The Preservation of St Aidans Dragline and its Friends

In 1988 the NCB Open Cast Site at St Aidans, Leeds became flooded but fortunately the two large walking draglines were on higher ground so that they were not affected. It was realised that it would take about ten years to get the site going again and that one of the draglines would then be about 50 years old and too outdated to meet the new standards.

At the same time there was a threat of closure of the nearby Allerton Bywater NCB Colliery. Area Workshops and Offices and consequently mass redundancies.

JJ Brown

The writer was Minerals Officer for Leeds City Council at that time and responsible for planning matters relating to mining in the Council area. Almost at the same time he was approached by two parties:

First – Excavator enthusiasts, in particular

Peter Grimshaw, who pointed out the history and uniqueness of the Bucyrus Erie 1150B dragline at St Aidans and its likely fate.

Second – The planning team in Leeds City Council responsible for “regeneration” of declining parts of the city who realised that a vast area of land would soon become available, ideal for the promotion of a ‘Millennium Village’ with many houses, community buildings, industrial developments and open parkland. The writer had been approached before to come up with an idea for a ‘honey-pot’ to attract tourists to such an area (Wakefield and the early development of the National Mining Museum) and could he do something similar for Allerton Bywater?

The suggestion was made for a “Museum of Lifting Machines” based on saving the interesting Allerton Bywater headframes and walking the St Aidans dragline down the site’s short length of railway to a position near them. Some of the Leeds made Smith and other excavators now in the City Museum could be incorporated.

Nothing happened for nearly ten years. Then in 1997 the writer, now partly retired, received a phone call from his successor in the City Council asking if he could help get the preservation idea back on track. It appeared that Richard Budge, the new operator of the recently drained open cast site had considered the situation and was willing to donate the BE1150B dragline to a trust under certain conditions. The main one was that the machine should first be moved about 50 metres to a position outside his coal mining boundary. However, the cost was likely to be over £100,000.

To get this amount of money together the Council would have to apply to the Lottery Fund and they would have to show that the preservation would be supported by industry and by local people. Could the writer organise a group of “Friends”?

As the writer was a member of the Council of the Peak District Mines Historical Society, he approached all the other members to subscribe and he contacted all others he thought might be interested, with good results. With the support of Richard Budge’s local staff, a Fifteenth Birthday celebration for the dragline was organised on site (although the precise date of the machine’s construction was not known). So in 1997 a ‘birthday party’ was held, subscriptions were collected, a newsletter was produced and a bid
made for lottery funding. A trust had also been formed to manage the after use of the site.

The aim was to preserve at least one large machine on site but by this time unfortunately the Allerton Bywater colliery, offices and connecting railway were no longer available and the 'Village' was being developed on a smaller scale. There were, however, still other possible preservation projects on St Aidan's including the 2000 ton Ransome Rapier walking dragline and perhaps one of the three RB 195 rope shovel excavators which were the largest shovels ever made in Britain. The Friends group had been formed which over the next few years became about 80 strong, a membership number that has been maintained.

The original aims of the Friends were to:
- Assist in the preparation of leaflets, guidebooks and publicity material;
- Provide assistance in maintaining the dragline;
- Supervise tours of the dragline on occasional Open Days;
- Assist in the provision of information boards and other means of interpretation;
- Provide any other services within the skill and capabilities of the individual members.

By April 1998 the National Science Museum had offered £15,000 from its PRISM fund, the Lottery bid was approved and tenders were sought. Early in 1999 the BE1150B dragline walked the 48.8 metres to her present position.

Sufficient money remained for the repainting of the machine to her original NCB colours and the Trust provided security fencing for a compound. In July 2000 Richard Budge officially gave the machine to the Trust at a small ceremony. During this period the Friends had been providing advice and support to the Trust and to Leeds City Council, helping prepare the site for visitors and from the summer of 1999 opening the machine for visitor tours. These tours continue to operate on four afternoons a year.

Between 1999 and 2003 St Aidans became a working opencast site again and there were many opportunities to see the last operation of the Ransome Rapier dragline, the large loading at the Staithes, the final excavation of material by the biggest rope shovels in Britain and at the final stage the use of large 'veteran' scrapers to regrade the site.

Britain's quarrying industry has changed - all is now the ubiquitous hydraulic shovel and truck - almost gone are the former items of unique plant on very large sites.

Through the last 15 years the Friends have been very active in meeting the aims set out earlier. They have provided many hours and much effort quite voluntarily in giving advice, producing documentation, escorting visitors but, above all, maintaining the machine and compound against overwhelming odds caused by vandals and metal thieves. Local residents too have been helpful in keeping an eye on the site as most members live at a considerable distance.

Two special features of special note: the trust has provided the Friends with the large brick 'transformer house' on site which they have converted into a visitor centre and small museum. Secondly Leeds City Council has transferred, from its Industrial Museum, two veteran 1920s/30s city-made Smith's excavators for restoration and repair, although these are not on site but in a member's workshop.

Perhaps the greatest successes so far have been the Open Days when usually a dozen friends greet about 100 visitors from many parts of Britain and even other parts of the world. Recently the Northern Ireland branch of the Institute of Quarrying flew in to visit the site. Other visitors have included groups from Germany and Australia. Visitors have come by coach, veteran cars, vintage tractors and commercial vehicles and even light aircraft! Another great attraction and educational feature is that a member of the Friends brings along his large scale model of the dragline to demonstrate how it worked.

We are fortunate at present to have plenty of hardstanding and open space but this may change soon as the adjoining land, a one square mile area of country park, is all set to be taken over by the RSPB from the Trust to become one of the North's most important nature reserves. Our dragline will become an even greater attraction and a reminder of the site's former industrial activities. The Friends are expected to continue in their present role, responsible to the Trust who will continue to own both the country park and the dragline's site.
Malthouse features revealed.
The demolition of a car showroom has revealed interesting features of an 1840s maltings, subsequently converted to an engineering works. These have been recorded before demolition.

Tony Crosby

The major industry of the market town of Bishop’s Stortford, Hertfordshire, from the mid-eighteenth to the mid-twentieth century, was malting. The town was ideally set within the good barley growing areas of Hertfordshire and Essex, and benefitted from excellent transport links to London and its breweries, by water from 1769, and by railway from 1842. Many dozens of maltings were, therefore, located by the Stort Navigation and the railway which ran along the valley. One of these was the Station Road (former Fyfe Wilson Works) malthouse, NGR TL 4917 2097, which was built on the rising slope to the east of and parallel with the railway at Bishop’s Stortford station. It was built in the mid-1840s after the opening of the railway and is of the Ware pattern as described by Amber Patrick, having three storeys with the barley store at the north (road access) end, followed by the growing floors, kilns and malt store.

The development of maltings continued in the town up to the turn of the twentieth century, later ones being of the larger, multi-storey pattern. The smaller maltings would have found it difficult to compete with the newer, larger ones and by the end of the First World War the Station Road one was redundant and was taken over in 1921 by the Fyfe Wilson mechanical and electrical engineering works. They adapted the building to its new use which involved removing the steeples, germinating floors, the two kiln furnaces, kiln floors and chimneys (probably with slate covered pyramidal vents) to create a large working area served by an overhead crane.

The barley and malt stores were left relatively intact, although partitions and stairs were installed to create offices and other facilities. Modern windows were added to the west elevation, much larger ones replacing the traditional small malting windows for much of the length of that side of the building and the malt store outer walls were also replaced.

Before Fyfe Wilsons undertook the alteration work, however, another building was constructed to the east of and parallel to the malting house, and significantly only about a metre away from the east elevation of the maltings. It was, thus, not worth making many alterations to the east elevation, especially the windows, as little light was going to gain access anyway. This newer building was to become a garage and showroom for a car dealership, Fyfe Wilson moved out of the maltings in 2002, while the car dealership closed later that decade. Both sites are subject to development proposals and the maltings was recorded in 2006 by the Essex County Council Field Archaeology Unit for Hertfordshire County Council ahead of demolition, which is still to take place. The car showroom was demolished in February 2013 ahead of the construction of a low-price supermarket. However, the demolition of the showroom fully revealed for the first time in nearly 100 years, the east elevation of the maltings and hence the many original features which had survived the adaptation to engineering workshops.

As mentioned the barley store was left relatively intact during the adaptation of the building to an engineering works. Externally its original wall construction of brick ground floor and timber-framed and weather-boarded upper storeys survive. On the west elevation the ground floor window and entrance have been fitted with 20th century fittings, while three multi-paned windows have been inserted at top floor level to light the works offices. The east elevation, however, remains as built with just one iron grilled window at ground floor level.

The growing floors are brick-built and were pierced with iron grilled windows, which had wooden shutters to regulate the air-flow, placed in every other bay alternating with those in the opposite wall in order not to cause a cross-draught. All but seven of the original windows in the west elevation were replaced by larger multi-paned windows during the 1920s adaptation, plus large wooden sliding doors were inserted at the kiln end of the growing floors. On the east elevation 14 iron grilled windows survive, only one of the originals having been replaced by a multi-paned window, with a new one inserted next to it. However, the windows to the ground floor are mainly below ground level as the maltings was built into a terrace in the slope rising from the railway in the valley, which originally had light wells now virtually filled in and hence only partially visible. The other main original feature of the east elevation revealed following the demolition of the adjacent buildings are eleven cast-iron ties plates marked with the founder’s name – ‘Goodfellow Ware’. It is interesting that despite there being a foundry in Bishop’s Stortford at that time supplying cast-iron fittings including tie-plates for maltings in the town, one of the founders which supplied cast-iron fittings for maltings in Ware was used. The original construction of the malt store was similar to that of the barley store, but on conversion to an engineering works the external walls were rebuilt in brick to prevent fire from the new workshops.

Bishops Stortford maltings. Detail of east elevation showing barley store (right), and original windows and tie-plates in the growing floor walls

Photo: Tony Crosby
The Markham Grange Steam Museum

The origins of the Markham Grange Steam Museum may be unusual, possibly even unique, but many of the problems they face have parallels in other museums. There is much to learn.

George C Dickinson, Volunteer and Hon Sec MGSM Association.

How the Museum came about

Family ownership of several coal mines and an important engineering works at Chesterfield caused the name ‘Markham’ to be spread around in numerous places, not all of them obvious. It was ownership of Brodsworth Main Colliery just north of Doncaster that resulted in an associated house being named ‘Markham Grange’. Naturally, the Markham company supplied mine winders to the Markham family collieries, including four steam winders to Brodsworth between 1906 and 1922, also two electric winders in 1959 (NCB). Ownership of the house kept in step with changes in colliery ownership, until Tom Nuttall bought it in 1967 as a base to develop adjacent land into a nursery – in the days well before garden centres started to spring up on any plot of spare land.

