the detailed recording and interpretation that this requires.

Therefore, to concentrate wholly on technology is to ignore the individuals who built and ran the machines, those who used the technology, and the landscape and social impact of technological change that is one of the key features of the Industrial Revolution. If we don't understand the wider context of these changes then we will not understanding their wider meaning. Some people may not want to understand this wider context and indeed deny that there is any. Others may deride the attempt to place technological change in a wider context as wildly speculative. Yet for those of us who do see the need for a wider context to IA, the debate should not be about whether we should do these things and whether this is truly IA, but how well we understand the interconnection between machine and landscape, and society and technological change, an understanding which Tom Rolt, the founding father of Industrial Archaeology, first began.

Dr Michael Nevell
University of Manchester

AIA Spring Visit to Saarland

19 – 24 May 2008

The star attraction of this important former coal and steel area on the River Saar in Germany bordering France is undoubtedly the immense Voelklinger ironworks, the first industrial monument to become a World Heritage site but other attractive sites include an eighteenth-century oil mill, the railway museum at Losheim am See, the oldest steam winding engine on the Saar coalfield at Velsen and a city rich in ceramics over the border in France. Travel by coach, with stops in Reims and Epernay for a champagne experience. To be put on the mailing list, contact Paul Saulter, 80 Udimore Road, Rye, Sussex, TN31 7DY for details in the early part of next year. Updates on www.heritageofindustry.co.uk

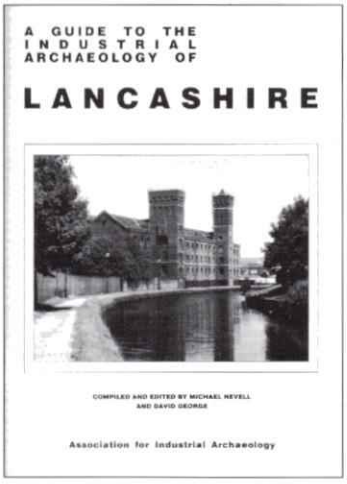
Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review.*

Brewery History Society Newsletter, 37, New Year 2007; 38, Spring 2007
Cumbria Industrial History Society Bulletin, 68, August 2007
Hampshire Industrial Archaeology Society Focus on Industrial Archaeology, 68, June 2007
Hampshire Industrial Archaeology Society Journal, 15, 2007
Hampshire Mills Group Newsletter, 77, Summer 2007
ICE Panel for Historical Engineering Works Newsletter, 114, June 2007
Industrial Heritage, 33/1 Spring 2007
Lancashire History Quarterly, 11/1, Summer 2007
Leicestershire Industrial History Society Bulletin, 18
Leicestershire Industrial History Society Newsletter, Summer2007
Merseyside Industrial Heritage Society Newsletter, 276, June 2007
Museum of Bath at Work Newsletter, Summer 2007
Renfrewshire Local History Forum Journal, 13, 2005/6
Scottish Industrial Heritage Society Bulletin, 43, June 2007
Suffolk Industrial Archaeology Society Newsletter, 98, August 2007
Surrey Industrial History Group Newsletter, 158, July 2007
Sussex Industrial Archaeology Society Newsletter, 135, July 2007
Sussex Mills Group Newsletter, 135, July 2007
Trevithick Society Newsletter, 134, December 2006; 135, March 2007
Trevithick Society Journal, 33, 2006
WaterWords: News from the Waterworks Museum, Hereford, Spring/Summer 2007
Worcestershire Industrial Archaeology and History Society Journal, 32, Summer 2007
Yorkshire History Quarterly, 12/2, Summer 2007

Short Notices

A Guide to the Industrial Archaeology of Lancashire, ed. by Michael Nevell and David George. Association for Industrial Archaeology, 2007. 56pp, 94 illus. ISBN 978 0 9528930 9 7. £5.50.

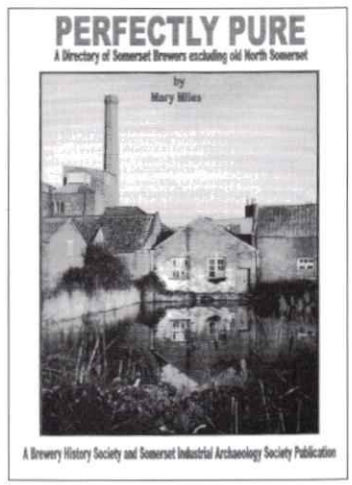


The latest of the AIA's successful guides illustrating the county around the venue of each year's annual conference, it is well produced, with many illustrations and clear location maps. The book begins with a brief background to Lancashire and the work of recording and preserving its industrial heritage, the main gazetteer covers the areas of Lancaster and the Lune Valley, Preston and the Fylde, Southport and West Lancashire, Burnley and the Upper Ribble Valley, and Blackburn and Rossendale Uplands. Museums and other attractions, and further reading, are listed separately. Although, unsurprisingly, textile sites are prominent, there are many other topics such as canals, foundries, housing, paper making, ports, railways, roads, wind and water mills, and much more.