Now Tom had served an apprenticeship at Doncaster Railway Works (aka ‘The Plant’), as well as having sea-going engineering experience, so he had a burning desire to have some steamable stationary engines himself. An increasing acreage of glasshouses needed keeping warm in the cooler months, and so he chased around where individual boilers really needed replacing by a centralised installation. This entailed a new boiler house, and it was not too great a step in lateral thought that, if the building was made a bit bigger, there would be room for a steam engine display – a museum. It began quite modestly with three enclosed engines, two Belliss & Morcom and a Sisson, each driving an alternator, also an Allen turbo-alternator set. A further sideways step enhanced the new system, namely a combined-heat-and-power installation. Based on the turbine, electricity was generated first, while the exhaust was passed through heat exchangers to transfer the heat to a low pressure hot water circulation network keeping the glasshouses warm. Fuel was scrap chipboard etc that would otherwise go to landfill, but it involved a crushing and transmission system to prepare it for blowing into the boiler – not without its problems.

How the Museum has developed

Working on the principle that great oaks from little acorns grow, in 1996 a completely new museum building was erected into which engines collected very quickly. These included a Thornwill & Warham pair from a brewery in Warrington, and a superb 1909 Pollitt & Wigzell tandem compound named ‘Agnes’ from Washpit Mill, Holmfirth. These were augmented by a Fleming & Ferguson compound from a crane ship and a variety of small and medium industrial engines. After the turn of the century, additional marine engines, some on loan, made the museum the custodian of probably the largest steamable collection of such engines anywhere on land. The current major project is the rebuilding of an 1878 Goddard & Massey waterworks beam pumping engine from Bedford after the English weather has had 45 years of exercising its malevolence on it.

How the Museum works

The operation of the museum is based on volunteers, numbering about a dozen, who restore, maintain and run the engines. Efficient volunteers can operate the workshop machine tools. There is no charge for admission – charging being a deterrent to family visitors. Payment for the building, the transport of the initial engines to the museum and the early days of operation were funded by Tom Nuttall, but since 2004 the museum has been funded from the donations box. This just keeps the museum solvent, bearing in mind that the steam is provided free of charge from the nursery boiler plant. There being no source of cooling water, the engines have to exhaust to atmosphere, which does have the benefit of advertising that we are in steam!

Steam days are Wednesdays, the first Sunday in the month, and Bank Holiday Mondays. Because of the need to keep the glasshouses warm and because of reduced visitor numbers during the winter, limited steaming, if small engines only, applies from November to February.

To formalise the museum and its volunteers as a ‘body’ to hold and administer the funds, a MGSM Association was formed in 2004, with a formal Constitution.

Our website www.markhamgrangesteammuseum.co.uk has more information and photographs of our engines.

Problems?

It is essential to be open on this question, even if it is somewhat uncomfortable.

All volunteer organisations have to live with the volunteers! In other words, volunteers are not employees and cannot easily be given instructions as to what they are to do (or, in some instances, not to do). The operation depends on goodwill and mutual co-operation. On the whole, it works very well, but ‘personal idiosyncrasies’ have to be allowed for (tolerated?)

A more important – the most important – factor is ageing. Our volunteers are pensioners. We are not being replaced or augmented by younger people. This is partly due to the fact that our most active days are weekdays, when potential new volunteers are engaged in their essential gainful employment and are therefore not available. We are however rather surprised that in a formerly very busy industrial area, teeming with engineering activity, there are so few of their retired employees among our ranks. And the ageing factor has already made a significant inroad on us.

Volunteers in steam plant are, as a generalisation, practical people rather than ‘theorists’; they like to do things rather than become ensnared in paperwork. While this is a cause for criticism from some quarters, it is a fact.

Horizontal single cylinder engine built in 1874 by Needham, Qualitt, Hall & Co. It ran the equipment in The Barnsley Brewery, South Yorkshire and is the oldest engine to be steamed in the museum. Photo: Clive Lusby
And, as a partial answer, no practical volunteers means no operation at all. However, this bias does mean that there is no great rush to become involved in keeping records, filing papers and drawings systematically or writing letters — in fact in 'administration'. This was demonstrated when the previous Association Hon Sec wished to hand over because of health problems; there were no volunteers to accept the duties, so someone 'had to be volunteered'. We have a member who runs our web site — but only one.

Another angle on the volunteer question is that new ones need to be able to make a positive contribution to the operation, i.e. 'working volunteers' and 'co-operating volunteers', not just 'talking volunteers', 'watching volunteers' or 'disruptive volunteers'. And the working volunteers need to know what they are doing — safely — or they need to be able and willing to learn — fast. We have experienced some of these difficulties in the past.

Another problem is finance. In our case, being a private and non-registered museum, we cannot qualify for support from the various funding sources available, so we rely on contributions in the box, but we have no fuel bill or boiler plant bills. Volunteer operations can be viable because there are no wage bills, so continuing existence can be fairly independent of visitor numbers. If paid employees become necessary, then the enterprise cannot continue without numerous visitors, expensive advertising, maybe a subsidy, and probably an admission charge — which latter of course tends to diminish visitor numbers.

No doubt many readers will hear echoes of some of these factors in their own organisations. The worrying aspect is that, though the problems are very clear, answers are not.

The Future

In practice we run on, week by week, year by year, project by project, not worrying or even thinking a great deal about the longer term. The ageing factor is very real and obvious but, as there seem to be no answers, it has to be kept at the back of the mind. The museum floor space is very nearly full, including the 2006 extension, so new projects will eventually cease, reducing the overall long-term manpower requirement. The volunteer (and visitor) numbers might perhaps be increased if we changed from mid-week steaming and working to week-end-only operation, but conversely, while retired volunteers are happy to have a regular activity during the week, they value their week-ends as family time. Considering the future, therefore, there hang a few question marks — but a paucity of answers. Into the immediate future, we are very active.

TICCIH's new guide
to best practice

Many AIA members have seen the striking cover of TICCIH's new compendium of best practice in industrial heritage conservation, 'Industrial Heritage Re-tooled', and some already have a copy, so it may be interesting to explain how this multi-author venture was conceived and brought to an improbable successful conclusion.

James Douet

The original drive came from Neil Cossons, perennially concerned that IA organisations should engage with a public beyond their habitual constituencies. I had drafted TICCIH's Nizhny Tagil Charter and wanted to extend it with a 'glossed' version, illustrated with the top examples from around the world. Finally Patrick Martin, TICCIH's American president, took the idea to the JM Kaplan Fund who showed their enthusiasm by giving us a generous publication grant.

The 33 essays broadly follow the charter text but were reorganised to form a logical run of chapters, their authors all part of TICCIH's international community. Of the AIA contributors, Neil Cossons sets the arguments for valuing the industrial heritage, Barrie Trinder discusses its intellectual realm, Keith Falconer examines re-born industrial sites, Miles Ogletorpe and Miriam McDonald review current recording techniques, Mark Watson introduces the embodied energy argument for conservation, Stephen Hughes explains the importance of TICCIH's thematic studies for ICOMOS, and Stuart Smith rounds off with TICCIH's own journey since the first international congress at Ironbridge in 1973. But it is the global perspective that really distinguishes the book, with fascinating contributions from all over the world including Japan (industrial ruins), Australia (understanding landscapes), Italy (industrial museums), Mexico (archives) and Sweden (photographic resources), and introducing many sites which may be new to a British readership such as the re-used Ford car plant in California which was photographed so dramatically for the cover.

The authors got the go-ahead in January 2012, all the texts were delivered by July and within three months Carnegie Publishing had produced, arguably, one of the best-looking conservation books you can buy, the first copies of which were presented at our congress in Taiwan in November.

More than one publisher said it was not feasible, so there is something in this story about the togetherness of the industrial heritage community, as well as the agility that modern digital communications deliver. If the book is received as we hope, TICCIH plans to return to this rewarding way of distilling, bottling and enjoying the embodied experience of its members.

An eighteenth century timber waggonway

Excavation in advance of the construction of a new hotel at Hawks Road, Gateshead has identified a short section of timber waggonway and an ancillary structure relating to the late eighteenth century and early nineteenth century operations of William Hawk’s Gateshead Iron Works. The work was undertaken by Pre-Construct Archaeology in 2010, commissioned by Prospect Archaeology and funded by Marshall Construction. The information provided here is taken from Pre-Construct Archaeology’s Assessment Report which can be consulted in the Tyne & Wear Historic Environment Record.

Nansi Rosenberg, Prospect Archaeology Ltd

William Hawks (1708-1755) had initially set up blacksmith’s shops at New Deptford, New Greenwich and New Woolwich on South Shore, Gateshead in the mid-eighteenth century. These were combined at New Greenwich as the Gateshead Iron Works on a site measuring 47 acres housing boiler works, iron foundry, chain and anchor works, rolling mills for bars and plates, steel works and other departments. Hawks had previously been employed by the Wm Walton based iron firm of Crowley’s in their London warehouse where he established a series of contacts in the scrap iron market. Establishing his blacksmith’s shop in New Greenwich he was perfectly positioned between the Rock Staithes and Dock Staithes to negotiate transport of scrap iron on the colliers’ boats returning from their deliveries to London. The colliers charged him 1s per ton to transport the scrap which is likely to have reduced his start-up costs significantly. The position of the iron works on the Tyne would have also afforded Hawks the opportunity to import superior bar iron from Russian or Baltic sources. There was, of course, also a ready supply of charcoal and coke.

William Hawks Jr (1730-1810) was primarily responsible for the expansion of the iron works in the late eighteenth century. The main focus of the ironworks was on the Tyne shore, to the north of the site investigated in this piece of work. Excavation of the main iron works, undertaken in 2006 and 2007 as part of the redevelopment of the former Kelvin Works, has produced considerable evidence of the layout and use of the ironworks. The area currently under consideration was within Hawk’s ownership but was very much ancillary to the main concern. Historic maps seem to indicate that much of the area was occupied by a reservoir in 1772, which may tie in with a lease of 1795 which refers to a dam and reservoir recently constructed to serve the forge, mill and millrace. The dam and reservoir appear to have gone out of use by 1830 and the only features that appear to have existed at this time were a small part of the foundry and some workers’ cottages on Hawks Road.

The excavation, undertaken in the autumn of 2010 by Pre-Construct Archaeology, followed an evaluation excavation that had taken place earlier that year. This work confirmed that the eighteenth century saw the first built development on a site previously used as farmland.

In addition to remains of a nineteenth century ancillary building related to the ironworks, excavation recorded the remains of a timber waggonway crossing the site from northeast-southwest, in use from the late eighteenth to the early nineteenth century. Although a lease dating to the 1830s shows the main ironworks waggonway running SW-NE to the north-west of the site, no such tracks are shown within the site itself until a railway or tramway is shown on the 1860 Ordnance Survey map. No evidence for the waggonway was identified on any of the early maps but a foundry building is shown at the eastern side of the site and the waggonway is therefore interpreted as an internal branch line delivering coal or coke directly to the foundry.

The waggonway consisted of a single track, which would not be unusual for the short distance it covered, with an approximate gauge of 4 feet 3 inches. The sleepers were closely spaced, which suggests it was required to take numerous heavy loads, as would be expected of a single track route to a foundry. The track had been constructed on a man-made terrace of sand and gravel to provide a level, free-draining surface. The timbers had themselves rotted, leaving impressions of their former positions in the sand and gravel surface. The slightly irregular profiles of the sleepers suggest untrimmed branches had been used as has been found to be the case at Lambton D Pit near Sunderland, Rainton Bridge, Houghton-le-Spring and Harraton Outside, Washington. Ballast of coal fines and ash had been used between and around the sleepers to stabilise the rails and sleepers. A fence line identified along the north-western edge of the waggonway had been replaced at least once, indicating the importance of fencing off the track to maintain safety and mark out the wayleave.

Although only a limited stretch of the waggonway was excavated, this may represent the only excavated example of a purpose built waggonway for delivering fuel directly to a foundry in the north-east of England. Waggonways excavated in the past have almost exclusively been found leading to and from coal staithes and as such this excavation adds to our understanding of the processes behind iron manufacture and transport during the late eighteenth and early nineteenth centuries in the north-east of England.

OBITUARY

Mike Stammers

Maritime historian Mike Stammers has died. He was formerly Keeper of Merseyside Maritime Museum, serving on a number of national and international maritime historical committees. His many books on books on maritime subjects include West Coast Shipping (1976), Historic Ships (1978), Figureheads (1983), Steamboats (1986), Tugs (1980), Liverpool: the port and its ships (1991), Mersey Flats and Flatmen (1993) and Liverpool Docks (1999).

Just before he died, Mike was about to publish two new books: Emigrant Clippers and Victorian North Norfolk Sailing Ships.
Council of Europe backing for 2015 as European Industrial Heritage Year!

The E-FAITH campaign for a European Industrial Heritage Year in 2015 noted in IA News 163 received a considerable boost with the declared support of the Assembly of the Council of Europe. At the same time, the role of bodies such as the AIA was recognised as vital if the legacy of Europe’s Age of Industry is to be safeguarded for future generations.

Keith Falconer

On 8 March the Standing Committee acting on behalf of the Council of Europe Assembly adopted a Resolution calling for new measures to safeguard Europe’s Industrial Heritage. Gratifyingly for the AIA, the Resolution very much recognises the value of the voluntary sector thus:

The Assembly calls for continuous encouragement of public involvement and volunteer work that generates awareness and appreciation of the value of the industrial heritage and contributes through grassroots initiatives to designating for protection, preserving and converting to new uses thousands of industrial heritage sites across Europe.

Indeed, several of the sub-sections of the Resolution emaning from the background report stress the value of volunteer expertise related to the protection and effective management of the industrial heritage and call for capacity building initiatives to nurture volunteer resources.

The Council of Europe (not to be confused with the European Union) was founded in 1949 in the aftermath of the Second World War and now has 47 member states – twice as many as the EU. While most of its relatively small budget is devoted to human rights causes, it has had a long standing interest in industrial heritage - first recognising the issue in the mid-1980s. The trigger for the Council of Europe’s latest report on Europe’s industrial heritage was a concern for fast disappearing historic industrial sites in eastern European countries and a desire for the transfer to these countries of good practice in documenting, protecting, preserving and re-using industrial sites.

Accordingly, in June 2011 a motion Destruction or restoration of industrial heritage was tabled and a member of the Committee on Culture Science Education and Media, Ms Dervoz of Bosnia & Herzegovina, was appointed to report on the issue. Subsequently, I was commissioned in April last year to draft a brief summary background paper identifying the scope and key players in European industrial heritage and outlining the current state of recognition, appreciation, protection and preservation across Europe. After consideration by the relevant Council of Europe Sub-committee in June, a workshop was held in Maribor in September to refine and further explore the issues and adopt a less stark title - hence the change to Industrial Heritage in Europe. The completed report, which greatly benefitted from input from ERIH and Europa Nostra, went to various Council of Europe committee meetings where the present detailed Resolution was framed and presented to the Parliamentary Assembly.

The Report, which by convention had to be limited to ten pages, attempted to summarise more than sixty years of developing interest and appreciation of industrial heritage spreading from the UK eastwards over that period. Stressing Europe’s pioneering role in global industrialisation which is reflected in the preponderance of European industrial heritage sites included in the World Heritage List (36 out of 46), the Report suggests the need for a European label for the industrial heritage. This would provide an intermediary (European) level of

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Visitor Mine F60 Lichtenfeld, Lusatia. The F60 overburden conveyor bridge, built 1988-91, is one of the world’s largest moveable working machines.

Built in 2005 from parts of an overburden spreading machine the landing stage for the slowly-filling Lake lkie is part of a developing chain of lakes formed in former opencast lignite mines in Lusatia.
The 22 metre high Bio Towers are the last relic of the huge krylite coking plant at Lauchhammer

Museum de la Sal, El Carmen, Fuerteventura, Canary Islands

On a recent holiday I was able to make a visit to this museum which explained how salt was collected by a method very different from those we are familiar with in Britain

Derek Brumhead

The museum overlooks the only remaining salt pan on Fuerteventura, constructed in 1910 and developed from earlier eighteenth century salt pans. The salt flats, which are on the east of the island adjacent to the sea, were purchased by the Island Council from the owners in 1995 for restoration and preservation and the museum was established. The museum explains the location, formation and history of the salt, the saline ecosystems, the culture and applications of salt, and the location of salt flats in the seven Canary Islands. After visiting the museum visitors follow a guided trail around the salt pans to see the processes.

The salt is sea foam salt. The waves from the sea, generated by the strong north-east trade winds, were driven into a blow hole (saltadero), where foam was created and fed into channels leading to three intake ponds (cocederos). It passed successively from one pond to another heated by the sun until it reached the appropriate temperature taking from fifteen to twenty days. From the intake ponds the water is distributed to the condensation ponds (tajos). As a thin layer of salt was formed on the surface, the salt maker skimmed it twice a day using a rake so that the crystals forming on the surface were deposited at the base of the pond. Once almost all the water had evaporated (up to eleven days depending on the wind, salt density and sunshine), the salt was dragged to the edge on to a dividing wall where it was left to drain for several days. When dry, the salt was collected by wheelbarrow and transferred to the warehouse. In the warehouse (almacen) the salt was cleaned, stored and packed. Wagons with the salt ran along a rail track to a quay (embarcadero) where it was loaded on to boats for export.

The salt season ran from March to October. The rest of the year was used to carry out maintenance work on the salt flats, clearing residue from the bottom of the trenches or building new ones.
Muscle powered cranes

Those members who visited Harwich last August during the conference will have seen the treadmill operated crane re-erected near the water front. However, this was a very modest example of the cranes used by our forebears which first appear in Flanders and Germany in the thirteenth century. The mechanics and construction details of these had much in common with windmills. Much of our knowledge of medieval cranes comes from paintings and manuscript illustrations. However, a few early treadwheel cranes have been preserved, some of them in the attics of churches. The best known British example is in the spire of Salisbury cathedral.

Chris Barney

Occasionally, our forefathers lifted enormous weights. There are many examples throughout the ancient world such as at the Roman temple at Baalbeck where there are almost thirty individual stones weighing up to 750 tons each. The gravestone of Theodoric the Great in Ravenna, from early in the sixth century, weighs about 300 tons and was lifted over 30 feet. The largest Egyptian obelisk weighed more than 500 tons and is nearly 100 feet high. In Rome, the capital block of Trajan’s Column weighs over 50 tons had to be lifted to a height of more than a hundred feet.

Rather than using cranes, as we could now, these were lifted using gigantic towers powered by multiple capstans on the ground. Treadmills might have been more efficient but capstans could be operated by horses with considerable advantage. The Vatican engineer and architect Domenico Fontana (1543-1607) described how he organised moving the 327 ton obelisk that now stands in St Peter’s square, in 1586, on the orders of Pope Sixtus V. It was a move of just 300 yards but still required the stone to be lowered and re-erected.

Fontana described the operation in detail in *The movement of the Vatican Obelisk*. The job was done using a wooden tower 90 feet tall, ropes up to 700 feet long, 40 capstans, 800 men and 140 horses. The whole operation including lowering the obelisk, moving it on rollers, devising and constructing the tower and capstans took more than a year but, once all was ready, the stone was erected in 13 hours and 52 minutes. Did the Romans use the same technique? There are some hints in their writings and archaeological evidence indicates that they may have done although there are no clear descriptions.

In general, cranes for construction were intended for heavier loads where speed was not so important and those for loading and unloading ships focussed on a rapid work cycle with faster lifting and lowering speeds. Most cranes used in medieval construction work were only capable of a vertical lift. Dockside cranes introduced slewing motion, of which the first evidence appears in the fourteenth century. Rather like post windmills and tower windmills, there were post cranes and tower cranes: the former pivoted on a central vertical post, while the latter were masonry towers with the jib arm rotating.

A well known example was the crane that continued to stand, 450 feet up, on the unfinished Cologne cathedral from the time work was suspended after 1400 until it was resumed in 1842. It had two treadmills 17 feet in diameter and a 17 foot jib.

Dockside treadmill cranes continued to develop and in London there were cranes with pairs of treadmills up to ten feet wide, each for three or four men.

These were superseded by major advances in crane construction introduced by William Fairbairn in the middle of the nineteenth century. Fairbairn riveted together two iron plates, creating an arch-shaped jib that was more stable and practical than the previous straight wooden or iron jibs. Fairbairn steam cranes became very well known and some of them have been preserved. However, for a while these were sold as hand powered machines. Fairbairn described these cranes in detail in the 1860 edition of his book *Useful information for engineers*.

The first hand-driven Fairbairn harbour cranes were intended to lift weights of up to 12 tons to a height of 30 feet above the ground with a 30
foot radius but a 60 ton crane was built for the new docks at Keyham, lifting to 60 feet with a radius of 52 feet, maybe the most powerful hand driven crane ever built.

The chain passes round 4 pulleys, two moveable and two fixed, in the end of the jib. It is then conducted down in the interior of the jib over three rollers to the barrel, which is also in the tube near the ground. On each side of the crane a strong cast iron frame is fixed for receiving the axes of the spur wheels and pinions.

Four men, each working a winch of 18 inches radius, act by two 6 inch pinions upon a wheel 5 feet 3.75 inches diameter, this in turn moves the spur wheel, 6 feet 8 inches diameter, by means of an 8 inch pinion, and on the axle of the former the chain barrel, 2 feet in diameter, is fixed.

Hence the advantage gained by the gearing will be \( W/P = 18 \times 63.75 \times 80 / 6 \times 8 \times 12 = 158 \) or taking the number of cogs in each wheel \( W/P = 18 \times 95 \times 100 / 12 \times 9 \times 10 = 158 \) and as this result is quadrupled by the fixed and moveable pulleys, the power of the men applied to the handles is multiplied 632 times by the gearing and blocks. Two men are sufficient to move round the crane with 60 tonnes suspended from the extreme point of the jib.

There is no indication that there was any allowance for friction.

Much of this material comes from an excellent website - www.lowtechmagazine.com which has many articles describing old techniques and how they can be adapted to modern needs.