Discover Dorset: Roads, Tracks & Turnpikes, by David Viner. Dovecote Press, 2007. 80pp, 58 illus. ISBN 9781904349143. £4.95.

A new addition to a county series which includes other IA topics. This one explores aspects of roads and trackways from the prehistoric, Roman and medieval periods (with notes on sunken hollow ways, packhorse bridges, etc) to the turnpike age with its tollhouses and milestones still very much in evidence. Brief summaries and dates are given of the main turnpike trusts. The author uses accounts of travellers to illustrate past conditions, and gives examples of road hauliers from horse-drawn days to motor coaches. The book enthuses about how old routes can be traced throughout the beautiful landscape of Dorset, a county, incidentally, without a single mile of motorway. Attractively produced and attractively priced.

Perfectly Pure: A Directory of Somerset Brewers excluding old North Somerset, by Mary Miles. Brewery History Society & Somerset IA Society, 2006. 132pp, over 108 illus. ISBN1 873966 14 8. £10.95. Available from the Brewery History Society, 102 Ayelands, New Ash Green, Longfield, Kent DA3 8JW.



While many may associate Somerset with cider, few would recognise the county's proud history of brewing recorded from 1638 to 1966 which saw many innovations, partnerships and mergers. Despite the loss of commercial brewing in the 1960s, Somerset became a leader in the Real Ale revival and a number of micro breweries now thrive here. The book is a gazetteer of known brewers with particular emphasis on those sites that can be identified. It includes publican brewers, retail brewers and commercial brewers. Entries from trade directories are often supplemented by further details, photographs and illustrations from other sources. They include town breweries such as at Bridgwater, Crewkerne, Frome, Taunton and Wiveliscombe. Shepton Mallet boasted the fine Anglo-Bavarian Brewery, while just up the road the village of Oakhill had a large brewery and maltings served by its own narrow gauge railway. Other details are devoted to village breweries and maltings. Packed with information, the book shows how information on a particular industry can be gathered together for public readership and is a stimulus to researchers to follow likewise in neighbouring counties.

4-6 APRIL 2008
CROSSING PATHS OR SHARING TRACKS? FUTURE DIRECTIONS FOR THE ARCHAEOLOGICAL STUDY OF POST-1550 BRITAIN & IRELAND

at the University of Leicester, the conference aims to bring together representatives from the AIA, the Society for Post Medieval Archaeology, the Contemporary Historical Archaeology and Theory list, the Irish Post-Medieval Archaeology Group, and the Industrial Heritage Association of Ireland to consider the commonalties between approaches as well as the unique contributions made by members of each organisation towards the study of the material heritage of the post-1550 period. For further details contact: Professor Marilyn Palmer, School of Archaeology and Ancient History, University of Leicester, University Road, Leicester LE1 7RH, Tel: +44 (0)1162522604. E-mail: mai@le.ac.uk

21 APRIL 2008
SERIAC

the South East Region IA Conference, hosted by the Greater London IA Society. Advance notice only.

10 MAY 2008
EMIAC 75: SETTING SAILS IN SNEINTON

at the Bakersfield Community Centre, Sneinton Dale, Nottingham, hosted by the Nottinghamshire IA Society. For details and a booking form send SAE to EMIAC 75, Joan Hodges, 2 Knighton Road, Woodthorpe, Nottingham NG5 4FL.

19-24 MAY 2008
AIA SPRING VISIT TO SAARLAND

See inside for details. To be put on the mailing list, contact Paul Saulter, 80 Udimore Road, Rye, Sussex, TN31 7DY for details in the early part of next year. Updates on www.heritageofindustry.co.uk

29 MAY - 1 JUNE 2008
SIA ANNUAL CONFERENCE

in San Jose, California, USA, the 37th Annual Conference of the Society for Industrial Archeology. Details, booking and membership on the SIA web-site, www.sia-web.org.