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**Pandaemonium 1660 – 1886**

Humphrey Jennings’ book subtitled ‘The coming of the machine as seen by contemporary observers’ was said to be the biggest single inspiration for the performance at the opening ceremony at last year’s Olympic Games, directed by Danny Boyle. The book consists of some 370 excerpts of work by authors, some well known and some obscure, starting with Milton and finishing with William Morris. Humphrey Jennings is perhaps best known as one of the originators of Mass Observation and also for his work with the Crown Film Unit. He was killed in an accident in 1950, aged 43. The book, published in 1985, contains about a third of Jennings’ original text. It was described by The Times as ‘A masterpiece of collage that reads like a novel’ and by the Observer as ‘...a memorable account of the most devastating sea-change which has yet engulfed mankind’.

The following piece, number 320, describes a site visit that many AIA members would have gone half way around the world to have seen.

Chris Barney

**The Swindon Railway Works Spring 1867**

This factory is perhaps the largest in the West of England. Here are employed as many as seventeen hundred hands – an army of workmen – drawn from the villages round about. It is open to visitors upon every Wednesday afternoon, and is a sight well worth seeing. A person is in attendance to show it. The place seems to be built somewhat in the form of a parallelogram. Seven tall chimneys belch forth volumes of smoke. The first thing shown to visitors is an engine room near the entrance. Here are two beams of fifty horsepower working with a smooth, oily motion, almost without noise. The yard beneath it is, to a stranger, a vast incongruous museum of iron; iron in every possible shape and form, round and square, crooked and straight. Proteus himself never changed into the likeness of such things. The northern shops are devoted to noise, and the voice of the guide is inaudible. Here is a vast wilderness – an endless vista of forges glaring with blue flames, the men all standing by, leaning on their hammers, waiting until you pass, while far ahead sparks fly in showers from the tortured anvils high into the air, looking like miniature meteors. This place is a temple of Vulcan. If the old motto ‘Laburare est orare’, ‘labour is prayer’, is correct, here be sturdy worshippers of the fire-god. The first glimpse of the factory affords a view of sparks, sweat, and smoke. Smoke, sweat and sparks is the last thing that is seen.

Passing between a row of fiery furnaces seven times heated, the visitors enter the rail mill, where the rails are manufactured. This place is a perfect pandemonium. Vast boilers built up in brick close in on each side, with the steam hissing like serpents in its efforts to escape. Enormous flywheels spin round and round at a velocity which renders the spokes invisible. Steam hammers shake the ground, where once perhaps crouched the timid hare, and stun the ear. These hammers are a miracle of human manufacture. Though it is possible to strike a blow which shall crush iron like earthenware, to bring down a weight of tons, yet a skilful workman can crack a hazel-nut without injuring the kernel. Gazing upon these wonderful hammers the visitor is suddenly scorched upon one side, and turning, finds that a wheeled barrow load of red hot iron had been thrown down beside him, upon which a jet of water plays, fizzing off into steam. Springing aside, he scarcely escapes collision with a mass of red hot metal wheeled along and placed beneath a steam hammer, where it is thumped and bumped flat. His feet now begin to feel the heat of the iron flooring, which the thickest leather cannot keep out. The workmen wear shoes shod with broad headed nails from heel to toe. Their legs defended with greaves – like an iron cricketing pad; their faces by a gauze metal mask. The clang, the rattle, the roar are indescribable; the confusion seems to increase the longer it is looked upon. Yonder, a glare almost too strong for the eyes shows an open furnace door. Out comes a mass of white-hot metal, it is placed on a truck and wheeled forward to the revolving rollers, and placed between them. Sparks spurt out like a fountain of fire – slowly it passes through, much thinned and lengthened by the process which is repeated until at length it emerges in the form of a rail. Here come the chips of iron – if such an expression might be used – all red hot, sliding along the iron floor to their destination. Look out for your toes! In the dark winter nights the glare from this place can be seen for miles around; lighting up the clouds with a lurid glow like that from some vast conflagration.


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Kings under construction at Swindon Works c.1890
Butterley Tunnel listing

English Heritage has designated part of the Cromford Canal's Butterley Tunnel as a Scheduled Ancient Monument, along with early blast furnaces in the former Butterley Company works site above it. Whilst not scheduling the whole tunnel, largely on account of access issues, a length of 210m directly beneath the Butterley Works, and considered to be a representative sample site, is now protected. This includes the unique 'Wide Hole' where goods were loaded and unloaded to and from boats by vertical hoists directly into the works.

Reasons for Designation

Butterley blast furnaces, originating in 1791 and with early nineteenth century remains, canal tunnel and underground wharf of 1793-4, are scheduled for the following principal reasons:

- **Archaeological potential**: the physical and stratigraphic relationships between the above and below ground industrial processes provides a rare opportunity to add significantly to our knowledge and understanding of the site specific industrial processes and the industry as a whole.

- **Survival and rarity**: The original cold blast furnaces were at the forefront of technology and elements may survive within the 1838 rebuilt furnaces but the later, hot blast furnaces are themselves a rare survival.

- **Diversity of features**: The relationship and survival of the canal tunnel with the wharf and underground mining and mineral extraction are a rare combination.

- **Group Value**: for its physical, chronological and functional relationship with the entrance building to Butterley Works and the former office building to the west, both Listed Grade II.

- **Documentation**: Historical documentation provides details of the development and engineering prowess of Butterley Works. Its achievements were clearly held in high regard both nationally and internationally.

In 1789 construction of the Cromford canal had begun and the Cromford Canal Company was formed with William Jessop appointed as the principal engineer. In 1790 Benjamin Outram and Co. was founded as a coal and iron enterprise at Butterley and the company purchased a 200 acre area of the Butterley estate, including Butterley Hall at its southern extent, and subsequently the Butterley Works was established.

In 1791 Benjamin Outram took over the construction of the canal from insolvent contractors, with a plan to run the canal under Butterley Park in a long tunnel. The company negotiated with the canal company to have an underground wharf, known as a 'wide hole', integrated into the tunnel directly beneath a proposed furnace location. The canal, with its tunnel and wide hole, was completed in 1793 and opened in 1794; at this time it was the third longest tunnel in the world after Sapperton and Dudley.

Smelting on the site began with a single cold-blast furnace, built in 1791 for the production of iron, but additional blast furnaces were added in 1806 and 1810. In 1807 communication links to the site improved with the opening of the Derby to Alfreton Turnpike skirting around the north of the site.

In 1852 the Cromford canal was sold to the Manchester, Buxton, Matlock & Midland Junction Railway and in 1889 Butterley Tunnel closed after suffering a collapse and four years of repairs followed. Midland Railway's Heanor and Ripley branch opened and was extended to Butterley in 1890. In 1893 Butterley Tunnel reopened but closed permanently in 1900 due to further partial collapse. In 1904, a government commissioned survey by Rudolf de Sails considered the tunnel to be beyond economic repair and in 1909, Midland Railway sought an Act of Abandonment and passage through the canal was finally stopped. In 1938 the Cromford Canal as a whole was closed and by 1944 it was officially abandoned by Act of Parliament.

Details

Butterley engineering site is situated on the north edge of Ripley in the Amber Valley, Derbyshire. The line of the Cromford Canal passes directly underneath the site on an east to west alignment through the Butterley Tunnel. The tunnel itself measures 2.8km in total but only a c210m stretch, considered to be a representative sample, has been included in this scheduling. Part way along the tunnel, some 0.83km east of its western portal, the canal passes directly under the iron works, and at this point the waterway widens to allow for an underground wharf, known as a wide hole, where boats could be directly loaded and unloaded with coal, ironstone and limestone for transportation, or for smelting in the company's furnaces.

In total, 33 vertical shafts were sunk to aid construction of the tunnel, although only four were kept open as airshafts following its completion. Two leading shafts were also sunk directly from the Butterley Works to the underground wharf. The canal was of a narrow gauge with only 2.4m clearance above the water level and, because of this, boats on the Cromford Canal were smaller than average.
General Report of the Trustees for the year ending 31 December 2012

The Association for Industrial Archaeology is registered in England under the Companies Act 1948 (no 1326854) and the Charities Act 1960 (no 277511). Registered Office: Ironbridge Gorge Museum Trust, Coach Road, Coalbrookdale, Telford, Shropshire TF8 7DQ

Objects and activities
The objects for which the Association is established are to encourage and promote for the public benefit the study of, and research in, the archaeology of industry and the industrial period, and to promote education in the identification, recognition and conservation of the industrial heritage.

Meetings
In 2012 Council met at Leicester University in February, in London in June, at Chelmsford in August and at Coalbrookdale in November. Council members were also heavily involved in three major public meetings throughout the year – the AIA annual conference, the Ironbridge Weekend and the E-Faith Heritage Weekend. Details are below.

Annual Conference
The 2012 AGM and Conference was held at Writtle College, Chelmsford from 10 to 16 August, and was well supported with over 90 delegates attending over the seven days. Under the title of 'Contemporary and Recent Archaeology in Practice' the seminar on Friday 10th gave the opportunity for professionals in the sector to share their current experiences and problems. It was followed by a trip to the Sandford Mill and Museum of Radio before an evening lecture from Tony Crosby on the industrial archaeology of Essex. Highlights of subsequent sessions included a talk by George Courtauld about his family's business, and a showing of wonderful archive films from the region presented by David Cleveland. Following the AGM, attended by 68 members and guests, Shane Gould gave the Rolt Memorial Lecture on 'Industrial Heritage at Risk', a summary of the extensive English Heritage 2011 project. A fascinating programme of field visits ran from Sunday afternoon till the following Friday afternoon, including Aythorpe Roding post mill, Kelvedon Hatch nuclear bunker, Flatford Mill, East Anglian Railway Museum, factory housing at the Bata works, Langford Museum of Steam and Beeleigh Mill, Ipswich Transport Museum, Bulmer Brickworks, Stow Maries Aerodrome, and a trip on the Thames sailing barge 'Kitty'. Full credit must also go to our Conference organisers, John McGuinness and Stephen Miles, to the hosts at the study visit sites and particularly to David Alderton for planning this exciting programme.

Ironbridge Weekend
After two years' absence this popular seminar was reinstated and in April met to concentrate on the Industrial Heritage at Risk programme, with speakers from English Heritage, the Architectural Heritage Fund, the East Peak Innovation Partnership and Ironbridge Gorge Museum. Annual awards were presented to those who had not been able to attend the Cork conference in 2011, notably two Peter Neaverson awards for Outstanding Scholarship – to the late IR Hamilton and to MH Jones for their book *Neither Here Nor There* on iron ore mining and transport, and to Celina Fox for her book *The Arts and Industry in the Age of Enlightenment*. Other awards went to Ron Martin of the Sussex Archaeological Society for their journal and to Angela Smith of the Hampshire Industrial Archaeological Society for their Newsletter.

The seminar was also the occasion for Keith Falconer to launch the CBA publication Practical Handbook on Industrial Archaeology written by Council members, Professor Marilyn Palmer, Dr Mike Nevell and Mark Sissons, a fitting outcome developed from the earlier series of AIA/CBA Day Schools that had been funded by English Heritage.

The highlight of the Weekend was a hard-hat tour on Saturday afternoon of Ditherington Flax Mill in Shrewsbury led by English Heritage Inspector, John Yates. This is the world's first fire-proof factory and standing at the top of the Industrial Heritage Buildings at Risk Register. After an enjoyable dinner, the AIA Secretary took delegates on an illustrated guided tour of the 1851 Exhibition. On Sunday there were visits to the workers' terrace of Carpenters Row in Coalbrookdale and the recent £12m developments at Blists Hill Victorian Town, both sites of the Ironbridge Gorge Museum. The Weekend was organised by David de Haan.

European Federation of Associations of Industrial and Technical Heritage (E-Faith)
The Association is a member of E-Faith and made a grant to support its European Industrial and Technical Heritage Weekend, held in London in October 2012. This was the sixth in the annual series of weekends organised by E-Faith, whose president for the last two years, Paul Sautier, is AIA's E-Faith Liaison Officer. Over 50 people, representing organisations from all over Europe, took part in the conference and visits to Three Mills, Kirkaldy Testing Museum and Kew Bridge Engines, whose willing volunteers provided guiding and a warm welcome. The conference was opened by Professor David Perrett, chairman of GLIAS, and the influential keynote presentation on issues surrounding health and safety, presented by Geoff Wallis of Wallis Conservation Ltd (Dorothea Restorations). John Porter followed this theme the following day in the conference room at the Musical Museum before a visit to the nearby Kew Bridge Engines, which were in steam. Among the many excellent presentations was one on the Middleport Pottery by the chief executive of the Prince's Regeneration Trust.

Publications
During 2012 Facebook and Twitter sites were established to help the Association reach a wider audience. The *Practical Handbook on Industrial Archaeology* has already been mentioned, a high point of the year. Four issues of IA News under
the editorship of Chris Barney were published by the Association, which aims to encourage high standards in all aspects of the study of industrial archaeology. This quarterly is the bulletin and main communication organ of the AIA. Illustrated reports covered all the Association’s activities as well as short technical articles, reports on affiliated societies, restoration grants, regional news, TICCH, visits, conferences, letters, etc. Highlights during 2012 included illustrated reports on the tours to New Zealand, Tasmania, America (Indiana, Ohio and Michigan), and the Annual Conference in Essex. Past issues have now been digitized by Steve Dewhirst and will be made freely available on the AIA website.

Peer reviewed and with an international Editorial Board, the IA Review is the journal of the AIA and provides a forum for a wide range of specialist interests in industrial archaeology. Due to serious illness in the families of both editors, Helen Cornsall and Dr Mike Nevei, both the 2012 issues of Industrial Archaeology Review were delayed and came out in January 2013. Issues 34.1 which had been prepared for distribution in May covered: the Rolt Memorial Lecture of 2011 by Patrick Malone on ‘Dams and Damages – Controversies over Waterpower in Lowell’, Massachusetts: an Introduction to the Archaeology of the Glass Industry; Three and a Half Centuries of Bottle Manufacture; and Glass Recipes from a 19th-Century Glass Works (Percival, Vickers & Co Ltd of Manchester). Issue 34.2 had been planned for September and covered: Industrial Transformation: an Olympic Theme?; ‘A steppingstone of civilization’ – The Hojack Swing Bridge and Structures of Power in Monroe County, Western New York State; Tynspernlow – Three Centuries of Tin Making in South Wales; and Concrete Filler Joint Floors and the Development of Lancashire Cotton Spinning Mills.

Grants

In 2012 the Association received a further very generous amount from the same anonymous donor to support conservation projects. These new projects and progress on the on-going projects were described in greater detail to AIA members at the annual conference and there was widespread support for them. The Hoylandsweine Coal Forge was successfully completed, as was the Wellington Wheelpit at Mellor Mill opened by AIA Chairman Mark Sissons in March. A new AIA grant went towards the restoration of the Talyllyn Railway’s wagon weighbridge at Tywyn Wharf Station.

New applications were received and it was decided to make awards as follows:

Haslingden Grane Mill chimney being restored by the Heritage Trust North West, £15,000.

Conservation and interpretation of a lead smelter at Crich by the Tramway Museum Society, £7,500.

Repair of Danzey Green Windmill at the Avocroft Museum of Buildings, £9,250, though this was later withdrawn as the Insurers agreed to cover the cost that had been caused by storm damage.

Consultation

AIA was represented on the Heritage Lottery Fund’s (HLF) meeting of Industrial, Maritime & Transport organisations, which in March met at the Museum of Science & Industry in Manchester and at the London Transport Museum’s Acton depot in September. In May the Association was present at a conference to develop networks for the new Canal & River Trust. Chaired by its Chief Executive, Simon Thurley, and after a keynote address by AIA Honorary Vice President Sir Neil Cossons, 80 delegates participated in a day of reports and workshops. The Association was represented by the Secretary.

Industrial Heritage Support Officer

English Heritage has funded a 3-year post to develop a national strategy for improving the sustainability and conservation standards of industrial heritage sites in England. There are some 250 sites currently considered to be at risk.

The contract was awarded to Ironbridge Gorge Museum, ‘spiritual’ home of IA with pioneering rescue and interpretation work in the 1960s leading to what is now the UK’s largest independent museum. It has a network of contacts, starting with Sir Neil Cossons (who campaigned for this stage of the work to be funded) and many other key partners: the Association for Industrial Archaeology, the Association of Independent Museums, the European Route of Industrial Heritage, The International Congress for the Conservation of the Industrial Heritage and the Ironbridge Institute. Archaeologist Ian Bapty took up the post in September. His role is to improve the capacity amongst owners and managers in...
securing the long-term future of their sites, and to create a network of relevant stakeholders and grant providers that is sustainable beyond the life of the project.

Overseas Visits
In late May and early June members joined tours that were part of the American Society for Industrial Archaeology’s conference in Cincinnati. They spent three days in southern Indiana before the conference and then 3 days in Ohio and Michigan. In Dayton, Ohio they visited the world’s largest military aviation museum. In Detroit there was a guided tour by Dr Charles Hyde, academic, author and historian of the automotive industry looking at this once great industrial city.

Industrial Heritage Support
Steering Group convened
Ian Bapty’s appointment as Industrial Heritage Support Officer was reported in IA News 163 and the Steering Group overseeing the project met for the first time in February to ratify the project’s objectives and to review progress. Based at Ironbridge, the project emanated out of English Heritage’s Industrial Heritage At Risk Year 2011 and is funded until September 2015. The AIA is a key partner in the project with Keith Falconer, AIA Vice-Chair elect and former Head of Industrial Archaeology at English Heritage, as its representative on the Steering Group.

The key objectives of the IHISO project are to:
- Develop a national strategy for England to improve the sustainability and conservation standards of preserved industrial sites with public access;
- Improve the capacity amongst owners and managers to secure the long-term future of these sites;
- Create a network of relevant stakeholders and grant providers that is sustainable beyond the life of the project.

The members of the Steering Group at 20 February 2013 were:
- Steve Miller (Chair) – Ironbridge Gorge Museum Trust (IGMT)
- Sir Neil Cossons – Ex-Chairman of English Heritage, author of the original IHAR report, and member of the International Committee for the Conservation of Industrial Heritage (TICCIH)
- Rosie Fraser – Prince’s Regeneration Trust
- Keith Falconer – Association for Industrial Archaeology (AIA)
- David de Haan – European Route of Industrial Heritage (ERIH)
- Dr Sarah Lewis – English Heritage
- Sam Hunt – Association of Independent Museums (AIM)
- Ian Morrison – Heritage Lottery Fund (HLF)
- Dr Matt Thompson – Ironbridge Gorge Museum Trust (IGMT)

Memberships of the Steering Group will be reviewed on a regular basis. In order to best enable the group to deliver its stated functions the Steering Group may invite other individuals or organisations to join the project develops.

IHSO was able to report very significant progress on the scoping of the project, liaison with key partners, finalising the business plan, researching of training and funding resources and the compilation and analysis of a database of 250 priority sites. The Steering Group agreed that the practical project delivery should commence through the 2013 Spring/Summer period. Work already proposed or in place for the coming period includes training delivery via the European Route of Industrial Heritage (ERIH) network and participation in forthcoming national conferences and training seminars.

New IA Group for Essex
On Saturday, 16 March, the Essex Society for Archaeology and History approved the establishment of the Essex Industrial Archaeology Group as a sub-group of the Society. The new group will be launched at a conference to be held at the Essex Record Office in Chelmsford on Saturday, July 6 from 9.30 to 4.00 p.m. The archivist, Allyson Lewis, who is organising the event, writes:

‘Since large-scale industrialisation began in the eighteenth century, industrial development has had a huge influence on the people who have lived in Essex. It is often overlooked as an industrial county, but industry is a fascinating aspect of the county’s past. This one-day conference will take a look at the industries which sprang up here and the impact they had on local peoples’ lives.

Speakers include David Alderton giving an overview of industrial archaeology, Tony Crosby speaking on industrial housing, George Courtauld on the history of his family’s firm, Paul Gilman of Essex Historic Environment Record and David Morgans of the Essex Mills Group.

Tickets for the conference are £15.00, to include refreshments and a buffet lunch. Bookings should be made in advance on 01245 244614.

Reserves Policy
The Association reviewed its Reserves Policy having examined potential risks. It now includes a contingency for a late cancellation of the annual conference, for a cancellation of an issue of Industrial Archaeology Review, and for a sufficient reserve to cover cash flow fluctuations during the year. The reserve figure is now £60,000.

Changes on Council
Three Council members were re-appointed for a further 3-year term at the 2012 AGM: Chris Barney, Helen Gomersall and Amanda Patrick. Normally the Council consists of 9 elected members and 4 elected officers, but the vacancy for the Chairman Elect was still unfilled at the AGM although Keith Falconer accepted the nomination in November.

The Honorary Secretary is also the Liaison Officer and with the assistance of Anne Sutherland throughout the year they continue to support Council, deal with queries and forward information to the appropriate quarter. We are very grateful to all officers and members of Council for the increasing time and effort that they put in voluntarily to ensure the smooth running of the Association through Council and its committees.

David de Haan, Honorary Secretary
The prime movers behind this development have been Adrian Corden-Birch, David Morgans, Tony Crosby, and of course, Allyson Lewis. It is to be hoped that everyone interested in any aspect of the industrial past of the county will support the new group. Anyone interested in the group but unable to attend the initial conference should contact David Alderton (01245 227588 or aldertonaia@btinternet.com) who will collect the information and pass it on to the group.

Call for nominations!
2014 New Years Honours
The Heritage Alliance is encouraging those working in the heritage and conservation sectors to put forward exceptional individuals to receive Honours. Nominations from within the sector have been low in the past, with only eight nominations from three organisations for the 2013 Queen's Birthday Honours list. The Department for Culture, Media and Sport is eager to receive detailed nominations illustrating the dedication of nominees and their commitment to their projects. It should be noted that Honours for heritage philanthropists will follow exactly the same process/procedure as all other nominations.

If you know of someone who has made an outstanding contribution to the development, maintenance and protection of the historic environment don't hesitate to put their name forward.