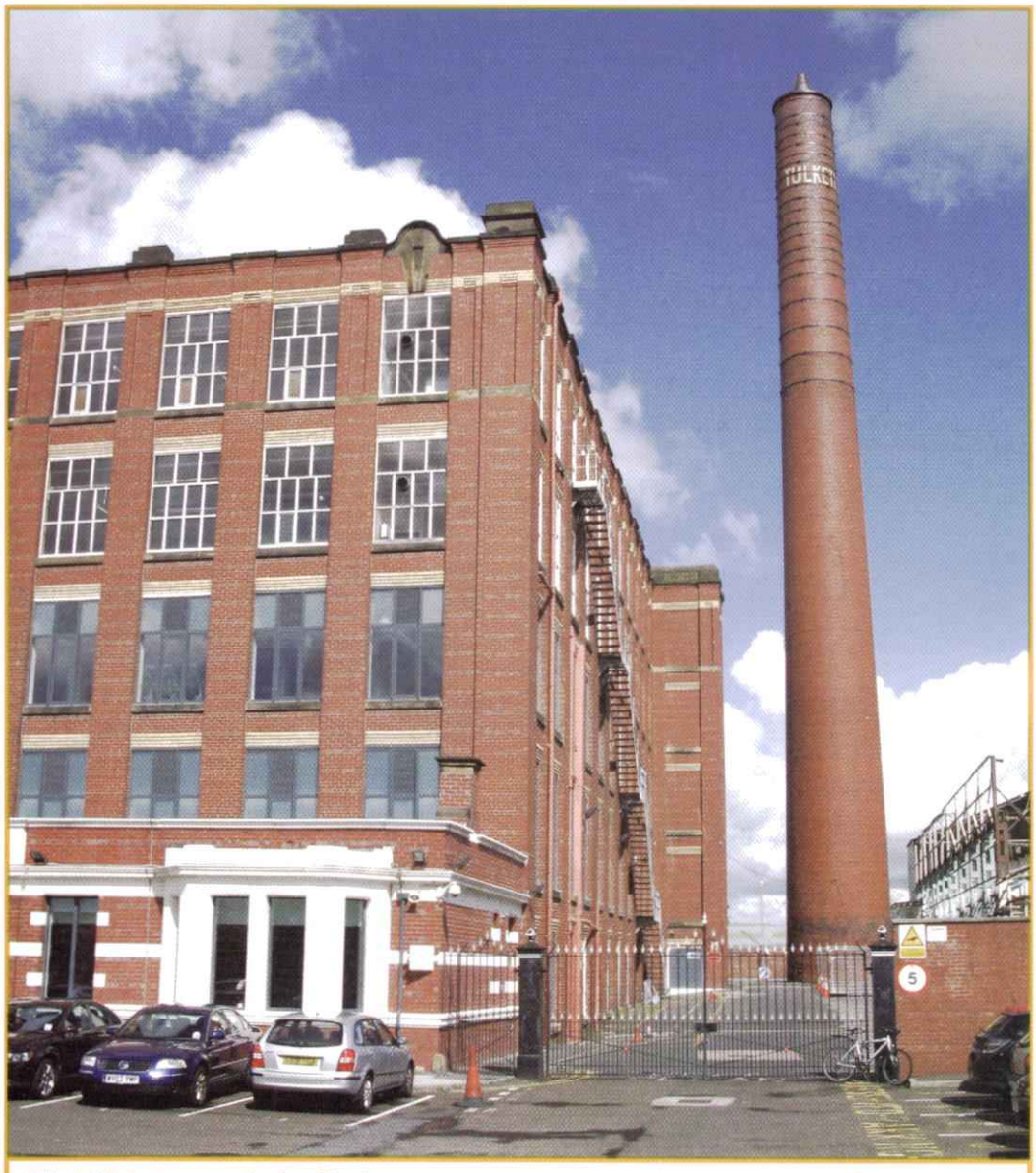
22-28 AUGUST 2008
AIA ANNUAL CONFERENCE

at Lackham near Chippenham, Wiltshire, the AIA's annual conference. Advance notice only.

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

THE AIA WEBSITE'S DIARY SECTION GIVES FULLER DETAILS OF THE LATEST NOTICES OF CONFERENCES AND MEETINGS

www.industrial-archaeology.org.uk



Tulketh Mill, Preston, now a Carphone Warehouse *Photo: Steve Dewhirst*

INDUSTRIAL ARCHAEOLOGY NEWS
(formerly AIA Bulletin ISSN 0309-0051)
ISSN 1354-1455

Editor: Dr Peter Stanier

Published by the Association for Industrial Archaeology. Contributions should be sent to the Editor, Dr Peter Stanier, 49 Breach Lane, Shaftesbury, Dorset SP7 8LF. News and press releases may be sent to the Editor or the appropriate AIA Regional Correspondents. The Editor may be telephoned on 01747 854707 or e-mail: aianewsletter@yahoo.co.uk.

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.

Registered in England under the Companies Act 1948 (No. 1326854) and the Charities Act 1960 (No. 277511)
Registered office: c/o IGMT, Coach Road, Coalbrookdale, Telford, Shropshire TF8 7DQ
Produced by TBC Print Services Limited, Blandford Forum, Dorset DT11 8ST