Dundee Conference
Friday Seminar on Iron Structures
The programme starts with an introduction by Prof John Hume and continues with talks by Dr David Mitchell, of Historic Scotland on innovations; Prof Iain MacLeod of Strathclyde University on Why the Tay Bridge fell; Duncan Sooman of Network Rail on Conservation of the Forth and Tay Bridges, and their new three-coat paint systems, Jim Mitchell, consultant, and Martin Lorimer of Dundee City Council on The Conservation of Linlathen Bridge.

In the afternoon tours of Dundee have been arranged including visits to the city centre (DC Thomson, Dundee Foundry, City Quay, Victoria Dock and the Transport Museum). Conditions permitting some parties will be able to visit the Tay Bridge. The tours will then gather at RRS Discovery (joined by members attending the conference) for the evening barbeque and the evening lecture given by Prof. Hume on The Industrial Heritage of Central/North East Scotland. Bookings for the Seminar and Conference can still be made. Forms were distributed with the last AI News but can be downloaded through the AIA website or contact Stephen Miles email: thunderer@live.co.uk.

This seminar is a build-up to the "Metal 2013" ICON international conference held in Scotland, 16-20 September

LETTERS

Pickering Station
Thank you for the article in IA News 164 on our project at Pickering. What you may not be aware of is the input to the scheme of two AIA members. A significant input to the scheme via the 'Train of Thought' project team was made by NYMR Archivist Mark Sissons who, as you know, is AIA Chairman. Mark would have been far too modest to tell you this but I feel it appropriate to let you know. I am also an AIA member and was fortunate enough to be Project Manager of this scheme.

Nick Bellby
Project Manager 'Train of Thought'

Caulking Technique
While it is good to see practical work on the front cover of IA News 164, I am a little concerned that we are not recording and interpreting such craft industries correctly. The caulking seems to be being done using a bolster chisel and conventional 'soft' hammer, rather than a proper caulking mallet and caulking irons. And who has trained him to hold a hammer like that! As time served fitter/turner, it makes me cringe to see hammer abused in such a way. It should be held by the end of the shaft to give maximum efficiency. For caulking, he is also holding the chisel the wrong way around if he wants to use it properly. The soft part of your hand, below the little finger, should be what is facing the hammer, so if you miss hit slightly, you do not damage your hand much. Holding the iron the other way around also allows you to feed the caulking cotton using your index finger, making the job much quicker.

I do wonder sometimes what the point is of recording and preserving old industrial structures if we do not record and conserve their associated craft skills at the same time. After all it was the position and role of the craftsman in society in the north of England that was one of the driving forces behind the Industrial Revolution.

Mike Clarke
8 Green Bank, Barnoldswick, BB18 6HX

Helen Watson Director Exhibitions and Collections, Lakeland Arts Trust, replied: The article featured Shona Meklejohn, who is Conservation Workshop Assistant at the Windermere Steam Boat Museum. Shona received her training and qualifications in Yacht, Boat Building and Ship Joinery at the Boat Building Academy, Lyme Regis.

The scene was posed specifically for photographic purposes which may explain why the tools are not being held as Mr Clarke would wish.

Ironbridge gains award
Ironbridge Gorge in Shropshire has been voted the UK's best UNESCO world heritage site by the TripAdvisor traveller community.

The birthplace of the Industrial Revolution 300 years ago, Ironbridge Gorge came top of the list ahead of the Heart of Neolithic Orkney in the Orkney Islands, Scotland, and the Ruins of Fountains Abbey in North Yorkshire, which came second and third respectively.

Professor Les Sparks, Chairman, Ironbridge Gorge World Heritage Site Steering Group said: 'This is a worthy tribute to the warm reception visitors receive from local businesses and residents of the Ironbridge Gorge, which complements the exceptional beauty and history of the area'.

The partnership between TripAdvisor and UNESCO's World Heritage Centre was launched in October 2009 to raise awareness of and gain travellers' support to preserve natural and cultural sites inscribed on UNESCO's World Heritage List.

More than 1.1 million traveller feedback forms were collected in partnership with UNESCO, making this the largest study of its kind ever conducted.

Loss of senior conservation staff
An Institute of Historic Building Conservation (IHBC) 'Research Note' describes how over a third of the conservation job losses in England in 2010 were from senior posts held by experienced staff.

IHBC Chair Jo Evans said of the conclusions in the Research Note: "Those who are senior, both in organizational status and in age, generally have more experience and knowledge of the wider conservation role as well as their own geographical area of work. So their loss to conservation services is considerable, and far outweighs what we can count through simple numbers."

"Post-holders may leave before any successor is fully trained up - if indeed a replacement is made - leading to lack of continuity of knowledge, practice and standards. Critically, younger and more junior staff appointed after such a hiatus are simply not able to ensure continuity in the skills and knowledge without that senior guidance. Indeed this is very similar to..."
the way the teaching profession was decimated during the 90s, with the experienced staff vulnerable to job cuts simply because they were on the higher grades, and we are still paying the price for that.'

Mike Brown, IHBC Policy Secretary, said 'There is an added complication to this picture. A number of older staff may well have reduced their hours leading to a decrease in general capacity. This is relatively common where staff approaching retirement prefer to phase in the changes. However once they retire entirely the post may be filled on the reduced hours, if it is not lost completely. Altogether, these changes amount to a further erosion of conservation capacity, additional to the huge losses already documented across the wider sector analysis.'

**Blue Plaques Scheme Will Continue**

Speculation has been rife over the future of the Blue Plaques, founded in London in 1866 and dedicated to commemorating the link between notable figures of the past and the buildings in which they lived and worked. Revelations that the scheme cost £250,000 to administer annually led to suggestions that it be shut down.

However, English Heritage is committed to continuing the scheme and is currently considering the best course of action to provide value for money to the taxpayer. The Blue Plaques team will be reduced from four to two people in 2013 and the focus will be on clearing the backlog of plaques to be put in place. To this end, the scheme will be closed to new applications for the foreseeable future.

**New cafés for listed stations**

The Railway Heritage Trust has given grants to support the opening of three new cafés in listed railway stations.

At Inverurie, between Aberdeen and Keith, the Trust, along with Transport Scotland’s Stations Community Regeneration Fund, sponsored George and Jennie Lawson in their restoration of the former private waiting room of the Earl of Kintore. Coco Works, the new café, is in this room, and provides a service to rail users, staff, and other local residents.

The most recently opened of the three cafés is in a formerly disused platform building on Dumbarton Central Station, on the north side of the River Clyde. Chris Pollock and Harriet Chatten funded their venture with a grant from Transport Scotland, whilst the Trust paid for extra works, reglazing windows and installing security grills in the room. In the few weeks since this café has opened it has already started to provide an excellent service to Glasgow-bound commuters every morning.

Four hundred miles south of Dumbarton, Laura Thomas and Jess Allen have opened a café in the revamped main booking hall at Crystal Palace Station in South London. This is their second station café, as they already have a similar venture at Gypsy Hill. They have carried out an excellent restoration of the former station restaurant, matching the high quality of work shown in the restoration of the operational sections of the station, and providing another facility for commuter use.

Andy Savage, Executive Director of the Railway Heritage Trust, said: "We were delighted to support the opening of these three ventures, each of which brings a disused area of a listed station building back into use. Each offers a new service to passengers and public on stations, and makes rail travel more attractive. We hope to be able to support further such ventures in the future."

**Changes to listing criteria**

**From the English Heritage website**

We receive a large number of applications for designation, and need to balance these against our strategic work, directing our finite resources to those that are most in need of attention. We will only take forward applications for designation where the building or site:

- Is demonstrably under serious threat of demolition or major alteration;
- Is a Designation Department priority under the National Heritage Protection Plan, English Heritage’s programme of strategic work;
- Possesses evident significance, and is obviously worthy of inclusion on the National Heritage List for England.

Applications received which do not meet one of these three criteria will not be taken forward.

**Awards for historic bridges**

Each year the Institution of Civil Engineers announce their Historic Bridge and Infrastructure Awards. This year four awards were made as well as two commendations and a special mention.

Telford’s Hoyt Fleet Bridge over the Severn was refurbished for Worcestershire County Council and the judges commented, ‘Excellent approach to a difficult strengthening problem. Careful monitoring and sequential strengthening enabled works to progress with minimal impact on Telford’s original structure’.

The decade long repair and repainting of the Forth Railway Bridge earned the remarks, ‘A massively complex logistical and technical exercise has ensured that this most recognisable icon of Victorian engineering can continue to serve well into the twenty-first century’.

While in Dundee, where the Unilathan East Bridge was restored for the City Council the judges said, ‘Following a brave decision to purchase the nineteenth century bridge, the approach to conservation was exemplary, as was the quality of the works themselves. This bridge will be the subject of one of the lectures at the Dundee Friday Seminar.

**Scrap Metal Bill passes!**

The Scrap Metal Bill, which aims to crack down on unlicensed cash dealing in scrap metal, has passed its third reading in the Lords and only requires Royal Assent before becoming law.

The Bill, introduced by Richard Ottaway MP will introduce a licensing system for scrap metal yards - as well as a national register of all scrap metal dealers and the compulsory taking of identification at the point of sale.

Police will now have powers of entry to enforce the new measures, as well as the ability to shut down yards where illegal activity is suspected.

**Museums + Heritage Awards 2013 - The final five**

The Guardian Cultural Professionals Network teamed up with the annual Museums + Heritage Awards to launch a search for the UK’s most inspiring museum or heritage visitor attraction of the past 12 months.

Amongst the 500 nominations for the award, five museum and heritage attractions received the most nominations to go through to the public vote. They included two sites of particular interest.
to members; the Stow Maries Aerodrome, Essex which was visited during the Essex conference last year and the Copper Kingdom, at Amlwch in Anglesey.

Vast seams of copper ore were discovered at Mynydd Parys in 1768, and the next half-century saw intensive mining here, resulting in one of the most extraordinary industrial landscapes in Europe. In their heyday the Parys mines were among the wonders of the world — visited by men like Michael Faraday and James Watt, the best scientists and engineers of the day. The output from the mines dominated the international copper market and nearby Amlwch grew from a "small cove between two steep rocks" into the world’s major exporter of copper.

**Ships and Boats: 1840-1950**

English Heritage has released the final instalment of their *Ships and Boats* studies. Together, they provide a history of England’s watercraft from prehistory to the development of nuclear submarines.

The study covers the rise of the steam engine and the development of the warship as we know it today — leading to the Britannia that truly ruled the waves.

This is the latest in English Heritage’s on going *Introduction to Heritage Assets* series, covering everything from ‘banjo enclosures’ to shrines.

**King’s Cross**

In London the low-rise buildings in front of King’s Cross railway station have been cleared away. Soon we shall see the station as the architect Lewis Cubitt intended. The view of the two trainshed arches from the south has been obscured for most of the station’s existence.

Robert Carr

**Heritage Alliance Meeting**

**11th AGM London 6 December 2012**

The Heritage Alliance’s annual Heritage Day, sponsored by the Ecclesiastical Insurance Group, is probably one of the biggest events in the heritage calendar. The event gives delegates the opportunity to hear eminent speakers address current issues affecting the future of Heritage and to meet a wide range of colleagues from all parts of the sector. Held in Kent House, Knightsbridge, London, shortly before Christmas, the speakers from the platform were especially impressive with Lloyd Grossman, Chairman of the Heritage Alliance, in particularly good form.

Robert Carr

Last December, for the first time delegates were asked to outline how their organisation contributes to national wellbeing, under four headings — economically, socially, intellectually, and environmentally. This, in a sense self-criticism, made delegates think of the wider implications of what they do. It pointed up the strengths and weaknesses of our own Association and proved a useful exercise.

We had a really educational and absorbing presentation from Andrew Brown, technical claims manager of Ecclesiastical Insurance — this was not a plug for Insurance but a really informative lecture on just what can go wrong within a preserved building. It was hair-raising!

The Hon. Ed Vaizey MP, Minister for Culture, Communications and the Creative Industries addressed the meeting in the afternoon. There was some disappointment in that he is not sufficiently senior to help regarding the issue of VAT. That is decided by the Treasury. According to Euro legislation, once VAT is changed from zero rate it is irrevocable. It cannot be reversed. It is claimed that removing the zero rate removes a perverse incentive to alter listed buildings rather than repair them. For the repair and maintenance of a protected building VAT is payable at the standard-rate.

Lloyd Grossman certainly appears to be fighting hard on our behalf. However, informally, he expressed the view that the Government is impressed at what the Heritage Movement does, without funding, and so we don’t need Government money! We are wonderful already.

As is often the case at national meetings some new terminology appeared and this time none of us came across the words ‘retweet’ and ‘twitterosphere’ for the first time.

There was the usual question and answer session in the afternoon — this year Ian Lush presiding. Among the issues raised were VAT, new buildings in the countryside, striking a balance between chaos and planning, additions to the backs of houses and post 1914 buildings. Lloyd Grossman expressed concern that the Tower of London, a World Heritage site since 1988, is becoming hemmed in by new buildings.

Awards were presented at the meeting by Ed Vaizey and Lloyd Grossman — generous sponsorship is provided by Ecclesiastical Insurance. The Heritage Alliance Heroes Award went to Paul Griffiths for his work in saving a nineteenth-century former Franciscan friary near Manchester. Locally known as Gorton Monastery, this group of buildings, the Church and Friary of St Francis was designed by Edward Welby Pugin and is now listed grade II*.

The runners-up award was industrial: this went to Norman Tulip, Chief Engineer of SS Shieldhall, for his tireless efforts to keep the ship seaworthy after wear and tear had threatened to take her out of operation. This is a far more daunting task than most of us appreciate. Ships are so much more demanding than buildings. Based in Southampton, Shieldhall is about the largest working steamship in Northern Europe and her status is comparable to that of a grade I listed building. Full seaworthiness is essential if passengers are to be carried and it is passengers’ fares that provide revenue.
Lincolnshire
Grimsby Ice Factory
Consultation on the options appraisal for Grimsby Ice Factory opened on Friday 1 March with a public presentation of the proposals.

The Grimsby Ice Factory Trust hopes that the factory could be kept within the context of a working dock and a revitalised East Marsh and Riby Square. A representative sample of the original equipment would be preserved to support a number of sustainable activities appealing to both residents and visitors.

These include two cinema screens, a climbing wall, a micro-brewery and an American-style bar run by Lincolnshire brewer Tom Woods, a conference centre that could be used for business functions and weddings, as well as various shops and a café.

It is estimated that the work would cost a total of £12 million and could create 54 full-time and 74 part-time jobs.

The plan is supported by the Prince’s Regeneration Trust. At the end of the day, chairman Victoria Hartung said: "It will be difficult, but we wouldn’t be wasting our time if we didn’t think it was possible."

More details at ggift.co.uk

News from the North West
Mayfield Station, which is on the south side of Fairfield Street opposite Manchester Piccadilly Station, was opened in 1910 and closed to passenger traffic in 1960. In the 1970s and 1980s it was used by Royal Mail Parcels, but has been disused and increasingly derelict since then. The station buildings were damaged by fire in 2005. The buildings and structures are unlisted and planning permission was granted on safety grounds for demolition of the trainshed roof and structure in 2011. This work is now being completed. A short fully illustrated history of the site was written by Tony Wright in 2011 and is available from Manchester Regional Industrial Archaeology Society. Various uses for the site have been proposed over the years but there are no definite proposals at present.

The National Graphene Institute will be built on the site of the Albert Club off Brook Street East in Manchester. One of the earliest buildings on this plot was 26 Clifford Street, which was an impressive private residence occupied by Jetha Pacey, an architect who was responsible for designing a number of Fenland churches. In 1843 Pacey’s house was converted into the Albert Club, a private social club that was founded primarily for Manchester’s community of German industrialists. One of the club’s most famous members was Friedrich Engels, who joined during his first visit to Manchester in 1842-4. This connection with Engels was the rationale for national and international media interest in the excavation, although the surviving remains of the club were the least spectacular of the structures exposed. The
Warwickshire
Willans Archive
The Willans Archive, which has been acquired by the Warwickshire County Record Office is being conserved and catalogued following a substantial grant. Willans and Robinson manufactured steam engines that generated over 68% of Britain’s overall electricity output in 1892.

Peter Coulls
The Archive contains photographs in negative form and on glass plates. There are engine index books, drawings of engines, licence agreements, patents, shareholder register, drawing office records, timebooks, insurance accidents reports, social events in addition to records relating to personnel.

Warwickshire County Record Office has received grants totalling £50,000 to conserve and catalogue the Willans and Robinson archive. The funding comes from two main sources, the National Cataloguing Grants Scheme and the National Manuscripts Conservation Trust in recognition of the exceptional historical importance of this business archive. The archive was donated to Warwick Record Office by Alstom management and the funding obtained will cover the services of a professional catalogue for 12 months. In addition further funding has been awarded to cover the conservation of the photographs in their various forms. It is anticipated there will be four volunteers to assist in the project all of whom are members of Warwickshire Industrial Archaeology Society.

The Victoria Works factory was built by Willans and Robinson in 1897. It was later used...
by English Electric, GEC (General Electric Company) and now Alstom for the manufacture of turbines and diesel engines.

The firm began as a partnership between Peter Willans and Mark Robinson in 1880. Located at Thames Ditton, Surrey, the partners manufactured high speed steam engines on Willans' design, initially for river launches and later as pioneers in electricity generation, locomotion, steam and water turbines. Peter Willans, inventor of the Central Valve Steam Engine and the 'Willans line', died following an accident when his horse bolted in 1892.

The expansion into electric power generation led to a need for larger premises and the new Victoria Works were opened at Rugby. Despite pioneering developments in steam electric locomotives, motorcar parts production, boiler manufacture and steam turbines, the firm had less success with financial control and by 1919 the firm was bought by Dick, Kerr and Company Ltd. becoming part of English Electric. After a merger with British Thomson-Houston and subsequent purchase by GEC, the firm came under the ownership and management of Alstom.

The collection includes an extensive photographic archive which volunteers have already made great progress in indexing and promoting through talks. No significant history of engineering is complete without reference to this firm and yet few knew that the records had survived. Historian, Stathis Arapostathis, Lecturer in the History of Science and Technology at the University of Athens said, 'study of this collection will profit the history of electricity and electrification of Britain as well as the mechanical engineering industry. The Willans and Robinson archive will provide very important material for the industrial history of Britain.'

Local volunteers are supporting the project with research into the fascinating apprenticeship records which start in 1893. In 1897 nearly one thousand people were employed by Willans and Robinson. These connections run deeply through the local area. As so little of the collection is currently accessible it is likely that further treasures will be found in this collection.

Warwickshire County Council is leading the project with support from Warwickshire Industrial Archaeology Society, Friends of the Warwickshire County Record Office, Rugby Local History Research Group, Rugby Family History Group and the Institution of Mechanical Engineers.

Daw Mill Colliery

Daw Mill colliery in Warwickshire is due to close. Probably the closest colliamine to London that is still working, it has been a really productive pit mining the Warwickshire Thick seam at a depth of 2,500 feet. The colliery has two shafts with traditional headgear. Since 1983 the extraction of coal has been expedited by a drift connecting the underground workings to the surface. The coal seam being mined here is sixteen feet thick.

Bob Carr

News from Cornwall

This quarter it is pleasant to report on several instances where local pressure and awareness has secured a future for items of industrial interest.

In January a significant building in Camborne secured listed status following a local campaign. The Josiah Thomas Memorial Hall, named for the famous manager of Dolcoath Mine, and built in 1872 as the Tehidy Working Men's Club by local mineral lords the Basset family, it was part of the Camborne School of Mines from 1935 until that body relocated to Pool in 1975 when it had fallen into the hands of the NHS and been empty for over five years. It was the last remaining evidence for the Mining school in the town whose name it bears.

The beginning of the year saw the Trevithick Society's 1801 'Puffing Devil' roused from hibernation to film as part of BBC2's 'Genius of Invention' series. Society Chairman Philip Hosken, author of the recent book, The Oblivion of Trevithick also took part in the programme. In late January completion of a new road on the North Quay at Hayle meant that a new home had to be found for two massive slate gates, part of the original harbour flushing system, which had been uncovered in 2011 having been removed and buried in 1981. The gates weighing 11 tons apiece had been stored by contractors Carillion, but their compound had now to be cleared. After some local discussion Hayle Council agreed to a suggestion that the gates be installed in the gardens adjacent to the King George V Memorial Walk and this took place at the beginning of March.

In February the Cornish Mining World Heritage Site announced that it had secured £270,000 to safeguard engine houses, once part of 'the richest square mile on earth'. The money, from Natural England, would be used to consolidate buildings at the Taylor's and Davey's sites at Wheal Maid Valley, Croftandy. The buildings include some of the oldest engine houses anywhere in the WHS designated area.

A fascinating but poignant Cornish mining memorial has found a new home at King Edward Mine. The plaque commemorates Captain Thomas Jenkin, killed by a fall of ground at the Basset Mines in 1905. Captain Jenkin, along with young surveyor Cecil Thomas, had descended Marriott's Shaft to 230 fathoms and then climbed to the 200 level. Here they met Captain William James Jr., son of the mines' general manager. All three died instantly when part of the roof collapsed. Cecil Thomas, aged 20, was on his first underground assignment. The Jenkin plaque came from Mithian Church, now closed, and was presented to KEM by the family. They felt KEM, from which Basset Mines may be seen, to be a fitting location.

King Edward Mine Limited, the operating company at KEM, has now become a registered charity and has signed a 30 year lease for the site with Cornwall Council. This includes not only the buildings and land leased by the Camborne School of Mines but also land around Fortescue's Shaft, Wheal Grenville to the south. The additional land contains two engine houses for pumping and winding and other significant archaeology.

At the time of writing, work was about to begin on refurbishing mining structures at South Crofty. The headframe at New Cook's Kitchen Shaft, due to be retained in lonesome splendour when that part of the site is cleared, was to be scaffolded, grit blasted and repainted, with replacement of some steelwork. The project, led by Cornwall Council, will also see the conservation of two listed engine houses at Chapple's Shaft on the original Cook's Kitchen Mine.

Coincidentally, another of Cornwall's seven surviving headframes, at Victory Shaft, Geevor, is also due for a complete refurbishment. Geevor reported visitor numbers for 2011-12 to be almost on target. The reminder of the need for continued vigilance in any mining location saw the underground tour there truncated for 10 days when a regular inspection detected loose rock on the hanging wall of the tunnel. Regular visitors to Geevor will be sad to hear of the death of former miner and Head Guide, Ian Davey.

Graham Thorne

Neotony

Originally coined in biology, Neotony is a term currently in use in educational circles. Here it can mean the retention of childish behaviour into adulthood and in creative circles is often considered advantageous. Prolonged youthfulness can be advantageous both in science and modern life generally. Modern cultures favour cognitive flexibility, 'immature' people tend to thrive and succeed and have set the tone of contemporary life. An elderly person is generally flattered to be told that they retain the characteristics of their youth. For people with a career in advertising or marketing, childlike characteristics and even childlike behaviour may be expected. An example of this might be the introduction of Bob the Builder pasta shapes. These shapes, made in Italy from corn and rice pasta, have been on the market for a year or so. They are 'wheat, egg, dairy and gluten free and organic'. The shapes depict Bob himself and an assortment of building site plant. The cement mixer is particularly fine and there is a JCB, a dumper truck and a road roller. Has anyone else come across these in the shops?

Robert Carr
First International Conference on Early Main Line Railways
Thursday 19 June to Sunday 22 June 2014, in Caernarfon, North Wales, UK.

Call for Papers -
Abstracts are invited for 30-minute papers to be delivered at the First Early Main Line Railways Conference. The Conference will cover the pioneering period of the public main line railway, up to the establishment of a regular network of routes with agreed or amalgamated running rights. (This period extends from the opening of the Liverpool & Manchester Railway in 1830 to the major consolidation of companies which had taken place by about 1870; start/end dates will differ for other countries). The emphasis of the event will be on the formation, cultural impact and effects (financial, social, technical etc.) of the early main lines in all their aspects. Papers are particularly sought on:
- Political influences and implications, Capitalisation and Finance, Management, staffing and administration of Early Main Lines
- Technology, with respect to all aspects of the Civil and Mechanical Engineering of Early Main Line Railways, including Engines, Rolling Stock, Infrastructure and Buildings
- Social Context and Cultural Impact
- International Context

Further information on topics of potential interest can be found online at http://www.erc5.org.uk. 200-word abstracts should be submitted by 30 September 2013.
By email: early.main.line.railways@gmail.com
By post: c/o Mike Chirmes, Institution of Civil Engineers,
One Great George Street, Westminster London, SW1P 3AA
These addresses may also be used for enquiries with regard to the Conference. This event will alternate with the existing Early Railway Conference on a 2-year cycle.

North West Industrial Archaeology Panel & Salford Local History Forum
Re-Capturing the past of Salford Quays
A one day conference at Ordsall Hall, Salford, Friday 18 October 2013.

2014 will be the 120th anniversary of the opening of the Manchester Ship Canal, and it is 30 years since the closure of Manchester Docks. This conference aims to illustrate and explain the history and archaeology of the docks and to discuss their transformation of Salford Quays. There will be talks on the Old Port of Manchester, the building of the canal, ships and cargoes, dock warehouses and the heritage of the Quays. Tours of the medieval Ordsall Hall will be available at lunchtime and a choice of guided walks in the area of the Quays in the afternoon.

The price per head of £25 includes tea and coffee, and a buffet lunch.

For further details and booking please contact:
Tony Wright, MRIAS, 9 Perth Close, Holmes Chapel, Cheshire, CW4 7JH
email: admin@mrrias.co.uk

Devizes IA Symposium
9 November 2013
The Wiltshire Museum, 41 Long Street, Devizes SN10 1NS
- The beginning of the canal preservation movement
- First World War airfield at Yatesbury
- Brown and May, Devizes Engineers
- The Military Laundry at Royal Wootton Bassett
- Milk and Butter production and distribution in North Wiltshire

Bookings and information from Doug Roseman, Secretary
01380 727369 www.wiltshireheritage.org.uk

Open Day
Lion Salt Works
Saturday 18 July

There will be an opportunity to view restoration work at Lion Salt Works, Marston, Nr Northwich, Cheshire on Saturday 18 July as part of the CBA Festival of Archaeology. Advance booking is required for further details see the website http://www.lionsaltworks.org.

Traditional German Miners’ Greeting
Glück Auf is a traditional German miners’ greeting which translates roughly as Good Luck. The attached image originates from Gelsenkirchen, a former coal mining town in the Ruhrgebiet. A hundred years ago Gelsenkirchen was the most important coal mining town in Europe – from the flames of burning mine gases prominent at night, it was sometimes known as the ‘city of a thousand fires’.

Robert Carr
Local Society and other periodicals received

Abstracts will appear in Industrial Archaeology Review.

Greater London Industrial Archaeology Society Newsletter, 264, February 2013
Hampshire Industrial Archaeology Society Focus on Industrial Archaeology, 79, December 2012
Historic Gas Times, 74, March 2013
ICE Panel for Historical Engineering Works Newsletter, 136, December 2013; 137, March 2013
Industrial Heritage, 362, Winter 2012
Leicestershire Industrial History Society Newsletter, 2/6, Spring 2013
Manchester Region Industrial Archaeology Society Newsletter, 142, November 2012
Merseyside Industrial Heritage Society Newsletter, 322, February 2013; 323, March 2013
Midland Wind and Watermills Group Newsletter, 104, December 2012
The Mole: newsletter of the friends of Williamson's Tunnels, 25, August 2012
National Association of Mining History Organisations Newsletter, September 2012
Northamptonshire Industrial Archaeology Group Newsletter, 125, Winter 2013
Scottish Business and Industrial History, 27, July 2012
Search: the Bulletin of the South Wiltshire Industrial Archaeology Society, 97, March 2013
Somerset Industrial Archaeological Society Bulletin, 121, December 2012
South Wiltshire Industrial Archaeology Society Historical Monograph, 21,
Suffolk Industrial Archaeology Society Newsletter, 120, February 2013
Surrey Industrial History Group Newsletter, 191, January 2013; 192, March 2013
Sussex Industrial Archaeology Society Newsletter, 157, January 2013
Sussex Mills Group Newsletter, 157, January 2013
Trevithick Society Newsletter, 158 Winter 2012
Trevithick Society Journal, 39, 2012
Triple News: Newsletter of the Kempton Great Engines Society, 44, Winter 2013
War Memorials Trust Bulletin, 55, November 2012
WaterWords: News from the Waterworks Museum, Hereford, Winter 2012/13
Welsh Mines Society Newsletter, 67, Autumn 2012
Yorkshire Archaeological Society Industrial History Section Newsletter, 87, Early Spring 2013

BOOKS


This review of the life’s work of Falcon Hildred makes available to a wider public some 200 of the 600 drawings acquired by the RCAHMW and the ISMT of which a selection have been on show in Ironbridge during this winter. However it does more than that, as Peter Wakelin’s text sympathetically describes Hildred’s life and work and his remarkable philosophy.

Falcon Hildred has dedicated his working life to recording the landscape and conditions of working people as the world has changed around them. He started in Coventry and London but since 1968 he has lived in Blaenau Ffestiniog, where he bought a derelict water mill and converted it into his studio. While his superb drawings are precise and meticulous they are not stiff but gentle in depicting the dramatic changes over the last few decades. There is a deeply felt emotional charge at the heart of his work.

This is an extraordinary record of one man’s commitment to chronicling the immense changes in industry and living conditions.

Fortunately the drawings lend themselves to reproduction and the colours as well as their accuracy and delicacy come through well. Whether in pencil, pen or watercolour Hildred is a master of his medium.

As Sir Neil Cossons says in his forward, “Falcon Hildred has made one of the most distinctive and distinguished of contributions to the iconography of the Industrial Revolution”.

Rotherham and Son, Spon End, Coventry, 1976 Falcon Hildred – Pencil on tracing paper.
18 MAY 2013
THE ARCHAEOLOGY OF MINING AND QUARRYING IN ENGLAND
Coal Mining Museum, Caphouse Colliery, Wakefield
8 JUNE 2013
EERIAC
Maldon Essex. Details and booking form available from EERIAC, 5 Hoynings, Danbury, Chelmsford, CM3 4RL (SAE please) or on line from aldertonndl@btinternet.com
15 JUNE 2013
ST AIDANS DRAGLINE OPEN DAY
St Aidan’s opencast coal site, Swillington, Leeds. 1400 – 1600
25-27 JUNE 2013
GREATER MANCHESTER IA TOUR
For details www.MAtrust.org.uk
28 JUNE - 1 JULY
NAMHO CONFERENCE
ABERYSTWYTH
For details see www.namho.org
8 JUNE 2013
ERIAC
Maldon Essex. Details and booking form available from EERIAC, 5 Hoynings, Danbury, Chelmsford, CM3 4RL (SAE please) or on line from aldertonndl@btinternet.com
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28 JUNE - 1 JULY
NAMHO CONFERENCE
ABERYSTWYTH
For details see www.namho.org
10-14 JULY 2013
RUST REGENERATION AND ROMANCE
Iron and Steel Landscapes and Cultures – Ironbridge. For details see Ironandsteel2013.wordpress.com.
17 - 20 JULY 2013
NEWCOMEN SOCIETY SUMMER MEETING,
MANCHESTER
Four days of visits to fascinating and historically important sites in and around Manchester with some evening talks.
18 JULY
OPEN DAY AT LION SALT WORKS
Marston, Northwich, Cheshire. For details see page 22
9-15 AUGUST 2013
TAYSIDE TO DEESIDE AIA Conference at Dundee. Booking now – for details see www.industrial-archaeology.org
18 OCTOBER 2013
RE-CAPTURING THE PAST OF SALFORD QUAYS
ORDSALL HALL, SALFORD
For details see page 22
9 NOVEMBER 2013
DEVIZES IA SYMPOSIUM
The Wiltshire Museum, Devizes. For further details see page 22

www.geograph.org.uk/article/Beam-Engines-in-the-UK
This is a superb compilation by Chris Allen of notes and illustrations of the beam engines in the UK together with links to web sites of the museums etc where they may be found. Would you have guessed that there are more than 150?
Thanks to Chris Hodrien for recommending this.

Slough bus station
Further to Bob Carr’s article on Slough Bus Station in IA News 164 readers may like to see this video www.youtube.com/watch?v=laerU88PKI

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.

More Diary Dates can be found on the AIA website at www.industrial-archaeology.org

INDUSTRIAL ARCHAEOLOGY NEWS
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Final copy dates are as follows:
1 January for February mailing
1 April for May mailing
1 July for August mailing
1 October for November mailing

The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to assist and support regional and specialist survey groups and bodies involved in the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. The AIA publishes an annual Review and quarterly News bulletin. Further details may be obtained from the Liaison Officer, AIA Liaison Office, The Ironbridge Institute, Ironbridge Gorge Museum, Coalbrookdale, Telford, Shropshire TF8 7DQ. Tel: 01952 586250.

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